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Mental Disorders And Inequality In The United States: Intersection Of Race, Gender, And Disability On Employment And Income

Jessica K. Camp
Wayne State University,

MENTAL DISORDERS AND INEQUALITY IN THE UNITED STATES: INTERSECTION OF RACE, GENDER, AND DISABILITY ON EMPLOYMENT AND INCOME

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JESSICA K. CAMP LMSW, CAADC

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DEDICATION

In memory of Dr. Eileen Trzcinski, my former dissertation chair and advisor, who passed away during this journey. You paved the way, lighted the path, and instilled in me a lifelong passion for learning. To my family, especially my Grandmom and my husband, for your unwavering love and support. You have read my papers and listened attentively to my excited stories of all the new things I have learned. To my fellow PhD students, those who have gone before me and those who will come after, who challenge social injustice in all its forms.

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CHAPTER 1: Introduction

As defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) (2000), mental disorders are medical conditions marked by clinically significant behavioral or psychological symptoms. Mental disorders can create behavioral patterns that are distressing, cause impairment in one or several areas of functioning, and increase the risk of death, pain, disability, or loss of freedom (American Psychiatric Association, 2000). In the United States, psychiatric disorders are the leading cause of disability, more common than physical and neurological disorders (National Institute of Mental Health, 2010a). The National Institute of Mental Health (2010b) estimates that as many as 1 in 4 Americans will develop symptoms of a diagnosable mental disorder in their lifetime and that about 1 out of 17 individuals will develop serious and/or chronic mental health problems. The high prevalence of psychiatric disorders in the United States is of concern because those with mental illnesses are more likely to experience poorer life outcomes than non-disabled and physically disabled individuals. Research indicates that there is a strong relationship between serious mental illness and poor economic, social, and health outcomes that can include an increased chance of experiencing poverty (Bruce, Takeuchi, & Leaf, 1991; She & Livermore, 2009; Wilton, 2004), unemployment (Grove, Secker, & Seebohm, 2005), homelessness (Folsom, Hawthorne, Gilmer, Bailey, Golshan, & Garcia, et al., 2005; U.S. Department of Health and Human Services, 2010), incarceration (Greenberg & Rosenheck, 2008; McNeil, Binder, & Robinson, 2005; Steadman, Oscher, Robbins, Case, & Sammuels, 2009; Treatment Advocacy Center, 2010), comorbid physical illnesses (Druss & Rosenheck, 1998; Phelan, Stradins, & Morrison, 2001), and elevated mortality rates (Colton & Manderscheid, 2006; Dembling, Chen, & Vachon, 1999; National Association of State Mental Health Program Directors Medical Directors Council, 2006).

Purpose

Much of the research that has examined inequalities among individuals with psychiatric disorders concludes that individuals with mental illnesses experience much higher levels of inequality than other groups. Additionally, these inequalities are deeply ingrained in American society as they remain largely unchallenged despite civil rights efforts, the Deinstitutionalization Movement, or the implementation of federal policies, like the Americans with Disabilities Act. The purpose of this dissertation will be to contribute to the expanding body of scientific research that challenges stigma, oppression, and social exclusion experienced by individuals with psychiatric disorders by exploring employment and income inequality among Americans with disabilities. This dissertation will expand on the existing literature by using a complex inequality frame work that explores mental disorders within the context of race and gender.

To accomplish this, first this dissertation will explore the complex nature of inequality among individuals with psychiatric disorders through a review of the history of mental illness in the U.S., how they have been treated by society, and how social attitudes have contributed to the development of policies and program for individuals with mental disorders. Historical examinations are an essential feature of critical analyses because they provide an understanding of the fluctuating contexts that can lead to inequality among marginalized groups. A review of the historical context of mental illness is also helpful because it illuminates how inequalities experienced today have developed throughout time and gives important clues to how they can be challenged.

Secondly, this dissertation will examine the complex nature of inequality by investigating how individuals who identify with multiple marginalized groups experience varying levels of inequality. Existing literature has explored how race or gender can contribute to differences in

the way that disability and inequality are experienced. This dissertation will use an intersectional approach to examine the ways that race and gender, as well as disability, intensify economic and labor market inequalities. Research that has critically examined inequality in capitalistic economies, such as that of the United States, has noted that inequality is expressed by marginalized groups having limited access to monetary resources, power, and institutions that are used to attain resources and power when compared to dominant groups (Weber, 2008). From this framework people who experience the greatest levels of inequality should also be the individuals that have the greatest difficulty attaining employment, receive fewer wages for their labor, and are most likely to experience poverty. This dissertation will use simple economic outcomes (poverty rates, wages, welfare receipt, and employment) to explore inequality among individuals with mental disorders by race and gender. Trends in inequality will be tracked over time to illuminate how changes in policy and/ or social attitudes have challenged or reinforced existing economic disparities.

Significance to Social Work

Despite the high prevalence rates and common occurrence of psychiatric disorders in the U.S. population, individuals diagnosed with mental illness have continued to experience inordinate amounts of stigma and marginalization. Not surprisingly, social workers, who strive to challenge inequality and promote social justice, have been playing a growing role in the provision of mental health care (National Association of Social Workers, 2008). In 2008, approximately 67% of all social workers who became employed provided a role in counseling as, family therapists, mental health therapists, and substance abuse counselors (U.S. Bureau of Labor Statistics, 2010). Additionally, thirty-one percent of all these positions were funded federally which places social workers in a unique position to be able to advocate for individuals

with psychiatric disabilities. Although many social workers focus on providing one-on-one, group, or family interventions to treat psychiatric disability, the level of social and economic inequality that exists for individuals with mental illnesses should warrant additional attention to macro level problems among this population. Marginalizing social attitudes in the U.S. have pervasively created class inequalities for those with psychiatric disabilities. These barriers have included employment discrimination, wage disparity, and increased rates of incarceration.

While strong economic times have rarely lifted individuals out of poverty, poor economic times have traditionally created greater setbacks for those in lower class groups (Freeman, 2001). Growing neo-liberal approaches to policy in the United States since the 1980's, has contributed to the public's demand for welfare reform and contributed to the weakening of economic supports for the majority of the poor (Camp & Trzcinski, 2013). Individuals with psychiatric illness have not escaped these reforms as they are often criticized for using an inordinate amount of federal assistance when compared to other vulnerable groups (Autor & Duggan, 2006). The withdrawal of welfare supports from individuals with psychiatric illnesses is disconcerting because equality of wages and ample job opportunities do not exist especially for individuals with mental disorders who are poor (Cook, 2006). The perceived economic value for the labor of an individual with disabilities remains drastically less than that of a nondisabled individual. This appears to remain true regardless of actual limitation, if the disability causes any interference with work, or if the disability effects productivity (Baldwin & Marcus, 2006). Individuals with disabilities are socially perceived as less productive despite the expansion of research that contradict this stereotype. False beliefs about productivity continue to drive discriminatory hiring practices and wage inequality for individuals with disabilities in the labor market today (Petrila, 2009; Stefan, 2002).

Only in recent history has the U.S. government implemented federal policies to provide protections and civil rights to individuals with disabilities with the creation of the Rehabilitation Act of 1973. Although the Rehabilitation Act of 1973 is celebrated for extending rights to Americans with disabilities, its primary purpose was to outline states role in providing vocational rehabilitation and provide employment protections by ensuring that employers who received federal funding were not allowed to discriminate against employees with disabilities. Today, the American's with Disabilities Act of 1990 and the American's with Disabilities Act Amendments of 2008 outline protections for disabled individuals in the U.S. These policies have largely focused on labor market inclusion for individuals with disabilities by challenging discriminatory hiring practices. Unfortunately, these policies have been criticized for providing employers with large loopholes that do not adequately challenge discrimination while providing a defense for the reduction of social welfare programs aimed at aiding individuals with disabilities (Stefan, 2002).

The lack of adequate investigation into the effectiveness of current policy in stemming discrimination or marginalization has not slowed the fervor of welfare reform, but instead has ensured that U.S. laws and policies have become increasingly disconnected from the needs of individuals with disabilities, especially among women and minorities. By furthering the investigation into the intersection of psychiatric disability on race and gender, social workers can attain needed information to properly advocate for new policies and welfare programs that are better geared to offer protections to those in recovery from mental disorders.

CHAPTER 2: Literature Review

In general, social inequalities are defined as "systematic and relatively enduring differences between a society's inhabitants in income, wealth, levels of living and poverty; access to and choice about health care, education, housing, and employment; freedom from discrimination and harassment; and participation in decision making about social and economic issues" (Acker, 2011). In short, groups that experience inequality are identified by both the ways they are currently prevented from participating in society and the economy, as well as the ways that they have historically been denied this access. In the following section of this dissertation I will outline: (1) ways that individuals with mental disorders have historically experienced oppression and marginalization; (2) U.S policies that have been implemented to address inequalities experienced by individuals with psychiatric disabilities; and (3) ways that individuals with psychiatric disabilities continue to experience social and economic inequalities.

U.S. History and the Treatment of Individuals with Mental Disorders

Since the colonization of the U.S., individuals with psychiatric disabilities have experienced discrimination and mistreatment. Still, the degree and nature to which individuals with psychiatric disabilities have been oppressed has been as varied and as changing as all of U.S. history. The fluctuation between cruel and compassionate treatment has been driven by policies that have influenced changes in social attitudes, and at alternating times, has been driven by changing social attitudes that have demanded compassionate and responsible policies towards individuals with psychiatric disabilities (See Table 1).

Table 1: Overview of Social Attitudes and the Focus of Federal Policies effecting Individuals with Psychiatric Disabilities in the U.S. since the 1600's.

Time	Social Attitudes and the Focus of Federal Policies
1600- 1700: Colonization	**Attitude:** Individuals with psychiatric disabilities are not responsible for their own misfortune. **Policy:** The poor and needy are cared for by the community and their families.
1700- 1800: Rise of Industrial Capitalism	**Attitude:** Individuals with psychiatric disabilities are lazy and generally responsible for their own misfortune. **Policy:** The poor and needy are forced to work to receive charity. If they can't work they should be segregated from society in jails or nursing homes.
1800- 1900: Incarceration	**Attitude:** Those with psychiatric disabilities are a threat to American society, they do not have the ability to participate in industry or care for themselves. **Policy:** Individuals with psychiatric disabilities are segregated from society in asylums.
1900- 2000: Deinstitutionalization	**Attitudes:** Asylums are cruel, do not actually treat mental illnesses, and are extremely expensive. Individuals with psychiatric disabilities shouldn't be incarcerated just because they are ill. Community based treatment programs should be used to provide care. **Policy:** Individuals with psychiatric disabilities are removed from asylums, often into jails, nursing homes, or the street. Community mental health programs are developed to provide psychiatric treatment. Human rights laws and policies to protect those with disabilities from discrimination are enacted.
2000's: Work First	**Attitudes:** Individuals with disabilities can be dangerous and may need to be incarcerated. Individuals with psychiatric disabilities, like other poor and needy individuals, can better their situation if they just work hard enough. **Policy:** Social welfare is reduced or eliminated in favor of work-first programs. Funds are reduced from Community Mental Health Programs. Increased commitment to anti-discriminatory policies, especially employment protections. Many individuals who are poor and have psychiatric disabilities are homeless or incarcerated.

During colonial times, individuals with mental illnesses were generally not considered a social problem and received little attention in early colonial records. When mentioned, evidence suggests that individuals with psychiatric disorders were not treated any differently than the poor

or minor criminals (Grob, 1994; Grob, 1983, Scull, 1977). Since the colonies largely continued to operate under the English principles and rules, such as the Elizabethan Poor Law of 1601, local communities were held responsible for providing care and support to the needy (Levine, 1981). Individuals with mental illnesses were treated with a fair amount of compassion and understanding, especially when compared to what came later. Those with the most serious disabilities received care and supervision within their homes from their families. In the event that a family was overly financially burdened by caring for a mentally ill family member the community would provide monetary assistance and support (Grob, 1994). The most serious situations probably existed for the poor mentally ill who did not have family. In these cases, the mentally ill individual could be sold at an auction where community members would bid on receiving the labor from the individual in turn for providing for care and basic needs.

The relatively compassionate attitude towards individuals with mental illness can be understood when examining the people who became colonists in early America. Through the 1700's, the majority of colonists continued to be indentured servants, minor criminals, or unemployed poor from England; all people who had a personal relationship with hardship and deprivation and knew that the smallest misfortune could cause serious problems with poverty (Trattner, 1999; Morgan, 1975). This is not to imply that colonial life was without challenges for individuals with serious psychiatric disabilities. The "insane" or "distracted" individuals who were considered too dangerous to live with their families or to be auctioned off were usually hung, incarcerated in jail, or held in cages on their family's property (Lafond & Durham, 1992; Levine, 1981). Although this treatment is perceived as extremely cruel by today's standards, the original colonists should be recognized as first attempting to meet the care needs of individuals with serious psychiatric disabilities before using incarceration and punishment. In summary,

throughout the early colonial era very few policies were directed specifically towards those with serious mental illnesses and those that did focused on the community's responsibility for providing care (Grob, 1994).

During the early 1700's, social attitudes towards the needy, including individuals with psychiatric disabilities and the poor became increasingly less sympathetic. This was in part because the colonies had just started to make profits from growing and exporting tobacco to England (Morgan, 1975). This newfound prosperity, controlled by a few wealthy landowners, began to drive a demand for cheap, easily exploitable, labor (Morgan, 1975). "Idleness" became increasingly discouraged and communities that had previously given charity to needy residents began to demand labor in return for public assistance. As reported by Morgan (1975), many writers and philosophers during this time are noted as having advocated for the poor to be enslaved and "segregated, along with other vicious, insane, diseased, or impotent persons within the walls of the workhouses, hospitals, prisons, and asylums constructed to enclose them-or else they could be shipped to the plantations and contribute their share to the national income there" (p. 326).

Although the outright enslavement of the poor and those with psychiatric disorders was never fully realized, by end of the 1700's compulsory labor and imprisonment had become the policy of regulating the needy. This shift, from viewing the poor compassionately to viewing them as personally responsible for their misfortune, was driven by three major factors (1) the rise of industrial capitalism, (2) immigration and changing social demographics, and (3) the eugenics movement.

The rise of industrial capitalism in the U.S in the 1800's closely followed the American Industrial Revolution. New technologies, such as the factory, furthered a need for exploitable,

unskilled laborers. This demand made entrepreneurs and business owners increasingly unwilling to care for the poor, who they believed should be working (Brown, 1985; Scull, 1977). As industry continued to expand in the U.S., the number of alternatives to working for a wage diminished (Scull, 1977). This led to a growing number of individuals being forced into poverty during a time when society was turning a critical eye to the poor. As the poor became increasingly viewed as a burden, shifts began occurring in civil law. These shifts were centered at aiding economic development and contributed to policies that ensured that any poor individuals, especially those who were able bodied and considered non-deserving of charity, were working (Brown, 1985).

The growing industrial economy also contributed to changing the demographic landscape in the U.S. This was especially true in areas that were building factories and becoming centers of industry. Although many people moved from rural areas to take factory jobs, many new immigrants were also drawn to the growing U.S. economy and the jobs it produced. Small, tight knit communities quickly became overwhelmed with new faces and new cultures. These communities felt less responsibility to the newcomers, who were often poor. Instead of being viewed with compassion, those who were destitute came to be perceived as bothersome and out of order.

In addition to the rise of industry and demographic changes, the eugenics movement also influenced changing social attitudes towards those with psychiatric disabilities. The eugenics movement alleged that those with mental disabilities, as well as others who were considered undesirable, should be forcibly removed from society (Snyder & Mitchel, 2006). Eugenicists claimed that if left to marry and have children that individuals with mental illnesses would pass these "undesirable" traits down to their children and, if individuals with disabilities were left

within the community, they would contribute to the "debasement and deterioration of the American people" (Snyder & Mitchel, 2006). As the American economy continued to grow and flourish throughout the 1800's, the continued influx of immigrants ensured that there was no shortage of cheap labor. Even though individuals with disabilities, especially the able-bodied, had been forced to labor in workhouses and factories for untold years, eugenicists began to promote ideology that individuals with disabilities were completely unable to function or work in a competitive industrial economy (Snyder & Mitchel, 2006). The growing belief that individuals with mental disabilities were dangerous to the stability of American society and were unable to be used to enhance the economy led to their segregation in jails and nursing homes. The incarceration of those with disabilities was framed as a necessity to protect society from those with psychiatric disabilities, and reflexively, to protect those with psychiatric disabilities from stresses of industrial society.

The trifecta of industry, changing demographics, and the eugenics movement culminated in society beginning to view poor and disabled individuals as an idle class who should be made to work for the betterment of society. These growing negative attitudes toward the poor contributed to the development of workhouses and factories that could be used to ensure that the "lazy" behavior of the poor would not be tolerated (Fisher, 2004; Trattner, 1999). Workhouses harnessed the labor of the poor, becoming a tool of punishment that was designed to deter "those who might find a life of idleness attractive", in addition to providing a way for those who needed charity to defray the cost of their upkeep (Fisher, 2004). The mentally ill were generally considered able-bodied and were managed by being sent to workhouses or jails (Levine, 1981). As the capitalist system continued to demand cheap labor, work became compulsory and the poor who would not, or could not participate in the workhouse were left unprotected to starve

(Brown, 1985). The beliefs of American society had been completely changed from the morality of charity to the attitude that "he that will not work shall not eat" (Brown, 1985).

The 1800's were an era of the greatest levels of discrimination, stigma, and marginalization for individuals with psychiatric disabilities. The mentally ill who were unable to work were jailed in prisons and, occasionally, almshouses and nursing homes. The treatment of individuals who had mental illnesses was so horrifying during this time that advocates, such as Dorothea Dix and the National Association of the Protection of the Insane and Prevention of Insanity began to publicize their treatment to influence politicians to develop state mental hospitals (Armour, 1981; Grob, 1983; Leighton, 1982; Mechanic, 1969). In one speech given by Dix in 1843 to the legislature in Massachusetts, she discusses a manic women whose skin was rotting due to the filth to which she was exposed to (Muckenhoupt, 2003).

The asylum system promoted by Dix was seen as a method of both treating and containing individuals with psychiatric disabilities. By the 1880's, the asylum system had become so popular that states had grown as agents of care for most individuals considered dependent, such as the mentally ill and poor (Grob, 1983). As asylums became the primary form of providing treatment of individuals with psychiatric disabilities, they became overwhelmed by those who needed long-term care. The doctor patient ratio rose and, in 1894, ranged from 1:240 at the most crowded asylums in the U.S. to 1:107 at the least crowded hospital (Grob, 1983). In this environment, hospitals became coercive institutions that were a tool of last resort for only the most severely mentally ill (Grob, 1983).

By publicizing the warehouse like conditions and meager rehabilitation rates of asylums, eugenicists "proved" that mental illnesses could not be treated successfully. This information contributed to growing public fear that disabled individuals were contaminating the American

gene pool (Grob, 1966; Whitaker, 2002). Since psychiatric hospitals could no longer claim that they were curing the mentally ill their existence needed to be rationalized. In this way it became easy for those who supported the asylum system to explain their continued existence as one that provided a level of protection to society (Grob, 1966).

By 1932, the eugenics movement had a strong influence over federal and state governments and, subsequently, had significant power in implementing policies towards those with psychiatric disabilities. This is best evidenced by the fact that by 1932 twenty-six states had passed compulsory sterilization laws (Davis, 1981). Sterilization laws openly targeted the disabled but also had disastrous consequences for many poor women, minorities, and any who were considered "defective" (Snyder & Mitchel, 2006). Although the lack of records makes accurate estimations challenging, several researchers have attempted to deduce how many individuals were involuntarily sterilized in the U.S. Grob (1994) estimates that between 1907 and 1940 nearly 18,500 mentally ill individuals were subject to surgical sterilization. Other estimates note that anywhere from 60,000 (Largent, 2008) to 200,000 (Davis, 1981) total involuntary sterilizations may have occurred in the United States. Although it remains difficult to confirm how many were subject to involuntary sterilization, it is clear that the poor, disabled, Native Americans, Blacks, and women were inordinately affected by sterilization policies.

By 1955, the treatment of individuals with psychiatric disabilities in the United States had entered its darkest era. Mental asylums housed 560,000 mentally ill individuals in what had become the single largest form of incarceration in the nation (Mechanic, 1987). Still, the oppressive and inhumane treatment of individuals with psychiatric disorders did not go unnoticed and began to attract a growing amount of public attention (Foley & Sharfstein, 1983; Mechanic, 1969). Following World War II, Americans were uncomfortable with governmental

institutions and policies that mirrored those of the Nazis. As more information about asylums became available, the public clamored for more humane treatment of those with psychiatric disorders. The federal government responded with the development of new policies and initiatives. One such policy, the National Mental Health Act enacted in 1946 by President Truman was instrumental and created the National Institute of Mental Health (NIMH) (Armour, 1981; Foley & Sharfstein, 1983). NIMH was responsible for developing new psychopharmacological treatments and dedicated funding to the dissemination of new research findings (Foley & Sharfstein, 1983).

The growing discontent towards the asylum system, in addition to the growing scientific discoveries about treatment options for mental illness, contributed to deinstitutionalization by creating a push for community based initiatives (Mechanic, 1987; Rose, 1979; Stone, 1999). States, financially strained by large asylum systems, supported deinstitutionalization and focused intently on closing asylums (Rose, 1979). Unfortunately, as states closed hospitals and asylums they did not immediately reinvest funding into community mental health programs leaving many underfunded and overwhelmed. It wasn't until nearly eight years after the start of deinstitutionalization that President Kennedy enacted the Community Mental Health Centers Act of 1963 that outlined rights of individuals with psychiatric disorders to receive adequate treatment in the least restrictive environment possible and designated the federal government's responsibility in helping provide that care. The gap between deinstitutionalization and the development of community mental health centers left many individuals with serious mental illness relocated from asylums to nursing homes, jails, and the streets (Scull, 1989).

Although deinstitutionalization was never fully realized in the way it had been intended it is important to recognize that the 1960's ushered in a new era of civil rights and humanitarianism

for those with psychiatric disabilities by expanding the realization that incarceration was the antithesis to recovery. As Black citizens struggled and attained greater civil rights, they also bettered the situation for other disadvantaged and oppressed groups in the U.S., including the poor and those with disabilities. The U.S. government was pressured by the public as the peaceful protest for civil rights in the South was often nationally televised. Also, since the post-World War II era was also time of increased globalism and international relations, the United States struggled with its international image as other countries accused the U.S of treating Blacks in much the same manner that the Nazis had treated the Jews (Bloom, 1987; Goldfield, 1997).

The Civil Rights Act of 1964 and the Voting Rights Act of 1965 were unprecedented legislation because they demonstrated that oppressed groups in the U.S. had the ability to build coalitions that could alter the balance of power in the nation (Bloom, 1987). Nine years following the Civil Rights Act, the Rehabilitation Act of 1973 was enacted. This act extended civil rights towards individuals with disabilities for the first time in U.S. history. The language used to achieve civil rights for individuals with disabilities was copied, nearly verbatim, from the Civil Rights Act (Rehabilitation Act, 1973). The Rehabilitation Act was not only remarkable for its extension of civil rights to Americans with disabilities, but also in the way that it outlined a federal responsibility to provide protection from discrimination, especially by institutions that were receiving federal funding, and to aid individuals with disabilities in being able to access training and education programs that would allow them to attain employment (Larson, 1988). Although the Rehabilitation Act was a relatively weak piece of legislation, it took a step to defend the rights of disabled Americans and set the stage for modern disability policy (Cook, 1977).

Today, the Americans with Disabilities Act of 1990 (ADA) and its amendments in 2008 are the most influential policies effecting Americans with disabilities. Unlike the Rehabilitation Act, the ADA outlines stronger anti-discriminatory measures and gives those with disabilities the ability to file grievances and challenge discriminatory practices (Henry, 1989; Stefan, 2001). Although the ADA mostly focuses on ensuring that individuals with disabilities are not discriminated against when being considered for employment, it also extends protections by defending the rights of disabled individuals ability to access and participate in public life. This includes such requirements as ensuring that federal buildings, universities, and public spaces are accessible to individuals with handicaps or who may be using assistive equipment (Henry, 1989; Stefan, 2001).

One of the greatest strengths of the ADA is the acknowledgement that equality for those with disabilities cannot be attained by the individual efforts of those with disabilities alone, but requires public and social changes, accommodations, and protections. Unfortunately, despite the ADA's dedication to challenging discrimination, individuals with psychiatric disabilities continue to experience inordinate amounts of inequality. Stefan (2001) suggests that under the ADA individuals with psychiatric disabilities continue to experience greater levels of inequality than individuals with other types of disabilities is because the initial ADA legislation excluded individuals with mental illnesses and substance abuse disorders. Although mental health advocates were able to successfully argue for the inclusion of psychiatric disorders in the ADA, large loopholes in the legislation limit its effectiveness protecting individuals with mental health issues. The initial draft of the ADA mainly failed to protect individuals with mental disorders because limitations that could vary in their severity over the course of a year were excluded from the ADA (Stefan, 2001). Only individuals with disabilities that cause a "substantial limitation on

major life activities" are covered by the employment protections (Stefan, 2002). Individuals with psychiatric disorders who are employed and have filed disputes against their employer are frequently found as not having "substantial limitation" and therefore fail to meet the necessary criteria to be applicable for the protections offered under the ADA. Frequently, individuals with psychiatric disorders only need accommodations during times that their mental health symptoms worsen, such as times that they switch to a new medication or have a stressful life event. Only the most severe types of psychiatric disabilities create a constant or consistent limitation since, in most cases, mental health problems can be successfully managed with therapy and psychotropic medications. In 2008, Congress acknowledged the limitations of the ADA and enacted the ADA Amendments Act of 2008. The ADA Amendments Act of 2008 was designed to broaden the narrow definitions that have excluded many individuals from coverage, as well as extend protections to impairments that are "episodic or in remission, but that would be substantially limiting if active" (Center, 2011). Although this policy change holds hope for the extension of greater protections for individuals with psychiatric disabilities, policy research has not yet adequately examined the effect of the amendments to the ADA.

Although the Amendments to the ADA provide better protections to individuals with psychiatric disorders it still has several limitations. One limitation is that the ADA still fails to protect individuals who have reported that they might be a harm to themselves (Parry, 1997). Since suicidal thoughts tend to be diagnostic symptomology of one of the most common mental disorders, depression, many individuals with psychiatric disabilities could be left unprotected if there is evidence that they have had thoughts of self-harm. A second limitation is that the ADA fails to adequately protect individuals with psychiatric disabilities by excluding individuals with substance abuse disorders who use illegal drugs or engage in non-medical prescription drug use

(Parry, 1997). This limits the ADAs effectiveness to protect some individuals with psychiatric disabilities because there tends to be a high comorbidity rate between mental health and substance abuse disorders. Co-occurrence of mental health and substance use disorders is thought to be caused by two main factors: (1) many types of substance use issues tend to cause mental health symptoms and, (2) individuals who first begin to have trouble with mental health symptoms may turn to substances in their environment such as alcohol or marijuana to try and self-medicate..

Stephan (2001) states that the exclusion of individuals with psychiatric disorders and substance disorders from the full protection of the ADA has supported growing stigmatizing attitudes within the American public that these disabilities are caused by character or moral weakness. The social attitudes of the 1960's that ushered in human and civil rights for individuals with psychiatric disabilities have altered as poor mentally ill individuals, especially those who are homeless, have become more visible in communities following the deinstitutionalization movement. As community mental health programs remain underfunded, fewer resources are being allocated toward providing adequate treatment support for individuals with mental illnesses who are poor.

Much like in the 1800's prior to the construction of asylums, individuals with serious mental illnesses are frequently incarcerated in jails despite the fact this is a direct violation of their civil rights (Treatment Advocacy Center, 2010). Currently, nearly three times more individuals with psychiatric disorders reside in jails and prisons than in hospitals (Treatment Advocacy Center, 2010). Studies examining the prevalence of serious mental illness among jail inmates have found that about 13% to 21% of incarcerated males and 28% to 48% of incarcerated females have a diagnosis of a serious mental illness (Steadman, Osher, Robbins,

Case, & Samuels, 2009). In spite of the unusually high incarceration rates in the United States, a criminal record is a major deterrent to attaining nearly any employment opportunity and can be an insurmountable barrier to attaining skilled jobs that offer competitive wages (Western, 2001). The high incarceration rates among individuals with mental disabilities create additional barriers to employment and wage equality (Western, Kling, & Weiman, 2001).

Mental Disorders in the U.S. Today

As mentioned above, individuals with disabilities have not been fully protected from economic or labor market inequalities despite the intention of federal policy. This next section will discuss how individuals with psychiatric disabilities experience economic inequalities and how they fare when compared to individuals who have physical disabilities and who are not disabled. Research that has examined individuals with disabilities but has not expressly focused on individuals with mental disorders is included for two important reasons: 1. Many research articles that investigate disability and economic inequality do not examine specific disability types but are too valuable to ignore in this dissertation, and 2. To provide a context that illuminates the ways that individuals with mental disorders may have similar or differing experiences when compared to individuals with other types of disability.

Poverty

Research has repeatedly shown that individuals with disabilities have greater economic challenges than the general population. In 2010, data from the American Community Survey (ACS) showed that disabled individuals between the ages of 18 and 64 were found to experience poverty at twice the rate of individuals without disabilities (National Institute on Disability and Rehabilitation Research, 2011). She and Livermore (2009) found similar results using the Survey of Income and Program Participation (SIPP) noting that poverty rates among working

age individuals with disabilities ranged between two to five times higher than for working age individuals that did not experience disability. Even in 2000, when poverty rates decreased drastically in the United States, the Current Population Survey (CPS) showed that individuals with disabilities experienced little relief, encountering poverty rates that were still 4.13 times higher than that of nondisabled individuals (Burkhauser, Houtenville, & Rovba, 2005; Freeman, 2001). McKernan & Ratcliffe's (2002) research illuminates this trend by noting that the onset of a disability is one of several important triggers to entering poverty and recovery from disability is linked to exiting poverty. Additionally, the longer an individual reports being disabled in the United States is positively correlated with a chance of experiencing long term poverty (She & Livermore, 2009; Yeo, 2001).

Poverty and Mental Disorders. Research that has specifically focused on individuals with mental disorders has suggested that psychiatric disabilities may be met with an even greater risk of poverty when compared to individuals with other types of limitations. Wittenburg & Nelson (2006) tracked poverty rates in the Census for 2000, the American Community Survey for 2003, and the Survey of Income and Program Participation in 2002 and determined that across each of these separate data sets and national levels of poverty were higher for individuals who reported having a mental limitation than those who were non-disabled, had a physical limitation, or had a sensory limitation. They also noted that even among individuals who reported having less than a high school education, a group known to have increased chances of poverty, that those with mental limitations still did worse than individuals with physical or sensory impairments that had similar educational backgrounds.

While psychiatric disabilities can lead to poverty, research also shows that poverty increases the chances of gaining a mental disability. When examining longitudinal presentation

of psychiatric illness over a six month period in using the Epidemiological Catchment Area data Bruce, Takeuchi & Leaf (1991) determined that individuals who were poor had nearly two times the odds of developing a mental diagnosis when compared to non-poor respondents. They also noted 6% of all new reports of psychiatric disorder during the course of the evaluation could be attributed as a consequence of the effects of poverty (Bruce, Takeuchi, & Leaf, 1991). In a similar study Kessler, McGonagle, Zhao, Nelson, Hughes, & Eshleman et al. (1994) examined the incidence of lifetime and past year psychiatric disorder in the U.S. population using the National Comorbidity Survey. They determined that socioeconomic status was significantly related to the odds of developing a psychiatric disorder, especially an anxiety related disorder (Kessler, McGonagle, & Zhao et al., 1994).

Employment

As well as having greater chances of experiencing poverty, individuals with disabilities often have more difficulty finding and keeping employment. In the 2010 report from the National Institute on Disability and Rehabilitation Research, it was reported that working age individuals with disabilities between the ages of 18 and 64 years had a 33.4 % chance of being employed while non-disabled individuals had a 72.8% chance. Among individuals with disabilities, many employment opportunities do not appear to be full-time, year-round positions as evidenced by the fact that individuals with disabilities only have a 20.1% chance of full-time, year- round employment when compared to 51.1% for nondisabled individuals. Some researchers have suggested that for workers with disabilities there is a "last hired and first fired" policy (Kaye, 2010). For individuals with disabilities who participate in the labor force it appears that they are more likely to hold positions that are shorter term, lower status, and have less stability (Kaye, 2010). This indicates that individuals with disabilities may experience more

hardship during poor economic times, such as the Great Recession of 2008, where unemployment rates among disabled individuals rose from 12.2% to 17. 1% (Kaye, 2010).

Employment and Mental Disorders. Not all types of disabilities are perceived equally by employers within the U.S. workforce. When examining employment the Disability Compendium from the National Institute on Disability and Rehabilitation Research (2011) states that individuals with visual disabilities are the most likely to be employed (37.2%) followed by individuals with ambulatory disabilities (24.4%). Individuals with cognitive disabilities, like learning disabilities and mental disorders, are the least likely to be employed (23.4%) (National Institute on Disability and Rehabilitation Research, 2011).

Some researchers have stated that high unemployment rates may continue to exist for individuals with psychiatric and cognitive disabilities because these groups of individuals may have symptoms that can inherently create challenges in maintaining employment, such as problems concentrating, erratic behavior, or decreased ability to spend long periods of time engaged in productive activities (Bonnie & Monahan, 1997). Still, most disability researchers who examine employment differences in employment among individuals with mental disorders disagree that an individual's symptoms create the greatest barrier to employment, but rather that the way that individuals with mental disorders are perceived by others is the greatest issue. Due to this, many researchers believe that fear of discrimination, especially in the work place, can influence whether individuals with psychiatric disabilities disclose to their employer. If this is the case then many individuals with psychiatric disorders may be overlooked in the current research and current employment statistics for individuals with disabilities may not be completely accurate. Still, it appears that labor market exclusion is a problem for individuals with mental disorders as researchers like Baldwin (1999) show that when self-reporting

individuals with mental disorders only have work limitations 5% of the time (the least of any disability category with the exception of sensory disabilities) but are among the least likely to be employed.

Wage Inequality, Discrimination, and Disability

Individuals with disabilities can experience a number of types of discrimination within their workplace. Discrimination occurs in the workplace when individuals of equal productivity and qualification are offered different wages, benefits, or employment opportunities (Baldwin & Johnson, 1994). When examining wage disparity in 2010, the National Institute on Disability and Rehabilitation Research noted that individuals with disabilities earn, on average, $10,497 less annually than individuals who are not disabled. These findings continue to support research that has demonstrated that wage disparity can be a problem for women and men with disabilities in the labor market (Baldwin & Johnson, 1995; Baldwin & Johnson 1994). In their 1994 study, Baldwin and Johnson noted that even when they accounted for non-discrimination related reasons for income differences, such as productivity or education levels, disabled men were offered wages that were on average $2.44 dollars less per hour than nondisabled men. Similar results were uncovered in their 1995 study, which demonstrated that disabled women were offered .96 cents less per hour than their non-disabled counterparts. Although it initially appears that there is less disability discrimination for women, Baldwin and Johnson (1995) note that women are already offered $3.32 per hour less than men, demonstrating that disabled women experience wage discrimination by both gender and disability.

Wage Inequality and Mental Disorders. Studies that have investigated wage discrimination in the U.S. have noted that individuals with psychiatric disabilities experience the greatest rates of wage disparity. A study by Kessler and colleagues (2008) examined income

differences among individuals with serious mental illnesses using the 2002 National Comorbidity Survey Replication and reported that a mental disability translated into annual earnings that were nearly $16,306 less than the earnings of individuals who did not have a mental disability. In an additional study in 2006, Baldwin and her colleague Marcus examined national data using the National Health Interview Survey between 1994 and 1995. Among the 222 workers that reported serious mental illness, 20% reported that they had experienced job related discrimination. Workers with serious mental illness that reported discrimination were also found to have significantly lower wages, suggesting that the stigma is an important factor to explore when looking at wage inequality among individuals with mental disorders (Baldwin & Marcus, 2006).

Welfare and Disability

It is impossible to discuss employment, wages, and poverty among individuals with psychiatric disabilities in the United States without mentioning the role of social welfare. This is because the majority of social welfare programs in the U.S. have been designed specifically to provide aid to those with disabilities (Social Security Administration, 2011). This is no accident, as individuals who are disabled experience inequity in accessing employment and have much greater chances of living in poverty than individuals who are not disabled. This is reflected, in part, by the Social Security Administration's (SSA) definition of disability which outlines that individuals with disabilities only qualify for assistance if they are unable to engage in gainful work activity because of a physical or mental impairment that is either expected to result in death, or will last for at least a year. Social welfare programs are designed to provide a minimal level of income to protect disadvantaged individuals from some of the harshest aspects of poverty (Social Security Administration, 2009).

Although social welfare programs in the United States do provide some resources for the poor, these protections generally do not even cover basic needs. Also, for the poorest and most disadvantaged in the U.S., only minimal resources are begrudgingly extended. As stated by Esping-Andersen (1990), "the welfare state may provide services and income security, but it is also, and always has been, a system of social stratification" (p. 55). This is because many social welfare programs operate under the principle of "less eligibility", which means that even the lowest paid worker should be paid better, have greater economic stability, and have higher levels of well-being than anyone receiving welfare (Piven, 1998). Less eligibility ensures that welfare "maintains social and economic inequities" through ensuring that "any job at any wage" is a preferable alternative to welfare receipt (Piven & Cloward, 1971). In this way, welfare directs the poorest individuals towards the lowest paying jobs while providing a minimal buffer against the harshest aspects of poverty. This effectively causes social welfare systems in the United States to both operate in a capacity that reduces social conflict caused by extreme poverty while solidifying social and economic stratification that undermines the possibility for social mobility (Acker, 2011).

From a similar perspective, Marxist theorists state that the link between disabilities, employment, and social welfare has to do with the rise of industrial capitalism, specifically the introduction of factory production methods (Priestly, 2005). They theorize that the exclusion of individuals with disabilities from participation in the workforce may have to do with differences in the ways that the disabled have been exploited within the labor market (Priestley, 2005). These differences might be rooted in actual limitations that may inhibit work, stigma that those with disabilities will be less productive laborers, or policies that may extend additional protections, such as mandated breaks or accommodations, towards disabled workers. From this

perspective social welfare programs, especially those that operate under principles of least eligibility, allow for certain groups to be excluded from the labor market. This, in part, explains why individuals with psychiatric disabilities are one of the most excluded groups from the labor market despite research that suggests that they do not generally report having work limitations (Wittenburg & Nelson, 2006).

Some social welfare programs in the United States have been specifically designed to create changes in the labor market. Under the New Deal, the Social Security program was designed to specifically remove older people from the labor market by providing them the ability to retire (Piven, 1998). This opened up the opportunity for younger workers to enter many of the jobs that were left by older workers. Still, other types of welfare programs exist primarily due to the perceptions of certain groups within the workforce. Aid to Families and Dependent Children (AFDC), for example, was initially designed to provide aid to poor children while giving their mothers the ability to provide care within the home (Blank & Blum, 1997). This was in line with the family ethic of the time that generally discouraged women working outside of the home and research that indicated that mothers needed to be at home to provide care so their children would develop into healthy adults who would contribute to society. As care labor became increasingly devalued as legitimate work for poor mothers, AFDC was altered in 1996 to launch poor mothers into the formal work market.

Individuals with disabilities, much like poor mothers, have also been subject to a series of changing perceptions that have contributed to their inclusion in welfare programs in the United States. Individuals with disabilities, especially psychiatric disabilities, are framed as being unable to manage the stresses of the work environment and are conceptualized as being less productive than non-disabled individuals (Snyder & Mitchel, 2006). From this perspective the

welfare system acts as a tool that allows provision for employers to hire non-disabled workers who are perceived to be more productive. Individuals with disabilities who have a primary diagnosis of substance abuse are framed as personally responsible for their life challenges and deemed undeserving of social assistance. The 1996 reforms to welfare changed social assistance to exclude all individuals who have a primary substance abuse diagnosis. Unfortunately, this targets the poor disabled because individuals who are poor and first have mental health symptoms or physical illness may turn to drugs or alcohol since they probably don't have health insurance and may not be able to afford medical care. Also, health issues and substance use are rarely separate, but rather, are intertwined problems making it nearly impossible to determine what diagnosis is primary.

Welfare and Mental Disorders. Psychiatric disorders are one of the most common types of disability in the U.S. and mental and cognitive type disabilities are reported as being among the largest recipients of disability insurance (Social Security Administration, 2011; Autor & Duggan, 2003; Autor & Duggan, 2006). The 2011 Statistical Report on Social Security Disability Insurance (SSA, 2012) reported that individuals with learning disorders and other types of mental disorder (psychiatric conditions) were second only to individuals with musculoskeletal issues as the primary reason workers reported disability and received benefits. Due to this, individuals with psychiatric disabilities receiving welfare are inordinately targeted by work first reforms, or changes to welfare programs that mandate employment as a condition of receipt, when compared to other types of disability groups. Although Medicaid, Social Security Disability Insurance, and Social Security Income, have avoided some of the most drastic reforms implemented by the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), they have not remained completely unaffected, especially for

individuals with psychiatric illnesses. Reforms that have been focused on stemming perceived malingering among those with disabilities and have attempted to tie benefits for those with psychiatric disabilities to participation in the workforce (Bonnie & Monahan, 1997). Welfare reform supporters tend to note that individuals with psychiatric disabilities can recover with the provision of treatment and that disability policy was "designed for people with permanent impairments or lethal illnesses, not for those with fluctuating, gradually improving illnesses that respond well to treatment" (Drake, Skinner, Bond & Goldman, 2009).

The belief that poor individuals with psychiatric disabilities should be working has contributed to the creation of a series of new programs to help the transition from welfare to work. These programs, such as Vocational Rehabilitation and Supported Employment, have operated to provide necessary job training and links to work opportunities. Other initiatives, such as Ticket to Work, have offered benefits to both employees and employers alike, in hopes of making it easier for employers to provide work accommodations. Additionally, incentives for returning to the workforce have become increasingly common, such as allowing individuals to keep their Medicaid coverage for a set amount of time following attaining employment, to assist individuals with disabilities as they return to work.

Unfortunately, the success of many of the programs that have been created to return individuals with psychiatric disabilities from welfare to the workforce has been debatable. Some research suggests that these programs may not provide sufficient support and may not adequately account for barriers that may be experienced by individuals with psychiatric disabilities (Perkins, 2007). Other scholars note that employment programs seem to focus more on the rapid attainment of work rather than ensuring that jobs offer competitive wages. The result is that individuals move into jobs that have a low range of opportunities and do not adequately provide

a permanent solution to poverty or decrease the need for social welfare assistance (Perkins, 2007).

Disabilities and Women

In the United States, women with disabilities face social and economic challenges that differ from those experienced by other women and disabled men. Data from the Bureau of Labor Statistics suggests that when compared to men, women are more likely to be disabled and are less likely to be participating in the labor force (U.S. Bureau of Labor Statistics, 2011). Women with disabilities who are employed are less likely than disabled men who are employed to be in management level positions (U.S. Bureau of Labor Statistics, 2011). This occurs despite the fact that women with disabilities are more likely to have a professional occupation than men with disabilities (U.S. Bureau of Labor Statistics, 2011). Also, disabled women are more likely than disabled men, nondisabled men, and nondisabled women to be working in a service occupation, such as health care support, which tend to be some of the lower paid professional positions (U.S Bureau of Labor Statistics, 2011). Collins and Valentine (2003) suggest that one of the reasons that inequalities continue to be more pervasive for women with disabilities than men is because current disability policy in the United States was written and implemented from a male-centric standpoint. They note as evidence that Americans with Disabilities Act of 1990 (ADA) does not address unique challenges that women with disabilities face, such as the need for child care services (Collins & Valentine, 2003). The specific ways that women with disabilities are excluded from policies may leave them at an increased risk of experiencing discrimination that could prevent access to employment or fair wages.

In 1985, Fine and Asch in a review of the existing literature proposed disabled women may experience "multiple dimensions of disadvantage" that cause them to have less economic

wellbeing, greater wage inequality, and less access to educational opportunities than men. Fine and Asch (1985) noted that existing literature supported the theory that women with disabilities especially experience greater economic consequences, even when they recover, remaining more likely than disabled men to have challenges with poverty. The current research has generally supported the suppositions of Fine and Asch, noting that women with disabilities have a greater chance of living in poverty because they have additional expenses that the nondisabled women do not (Parish, Rose, & Andrews, 2009). Some of these expenses include therapy, costs for and maintenance of assistive technology, transportation, and greater health care costs. To examine how some of these disparities exist within the United States, Parish, Rose, and Andrews used the 2002 National Survey of American's Families (NSAF). They discovered that women with disabilities report greater levels of material hardship, such as food insecurity and inadequate health care across different income levels. This suggests that women with disabilities, even ones that are not officially experiencing poverty, have challenges in meeting basic needs that may not be experienced by nondisabled women (Parish, Rose, & Andrews, 2009).

Women and Mental Disorders. For women who experience psychiatric disabilities there is evidence that suggests that their experience differs from both that of men and of other disabled women. First, women with psychiatric disabilities earn $7,820 less annually when compared to women who do not report having a mental disorder, while disabled men earn $14,393 less annually when compared to men who do not report having a mental disorder (Kessler, Heeringa, Lakoma, Petukhova, Rupp, & Schoenbaum et al., 2008). Although this seems to suggest that women with psychiatric disabilities do not experience as much discrimination as men with psychiatric disabilities this is probably not the case, but rather that

wage inequality due to gender has an initial effect of lowering annual earned income and that disability only accentuates wage inequality.

In a study by Baldwin (1999) that utilized the 1984-1990 Survey of Income and Program Participation revealed that while men with mental impairments had the poorest labor market outcomes women with mental impairments experienced greater wage disparity when compared to other types of disabilities. This suggests that gender, as well as disability type, play an important role when examining complex inequalities and their effect on economic outcomes.

Race and Disability. Minorities with disabilities experience economic and labor market disadvantages due to both race and disability. In 2010, African Americans with disabilities were among the most likely to be unemployed of any race group (22.0%), followed by Hispanic Americans with disabilities (18.4%) (U.S. Bureau of Labor Statistics, 2011). In general, Black Americans have been shown to have a higher chance of becoming disabled when compared to other race groups and are more likely to have severe disabilities (U.S. Census Bureau, 2008). Researchers that have explored the experience of disability among African Americans and Blacks have noted that disabled individuals from minority race groups may experience a type of "double oppression" (Stuart, 1992) while women from minority groups with disabilities experience a type of "triple jeopardy" or "triple disadvantage" (Vernon, 1999). Still, it is most likely that the inequality experienced by race and disability is not merely additive in nature, as these terms suggest, but rather is a complex interaction of simultaneous oppressions (Stuart, 1992).

One of the many critiques of disability studies is the lack of research that examines ways that minority groups, especially Blacks, experience disability (Barnes, Mercer, & Shakespeare, 1999). The literature suggests that Black Americans and women experience disability in ways

that differ from their white male counterparts, in part, because the label of disability may be more frequently applied to minorities and women. Historically, labeling individuals as disabled has been a way to stratify and exclude them from society. As stated by Vernon (1999), when an individual or group is identified as deviating from anticipated norms, they can be treated as "not quite human". Additionally, as white men have frequently been the ones who have created classifications of disability this label may represent the ways that women and Blacks differ from white male norms (Baynton, 2006).

Recently, researchers have begun to explore differences in economic well-being for women with disabilities across racial lines. Fuller-Thomson, Nuru-Jeter, Minkler, and Guralnik (2009) used the 2003 American Community Survey (ACS) to examine economic differences between white and African Americans with disabilities between the ages of 55 and 64 and determined that 90% of the differences between Black and white men with disabilities and 75% of the differences between Black and white women could be explained by the differences in education and poverty levels. This indicates that socioeconomic factors and pre-existing inequalities may have a powerful effect on the racial disparities noted between Blacks and whites with disability. In a second study by Andresen and Brownson (2000), health interviews were conducted by telephone with 774 white, 749 African American, 660 Hispanic, and 739 Native American women aged 40 or older. Andresen and Brownson (2000) noted that minority women had a much higher chance of having a disability that interfered with working, a greater chance of having an income that was under $25,000 dollars per year, and were less likely to have attained an education beyond high school. Like Fuller-Thomson and colleagues, Andresen and Brownson (2000) conclude that disability is highly correlated with socioeconomic well-being and that ideas about disability may be a part of "a social context for disablement". This means

that differences in economic well-being can be a measure of negative social response and exclusion of individuals with disabilities.

Black Americans and Mental Disorders. Research has shown that Blacks experience disparities across many areas of the health care system. The disparities in health care for Black Americans can range from the medical services that are offered, the diagnoses they are given, and the treatments that are administered (Institute of Medicine, 2003). Within the mental health system health disparities present themselves in the types of diagnoses Blacks receive, the rate at which Black Americans receive certain types of diagnosis when compared to whites, and the availability of mental health treatments, like therapy and medication management. Sheppard (2002 p.788) notes that one of the main reasons for disparity in the mental health system is due to the fact that psychiatry has historically been "affected by long held prejudices of black inferiority, which stems from the time of slavery". Historically, psychiatry as a field has been dominated by white psychiatrists. Additionally, although psychiatry is a branch of medicine and is considered to be objective, mental health diagnoses are rooted in observations about an individual's behaviors. Since every culture has a distinct set of rules about what behavior is considered normal and what behaviors are considered odd, similar behaviors cannot always be interpreted in similar ways (Sheppard, 2002). Cultural differences between those who have traditionally done the diagnosing and those who are traditionally diagnosed can create disparity in the types of diagnoses that individuals from marginalized groups can receive.

In general, Black mental health consumers are more likely to be diagnosed with serious and chronic types of mental illnesses than their white counterparts. Barnes (2004) explored psychiatric hospitalizations over an eight year period in Indiana, and found African American patients were nearly five times more likely than whites to receive a diagnosis of schizophrenia.

Also, during 1988 and 1995, when the Diagnostic and Statistical Manual 4th edition (DSM-IV) was in use the rate of inequity between diagnoses given to Black and white clients widened (Barnes, 2004). When examining bias in the diagnosing process Schwartz and Feisthamel (2009) determined that the rates and types of diagnoses being given to Black clients rested at a much higher rate than would be expected if race did not affect counselor's diagnostic decisions. Over diagnosis of schizophrenia for Black Americans can be dangerous because it leads to an underdiagnoses of conditions such as depression that are less chronic but occasionally life threatening. Additionally, since individuals with schizophrenia can need more intensive medicines and types of treatment, misdiagnosis can lead to increased risks with medications that can have unpleasant side effects and unnecessary involuntary hospitalizations.

In addition to the increased chance of being diagnosed with a psychotic disorder, Black mental health consumers are more likely to be hospitalized and are hospitalized for longer than whites (Bolden & Wicks, 2005; Snowden, Hastings, & Alvidrez, 2009). A study by Bolden and Wicks (2005) that examined hospital stays in the U.S. determined that Black psychiatric patients were hospitalized significantly longer than whites, Hispanics, Asians, or Native Americans. They suggest that Black mental health consumers may not have equal access to outpatient mental health clinics, health insurance, or doctors and that this could create a delay in accessing needed mental health services for Black clients. A more recent study by Teh and colleagues (2010) examined mental health consumers with the same mental health diagnosis and same insurance provider. Their results showed that Blacks were significantly more likely to receive minimally adequate treatment when compared to whites and other minority groups. Racial inequality in psychiatric care between Black and white mental health consumers is a particular concern as we work to improve the health and wellbeing of Americans with psychiatric disabilities. Additional

research on the U.S. mental health system is needed to understand how that this system could be modified to promote greater racial equality in treatment.

Gap in the Literature

Among existing research on disability in the United States few articles have explored multiple inequalities. Among these few articles most have tended to focus on race *or* gender not race *and* gender especially when exploring economic and labor market inequalities. This may be explained in part by the fact that research on economic and labor market inequality is usually performed by economists, rather than social workers, who tend to use a different set of theories to drive research inquiry.

An extensive literature search did not reveal studies where specific disability or limitation types were explored with race and gender. Burkhauser, Houtenville, & Rovba (2005) suggest that one of the reasons national disability research is under examined in the U.S. is because the U.S. Bureau of the Census does not officially track disabled adults of working age. Elwan (1999) similarly notes that challenges in producing comparable estimates of disability across multiple data sets are an additional hindrance to both national and international disability research. Regardless of the reason, the lack of research that explores variations among differing types of disability is undoubtedly a blind-spot for social scientists that frequently have a role in the dissemination and evaluation of welfare, employment, rehabilitation, and antipoverty programs among needy Americans.

Although there is a wide arena of research that explores poverty and disability in the United States, these studies have rarely explored the ways that identification with multiple marginalized groups may alter the way that inequalities are experienced. Existing literature suggests that women, minorities, and those with disabilities have greater economic challenges

than whites and men but there is limited research that explores the intersecting nature of these inequalities. Additionally, the studies that have examined inequality among individuals with disabilities focus on marginalized groups without necessarily including traditionally privileged groups. Although researchers should be careful to avoid using dominant paradigms as a framework for understanding inequality, the inclusion of traditionally privileged groups can add an important dimension to research since members of disadvantaged groups can also hold privileged identities (Cole, 2009).

Chapter 3: Theoretical Framework

Critical Disability Theory

Historically, disability has been theorized within bio-psycho-social models that are commonly associated with the medical field. Like many medically based models, the bio-psycho-social model tends to view disabilities as individualistic deficits that can be mediated by therapeutic action, treatment, or medical intervention (Barnes, Mercer, & Shakespeare, 1999). With a focus solely placed on treatment, medical models conceptualize disabilities from one of two standpoints: (1) that disability should be removed through the attainment or administration of a cure, or (2) if a cure is not possible, the disability should be rehabilitated so disabled individuals can attain a life that mimics that of a non-disabled individual as closely as possible (Barnes, Mercer, & Shakespeare, 1999; Rioux & Valentine, 2006). Although this perspective may be helpful for individual who develop health or mental health problems that can be cured by modern medicine this stance can be marginalizing for many individuals for whom a cure may not be possible or even those who may not want a cure. The medical models place the responsibility for attaining an equal and inclusive life on the shoulders of those who are disabled because they assume that the use of therapy, medications, or assistive technologies have the ability to negate the effect of a disability by allowing a disabled individual to emulate those who are not disabled. In this way, medical models can only conceptualize inequalities experienced by those with disabilities based on the degree to which they are being treated on an individual and medical basis and are completely unable to recognize the causes of complex social, political, cultural, and economic disparities. Additionally, the medical model can fail in recognizing that many conditions require long term treatment which can be associated with a number of unpleasant side effects that may be more uncomfortable than the condition they are intending to treat. For

example, some types of antipsychotic medications are associated with the development of tardive dyskinesia, a condition characterized by involuntary muscle spasms in the face, hands, and sometimes, limbs.

To account for the way that disabilities are experienced in society, theorists have increasingly turned to social models. Social models provide a framework for understanding why individuals with disabilities are met with cultural, social, and economic challenges, such as stigma, employment discrimination, and poverty (Barnes, Mercer, & Shakespeare, 1999). Unlike medical models which place the onus for achieving equality on the shoulders of the individual who has a disability, social models state that it is society's responsibility to change. Under this model, instead of having to be the same as non-disabled individuals, society should be adjusted in a way that is inclusive of individuals with disabilities. According to social models of disability, laws and policies should be used to ensure inclusion, enhance accommodation, and provide protection from discrimination.

One type of model that begins to address the role society plays in disability is the functional/ environmental model. The functional/environmental approach states that it is not only an individual that needs to be considered when discussing disability but also the ways that individuals interact with their environment. By acknowledging that disability is an interactive process between individuals and society the "solution" for disabilities rests both with the individual to the extent that the disability is biological and with society to the extent that the disability is environmental (Smart & Smart, 2006). Functional/ environmental models acknowledge that society is responsible for causing disability in the way that it marginalizes and labels individuals from marginalized groups. This means that individuals who belong to groups that traditionally experience discrimination are more likely to be labeled as disabled and

experience more environmental challenges due to disability than individuals from privileged groups. Common "solutions" implemented from this model of disability have tended to focus on addressing physical inaccessibility of the environment, the marginalization of individuals with disabilities, and social prejudice and discrimination experienced by individuals with disabilities (Smart & Smart, 2006).

In recent years, critical disability theory has emerged as one of the most popular social based theories for framing disability research (Meekosha & Shuttleworth, 2009). Meekosha & Shuttleworth (2009) suggest that one of the reasons critical disability theory has grown in popularity is to counteract the body of disability research that has focused only on diagnostic perspectives. Critical disability theory challenges research that emphasizes individual deficiencies by using quality of life paradigms that focus on normalization. Critical disability theory distinguishes itself from other disability theories because it does not believe that the only way for a disabled individual to experience a fulfilling or high quality life is to be as similar to non-disabled as fully possible and challenges the dehumanizing nature of categorizing individuals by mere medical categories. Instead, critical disability theory states that the inequalities experienced by individuals with disabilities are socially constructed, rather than being caused by individual limitations or challenges and calls for social and political changes (Meekosha & Shuttleworth, 2009; Mullaly, 2002). The critical disability model provides a strong framework for research that highlights the ways that individuals with disabilities experience discrimination and marginalization in society (Baldwin & Marcus, 2011).

Like other critical theories, critical disability theory was developed from the underlying concepts of critical social theory which states that social structures enforce oppression and create social ills as they support dominant groups and oppress non-dominant ones (Davidson, Evans,

Ganote, Hendrickson, Jacobs-Priebe, Jones, et al., 2006). Under this framework, the presence of inequality in society is not an accidental, random, or passive process. Rather, dominant groups work to secure power and resources at the direct disadvantage to non-dominant groups. Marx, whose philosophy is the basis for conflict and critical theories, notes that people within a capitalistic society are "all instruments of labour, more or less expensive to use, according to their age and sex" (Marx, 1970/2008 p.89). In this way, people are valued by the labor they are perceived as producing. In a capitalistic society this means that dominant groups have the ability to secure a greater value for their labor while non-dominant groups are less able to secure an equitable wage. Also, dominant group members are more frequently employers than those from minority groups and can determine who does and does not have access to the labor market.

Dominant groups rationalize and perpetuate inequalities in several ways. One strategy is by disseminating stigmatizing myths about non-dominant groups such as framing women, minorities, or those with disabilities as being weaker, lazier, or less productive than workers from dominant groups. By devaluing non-dominant groups employers are able to justify exchanging fewer wages and lesser resources than those offered to dominant groups in exchange for the same amount of labor. The relationship of non-dominant groups, such as those with disabilities, to the labor market is both effected by and affects social and economic inequalities.

Additionally, groups who are non-dominant are more likely to be disabled. This is due to two major factors: (1) those from non-dominant groups are less likely to have access to important resources that prevent disability, such as nutrition and medical care, and (2) those from non-dominant groups are more likely to be labeled as disabled. This creates a cyclical and interwoven process by which individuals from marginalized groups are excluded from attaining needed resources that could be used to prevent disability and leads to additional exclusions that

prevent disabled individuals from attaining needed resources. Through the use of social exclusion and discrimination, rigid boundaries of social stratification can quickly solidify and become increasingly difficult to challenge over time.

Critical disability theory, like other critically based theories, supports the connection between society and inequalities by maintaining four assumptions: (1) that human action creates social structure and, in turn, social structure shapes human action, (2) social structure can be maintained or altered by human behavior, (3) social structure contributes to culture and power, and (4) the location of people within the social structure contributes to their relationship to power (Keenan, 2004). Critical disability theory also assumes a postpositive, postmodern stance acknowledging that research findings are irreducible and cannot be compartmentalized as unchanging facts or reality. Rather, disability is rooted in cultural and societal backdrops that are constantly fluctuating throughout history (Meekosha, 2009). Due to this, critical disability theory focuses on attempting to maintain self-reflexivity, adjusting to changing social environments and power dynamics.

Critical disability research is driven by a set of core principles. The principles are: (1) that the research is based in social, not medical, models; (2) that the research does not remain neutral to the oppression that exists for individuals with disabilities, (3) that research does not reproduce existing structures that create barriers for individuals with disabilities or leave these structures unchallenged, (4) that research is not controlled entirely by non-disabled people and, (5) that research is not reluctant to venture into new theoretical and methodological territory (Moore, Beasley, Maelzer, 1998). Research that uses a critical disability framework should be designed to have an "emancipatory" orientation that is focused on progressive social change through challenging social inequalities (Meekosha & Shuttleworth, 2009). In this way, disability

researchers are called to challenge the inequalities experienced by those with disabilities and contribute to building an inclusive society.

Critically based theories, such as critical disability theory, are crucial in social work research because of the ability they can have in challenging the dominant ideologies and deconstructing center margin dichotomies that contribute to inequality (Keenan, 2004). Center margin dichotomies, as outlined by bells hooks (2000), contribute to inequality because often the "center", or what constitutes as the norm in American society, drives the ways that inequality is challenged rather than those at the "margins" who experience the most inequality. Dominant ideologies can only be truly challenged as the views and perspectives of those who have traditionally been on the margins are included. As stated by Moore, Beazley, and Maelzer (1998) when discussing the use of critical disability theory in research, "it is only with this approach that research can explore the extent to which fundamental rights, such as equal access to equal opportunities and to full inclusion in society, are recognized and promoted in the face of prejudice and excluding practices" (p. 13). Critical disability research has strength in being able to challenge the existing social structures and the inequalities they produce.

Intersectionality

There are several overlaps between critical feminist and critical disability studies that can be used to further disability research (Garland-Thomson, 2002; Meekosha & Shuttleworth, 2009). This includes ways that women and individuals with disabilities have their bodies and abilities perceived and constructed by social discourse. As stated by Garland-Thomson (2002), "disability, like gender, is a concept that pervades all aspects of culture: it's structuring institutions, social identities, cultural practices, political positions, historical communities, and the shared human experience of embodiment" (p. 4). Disability is a term which contains

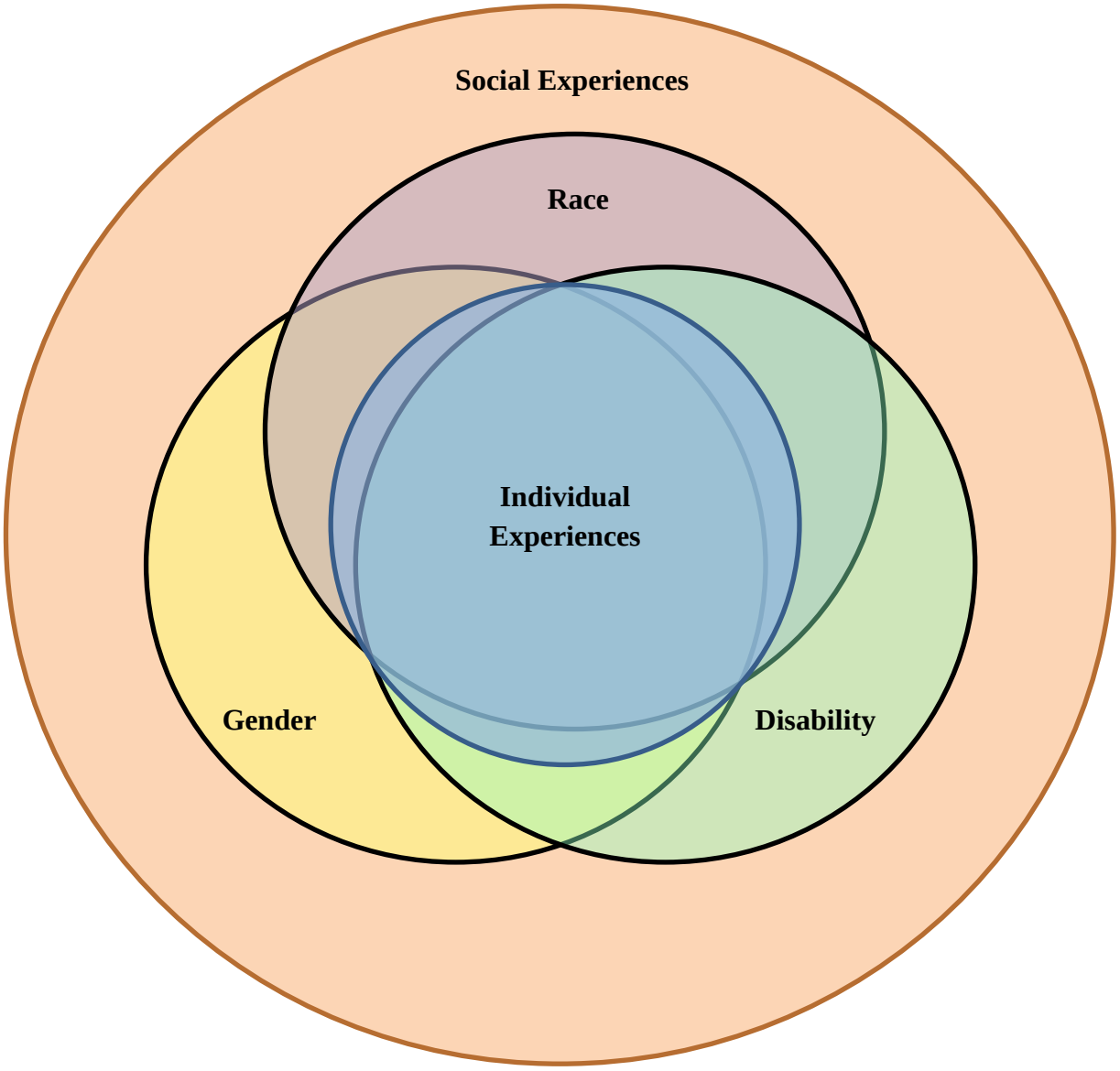
ideological categories of being "sick, deformed, crazy, ugly, old, maimed, afflicted, mad, abnormal, or debilitated" (Garland-Thomson, 2002). Cultural narratives of disability often frame individuals with disabilities in the context of being "pathological and incompetent" (McDonald, Keys, & Balczar, 2007). These narratives are not so different for women, who are sometimes viewed as being "helpless, dependent, weak, vulnerable, and incapable" (Garland- Thomson, 2002). In western cultures, the label of disability and the label of female overlap to construct ways that people deviate from dominant and cultural standards. For women, especially minority women, disability can entrench social perceptions of weakness and dependence (Garland-Thomson, 2002).

Individuals who identify with multiple marginalized groups, such as minority women with disabilities, do not experience inequality as coming from each group independently from each other, but rather as intersecting inequalities that are experienced simultaneously (McCall, 2005). This concept of multiple inequalities is called intersectionality. It was proposed by feminist scholars as a way to conceptualize "mutually constituting practices and processes" that, as a whole, contribute to inequality experienced by women from different race groups (Acker, 2006) (See Figure 1). Intersectionality was developed to challenge the assumption that all women, regardless of race or class, face the same types and level of inequality (McCall, 2005). Intersectional analyses in research are designed to: (1) focus on people and groups who experience multiple types of oppression or marginalization, (2) use analytic interaction, which is a non-additive process that examines how separate factors, such as race and gender, contribute to a complete understanding of specific inequalities, and (3) give institutional primacy to one or several places that are contributing to the development and maintenance of inequality (Choo &

Ferree, 2010). Intersectionality has expanded the understanding of inequalities experienced by minority women and can be used to further develop critical disability research.

Meekosha (2005) has used intersectionality as a framework to explore ways that disability is gendered and racialized. She notes that disability, especially in Western societies, is interpreted as synonymous with functional deficit (Meekosha, 2005). In some types of non-Western cultures, disabilities do not produce the same type of discrimination or exclusion that is observed in the West. In this way, disability is not only an individual or medical issue, but rather becomes a social problem as disabled individuals become marginalized by society (Meekosha, 2005). Meekosha and Shuttleworth (2009) note that since there has been a growing presence of disabled individuals in society since deinstitutionalization that the importance of exploring disabilities in research has become more important. The experience of being disabled and the effect that disability can have on economic well-being is not the same across all racial or gender groups. No individual or group is completely privileged or completely oppressed, but rather groups and individuals exist with varying amounts of both privilege and oppression (Choo & Ferree, 2010). By using an intersectional perspective, varying levels of privilege and oppression can be further explored.

Figure 1: Conceptualization the Intersection of Inequalities by Race, Gender, and Disability



Chapter 4: Methodology

Survey of Income and Program Participation

This dissertation will use data from the public use files of the Survey of Income and Program Participation (SIPP) Core and Functional Limitations and Disability Topical Module from 1996, 2001, 2004, and 2008 (U.S. Census Bureau, 2011). The SIPP is a nationally representative data set that is designed to reflect the entire population in the United States. The federal government uses the SIPP to measure poverty, income, employment levels, and track changes in all types of federal programs, including social welfare, food stamps, and Social Security (U.S. Census Bureau, 2001). The strength of utilizing the SIPP for this study is that it purposefully oversamples in low income areas to better track participation in social welfare programs and utilization of other types of federal assistance. This over representation contributes to the SIPP being a stronger measure of poverty and program participation than other, more frequently utilized, data sets that are also representative of the U.S. population (Shafer, 2013).

The SIPP is conducted by the U.S. Census Bureau through a combination of in-person, telephone, and computer assisted interviewing processes. Data are collected multiple times from the same participant to track longitudinal changes in economic well-being. Data are collected from each survey respondent every four months and asks respondents to recall information from the previous 4 month period. The SIPP's ability to track monthly changes in a number of key economic areas is one advantage it has when compared to other nationally representative data sets in the United States. Following changes to the survey in 1996 respondents to the SIPP are followed for a span of four years, an extension from the two years prior to 1996. Participants who are followed for the entire four year period will complete 12 core modules which ask the same questions and 12 topical modules that change topics (U.S. Census Bureau, 2002). The

frequency of data collection makes the SIPP a unique measure when tracking longitudinal trends of the population in the United States.

Complex Samples Design

The SIPP, like many nationally representative datasets, is conducted using a stratified multistage probability sampling frame. To conduct appropriate statistical analyses on complex samples data, researchers must account for clustering, stratification, and weighting on the basis of the primary sampling unit (PSU). In the SIPP the primary sampling unit is usually counties, groups of counties, or independent cities (U.S. Census, 2001). The exact sampling unit can vary depending on the population in an area, for example several counties with small populations may be grouped together for the purposes of sampling, while large metropolitan areas that tend to cover multiple counties, like Detroit or New York, are also treated as a single sampling unit (Mattingly, 2013). Once a county or region has been selected, a number of households within that region are randomly selected with over sampling in low income regions. Once a household is chosen and consents to participate, all individuals within that household are considered study participants, regardless of whether they move to a new location (Mattingly, 2013). To ensure that the public use data cannot be used to identify specific survey participants, the U.S. Census Bureau blinds the primary sampling unit in the public use dataset and instead provides a variance unit and a variance strata variable on which the data can be stratified and clustered.

To account for the complex design of the SIPP, this study will use the SPSS version 21 Complex Samples Module to appropriately account for the complex survey design of the SIPP (IBM, 2012). Data will be clustered on the variance unit variable (*ghlfsam*), stratified on the variance stratum variable (*gvarstr*), and weighted by person (*wpfinwgt*) as it is outlined in the SIPP Users Guide (U.S. Census Bureau, 2001).

Functional Limitations and Disability Topical Module

In 1996, the SIPP was redesigned and expanded. Following this redesign, additional detailed questions on specific health conditions were included in the Functional Limitations and Disability topical module which has strengthened it as a measure of disability. Although the core SIPP has the capability to track some very basic measures of disability, the topical module provides in depth detail on exactly what types of limitations an individual may have and how those limitations affect them in their daily life. The Functional Limitation and Disability topical module in the SIPP is conducted once every four years, this means each respondent completes this module once over the course of their participation in the SIPP. The disability topical module has some advantages over other data sets because it evaluates disability from the perspective of impairment, activity limitation, and participation restriction which mirrors the disability model utilized by the federal government (Wittenburg & Nelson, 2006). Since the SIPP uses the federal government's measure of disability, the Gold Standard version of the SIPP (which requires a contract and clearance from the U.S. Census Bureau to access) can be paired with data from the Social Security Administration to track important measures of program use in the United States. This level of detail makes the SIPP one of the best nationally representative data sets to use when exploring disabilities.

SIPP Limitations

Despite its strength, the SIPP does have some limitations to tracking disability in the United States. The first of these limitations is that the SIPP does not interview individuals who live in institutions, such as hospitals, nursing homes, or jails. As individuals who live in institutions are more likely to experience some type of disability or limitation, there may be a large portion of the population who are never included in the SIPP. Secondly, the SIPP permits

"proxy" responders in the event that other household members are not present or are not able to respond to the survey questions at the time. Proxy responders may not fully understand the degree of the limitation experienced by the person for whom they are responding. This could potentially lead to report inaccuracies. Thirdly, the SIPP does not have the ability to generate accurate state-level estimates for all states. Although accurate state-level estimates can be calculated for states with larger populations in the most recent panel of the SIPP, it is generally recommended that researchers turn to other nationally representative datasets, such as the American Community Survey when investigating disability within States.

A final, and perhaps one of the most important limitations of the SIPP is the necessity to account for seam bias (Ham, Li, & Shore-Sheppard, 2007). Seam bias occurs in the SIPP due to inaccuracies in self-reporting when survey participants are asked to recall information about the previous four months prior to being surveyed. Participants often report changes in their life as occurring the month that they were interviewed, rather than reporting that the change occurred two or three months prior to the interview. In 2001, the U.S. Census Bureau attempted to reduce seam bias by conducting a multi-year research study that helped improve the SIPP questionnaire. Researchers such as Moore (2008) note that although there was a positive change in seam bias in the 2004 SIPP that seam bias still remains and should be accounted for.

Measures

This study will examine how factors such as race, gender, and disability type affect employment rates, poverty, and welfare receipt. Differences in family and individual income will also be explored. The following section will define each variable and outline how it will be used in the study.

Demographic Variables

Race. The SIPP asks participants about several racial groups that they could belong to: White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and Other. For the purposes of this study, individuals who do not identify as white or Black were removed from the sample. This was done because the proportion of participants from other racial groups were significantly lower and analyses using these race categories may not have been accurate when comparing across much larger race groups.

Throughout this dissertation when discussing race, the term Black rather than African American is used (Touré, 2011). Although these terms are frequently used interchangeably in the literature, not all Black Americans identify as having African ethnicity. In this dissertation the term Black is intended to denote individuals who identify with a racial group that has historically experienced slavery in the United States and, because of the dehumanizing discourse used to condone slavery, continue to experience marginalization in society today.

Additionally, in this dissertation the term white is lowercase unless it is being used as a heading in a chart or table. The term white remains lowercase because the majority of individuals who identify with this racial category generally do not see themselves as belonging to a cohesive racial category but usually identify with a specific ethnicity, such as Italian, Irish, or Jewish. Touré (2011) notes that since individuals who are white are able to make these connections to their ethnic background in a way that Black Americans cannot because of the "familial and national disruptions of slavery".

Gender. All participants of the SIPP are classified as being male or female by self-report. Other gender categories are not included in the survey.

Hispanic Ethnicity. The 2004 and 2008 SIPP tracks individuals who are ethnically Hispanic by asking if the respondent identifies as Spanish, Hispanic, Latino, Mexican, Mexican-American, Chicano, Puerto Rican, Cuban, or belongs to some other Spanish, Hispanic, or Latino group. If a respondent answers "yes" they are recorded as having Hispanic ethnicity. In the 1996 and 2001 SIPP the variable for assessing Hispanic ethnicity was more discerning asking if individuals were Mexican, Mexican-American, Chicano, Puerto Rican, or Cuban and giving them the ability to choose any one of these ethnicities. For the purposes of this study, responses from the 1996 and 2001 SIPP were collapsed into yes and no categories so they would be compatible with the 2004 and 2008 versions of the SIPP.

Age. For the purposes of this study only working age individuals, participants between the ages of 18 and 61, are examined. Limiting the age is important because individuals below the age of 18 are frequently still in school, living with a family, and not as strongly tied to the labor market as adults who are 18 years of age or older. Individuals over the age of 61 were excluded from the analysis although most working-age adults are still working at this age for two reasons. First, working-age adults over the age of 61 become applicable for a number of financial benefits that other working-age adults do not have access to, such as retirement and Social Security. Often these benefits have the ability to buffer adults from financial difficulties and may give older workers the ability to disconnect from the labor market if they become disabled or have difficulty working. Secondly, as individuals age their chances of developing a physical limitation increase. Due to these two factors including working-age individuals over the age of 61 could cause error in the study analyses, making it falsely appear that individuals with physical type disabilities have better economic security than individuals with mental type disabilities.

Marital Status. The SIPP assesses all participants' marital status by asking if participants are married, widowed, divorced, separated, or never married. The U.S Census Bureau combines this information with questions that ask if the spouse sleeps in the home at least 4 times a week to determine if the respondent is married with their present or married and their spouse absent. For the purposes of this study the SIPP's marital categories were collapsed into Never Married, Widowed/Divorced/Separated, and Married (spouse present or absent).

Education. The SIPP tracks educational levels of all participants by asking about the highest level of school attained. Possible responses include: Less than 1st grade, 1st, 2nd, 3rd, or 4th grade, 5th or 6th grade, 7th or 8th grade, 9th grade, 10th grade, 11th grade, 12th grade (no diploma), High school graduate (diploma or GED), Some college, 1 or more years of college with no degree, Associate degree, Bachelor's degree, Master's degree, Professional degree, and Doctorate degree. Due to small proportions in some categories this variable was collapsed into the following groupings: less than a high school education, a high school education, a high school diploma, some college, a college diploma, or an advanced degree. Since participants are asked about their education in every core interview of the SIPP there are three times per year that respondents can report if they have gained education since the previous interview.

Number of Children Under the Age of 18 in the Household. The SIPP tracks the number of children that are under the age of 18 living in households. This is an important variable to include in the analysis for this study because a greater number of children under 18 in the household have been shown to contribute to increased chances of a family experiencing poverty. This is because children under the age of 18 are usually partially or completely dependent on the income and resources that are secured by their parents. Also, the poverty line is calculated based on the number of children residing in the home (Cancian & Reed, 2009; U.S.

Census Bureau, 2013). The SIPP tracks families with up to 12 children although few families have more than three children. For analysis this variable will be collapsed into the following categories: Families with no children, Families with one child, Families with two children, and Families with three or more children.

Household Type. Household type affects chances a family will experience poverty and also plays a role in the economic differences observed between families. The SIPP tracks several different types of households: Family household-Married couple, Family household – Male householder, Family household-Female householder, Nonfamily household- Male householder, Nonfamily household- Female householder, and Group Quarters. The SIPP collects this information from survey respondents by self-report of their household structure. For the purposes of analysis household type was collapsed into female headed households, male headed households, and married households. Due to the very small number of households that are considered group quarters this household type was dropped from the analysis.

Economic Measurement Variables

As aforementioned, the SIPP is an excellent survey to use when tracking economic outcomes, such as income, poverty, and employment in the United States. Still, there are many adjustments that U.S. Census Bureau conducts to the public use files of the SIPP that are designed to prevent the identification of individuals with extremely high monthly incomes. In general, the U.S. Census uses a fairly complicated method of top-coding[1] income and sets different threshold levels for each income source, such as income from earnings, property, or investments. Topcoding adjustments to income can also change depending on the variability of

[1] Top-coding is a process that predetermines an upper bound for specific variables, like income, that, if left unchanged, could inadvertently be used to identify survey participants.

monthly income amounts. For example, if a SIPP survey participant sells a piece of property one month the U.S. Census caps this amount since the source of this income, especially in areas with fairly low populations, could identify the survey participant. In general, following the 1996 SIPP, individuals with monthly income that exceeds $12,500 per month, or $150,000 annually, are generally subject to at least some topcoding during the course of their participation.

In the public use SIPP information about income and earnings is collected by respondent self-report. Prior to analysis, all income and earnings variables will be adjusted by the Consumer Price Index (CPI) for March 2011. Adjustments for CPI control for the effect of inflation on the dollar and subsequently the effect that inflation can have on observed differences in income level, this removes possible "noise" in the statistical analyses caused by fluxuation in the value of the dollar. Adjusted income should be interpreted from the value of the dollar in March of 2011.

The SIPP tracks several different types of income including money received from working, welfare benefits, property rentals, retirement, and a variety of other sources. For the purposes of this dissertation four main types of income will be explored: total individual income, total family income, total individual earnings, and total family earnings.

Individual Income. The SIPP tracks individual totals for income by asking what each individual member in a sampled household earns in total each month. In the public use data set this variable is collected by respondent self-report. Total income values are calculated by the U.S. Census for any type of money earned from any source. This can include but is not limited to money received from working, social welfare benefits, property rentals, retirement, workmen's compensation, property rentals, investments, and all other sources of income. The U.S. Census does not only track income that is gained but also includes income that is lost, this

can include investments that lose value or an individual who spends more than they earn in a given month. This variable is measured at the ratio level and represents actual dollar amounts of income. A preliminary examination of total individual income prior to analysis revealed that monthly income below -$4,202 per month and above $3,404 per month were extreme values. To adjust for this all incomes above and below the extreme value cut off were truncated.

Family Income. The SIPP tracks family totals for income by taking each of the reported individual incomes for an entire family and adding them together. Like individual income, total family income includes income from any possible source and may undergo adjustments and topcoding for families with large monthly incomes. Prior to analysis family income was adjusted by CPI for March 2011 and extreme values (monthly income below - $5,343 per month and above $9,652 per month) were truncated.

Individual Earnings. The SIPP tracks individual earnings by recording the amount of money that each respondent reports earning from work each month. Although this amount is often similar to total individual income, this variable only includes income received from the participant's job and no other sources. Like with other types of income tracked by the U.S. Census, individuals who report extremely large monthly amounts of earnings from work will be subject to topcoding if they exceed $12,500 per month. Survey respondents who own their own businesses and experience a loss in earnings during a particular month can be documented as having negative earnings from work. Prior to analysis individual earnings will be adjusted by the CPI for March 2011 and extreme values (below -$1,487 and above $2,467) will be truncated.

Family Earnings. Since the SIPP asks every individual in a family about their income, earnings for individuals and families can be assessed by adding the individual earnings for each family member together. Like individual earnings, families that earn large monthly amounts

from working each month may have their income values topcoded to prevent identification. Prior to analyses family earnings will be adjusted by CPI for March 2011 and extreme values (below-$4,967 per month and above $7,160 per month) will be truncated.

Poverty. There are two main poverty variables that will be used in this study. Both these variables are assessed from the SIPP which uses the current U.S. poverty line for every year to determine if a family lives in poverty. The first variable used in this study will simply assesses a dichotomous family poverty variable, if family's income is at or below the poverty level they will be coded as being in poverty. Families with incomes that are above the poverty line are coded as not being in poverty.

The second poverty variable used in this study will be a poverty threshold ratio. A poverty threshold ratio is calculated by dividing a family's income against their poverty line value provided by the Census. The results from this indicate how far above or below a family's income are from the poverty line. For example, families with threshold ratios that are at 1 receive income that is exactly equal to poverty. If, on the other hand, a family has a threshold ratio of 4.5 their annual income is 4.5 times greater than the poverty line.

Welfare Receipt. Questions about welfare receipt and receipt amounts are asked in the core interviews of the SIPP. In general, questions about welfare are asked in a similar fashion as questions about income and earnings since welfare receipt is considered a part of total individual and family income. If the respondent reports having any benefit from a social welfare program, including but not limited to means-tested transfer, they are included as receiving social welfare. This means that if a respondent receives Social Security Income or Temporary Assistance to Needy Families (TANF), both types of receipt are counted as receiving welfare for the purposes

of analysis in this dissertation. The SIPP calculates the monetary value of all non-cash welfare benefits, such as health care coverage, in addition to cash transfers.

Welfare receipt will be measured in two different ways for the analyses in this dissertation. First, a dichotomous variable will be calculated that indicates whether individuals receive any type of welfare (receiving welfare coded 1, not receiving welfare coded 0). The second variable on welfare will assess the amount of welfare benefit in dollars that an individual or family receives. This variable will be measured in dollars at the interval level.

Work. To determine employment this variable is calculated using information about individual earnings from work. If an individual reported having at least $0.01 in earnings from working they are coded as having a job. If an individual does not report any earnings from working they are coded as being unemployed.

Disability Variables

Type of Disability. Throughout the existing literature, disability has been defined in many ways. Generally these definitions have focused on the presence of a health condition that either creates a limitation or prevents an individual from participating in normal daily activities. In this study, disability is conceptualized in a similar fashion as that outlined by other prominent disability researchers, such as Wittenburg and Nelson (2006). For the purposes of this analysis, disability is identified by self-report from the participants who state if they have a sensory limitation, a physical limitation, or a mental limitation. Mental limitations in the SIPP include Alzheimer's disease, learning disabilities, psychiatric disorders, difficulty concentrating, and challenges with anxiety. A list of disability questions that are asked in the SIPP are outlined in Table 2. Types of non-mental, or other disabilities, such as sensory or physical disabilities, are measured by the SIPP through using extensive questions that ask about mobility issues, using

assistive equipment, difficulty seeing, difficulty hearing, and several major areas used to assess adult daily living activities (ADLs). If the respondents answered 'yes' to any limitation, they are counted as having a disability in that area for the purposes of the analysis. For this study, individuals with are included as either having a mental disability or having a non-mental disability. Individuals who reported having both a mental and a non-mental limitation are counted as having a mental disability. Individuals who did not report having a disability are excluded from most analyses in this study because of the proportionately large number of Americans who report that they are not disabled. It should be noted that for all longitudinal analyses in this dissertation that individuals who are not disabled are included since this particular analysis examines individuals who move into, and out of, various disability categories over time.

Table 2: Survey of Income and Program Participation: Topical Module Questions in the SIPP that Assess for Limitation and Associated Disability Type.

Variable Names	Limitation Question	Type of Disability
eldis	Does ... have a learning disability, such as dyslexia?	Mental Disability
emr	Does ... have mental retardation?	Mental Disability
edevdis	Does ... have a developmental disability such as autism or cerebral palsy?	Mental Disability
ealz	Does... have Alzheimer's disease, senility, or dementia?	Mental Disability
eotherm	Does ... have any other mental or emotional condition?	Mental Disability
eanxious	Does… frequently get depressed or anxious?	Mental Disability
esocial	Does… have trouble getting along with others?	Mental Disability
ectrate	Does… have difficulty concentrating?	Mental Disability
ecope	Does… have difficulty coping with stress?	Mental Disability
elerndis	Does… have a learning disability like dyslexia?	Mental Disability
eotherdc	Does…have another type of developmental condition?	Mental Disability
ecane	Does ... use cane, crutches, or a walker?	Non-Mental Disability
ewchair	Does ... use a wheelchair or electric scooter?	Non-Mental Disability
ehearaid	Does… use a hearing aid?	Non-Mental Disability
ecane6	Has ... used a cane, crutches, walker, wheelchair, or electric scooter for six months or longer?	Non-Mental Disability

eseedif	Does ... have difficulty seeing the words and letters in ordinary newspaper print even when wearing glasses or contact lenses if... usually wears them?	Non-Mental Disability
eseenot	Is ... able to see the words and letters in ordinary newspaper print at all?	Non-Mental Disability
eheardif	Does... have any difficulty hearing what is said in a normal conversation with another person (using a hearing aid if...usually wears one)?	Non-Mental Disability
ehearnot	Is ... able to hear what is said in a normal conversation at all?	Non-Mental Disability
espeechd	Because of a health condition or problem, does ... have any difficulty having his/ her speech understood?	Non-Mental Disability
espeechc	Is ... able to have his/ her speech understood at all?	Non-Mental Disability
edif10	Does ... have any difficulty lifting and carrying something as heavy as 10 lbs., such as a full bag of groceries?	Non-Mental Disability
ecant10	Is ... able to lift and carry this much weight at all?	Non-Mental Disability
edif25	Does… have any difficulty lifting and carrying something as heavy as 25 lbs.?	Non-Mental Disability
ecant25	Is… able to lift and carry much weight at all?	Non-Mental Disability
epushd	Does … have any difficulty pushing large objects?	Non-Mental Disability
epushc	Is… able to push large objects at all?	Non-Mental Disability
estandd	Does… have any difficulty standing?	Non-Mental Disability
esitd	Does… have any difficulty sitting?	Non-Mental Disability
estoopd	Does… have any difficulty stooping or crouching?	Non-Mental Disability
ereachd	Does… have any difficulty reaching over their head?	Non-Mental Disability
egraspd	Does… have any difficulty using hands and fingers to grasp objects?	Non-Mental Disability
egraspc	Is… able to use their hands and fingers to grasp objects at all?	Non-Mental Disability
estairsd	Does ... have any difficulty climbing a flight of stairs without resting?	Non-Mental Disability
estairsc	Is ... able to climb a flight of stairs without resting at all?	Non-Mental Disability
ewalkd	Does... have any difficulty walking a quarter of a mile- about 3 city blocks?	Non-Mental Disability
ewalkc	Is... able to walk a quarter of a mile at all?	Non-Mental Disability
eteled	Does... have any difficulty using the telephone?	Non-Mental Disability
etelec	Is ... able to use the telephone at all?	Non-Mental Disability
eindif	Because of a physical or mental health condition, does... have difficulty getting around inside the home?	Non-Mental Disability
eoutdif	Because of a physical or mental health condition, does… have difficulty getting around outside of the home?	Non-Mental Disability
ebeddif	Because of a physical or mental health condition, does... have difficulty getting in and out of bed or a chair?	Non-Mental Disability
ebathdif	Because of a physical or mental health condition, does... have difficulty taking a bath or shower?	Non-Mental Disability
eoutdif	Because of a physical or mental health condition, does... have	Non-Mental Disability

	difficulty going outside the home?		
ebeddif	Because of a physical or mental health condition, does… have difficulty getting in and out of bed?	Non-Mental	Disability
ebathdif	Because of a physical or mental health condition, does… have difficulty taking a bath or shower?	Non-Mental	Disability
edressd	Because of a physical or mental health condition, does... have difficulty dressing?	Non-Mental	Disability
ewalk2d	Because of a physical or mental health condition, does... have difficulty walking?	Non-Mental	Disability
eeatdif	Because of a physical or mental health condition, does... have difficulty eating?	Non-Mental	Disability
etoiletd	Because of a physical or mental health condition, does... have difficulty using or getting to the toilet?	Non-Mental	Disability
emoneyd	Because of a physical or mental health condition, does... have difficulty keeping track of money?	Non-Mental	Disability
emealsd	Because of a physical or mental health condition, does... have difficulty preparing meals?	Non-Mental	Disability
ehworkd	Because of a physical or mental health condition, does... have difficulty doing light housework?	Non-Mental	Disability
emedd	Because of a physical or mental health condition, does... have difficulty taking right amount of prescribed medicine at the right time?	Non-Mental	Disability
einhelp	Does ... need the help of another person to get around inside the home?	Non-Mental	Disability
eouthelp	Does ... need the help of another person to go outside the home?	Non-Mental	Disability
ebedhelp	Does ... need the help of another person to get in and out of bed or a chair?	Non-Mental	Disability
ebathh	Does ... need the help of another person to take a bath or shower?	Non-Mental	Disability
edressh	Does ... need the help of another person to dress?	Non-Mental	Disability
ewalk2h	Does ... need the help of another person to walk?	Non-Mental	Disability
eeathelp	Does ... need the help of another person to eat?	Non-Mental	Disability
etoileth	Does ... need the help of another person to use or get to the toilet?	Non-Mental	Disability
emoneyh	Does ... need the help of another person to keep track of money?	Non-Mental	Disability
emealsh	Does ... need the help of another person to prepare meals?	Non-Mental	Disability
ehworkh	Does ... need the help of another person to do light housework?	Non-Mental	Disability
emoneyh	Does… need the help of another person to keep track of money?	Non-Mental	Disability
emedh	Does ... need the help of another person to take the right amount of medicine at the right time?	Non-Mental	Disability

Work Limitation. In the core module of the SIPP each respondent is asked if they have a physical, mental, or other health condition that limits the kind or amount of work they can do at a job or business. If the respondent answers yes to this question they are counted as having a work limitation. Work limitation is the only variable in this study that is used as both a dependent and independent variable for different analyses. Work limitation is explored as an independent variable because individuals who reports having a disability that interferes with working might earn less due to not being able to work as many hours, or work the same types of jobs, as individuals who do not have a work limitation. Work limitation is explored as a dependent variable because factors such as discrimination and disparity in accessing health care can have an effect on the severity of disabilities and work limitation. This effect could potentially contribute to marginalized groups being more likely to experience work limitation than privileged groups.

Table 3: List of Independent and Dependent Variables

Dependent Variables	
Welfare Receipt	Did the respondent receive any income from welfare? (Dichotomous)
Work Limitation	If the respondent has a disability that is severe enough to interfere with attaining or maintaining employment. (Dichotomous)
Total Individual Income	Total individual income in dollars. (Ratio)
Total Family Income	Total family income in dollars. (Ratio)
Family Poverty	Is the family income below the poverty level?(Dichotomous)
Poverty Threshold Ratio	How many times is the family's income below or above the poverty level? (Interval)
Employment	Did the respondent report having a paid job? (Dichotomous)
Individual Earnings	Total individual income earned from working in dollars. (Ratio)
Family Earnings	Total family earned income from working (Ratio)
Independent Variables	
Disability	If the respondent had a mental disability or a non-mental disability. (Nominal)
Work Limitation	If the respondent has a disability that is severe enough to interfere with attaining or maintaining employment. (Dichotomous)
Marital Status	If the respondent was Married, Widowed/Divorced/Separated, or

	Never Married. (Nominal)
Children Under 18	Number of children under 18 that currently live in the household: No Child, One Child, Two Children, or Three or More Children (Ordinal)
Education	What level of education has the respondent attained: no high school, some high school, graduated high school, some college, graduated college, or has an advanced degree. (Ordinal)
Race	If the respondent is Black or white (Nominal)
Hispanic	If the respondent is of Hispanic or Latino descent. (Dichotomous)
Gender	If the respondent is female or male. (Nominal)
Age	Age in years. (Interval)
Year	Survey Year 1996- 2011 (Interval)
Household Type	Type of household the respondent lives in: female headed, male headed, or married household. (Nominal)

Research Questions, Study Hypotheses, and Associated Statistical Analyses

To explore the economic inequalities among working-age adults with disabilities this research study will answer the following questions:

1a. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in individual income?

1b. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in family income?

2. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in unemployment?

3. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in welfare receipt?

4. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in poverty?

5. Do Hispanic ethnicity, disability, race, and gender predict differences in work limitation?

6a. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in individual earned income?

6b. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences family earned income?

7a.Does the development of a mental disability trigger entry into poverty and does it have a greater chance of triggering an entry into poverty than the development of a non-mental disability?

7b. Does the loss of a mental disability trigger an exit from poverty and does it have a greater chance of triggering an exit from poverty than the loss of a non-mental disability?

Rationale for Research Questions

Question 1a & 1b. Each of the questions in this study is intended to explore different aspects of economic inequality among working age adults with disabilities in the United States. Questions 1a and 1b are designed to explore the total economic well-being of the individual and the family. These questions provide insight on overall income differences among individuals with disabilities and their families in actual dollars. The exploration of both individual income and family income is important because it can show how individuals within a family may be met with different economic circumstances since resources may be shared within a family.

Question 2. Examining differences in employment in Question 2 is important when exploring economic outcomes, since the majority of an individual's and family's income usually comes from working. Individuals who are not hired as frequently, are not employed, or who work part-time jobs generally do not have the same level of economic security as individuals who work full-time jobs. This is because full-time labor is associated with higher salaries and often is associated with additional benefits such as health care insurance. Health insurance can provide access to medical treatment that can be used to prevent health issues from becoming work limiting disabilities and can negate the cost of expensive medical procedures and treatments.

Question 3. In the United States several social welfare programs exist that can be accessed if a citizen with a solid employment history finds themselves with a serious health issue

or disability that interferes with, or prevents them, from working. The most common of these programs is Social Security Disability Insurance (SSDI). SSDI can help provide economic support and health care to individuals who have a work history. Generally, benefits from this type of welfare are fairly generous when compared to means-tested welfare programs. Means-tested social welfare programs, on the other hand, are reserved for individuals and families that are experiencing economic distress and may be having difficulty meeting basic needs. Since social welfare receipt may provide a buffer from serious economic hardship it is explored in Question 3.

Question 4. Poverty generally signifies incomes that are below what is required to meet the basic needs of an individual or family. Examining which groups are more likely to experience poverty equates to those who are also more likely to have the worst economic outcomes. This is explored in Question 4.

Question 5. Disabilities can become work limiting when they interfere with an individual's ability to work specific types of jobs or may interfere with the number of hours that are able to be worked. It is hypothesized that individuals who experience disabilities that are work limiting are probably more likely to experience economic consequences due to having a disability than individuals with disabilities who do not have a work limitation. An additional rationale for exploring work limitation is because individuals from marginalized groups often experience disparities in health care and may be more likely to have disabilities that cause work limitations when compared to individuals from privileged groups. Question 5 explores the connection between disability and work limitation.

Question 6a & 6b. The exploration of individual and family earnings is highlighted in Question 6a and 6b. Examining earnings outside of the context of total income is important

because it can identify the degree to which economic disparities observed among Americans with disabilities is caused by differences in wages. As aforementioned in the historical section of this dissertation, individuals with disabilities often experience discrimination when seeking employment and may not be paid as highly as workers that do not have disabilities.

Question 7a &7b. In this research study disability is examined within a longitudinal context to determine if the connection between disability and poverty is random or if gaining a specific type of disability could potentially trigger an entry into poverty. Question 7a examines if mental disorders can cause greater economic challenges 20 months following their development. Question 7b also explores poverty and disability in a longitudinal context by investigating if the loss of a disability, especially a mental disorder, has the ability to contribute to an exit from poverty.

Study Hypotheses

In general, the hypotheses for this study support the overarching concept that individuals with mental disorders will experience greater economic inequality than individuals with non-mental disabilities. This is because of the long history of discrimination and marginalization that individuals with mental disorders have faced in the United States. This is compounded by the fact that when disability policies were being created that individuals with mental disorders were initially not protected to the same degree as individuals with non-mental disabilities. Detailed alternative research hypotheses are outlined in Table 4.

Table 4: Research Questions, Associated Study Hypothesis, and Statistical Analyses.

Individual Income
Question 1a: Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in individual income?
H_{1a}= Individuals with mental disabilities will have less income than individuals with non-mental type disabilities. (Descriptives)

$H_{1b=}$ Individuals with mental disabilities will have significantly less income than individuals with non-mental disabilities. (Regression: Main Effects)

H_{1c}= Black Americans with mental disabilities will have significantly less individual income than whites and individuals with non-mental disabilities. (Regression: Interaction Effects)

H_{1d}= Women with mental disabilities will have significantly less individual income then men and individuals with non-mental disabilities. (Regression: Interaction Effects)

Family Income

Question1b. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in family income?

H_{2a}= Individuals with mental disabilities will have less family income than individuals with non-mental type disabilities. (Descriptives)

$H_{2b=}$ Individuals with mental disabilities will have significantly less family income than individuals with non-mental disabilities. (Regression: Main Effects)

H_{2c}= Black Americans with mental disabilities will have significantly less family income than whites and individuals with non-mental disabilities. (Regression: Interaction Effects)

H_{2d}= Women with mental disabilities will have significantly less family income then men and individuals with non-mental disabilities. (Regression: Interaction Effects)

Employment

Question 2. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in unemployment?

H_{3a}=Individuals with mental disabilities will have a greater chance of being unemployed than individuals with non-mental disabilities. (Descriptives)

$H_{3b=}$ Individuals with mental disabilities will be significantly more likely to be unemployed when compared to individuals with non-mental disabilities. (Regression: Main Effects)

H_{3c}= Black Americans with mental disabilities will be significantly more likely to be unemployed than whites and individuals with non-mental disabilities. (Regression: Interaction Effects)

H_{3d}= Women with mental disabilities will be significantly more likely to be unemployed that men and individuals with non-mental disabilities. (Regression: Interaction Effects).

Welfare Receipt

Question 3. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in welfare receipt?

H_{4a}=Individuals with mental disabilities will have a greater chance of receiving welfare than individuals with non-mental disabilities. (Demographics)

$H_{4b=}$ Individuals with mental disabilities will be significantly more likely to receive welfare than individuals with non-mental disabilities. (Regression: Main Effects)

H_{4c}= Black Americans with mental disabilities will be significantly more likely to receive welfare than whites and individuals with non-mental disabilities. (Regression: Interaction Effects)

H_{4d}= Women with mental disabilities will be significantly more likely to receive welfare than men and individuals with non-mental disabilities. (Regression: Interaction Effects)

Poverty

Question 4. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in poverty?

H_{5a}=Individuals with mental disabilities will have a greater chance of experiencing poverty than individuals with non-mental disabilities. (Descriptives)

$H_{5b=}$ Individuals with mental disabilities will be significantly more likely to experience poverty than individuals with non-mental disabilities. (Regression: Main Effects)

H_{5c}= Black Americans with mental disabilities will be significantly more likely to experience poverty than whites and individuals with non-mental disabilities. (Regression: Interaction Effects)

H_{5d}= Women with mental disabilities will be significantly more likely to experience poverty than men and individuals with non-mental disabilities. (Regression: Interaction Effects)

Work Limitation

Question 5. Do Hispanic ethnicity, disability, race, and gender predict differences in work limitation?

H_{6a}=Individuals with mental disabilities will be more likely to experience work limitation than individuals with non-mental disabilities. (Descriptives)

$H_{6b=}$ Individuals with mental disabilities will be significantly more likely to experience work limitation than individuals with non-mental disabilities. (Regression: Main Effects)

H_{6c}= Black Americans with mental disabilities will be significantly more likely to experience work limitation than whites and individuals with non-mental disabilities. (Regression: Interaction Effects)

H_{6c}= Women with mental disabilities will be significantly more likely to experience work limitation than men and individuals with non-mental disabilities. (Regression: Interaction Effects)

Individual Earnings

Question 6a. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in individual earned income?

H_{7a}= Individuals with mental disabilities will earn less than individuals with non-mental disabilities. (Descriptives)

$H_{7b=}$ Individuals with mental disabilities will earn significantly less than individuals with non-mental disabilities. (Regression: Main Effects)

H_{7c}= Black Americans with mental disabilities will earn significantly less than whites and individuals with non-mental disabilities. (Regression: Interaction Effects)

H_{7d}= Women with mental disabilities will earn significantly less than men and individuals with non-mental disabilities. (Regression: Interaction Effects)

Family Earnings

Question 6b. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences family earned income?

H_{8a}= Individuals with mental disabilities will earn less than individuals with non-mental disabilities. (Descriptives)

$H_{8b=}$ Individuals with mental disabilities will earn significantly less than individuals with non- mental disabilities. (Regression: Main Effects)

H_{8c}= Black Americans with mental disabilities will earn significantly less than whites and individuals with non-mental disabilities. (Regression: Interaction Effects)

H_{8d}= Women with mental disabilities will earn significantly less than men and individuals with non-mental disabilities. (Regression: Interaction Effects)

Poverty Entry

Question 7a. Does the development of a mental disability trigger entry into poverty and does it have a greater chance of triggering an entry into poverty than the development of a non-mental disability?

H_{9a}= Developing a mental disability significantly predicts an entry into poverty within 20 months. (Regression: Main Effect)

$H_{9b=}$ Developing a mental disability has a significantly greater chance of triggering an entry into poverty within 20 months than developing a non-mental disability. (Regression: Hazard Ratio)

Poverty Exit

Question 7b. Does the loss of a mental disability trigger an exit from poverty and does it have a greater chance of triggering an exit from poverty than the loss of a non-mental disability.

H_{10a}= Recovering from a mental disability significantly triggers an exit from poverty within 20 months. (Regression: Main Effect)

H_{10b}=Recovering from a mental disability has a greater chance of triggering an exit from poverty within 20 months than recovering from a non-mental disability. (Regression: Hazard Ratio)

Statistical Analyses

Three main types of statistical analyses will be used to explore the research questions: general linear regressions, logistic regressions, and hazard rate analyses. Each of these statistical tests will be conducted appropriately to adjust for the complex samples design of the SIPP. The first analyses that will be conducted are a series of general linear regressions will be conducted to explore the effect that work limitation, Hispanic ethnicity, race, gender, and disability have on predicting amount of total individual income, total family income, individual earnings, and

family earnings (Questions 1a,1b,6a, & 6b). Age, year, education, marital status, number of children living in the household under 18 years of age, and household type will serve as control variables. Interaction effects will be run to explore the ways that race with mental disability and gender with mental disability effect income and earnings.

The second type of analyses conducted, logistic regression, will be used to explore predicted odds of being in poverty, odds of being unemployed, and odds welfare receipt. Work limitation, Hispanic ethnicity, race, gender, and disability will be used as independent variables while age, year, education, marital status, number of children living in the household under the age of 18, and household type will be used as controls (Questions 3, 4, & 7). A final logistic regression model will be used to predict the odds of work limitation when looking at Hispanic ethnicity, race, gender, and disability. The same variables will be utilized to control for factors known to contribute to increased chances of poverty (Question 5). Interaction effects will be run on race with mental disability and gender with mental disability to explore the effect of the interactions on poverty, unemployment, welfare receipt, and work limitation.

The final analysis for this dissertation, a discrete-time multivariate hazard rate analysis, will be used to explore if the onset of a mental disability triggers an entry into poverty (Question 7a &y7b). Hazard models are extremely useful in poverty research because they have the ability to measure spells, or durations of time, that an individual is in poverty (Bane & Ellwood, 1985; Stevens, 1999). Hazard analyses can also be used to determine beginning and ending events, or in this case occurrences that trigger an entry or exit from poverty (Bane & Ellwood, 1986; McKernan & Ratcliffe, 2002).

Longitudinal Examination of Poverty

For the purposes of this study, the relationship between entering poverty and disability will be explored longitudinally. In contrast to the statistical models for research questions one through six, the sample used to conduct both longitudinal analyses in this dissertation will include individuals who do not have disabilities. This is because a hazard rate analysis is conducted by examining changes over time and therefore the inclusion of individuals without disabilities must occur to allow for individuals to move into, or out of, various disability categories.

To prepare for this analysis, all variables that change over time, such as disability status, work limitation, educational degree, employment status, and marital status, were recoded to assess for change. Changes assessed between time T, which represents the last completed survey by the respondent, and 20 months prior to time T are considered "trigger events". If a respondent was documented as reporting that they did not have a mental disability (0) to having a mental disability (1) in the 20 months being examined they were coded as having gained a mental disability, or developed mental disability (1). If respondents consistently reported that they did not have a change in status when examining mental disability they were not included as having a transition event and were excluded from the analysis. It should be noted that individuals who had a mental disability consistently throughout the 20 month period being examined were not included as developing a mental disability for the purposes of analysis. Rather, only individuals who moved into this category are documented as having a transition into mental disability.

Since all months but the month the respondent was surveyed were removed from the SIPP to account for seam bias, the time between T (the final completed survey) and the time

immediately prior to T (also known as T-1) is exactly four months. To assess for a full 20 month lapse of time the data was assessed at time T, time T-1, time T-2, time T-3, time T-4, and time T-5. Variables that remain static, like race, ethnicity, and gender, will all be used as fixed, or non-changing, variables in the hazard rate regression models.

To explain further how variables that change are assessed in this dissertation the following example will discuss how a change in employment, such as a job loss, is examined as a possible trigger for a poverty entry. If a respondent reports at time T-5 (20 months prior to the last survey they completed) that they are employed but then later at time T-3 (12 months prior to the last survey they completed) that they were not employed this respondent would be coded as having lost a job over the course of the 20 month period. A new, variable is created that assesses if the respondent has lost a job over the past 20 months (coded as 1) or has experienced no change in employment status over the past 20 months (coded as 0). A hazard rate analysis is used to determine if individuals who have experienced a job loss within the 20 month period are significantly more likely than individuals who do not experience a change in employment to experience challenges with poverty following the job loss.

Since various types of trigger events are more likely to be met with poverty entrances and exits there are two different statistical models developed for each longitudinal poverty analysis. For example, it does not make as much sense to look at how gaining employment would be a trigger event for entering into poverty. Rather, gaining employment would be used in an analysis to determine how the attainment of a job could trigger an exit from poverty. The trigger events included poverty entry and poverty exit are highlighted in Table 5.

Table 5. Trigger Events Assessed for Poverty Entry and Poverty Exit

Triggers for Poverty Entry	Triggers for Poverty Exit
Development of a Mental Disability	Recovery from a Mental Disability
Development of a Non-Mental Disability	Recovery from a Non-Mental Disability
Development of a Work Limitation	Recovery from a Work Limitation
Addition of a Child to the Family	Gain in Education
Loss of Work	Gaining Work
Loss of a Marriage	Becoming Married

Intersectional Analyses

To explore the intersection of race and gender for individuals with mental disabilities the interactional effects will be examined in most of the regression models in this dissertation. An intercategorical complexity approach (McCall, 2009) will be used in this dissertation since this study utilizes secondary data from the SIPP. An intercategorical complexity approach states that, due to the challenges of making assumptions about how social categories are constructed, researchers frequently adopt a provisional understanding of existing analytical categories to be able to document relationships of inequality among various social groups (McCall, 2009). Although categories created for surveys are rarely completely comprehensive in their ability to identify the experiences of a particular group of people a researcher attempt to make these categories as comprehensive as possible with the available data.

To examine the ways that race, gender, and disability are met with intersecting inequalities two interaction effects will be run in the majority of the regression models in this dissertation. These interactions will focus on traditionally marginalized groups, Black Americans and women, in hopes of illuminating the ways that these characteristics combine with mental disabilities to create additional types of economic inequality. The interaction effects that will be conducted and the hypotheses they are associated with are outlined in Table 6. For all

interaction effects that are significant a line graph that further highlights the economic differences over time will be included.

Table 6. Included Interaction Effects, Dependent Variables, and Associated Hypotheses

Dependent Variable	Hypothesis	Interaction
Individual Income	H_{1c}	Black x Mental Disability
	H_{1d}	Women x Mental Disability
Family Income	H_{2c}	Black x Mental Disability
	H_{2d}	Women x Mental Disability
Unemployment	H_{3c}	Black x Mental Disability
	H_{3d}	Women x Mental Disability
Welfare Receipt	H_{4c}	Black x Mental Disability
	H_{4d}	Women x Mental Disability
Poverty	H_{5c}	Black x Mental Disability
	H_{5d}	Women x Mental Disability
Work Limitation	H_{6c}	Black x Mental Disability
	H_{6d}	Women x Mental Disability
Individual Earnings	H_{7c}	Black x Mental Disability
	H_{7d}	Women x Mental Disability
Family Earnings	H_{8c}	Black x Mental Disability
	H_{8d}	Women x Mental Disability

An additional exploration of the intersection of economic inequalities by gender for individuals with mental disabilities will be accomplished by conducting several analyses both on the individual and the family level. As stated by Walby (2011, p.23), "the use of the household unit makes economic gender inequalities invisible and is based on the false assumption of equal sharing in the household". Researchers suggest that when investigating inequality and stratification between women and men that analysis should be focused at the individual level rather at the family level (Curtis, 1986). Conducting analyses both at the individual level and at the family level provides clarity on how individual economic inequality exists but also examines the way that the family has the potential be a buffer from some types of inequality in the event that resources are being shared.

Chapter 5: Results

A total of 38,408 working-aged (18 to 61 years of age) adults with disabilities were included in the final analysis. Since individuals were interviewed multiple times over the course of their participation the 38,408 study participants account for a total of 325,366 survey entries between the years of 1996 and 2011. Data were weighted using final individual level weights provided by the SIPP. Data were adjusted to ensure U.S. population representation and account for non-response rates, and changes due to attrition. The descriptive characteristics for the survey sample are presented in Table 7.

Once weighted, the average age of respondents included in this study was 43.69 years (*SE*= 0.08). When examining the weighted population distribution by race, Blacks represented 14.8% of the population and whites represented 85.2%. Among the total sample, 11.7% identified as Hispanic, women accounted for 57.7%, and men 42.3%. Just under half of the sample (48.1%) reported having a mental disability. The remainder of participants (51.9%) reported that they had another type of disability (e.g. physical or sensory). The majority of respondents reported that they were married (50.1%) and had no children under the age of 18 in the home (63.5%). Married household types (55.0%) were the most common type of household followed by female headed households (29.5%) then male headed (15.5%).

Table 7: Demographics for Working-age Adults with Disabilities in the United States between 1996- 2011.

	Average Weight	Number of Cases	Weighted Population Percentages
Gender			
Female	3374.731	193,116	57.7%
Male	3607.826	132,250	42.3%
Race			
Black	3390.837	49,394	14.8%
White	3483.550	275,972	85.2%

Ethnicity			
Hispanic	4069.016	32,496	11.7%
Not Hispanic	3402.952	292,870	88.3%
Education			
No High School	3329.945	20,992	6.2%
High School (No Diploma)	3332.537	38,951	11.5%
High School (Diploma)	3444.211	106,978	32.6%
Some College	3503.207	108,733	33.7%
College Graduate	3620.737	32,905	10.6%
Advanced Degree	3607.558	16,807	5.4%
Marital Status			
Married	3444.708	164,338	50.1%
Widowed/ Divorced/ Separated	3309.325	80,939	23.7%
Never Married	3682.148	80,089	26.1%
Disability Type			
Mental	3606.174	155,767	48.1%
Non-Mental	3453.249	169,599	51.9%
Work Limitation			
Yes	3396.079	134,413	40.4%
No	3521.140	190,953	59.6%
Household Type			
Married Household	3481.130	177,873	55.0%
Female Headed	3374.394	98,377	29.5%
Male Headed	3625.369	47,993	15.5%
Number of Children under 18			
No Children	3532.709	202,917	63.5%
One Child	3378.375	54,563	16.3%
Two Children	3377.126	41,144	12.3%
Three or More Children	3317.626	26,742	7.9%

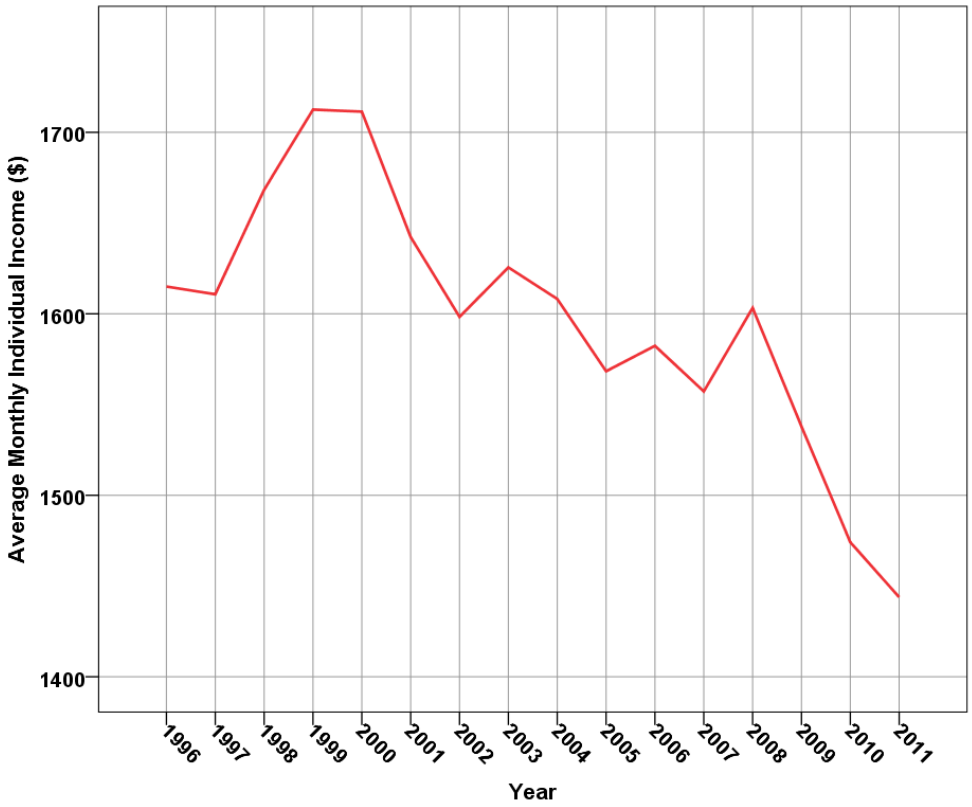
Between 1996 and 2011, there have been several important changes in the United States for working-age adults with disabilities that could have an effect on their overall economic well-being. Some of the changes that can be seen in the SIPP, like rising educational levels, can have a positive effect on economic security (See Table 8). When looking at education across all race and gender groups, working-age adults with disabilities are more likely to have graduated from high school in 2010 than in 1996. Also, women with disabilities have become increasingly likely to attain college and advanced degrees which are associated with higher wages and employment.

Table 8. Education by Race and Gender for Working-age Adults in the United States: 1996, 2000, 2005, and 2010.

Year	White Men	White Women	Black Men	Black Women
1996				
No High School	9.1%	8.0%	10.6%	8.5%
Some High School	13.4%	12.4%	25.4%	21.9%
High School Graduate	33.4%	33.6%	34.6%	35.5%
Some College	28.6%	31.0%	21.9%	26.5%
College Graduate	10.3%	10.0%	4.5%	5.0%
Advanced Degree	5.2%	5.0%	3.0%	2.6%
2000				
No High School	8.0%	7.3%	9.5%	8.8%
Some High School	14.1%	12.1%	30.7%	23.3%
High School Graduate	36.5%	33.0%	33.3%	32.4%
Some College	27.9%	32.0%	18.7%	28.2%
College Graduate	9.1%	10.0%	5.4%	4.5%
Advanced Degree	4.3%	5.6%	2.5%	2.8%
2005				
No High School	4.7%	4.7%	3.6%	2.3%
Some High School	8.4%	6.8%	15.0%	12.7%
High School Graduate	34.0%	31.5%	42.3%	33.1%
Some College	36.8%	38.7%	30.4%	40.7%
College Graduate	10.4%	11.9%	6.3%	8.4%
Advanced Degree	5.6%	6.5%	2.5%	2.8%
2010				
No High School	5.5%	5.3%	5.6%	4.0%
Some High School	10.0%	7.9%	15.0%	15.2%
High School Graduate	32.9%	27.7%	39.3%	26.6%
Some College	35.2%	38.0%	30.8%	40.7%
College Graduate	10.8%	13.6%	7.1%	8.3%
Advanced Degree	5.4%	7.5%	2.2%	5.2%

Unfortunately, not all of the changes in the U.S. have had a positive effect on economic outcomes for working-aged Americans with disabilities. Over the last 15 years, one of the most influential changes has been the decline in individual income (See Figure 2). Income peaked in 2000, when working-age Americans with disabilities earned about $1,711 per month. Since then income has fallen, and in 2011 was about $240 less per month. The majority of this reduction has occurred since the recession in 2008.

Figure 2. Average Monthly Individual Income for Working-age Adults with Disabilities in the United States between 1996- 2011.



The remainder of this chapter will be focused on economic well-being of working-age Americans with mental and non-mental disabilities. Since income can be a salient indication of overall economic well-being, the discussion of results will start here. The chapter will proceed with an examination of poverty, employment, earnings, work limitation, welfare recipiency, poverty entry, and poverty exits. Each section will start with the research question that the analysis will answer, provide a summary of study results, and significant interactions will be graphed to show trends between 1996 and 2011. The chapter will conclude with an analysis of the effect that the 2008 ADA amendments has had on income for Americans with mental disabilities.

Individual Income

1a. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in individual income?

Prior to analysis, an examination of total individual income showed that whites tend to have higher average monthly incomes than Black Americans. Men tend to have higher income than women, and individuals with mental disabilities have lower income than individuals with non-mental disabilities (See Table 9).

Table 9. Average Monthly Individual Income for Working-age Americans with Disabilities by Race, Gender, and Disability.

	Income	*SE*	*CI*		DEFT
			LL	UL	
Race					
Black	$1,338.53	15.86	$1,307.11	$1,369.95	9.29
White	$1,664.02	7.15	$1,649.86	$1,678.18	8.68
Gender					
Women	$1,445.58	7.58	$1,430.56	$1,460.60	7.19
Men	$1,848.13	9.88	$1,828.55	$1,867.71	8.23
Disability Type					
Mental Disability	$1,422.74	8.95	$1,405.01	$1,440.46	8.68
Non-Mental Disability	$1,794.71	8.91	$1,777.06	$1,812.37	8.03

A general linear regression was used to determine whether race, Hispanic ethnicity, gender, mental disability, and work limitation significantly predicted income when controlling for educational degree, marital status, age, number of children under 18 years of age, and household type. In addition, this model tested the interactions between disability and race and disability and gender to determine whether the effect of disability type is different for Blacks compared to whites and for males compared females. This overall model was found to significantly predict income; R^2= 0.251, *Wald F* (21, 94) = 1083.90, $p \leq 0.0001$ (See Table 10). All variables included in the model were significant predictors with the exception three or more children in the home. The interaction between women and mental disability was significant

Wald F (1, 144) = 115.02, $p \leq 0.0001$. This model accounts for approximately 25% of the variance in total income.

When controlling for other variables, individuals who reported having a mental disability had incomes that were $271 less per month on average than individuals with a non-mental disability. Women and Black Americans were associated with significantly lower incomes ($680 and $152 less per month respectively). Individuals who reported having a work limitation had incomes that were approximately $665 less per month than individuals who did not report having a work limitation.

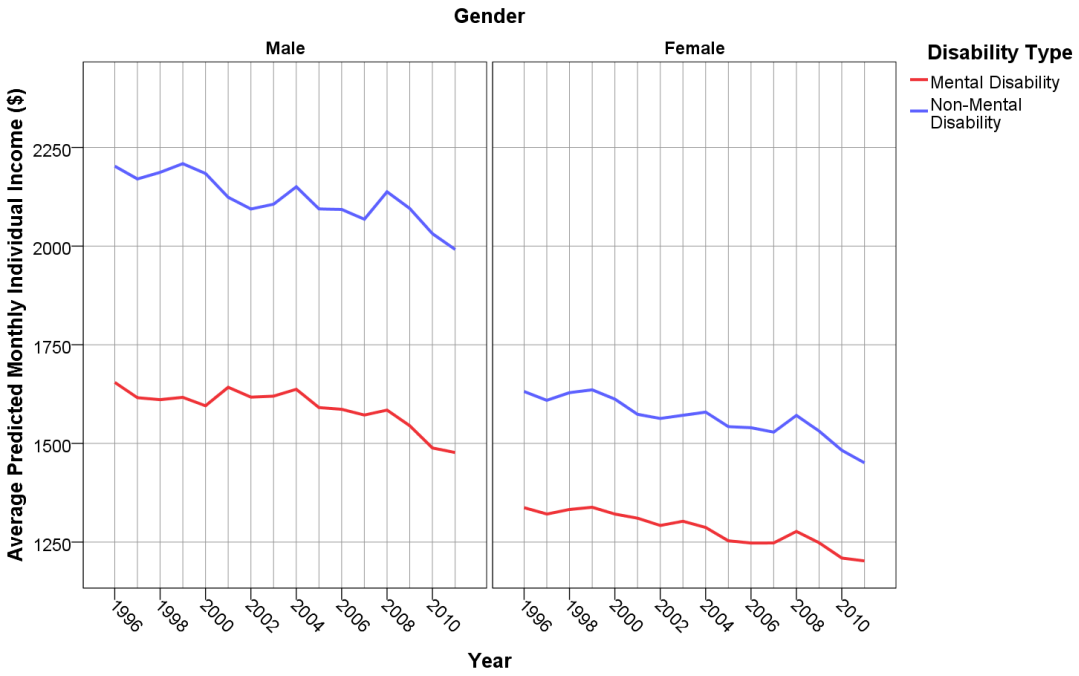
Table 10. General Linear Regression Predicting Individual Income for Working-age Adults with Disabilities in the United States between 1996 to 2011.

	Contrast Estimate	SE	*CI*		*t*	*p*	DEFT
			LL	UL			
Black	-152.34	20.48	-192.90	-111.78	-7.44	*	7.33
Women	-679.59	14.68	-708.68	-650.50	-46.28	*	6.25
Mental Disability	-271.56	16.20	-303.66	-239.46	-16.76	*	6.44
Work Limitation	-665.17	9.43	-683.85	-646.49	-70.54	*	5.16
Number of Kids Under 18							
One Child	52.28	14.99	22.60	81.97	3.49	*	7.14
Two Children	72.54	14.42	43.99	101.10	5.03	*	4.82
Three or More Children	-11.94	18.75	-49.09	25.20	-0.64		5.74
Marital (Married)							
Never Married	-286.69	18.68	-323.68	-249.69	-15.35	*	5.86
Widowed/ Divorced/ Separated	-93.87	19.41	-132.31	-55.42	-4.84	*	5.85
Education (High School Graduate)							
No High School	-384.82	18.39	-421.24	-348.40	-20.93	*	6.62
Some High School	-305.91	14.61	-334.85	-276.96	-20.93	*	6.28
Some College	271.59	13.39	245.06	298.12	20.28	*	7.69
College Graduate	664.37	19.28	626.18	702.57	34.46	*	6.50
Advanced Degree	950.75	30.09	891.14	1010.37	31.59	*	9.61
Hispanic	-192.95	17.87	-228.35	-157.55	-10.80	*	8.65
Age	13.69	0.49	12.72	14.67	27.82	*	5.61
Year	-13.35	1.08	-15.50	-11.20	-12.31	*	5.99
Household Type (Married Household)							
Female Headed	350.71	19.28	312.53	388.89	18.20	*	6.77
Male Headed	136.76	20.96	95.25	178.28	6.53	*	6.89
Black x Mental Disability	-36.24	28.22	-92.13	19.66	-1.28		7.60
Woman x Mental Disability	197.78	18.44	161.25	234.32	10.73	*	5.56

Note: * Indicates significance at the $p \leq 0.001$ level. Due to large subject size variables with *p* values at or above the 0.001 level were considered non-significant.

An examination of the interaction between gender and disability between 1996 through 2011 shows that women with mental disabilities consistently earn less when compared to men with disabilities and women with non-mental disabilities (See Figure 2). The relative effect of mental disabilities on income was greater for men than for women.

Figure 2. Average Predicted Trends in Monthly Individual Income for Working-age Adults with Disabilities by Gender in the United States from 1996 to 2011.



When reviewing the study results on individual income in relationship to the original hypotheses, three out of the four were supported. A summary of the hypothesis and research results can be found in Table 11.

Table 11. Study Hypotheses for Individual Income and Summary of Research Findings

Individual Income
H_{1a}= Individuals with mental disabilities will have less income than individuals with non-mental type disabilities.
Results: Individuals with mental disabilities were found to earn less in individual income than individuals with non-mental disabilities.

$H_{1b=}$ Individuals with mental disabilities will have significantly less income than individuals with non-mental disabilities.

Results: Individuals with mental disabilities earned significantly less when looking at predicted income than individuals with non-mental disabilities.

H_{1c}= Black Americans with mental disabilities will have significantly less individual income than whites and individuals with non-mental disabilities.

Results: This hypothesis was not supported. The interaction between race and mental disabilities does not significantly predict individual income.

H_{1d}= Women with mental disabilities will have significantly less individual income then men and individuals with non-mental disabilities.

Results: This hypothesis was not supported. Women with mental disabilities were found to have significantly more individual income than men and individuals with non-mental disabilities.

Family Income

1b. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in family income?

An examination of differences in family income by race, gender, and disability showed similar trends as those found when looking at individual income by race, gender, and disability type (See Table 12). There are notable differences between individual and family income. For family income, the differences in income by gender appear to become smaller while differences by disability type are greater when compared to individual income.

Table 12. Average Monthly Individual Income for Working-age Americans with Disabilities by Race, Gender, and Disability.

	Income	*SE*	*CI*		DEFT
			LL	UL	
Race					
Black	$3,091.72	49.78	$2,993.10	$3,190.33	16.89
White	$4,373.27	20.27	$4,333.12	$4,413.41	12.46
Gender					
Women	$4,132.26	19.95	$4,092.73	$4,171.78	8.29
Men	$4,252.54	26.51	$4,200.03	$4,305.05	10.69
Disability Type					
Mental Disability	$3,761.13	25.17	$3,711.28	$3,810.98	11.57
Non-Mental Disability	$4,574.47	24.16	$4,526.61	$4,622.32	10.77

A general linear regression was used to determine whether race, Hispanic ethnicity, gender, mental disability, and work limitation significantly predicted family income when controlling for educational degree, marital status, age, number of children under 18 years of age, and household type. Additionally, this model tested the interactions between disability and race and disability and gender to determine whether the effect of disability type is different for Blacks compared to whites and for males compared females. Regression results indicate that the overall model significantly predicts family income; R^2= 0.331, *Wald F* (21, 94) = 1021.67, $p \leq 0.0001$. All variables included in the model significantly predict family income. The interaction effects between race and mental disabilities, as well as the interaction between gender and mental disabilities, were non-significant. This model accounts for approximately 33% of the variance in total income (See Table 13).

When looking within the family, differences in income between women and men decline while differences by race increase in comparison to the individual income model. Individuals with mental disabilities have lower family incomes than individuals with non-mental disabilities (on average $218 less per month). Race and gender significant predict family income with incomes that are $167 less per month for women and $504 less per month for Black Americans. Individuals with work limitations earn a predicted $933 less than individuals who do not have work limitations.

Table 13. General Linear Regression Predicting Family Income for Working-age Adults with Disabilities in the United States between 1996 to 2011.

	Contrast Estimate	SE	*CI*		*t*	*p*	DEFT
			LL	UL			
Black	-504.77	56.28	-616.26	-393.29	-8.97	*	11.98
Women	-167.81	28.64	-224.54	-111.07	-5.86	*	4.60
Mental Disability	-218.46	32.12	-282.09	-154.84	-6.80	*	4.97
Work Limitation	-993.66	22.54	-1038.31	-949.01	-44.09	*	5.70
Number of Kids Under 18							
One Child	303.56	38.47	227.35	379.76	7.89	*	8.84

Two Children	228.13	44.97	139.05	317.22	5.07	*	8.98
Three or More Children	-37.17	56.11	-148.33	73.99	-0.66	*	9.78
Marital (Married)							
Never Married	865.50	60.53	745.60	985.40	14.30	*	8.68
Widowed/ Divorced/ Separated	489.88	64.84	361.43	618.34	7.56	*	9.45
Education (High School Graduate)							
No High School	-806.67	51.31	-908.31	-705.03	-15.72	*	7.89
Some High School	-565.17	41.37	-647.12	-483.23	-13.66	*	8.85
Some College	508.56	32.03	445.10	572.02	15.88	*	9.03
College Graduate	1525.88	45.16	1436.41	1615.34	33.79	*	7.51
Advanced Degree	2279.66	66.22	2148.47	2410.85	34.42	*	9.10
Hispanic	-435.46	47.06	-528.69	-342.23	-9.25	*	11.00
Age	13.07	1.51	10.09	16.05	8.68	*	9.87
Year	-21.11	2.75	-26.57	-15.65	-7.664	*	7.67
Household Type (Married Household)							
Female Headed	-2898.25	64.29	-3025.62	-2770.89	-45.08	*	10.26
Male Headed	-3046.43	63.82	-3172.86	-2919.99	-47.73	*	9.06
Black x Mental Disability	198.63	66.96	65.97	331.28	2.97		8.82
Woman x Mental Disability	-124.92	38.59	-201.354	-48.476	-3.24		4.76

Note: * Indicates significance at the $p \leq 0.001$ level.

When reviewing the study results on family income in relationship to the original hypotheses, two of the four hypotheses were supported. A summary of the hypotheses and research results can be found in Table 14.

Table 14. Study Hypotheses for Family Income and Summary of Research Findings

Family Income
H_{2a}= Individuals with mental disabilities will have less family income than individuals with non-mental type disabilities. *Results:* Individuals with mental disabilities were found to earn less in family income than individuals with non-mental disabilities.
$H_{2b=}$ Individuals with mental disabilities will have significantly less family income than individuals with non-mental disabilities. *Results:* Individuals with mental disabilities earned significantly less when looking at predicted family than individuals with non-mental disabilities.
H_{2c}= Black Americans with mental disabilities will have significantly less family income than whites and individuals with non-mental disabilities. *Results:* This hypothesis is not supported, the interaction between race and mental disabilities was not significant.

H_{2d}= Women with mental disabilities will have significantly less family income then men and individuals with non-mental disabilities.

Results: This hypothesis is not supported, the interaction between gender and mental disability is not significant.

Poverty

4. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in poverty?

A preliminary examination of poverty shows that individuals with mental disabilities tend to be more likely than individuals with non-mental disabilities to experience family poverty (See Table 15). Still, the relationship between poverty and disability is undoubtedly complex and simple descriptive exploration does not provide very much information.

Table 15. Percentage of Working-Age Americans with Disabilities in Poverty by Disability Type between 1996- 2011.

Disability Type	Family Poverty	No Family Poverty
Mental Disability	25.6%	74.4%
Non-Mental Disability	16.6%	83.4%

To further investigate family poverty, a logistic regression was conducted. Race, Hispanic ethnicity, gender, mental disability, and work limitation significantly predicted chances of poverty when controlling for educational degree, marital status, age, number of children under 18 years of age, and household type; Cox and Snell = 0.168, *Wald F* (21, 94) = 352.36, $p \leq 0.0001$. In addition, this model tested the interactions between disability and race and disability and gender to determine whether the effect of disability type is different for Blacks compared to whites and for males compared females. All variables included in the model were significant predictors with the exception of being widowed, divorced, or separated and having a mental disability. The intersection between gender and disability was a significant predictor of poverty;

Wald F (1, 114) = 16.46, $p \leq 0.0001$. The model correctly classified 80.9% of the cases. Regression coefficients and odds ratios are presented in Table 15.

When examining poverty, Black Americans have over one and a half times the odds of experiencing family poverty when compared to whites (See Table 16). Women are slightly more likely than men to experience family poverty at slightly less than one and a quarter times the odds. Working-age adults with disabilities with work limitations had over two times the odds of experiencing family poverty. An examination of the interaction between gender and disability between 1996 through 2011 shows that women with mental disabilities are significantly more likely than women with non-mental disabilities and men with disabilities to experience poverty.

Table 16. Logistic Regression Predicting the Odds of Family Poverty for Working-Age Adults in the United States from 1996 to 2011.

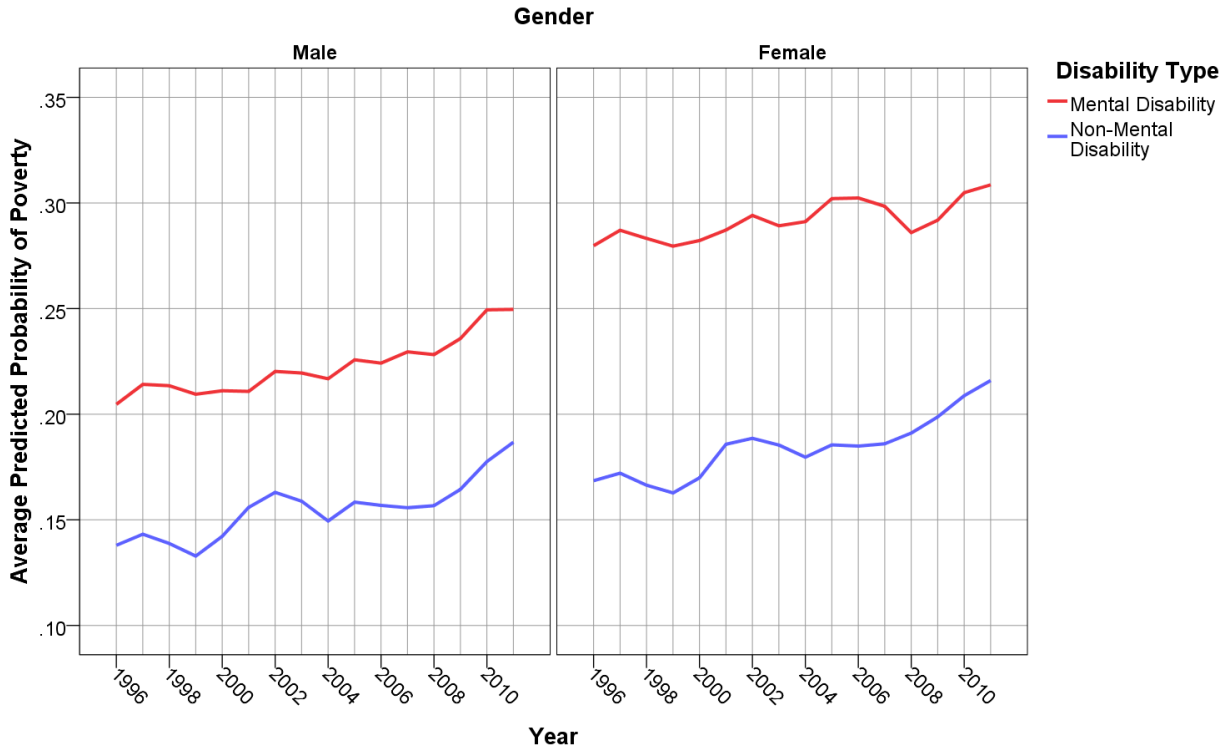
	B	*SE*	*CI*		*t*	*OR*	*p*	DEFT
			LL	UL				
Black	0.50	0.05	0.41	0.59	10.93	1.65	*	6.79
Women	0.22	0.04	0.14	0.29	5.79	1.24	*	5.32
Mental Disability	0.13	0.04	0.04	0.22	2.90	1.14		7.02
Work Limitation	0.88	0.02	0.83	0.92	38.01	2.40	*	4.93
Number of Kids Under 18								
One Child	0.14	0.04	0.07	0.21	4.09	1.15	*	5.70
Two Children	0.54	0.04	0.47	0.62	13.67	1.72	*	5.90
Three or More Children	1.25	0.05	1.15	1.35	23.99	3.49	*	8.09
Marital (Married)								
Never Married	-0.23	0.05	-0.33	-0.13	-4.71	0.80	*	5.93
Widowed/ Divorced/ Separated	-0.02	0.05	-0.11	0.08	-0.34	0.98		5.97
Education (High School Graduate)								
No High School	0.72	0.05	0.62	0.82	14.38	2.06	*	6.46
Some High School	0.54	0.04	0.47	0.61	14.99	1.71	*	5.81
Some College	-0.29	0.03	-0.35	-0.22	-9.27	0.75	*	6.70
College Graduate	-0.81	0.05	-0.91	-0.72	-16.83	0.44	*	4.94
Advanced Degree	-1.04	0.07	-1.18	-0.91	-15.31	0.35	*	4.30
Hispanic	0.35	0.04	0.27	0.44	8.04	1.42	*	8.70
Age	-0.01	0.00	-0.01	-0.01	-8.34	0.99	*	6.69
Year	0.02	0.00	0.01	0.03	6.49	1.02	*	6.91
Household Type (Married Household)								
Female Headed	1.50	0.05	1.41	1.59	31.96	4.49	*	6.34
Male Headed	1.75	0.05	1.64	1.86	32.16	5.75	*	7.11
Black x Mental Disability	-0.10	0.06	-0.22	0.03	-1.57	0.91		6.47

Woman x Mental Disability	0.20	0.05	0.10	0.30	4.06	1.22	*	6.06

Note: * Indicates significance at the $p \leq 0.001$ level.

When looking between the years of 1996 and 2011, women with mental disabilities were more likely to experience family poverty than men and individuals with non-mental disabilities (See Figure 3.1). Chances of poverty for all working-age adults with disabilities have been steadily increasing between 1996 and 2011, especially following 2008. Women with mental disabilities have slightly more than 30% chance of experiencing poverty in 2011.

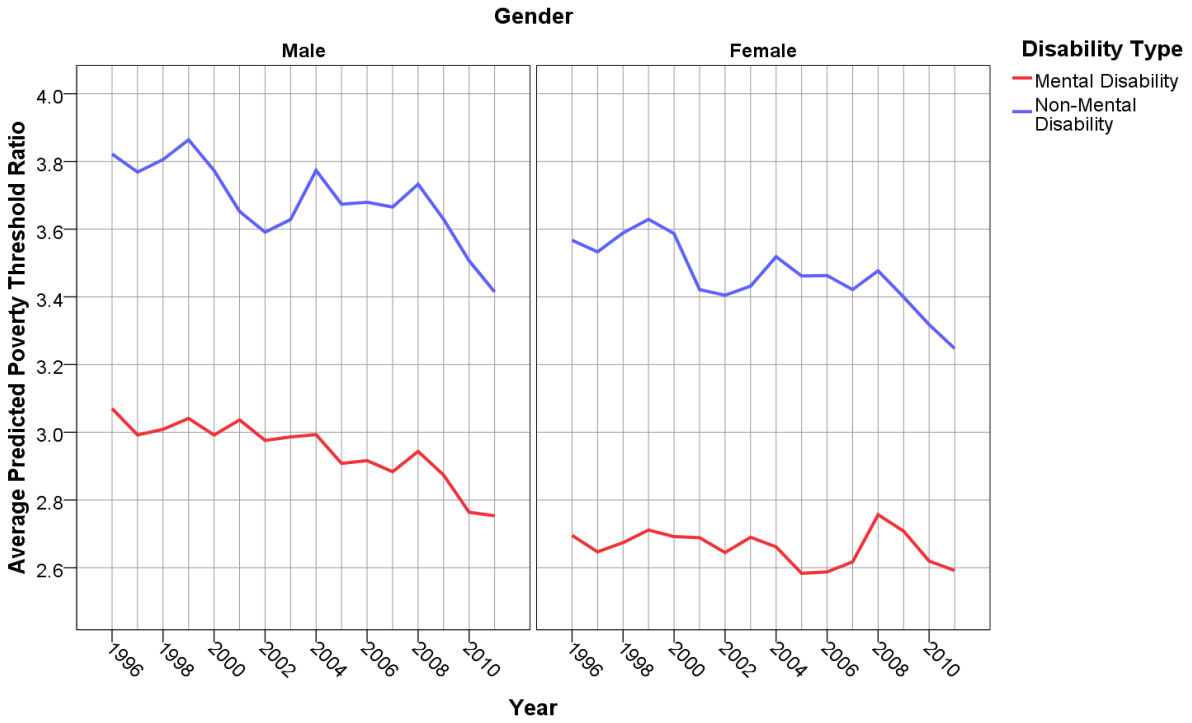
Figure 3.1. Average Predicted Probability of Family Poverty for Working-aged Adults with Disabilities by Gender in the United States from 1996 to 2011.



To examine the chances of family poverty even further, a graph of the predicted family poverty threshold ratio was created (See Figure 3.2). In this graph, 1 represents a family income that is at the poverty level and 4 represents a family income that is four times above the poverty level. Women with mental disabilities have incomes that are closer to the poverty line when

compared to individuals with non-mental disabilities. In 2011, women with mental disabilities have average family incomes that are 2.6 times higher than the poverty line.

Figure 3.2. Average Predicted Family Poverty Threshold Ratios for Working-aged Adults with Disabilities in the United States from 1996 to 2011.



When reviewing the study results on poverty in relationship to the original hypotheses, two of the four hypotheses were supported. A summary of the hypotheses and research results can be found in Table 17.

Table 17. Study Hypotheses for Poverty and Summary of Research Findings

Poverty
H_{5a}= Individuals with mental disabilities will have a greater chance of experiencing poverty than individuals with non-mental disabilities.
Results: Individuals with mental disabilities have greater chances than individuals with non-mental disabilities to experience poverty.
$H_{5b=}$ Individuals with mental disabilities will be significantly more likely to experience poverty than individuals with non-mental disabilities.
Results: This hypothesis is not supported, individuals with mental disabilities were not significantly more likely to experience poverty when compared to individuals with non-mental disabilities.

H_{5c}= Black Americans with mental disabilities will be significantly more likely to experience poverty than whites and individuals with non-mental disabilities.

Results: This hypothesis is not supported, the interaction between race and mental disabilities was not significant.

H_{5d}= Women with mental disabilities will be significantly more likely to experience poverty than men and individuals with non-mental disabilities.

Results: The interaction between gender and mental disability significantly predicts having a greater chance of experiencing poverty.

Employment

2. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in unemployment?

Employment, especially consistent full-time work, can be a factor that protects individuals from experiencing poverty since it is usually the main source of individual and family income. When looking at employment types (full-time, part-time, and unemployed or not working) working-age adults with disabilities are most likely to be included in the workforce if they do not report having a work limitation (See Table 18). Women are less likely than men to hold full-time jobs, but are more likely to have part-time employment. Individuals with mental disabilities are less likely to be included in the labor market full-time when compared to individuals with a non-mental disability.

Table 18. Percentage of Working-Age Adults Employed Full-time, Employed Part-time, and Not Working between 1996 to 2011.

	Full-time Work	**Part-time Work**	**Unemployed or Not Working**
Disability Type			
Mental Disability	35.2%	12.1%	52.6%
Non- Mental Disability	49.9%	11.3%	38.8%
Race			
Black	32.1%	8.9%	59.0%
White	44.8%	12.2%	43.0%
Gender			
Female	38.7%	13.8%	47.5%
Male	48.5%	8.9%	42.6%
Work Limitation			

No Limitation	62.1%	13.2%	24.7%
Work Limitation	15.1%	9.5%	75.4%

A logistic regression was used to predict chances of unemployment. Race, Hispanic ethnicity, gender, disability type, and work limitation were included in the model as independent variables and educational level, marital status, age, number of children, and household type were included as controls. Additionally, this model tested the interactions between disability and race and disability and gender to determine whether the effect of disability type is different for Blacks compared to whites and for males compared females. The overall model significantly predicted chances of unemployment; Cox and Snell = 0.262, Wald F (21, 94) = 763.80, $p \leq 0.0001$. All variables included in the model were significant with the exception of having only one or two children, male headed households, and being widowed, divorced or separated. The interaction between race and mental disability and the interaction between gender and mental disability were not significant predictors of unemployment. The model correctly classified 74.9% of the cases. Regression coefficients and odds ratios are presented in Table 19.

Table 19. Logistic Regression Predicting Unemployment among Working-aged Adults with Disabilities in the United States between 1996 and 2011.

	B	*SE*	*CI*		*t*	*OR*	*p*	DEFT
			LL	UL				
Black	0.36	0.04	0.28	0.43	9.12	1.43	*	6.11
Women	0.62	0.03	0.57	0.68	21.33	1.87	*	5.31
Mental Disability	0.43	0.03	0.36	0.49	13.28	1.53	*	5.81
Work Limitation	2.10	0.02	2.06	2.14	102.40	8.13	*	5.18
Number of Kids Under 18								
One Child	-0.03	0.03	-0.09	0.02	-1.13	0.97		5.57
Two Children	0.08	0.03	0.02	0.15	2.59	1.09		5.40
Three or More Children	0.33	0.04	0.26	0.41	8.52	1.40	*	5.34
Marital (Married)								
Never Married	0.30	0.04	0.22	0.39	7.48	1.36	*	4.97
Widowed/ Divorced/ Separated	0.10	0.04	0.03	0.18	2.66	1.11		4.47
Education (High School Graduate)								
No High School	0.62	0.06	0.51	0.74	11.06	1.87	*	8.81
Some High School	0.59	0.03	0.53	0.66	17.87	1.80	*	5.38
Some College	-0.33	0.03	-0.39	-0.27	-11.54	0.72	*	8.04

College Graduate	-0.56	0.04	-0.63	-0.48	-15.04	0.57	*	5.88
Advanced Degree	-0.91	0.06	-1.03	-0.80	-16.18	0.40	*	6.36
Hispanic	0.26	0.04	0.18	0.34	6.21	1.29	*	9.38
Age	0.01	0.00	0.01	0.02	10.91	1.01	*	5.78
Year	0.03	0.00	0.02	0.03	9.66	1.03	*	7.83
Household Type (Married Household)								
Female Headed	-0.40	0.04	-0.47	-0.32	-10.27	0.67	*	4.71
Male Headed	-0.13	0.05	-0.22	-0.04	-2.78	0.88		6.19
Black x Mental Disability	0.21	0.07	0.08	0.34	3.22	1.23		7.68
Woman x Mental Disability	-0.13	0.04	-0.21	-0.05	-3.12	0.88		5.69

Note: * Indicates significance at the $p \leq 0.001$ level.

When reviewing the study results on employment in relationship to the original hypotheses, two out of the four were supported. A summary of the hypotheses and research results can be found in Table 20.

Table 20. Study Hypotheses for Employment and Summary of Research Findings

Employment
H_{3a}= Individuals with mental disabilities will have a greater chance of being unemployed than individuals with non-mental disabilities. *Results:* Individuals with mental disabilities are more likely to be unemployed when compared to individuals with non-mental disabilities.
$H_{3b=}$ Individuals with mental disabilities will be significantly more likely to be unemployed when compared to individuals with non-mental disabilities. *Results:* Individuals with mental disabilities are significantly more likely to be unemployed when compared to individuals with non-mental disabilities.
H_{3c}= Black Americans with mental disabilities will be significantly more likely to be unemployed than whites and individuals with non-mental disabilities. *Results:* This hypothesis is not supported, the interaction between race and mental disabilities is not a significant predictor of unemployment.
H_{3d}= Women with mental disabilities will be significantly more likely to be unemployed that men and individuals with non-mental disabilities. *Results:* This hypothesis is not supported, the interaction between gender and mental disabilities is not a significant predictor of unemployment.

Individual Earnings

6a. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in individual earned income?

Wages from working are the main source of income for most working-age adults in the United States. Due to this, a difference in the dollar amount an individual receives in return for their participation in the labor market is important to examine when looking at overall economic well-being. A preliminary examination of individual income shows that individuals with mental disabilities earn about $343 less per month than individuals with non-mental disabilities (See Table 21).

Table 21. Average Monthly Individual Earnings for Working-age Americans with Disabilities by Race, Gender, and Disability.

	Income	*SE*	*CI*		DEFT
			LL	UL	
Race					
Black	$736.58	14.51	707.83	765.32	10.08
White	$1,067.37	6.63	1054.23	1080.51	10.19
Gender					
Women	$936.82	6.39	924.15	949.48	6.94
Men	$1,129.58	9.69	1110.37	1148.78	10.23
Disability Type					
Mental Disability	$840.36	8.31	823.89	856.83	10.04
Non-Mental Disability	$1,183.31	7.97	1167.52	1199.11	8.78

A general linear regression was used to predict individual earnings. Race, Hispanic ethnicity, gender, disability type, and work limitation were included in the model as independent variables while educational level, marital status, age, number of children, and household type were included as controls. Additionally, this model tested the interactions between disability and race and disability and gender to determine whether the effect of disability type is different for Blacks compared to whites and for males compared females. The overall model significantly predicted earnings; R^2= 0.315, *Wald F* (21, 94) = 2029.81, $p \leq 0.0001$. This model accounts for approximately 32% of the variance in income earned from working (See Table 22). With the exception of having one or two children and age all variables included in the model significantly

predicted individual earnings. The interaction between women and mental disability was significant; *Wald F* (1, 114) = 42.83, $p \leq 0.0001$.

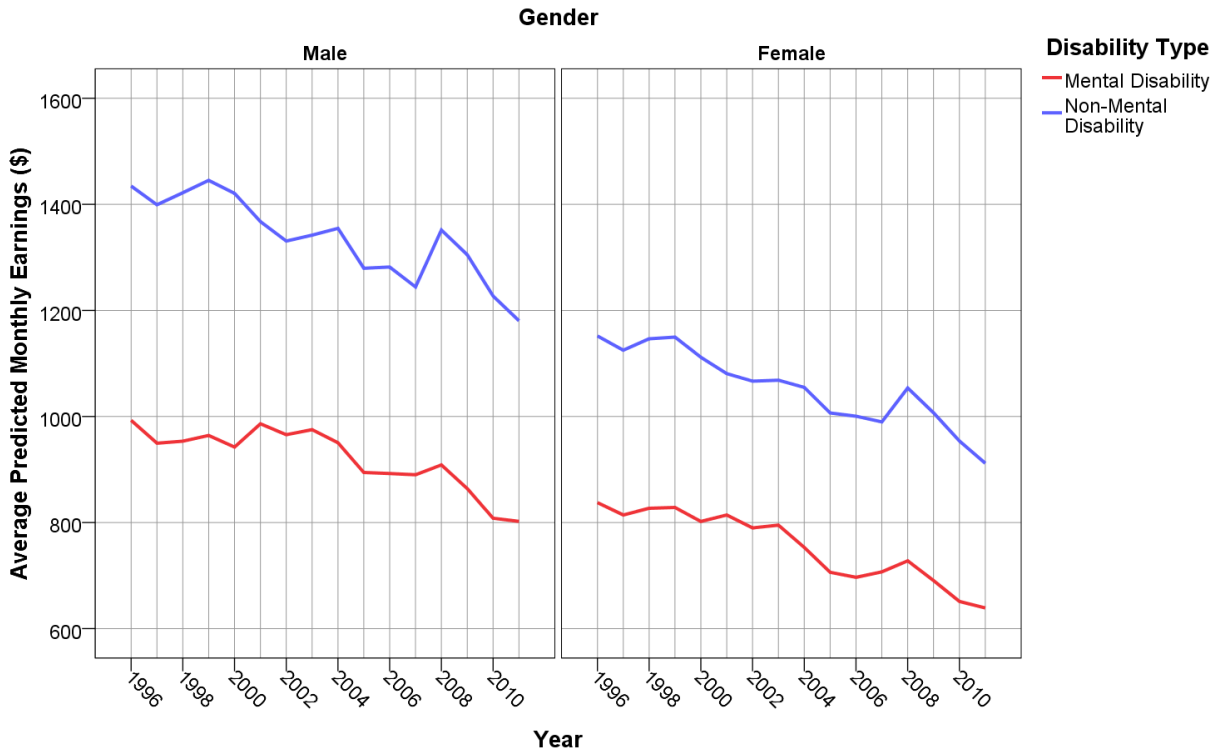
Table 22. General Linear Regression Predicting Individual Earnings for Working-age Adults with Disabilities in the United States between 1996 to 2011.

	Contrast Estimate	SE	*CI*		*t*	*p*	DEFT
			LL	UL			
Black	-140.06	16.07	-171.88	-108.23	-8.72	*	6.66
Women	-394.02	11.99	-417.77	-370.28	-32.87	*	5.97
Mental Disability	-230.47	13.74	-257.69	-203.25	-16.77	*	6.88
Work Limitation	-970.96	8.476	-987.75	-954.16	-114.55	*	5.92
Hispanic	-114.16	16.59	-147.02	-81.30	-6.88	*	10.98
Number of Kids Under 18							
One Child	9.45	12.61	-15.54	34.43	0.75		7.53
Two Children	-23.22	12.20	-47.40	0.95	-1.90		5.14
Three or More Children	-130.69	15.22	-160.84	-100.53	-8.59	*	5.58
Marital (Married)							
Never Married	-263.46	15.84	-294.83	-232.09	-16.64	*	6.27
Widowed/ Divorced/ Separated	-120.67	16.05	-152.47	-88.87	-7.52	*	6.00
Education (High School Graduate)							
No High School	-260.05	15.89	-291.53	-228.58	-16.37	*	7.58
Some High School	-243.72	11.56	-266.63	-220.82	-21.08	*	5.88
Some College	187.55	11.60	164.57	210.54	16.17	*	8.48
College Graduate	399.83	15.39	369.34	430.31	25.98	*	6.19
Advanced Degree	578.22	23.34	532.00	624.45	24.78	*	8.03
Age	-0.14	0.42	-0.97	0.69	-0.34		5.81
Year	-10.61	0.97	-12.53	-8.69	-10.93	*	7.07
Household Type (Married Household)							
Female Headed	238.33	15.26	208.10	268.56	15.62	*	6.42
Male Headed	101.59	17.13	67.66	135.53	5.93	*	6.85
Black x Mental Disability	-29.44	21.61	-72.26	13.370	-1.36		6.87
Woman x Mental Disability	104.27	15.93	72.71	135.83	6.55	*	6.17

Note: * Indicates significance at the $p \leq 0.001$ level.

An examination of the predicted monthly earnings between 1996 and 2011 by gender and disability shows, like when looking at total income, that overall earnings for Americans with disabilities has declined between 1996 through 2011(See Figure 4). The relative effect of mental disabilities on earnings was greater for men than for women.

Figure 4. Average Monthly Predicted Individual Earnings for Working-aged Adults with Disabilities by Gender in the United States from 1996 to 2011.



When reviewing the study results on family earnings in relationship to the original hypotheses, three of the four were supported. A summary of the hypotheses and research results can be found in Table 23.

Table 23. Study Hypotheses for Individual Earnings and Summary of Research Findings

Individual Earnings
H_{7a}= Individuals with mental disabilities will earn less than individuals with non-mental disabilities *Results:* Individuals with mental disabilities earn less than individuals with non-mental disabilities.
$H_{7b=}$ Individuals with mental disabilities will earn significantly less than individuals with non-mental disabilities. *Results:* Individuals with mental disabilities earn significantly less in predicted individual income than individual with non-mental disabilities

H_{7c}= Black Americans with mental disabilities will earn significantly less than whites and individuals with non-mental disabilities.

Results: This hypothesis was not supported, the interaction between race and mental disabilities is not significant.

H_{7d}= Women with mental disabilities will earn significantly less than men and individuals with non-mental disabilities.

Results: This hypothesis is not supported, women with mental disabilities earn significantly more than men and individuals with non-mental disabilities.

Family Earnings

6b. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences family earned income?

A preliminary examination showed differences in earnings by race, gender, and disability type. When only looking at average earnings, individuals with mental disabilities earn about $785 less per month than individuals with non-mental disabilities (See Table 24). Family incomes are about $1,167 less per month for Black Americans than for whites, and women earn about $10 less per month when compared to men.

Table 24. Average Monthly Family Earnings for Working-age Americans with Disabilities by Race, Gender, and Disability.

	Income	*SE*	*CI*		DEFT
			LL	UL	
Race					
Black	$2,081.46	46.02	1990.29	2172.62	17.94
White	$3,249.41	18.13	3213.50	3285.31	12.70
Gender					
Women	$3,071.74	18.41	3035.27	3108.21	9.00
Men	$3,082.08	23.99	3034.58	3129.61	11.01
Disability Type					
Mental Disability	$2,669.04	23.15	2623.18	2714.90	12.22
Non-Mental Disability	$3,453.67	20.31	3413.43	3493.99	9.85

A general linear regression was used to further explore family earnings using race, Hispanic ethnicity, gender, disability type, and work limitation as independent variables and controlling for educational level, marital status, age, number of children, and household type. The overall model significantly predicted family earnings; R^2= 0.344, *Wald F* (21, 94) =

1129.38, $p \leq 0.0001$ and accounted for 34% of the variance in income earned from working (See Table 25). With the exception of marital status and having three or more children in the home, the remainder of the included variables significantly predicted family income. The interaction between race and mental disability was non-significant as was the interaction between gender and disability.

Working age individuals with disabilities who reported having work limitation earned $1,434 less than those who did not have a work limitation. Individuals with mental disabilities earned, on average, $343 less per month than individuals with non-mental disabilities. Differences in earnings were also predicted across different race and gender groups with Black Americans earning $422 less per month in wages when compared to whites, and women earning $148 less when compared to men.

Table 25. General Linear Regression Predicting Family Earnings for Working-age Adults with Disabilities in the United States between 1996 to 2011.

	Contrast Estimate	SE	*CI*		*t*	*p*	DEFT
			LL	UL			
Black	-422.51	49.29	-520.15	-324.873	-8.573	*	11.61
Women	-148.26	25.51	-198.79	-97.724	-5.812	*	4.77
Mental Disability	-342.70	28.60	-399.35	-286.039	-11.983	*	5.27
Work Limitation	-1434.54	20.90	-1475.93	-1393.15	-68.66	*	6.04
Hispanic	-263.21	40.71	-343.85	-182.57	-6.47	*	11.07
Number of Kids Under 18							
One Child	308.23	31.51	245.82	370.64	9.78	*	8.02
Two Children	197.03	36.32	125.08	268.99	5.42	*	8.07
Three or More Children	-124.39	46.30	-216.11	-32.67	-2.69		8.93
Marital (Married)							
Never Married	90.06	53.64	-16.20	196.33	1.68		9.24
Widowed/ Divorced/ Separated	39.01	54.81	-69.57	147.59	0.71		9.21
Education (High School Graduate)							
No High School	-636.53	49.68	-734.95	-538.12	-12.81	*	9.69
Some High School	-513.81	36.86	-586.83	-440.78	-13.94	*	8.87
Some College	441.61	28.81	384.55	498.67	15.33	*	9.42
College Graduate	1177.00	38.29	1101.14	1252.86	30.74	*	7.15
Advanced Degree	1714.57	53.48	1608.63	1820.50	32.06	*	7.57
Age	-12.84	1.29	-15.40	-10.29	-9.96	*	9.41
Year	-19.68	2.67	-24.95	-14.40	-7.38	*	9.20

Household Type (Married Household)							
Female Headed	-1968.03	56.70	-2080.36	-1855.70	-34.71	*	10.93
Male Headed	-1976.97	57.24	-2090.36	-1863.58	-34.54	*	9.93
Black x Mental Disability	111.01	58.65	-5.17	227.20	1.89		8.79
Woman x Mental Disability	-8.24	35.33	-78.23	61.75	-0.23		5.24

Note: * Indicates significance at the $p \leq 0.001$ level.

When reviewing the study results on family earnings in relationship to the original hypotheses, two of the four were supported. A summary of the hypotheses and research results can be found in Table 26.

Table 26. Study Hypotheses for Family Earnings and Summary of Research Findings

Family Earnings
H_{8a}= Individuals with mental disabilities will earn less than individuals with non-mental disabilities. *Results:* Individuals with mental disabilities have less family earnings than individuals with non-mental type disabilities.
$H_{8b=}$ Individuals with mental disabilities will earn significantly less than individuals with non-mental disabilities. *Results:* Individuals with mental disabilities have significantly lower predicted family earnings than individuals with non-mental disabilities.
H_{8c}= Black Americans with mental disabilities will earn significantly less than whites and individuals with non-mental disabilities. *Results:* This hypothesis is not supported, the interaction between race and mental disabilities is not significant.
H_{8d}= Women with mental disabilities will earn significantly less than men and individuals with non-mental disabilities. *Results:* This hypothesis is not supported, the interaction between gender and mental disabilities is not significant.

Work Limitation

5. Do Hispanic ethnicity, disability, race, and gender predict differences in work limitation?

One assumption that is often used to explain the observed differences in earnings and income for individuals with disabilities is that having a disability interferes with working and, therefore, the amount of money earned. Although individuals with disabilities can have

limitations that interfere with work, most of the time they report that they do not. When exploring work limitation and disability, individuals who reported having a mental type disability are more likely to have a work limitation than individuals who have a non-mental type of disability (See Table 27). Men are slightly more likely to report having work limitation when compared to women and Black Americans with disabilities are more likely to have a work limitation when compared to whites.

Table 27. Work Limitation by Disability, Gender, and Race among Working-Aged Adults with Disabilities between 1996- 2011.

	Work Limitation	**No Work Limitation**
Disability Type		
Mental Disability	46.5%	53.5%
Non-Mental Disability	34.8%	65.2%
Gender		
Women	37.4%	62.6%
Men	44.5%	55.5%
Race		
Black	50.9%	49.1%
White	38.6%	61.4%

Although there are many factors, such as access to adequate health care, that can inform differences in work limitation, being limited in the type or amount of work that one can do has strong influence on economic well-being. When looking at differences in individual and family income among Americans with disabilities, individuals with work limitation earn, on average, $733 less in individual income per month and $1,556 less in family income per month than individuals who do not report a work limitation (See Table 28).

Table 28. Average Monthly Income among Working-Aged Adults with Disabilities with and without Work Limitations between 1996- 2011.

	Individual Income	**Family Income**
Work Limitation	$1,179.36	$3,256.08
No Work Limitation	$1,911.97	$4,812.39

A general linear regression was used to determine whether race, Hispanic ethnicity, gender, mental disability, and work limitation significantly predict chances of experiencing work limitation when controlling for educational degree, marital status, age, number of children under 18 years of age, and household type. All variables included in the model were significant predictors of work limitation; *Cox and Snell* = 0.120, *Wald F* (20, 95) = 252.23, $p \leq 0.0001$. The model correctly classified 67.0% of the cases (See Table 29). Individuals with a mental limitation were most likely to report having a work limitation at one and a half times the odds of individuals with non-mental type disabilities.

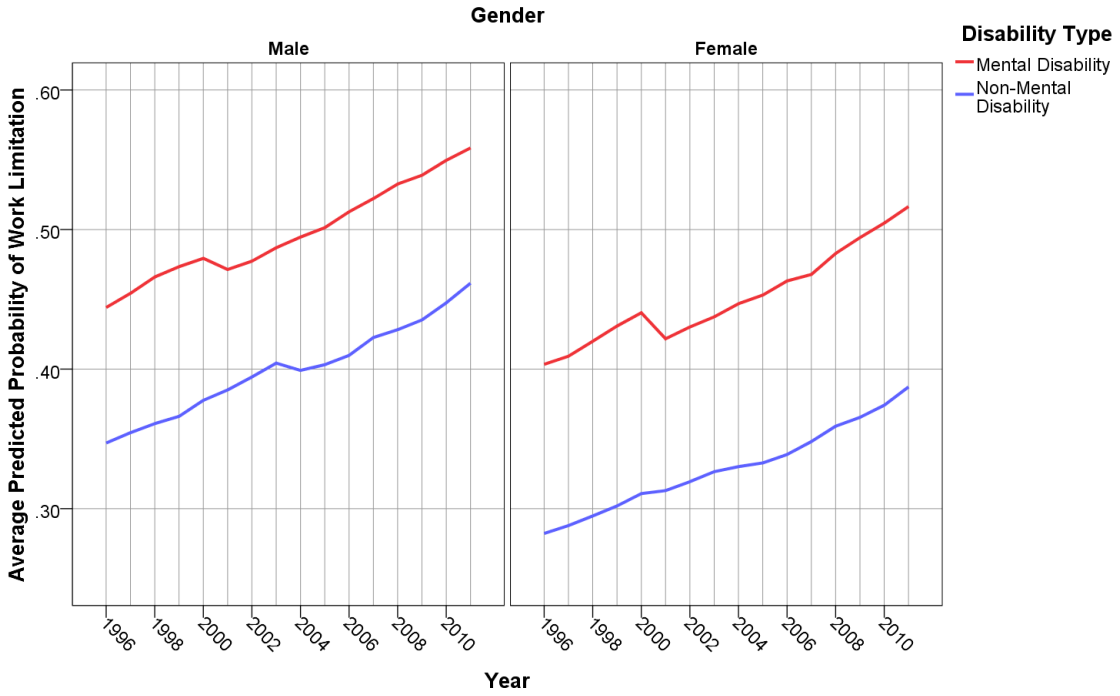
Table 29. Logistic Regression Predicting Work Limitation among Working-aged Adults with Disabilities in the United States between 1996 and 2011.

	B	*SE*	*CI*		*t*	*OR*	*p*	DEFT
			LL	UL				
Black	0.37	0.04	0.29	0.45	9.37	1.45	*	6.88
Women	-0.36	0.03	-0.42	-0.30	-12.07	0.70	*	6.36
Mental Disability	0.45	0.04	0.37	0.52	11.98	1.57	*	9.41
Hispanic	-0.35	0.05	-0.44	-0.25	-7.02	0.71	*	14.13
Number of Kids Under 18								
One Child	-0.20	0.03	-0.26	-0.13	-5.87	0.82	*	8.72
Two Children	-0.26	0.04	-0.34	-0.19	-7.00	0.77	*	7.84
Three or More Children	-0.28	0.04	-0.36	-0.19	-6.61	0.76	*	6.44
Marital (Married)								
Never Married	0.80	0.05	0.71	0.89	17.80	2.23	*	7.61
Widowed/ Divorced/ Separated	0.55	0.04	0.46	0.63	12.57	1.73	*	6.83
Education (High School Graduate)								
No High School	0.75	0.05	0.65	0.84	15.38	2.11	*	8.20
Some High School	0.44	0.04	0.37	0.51	12.50	1.55	*	7.46
Some College	-0.26	0.02	-0.30	-0.21	-10.85	0.77	*	6.55
College Graduate	-0.86	0.04	-0.94	-0.78	-21.11	0.42	*	7.69
Advanced Degree	-1.12	0.06	-1.23	-1.00	-19.24	0.33	*	8.42
Age	0.04	0.00	0.04	0.05	39.77	1.04	*	6.43
Year	0.03	0.00	0.03	0.04	11.28	1.03	*	9.00
Household Type (Married Household)								
Female Headed	-0.14	0.04	-0.22	-0.06	-3.36	0.87	*	7.18
Male Headed	-0.28	0.05	-0.38	-0.18	-5.52	0.76	*	9.38
Black x Mental Disability	-0.05	0.06	-0.16	0.07	-0.77	0.96		7.79
Woman x Mental Disability	0.19	0.04	0.12	0.27	5.24	1.21	*	5.71

Note: * Indicates significance at the $p \leq 0.001$ level.

When examining the predicted probability that a working-age individual with disabilities will have a work limitation, the chances increase between 1996 through 2011 (See Figure 5). In general, individuals with a mental disability are more likely than individuals with a non-mental disability, and men are more likely than women to experience work limitation. Individuals with mental disabilities consistently tend to be about 10% more likely to have a work limitation than individuals with non-mental disabilities. Men with mental disabilities showed a 55% chance of experiencing a work limitation in 2011.

Figure 5. Average Predicted Probability of Work Limitation for Working-aged Adults with Disabilities by Gender in the United States from 1996 to 2011.



When reviewing the study results on family earnings in relationship to the original hypotheses, two of the four were supported. A summary of the hypotheses and research results can be found in Table 30.

Table 30. Study Hypotheses for Work Limitation and Summary of Research Findings

Work Limitation
H_{6a}= Individuals with mental disabilities are more likely to experience work limitation when compared to individuals with non-mental disabilities.
Results: Individuals with mental disabilities are more likely to experience work limitation than individual with non-mental disabilities.
$H_{6b=}$ Having a mental disability has a greater effect on predicting chances of work limitation when compared to individuals with non-mental disabilities.
Results: Individuals with mental disabilities are significantly more likely to be predicted to have work limitation than individuals with non-mental disabilities.
H_{6c}= The interaction between race and mental disabilities has a significant effect on predicting differences in work limitation.
Results: This hypothesis is not supported, the interaction between race and mental disabilities is not significant when examining work limitation.
H_{6d}= The interaction between gender and mental disabilities has a significant effect on predicting differences in work limitation.
Results: The interaction between gender and mental disability significantly predicts a greater chance of experiencing work limitation.

Welfare

3. Do work limitation, Hispanic ethnicity, disability, race, and gender predict differences in welfare receipt?

In the United States there are a number of social welfare programs designed to help protect individuals and families from experiencing extreme poverty. Some programs, such as Social Security Disability Insurance (SSDI) provide assistance for individuals who were employed but have become disabled and can no longer work. Others, such as Supplemental Security Income (SSI), are means-tested and provide financial support for individuals and families in poverty.

When looking at the effect that disability and poverty can have on individual and family welfare receipt a few interesting trends are observed. In general, most working-age Americans with disabilities do not receive welfare assistance (See Table 31). For individuals with

disabilities who are also poor, the chances of individual and family welfare receipt increases. Individuals with mental disabilities and who experience poverty are the most likely to receive assistance followed by individuals with non-mental type of disabilities who are poor.

Table 31. Percentage of Working-age Americans with Disabilities who Receive Welfare by Disability Type and Poverty.

	Individual Receipt		Family Receipt	
	Yes	**No**	**Yes**	**No**
Mental Disability				
In Poverty	34.3%	65.7%	40.0%	60.0%
Not in Poverty	12.4%	87.6%	16.4%	83.6%
Non-Mental Disability				
In Poverty	24.0%	76.0%	29.5%	70.5%
Not in Poverty	4.8%	95.2%	7.5%	92.5%

Income from Social Welfare

The amount of welfare support, both in cash benefits or services that an individual or a family receives from social welfare can differ greatly between programs. For the past several years, programs like SSI tend to provide much more support than programs like Temporary Assistance for Needy Families (TANF) (See Table 32). Between the years of 1996 and 2011 support offered by programs like Social Security and Food Stamps, or SNAP, has increased slightly while the amount of benefits offered by TANF has decreased.

Table 32. Average Monthly Predicted Amount of Income or Services from Social Welfare for Families of Working-age Adults between 1996- 2011*.

	Social Security	AFDC/ TANF	Food Stamps/ SNAP
1996	$ 842.99	$ 488.24	$ 246.48
1999	$ 830.51	$ 432.47	$ 203.07
2002	$ 884.65	$ 415.16	$ 206.80
2005	$ 909.64	$ 382.98	$ 212.40
2008	$ 907.34	$ 343.35	$ 209.20
2011	$ 930.22	$ 325.53	$ 253.00

* Only families with at least $0.01 in receipt for each type of welfare included. Dollar values adjusted by CPI for March 2011.

Individual Receipt

A general linear regression was used to determine whether race, Hispanic ethnicity, gender, mental disability, and work limitation significantly predict chances of individual welfare receipt when controlling for educational degree, marital status, age, number of children under 18 years of age, and household type. Additionally, this model tested the interactions between disability and race and disability and gender to determine whether the effect of disability type is different for Blacks compared to whites and for males compared females. The model significantly predicted individual welfare receipt; *Cox and Snell* = 0.197, *Wald F* (21, 94) = 327.51, $p \leq 0.0001$ and correctly classified 87.9% of the cases. All variables included in the model were significant predictors with the exception of age and year (See Table 33). The interaction between Black American and mental disability was significant, *Wald F* (1, 114) = 11.81, $p = 0.001$. An examination of the predicted probability of individual welfare receipt between 1996 and 2011 demonstrated that the chance of receipt has remained fairly stable over time. Individuals that were previously shown to have an increased chance of experiencing poverty also experience an increased chance of receiving welfare.

Table 33. Logistic Regression Predicting Individual Welfare Receipt among Working-aged Adults with Disabilities in the United States between 1996 and 2011.

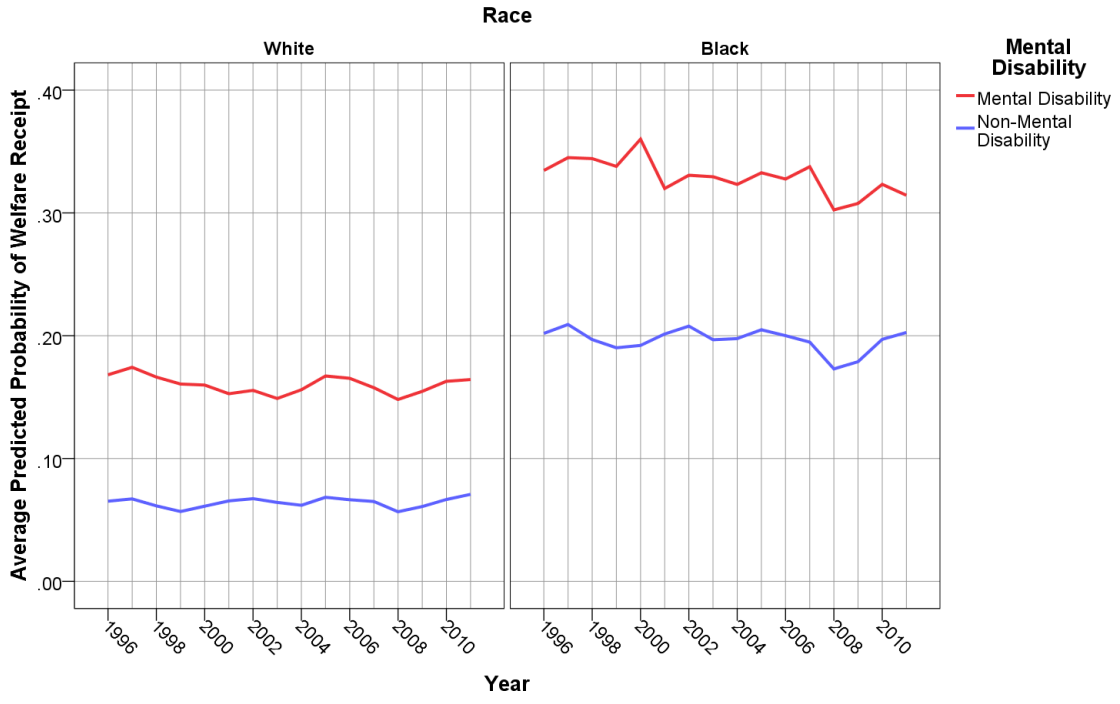
	B	*SE*	*CI*		*t*	*OR*	*p*	DEFT
			LL	UL				
Black	0.78	0.06	0.66	0.89	13.05	2.17	*	6.87
Women	0.37	0.06	0.26	0.48	6.61	1.45	*	6.56
Mental Disability	0.52	0.06	0.39	0.64	8.14	1.68		8.74
Work Limitation	2.43	0.03	2.36	2.50	71.17	11.35	*	5.16
Hispanic	0.32	0.05	0.21	0.42	5.94	1.37	*	7.87
Number of Kids Under 18								
One Child	0.28	0.05	0.19	0.37	6.12	1.32	*	6.10
Two Children	0.57	0.06	0.46	0.68	9.93	1.77	*	7.16
Three or More Children	0.92	0.06	0.80	1.04	15.20	2.50	*	6.05
Marital (Married)								
Never Married	1.13	0.07	1.00	1.26	17.14	3.08	*	6.77
Widowed/ Divorced/ Separated	0.82	0.06	0.70	0.94	13.47	2.26	*	5.63

Education (High School Graduate)								
No High School	0.68	0.06	0.57	0.79	12.12	1.97	*	6.62
Some High School	0.41	0.04	0.32	0.50	9.462	1.51	*	6.31
Some College	-0.47	0.04	-0.55	-0.39	-11.35	0.62	*	7.25
College Graduate	-1.01	0.11	-1.23	-0.79	-8.98	0.37	*	12.09
Advanced Degree	-1.43	0.15	-1.74	-1.13	-9.43	0.24	*	7.45
Age	-0.01	0.00	-0.01	-0.00	-2.85	1.00		6.48
Year	-0.01	0.00	-0.02	-0.00	-2.71	0.99		6.71
Household Type (Married Household)								
Female Headed	0.31	0.06	0.20	0.42	5.54	1.37	*	6.21
Male Headed	0.38	0.06	0.26	0.51	6.08	1.47	*	6.53
Black x Mental Disability	-0.28	0.08	-0.44	-0.12	-3.44	0.76	*	7.59
Woman x Mental Disability	0.10	0.07	-0.03	0.24	1.51	1.11		7.08

Note: * Indicates significance at the $p \leq 0.001$ level.

An examination of the interaction between gender and disability between 1996 through 2011 shows that the relative effect of mental disabilities is greater for Black Americans than for whites (See Figure 6).

Figure 6. Average Predicted Probability of Individual Welfare Receipt for Working-aged Adults with Disabilities by Race in the United States from 1996 to 2011.



Family Receipt

A general linear regression was used to determine whether race, Hispanic ethnicity, gender, mental disability, and work limitation significantly predicted chances of family welfare receipt when controlling for educational degree, marital status, age, number of children under 18 years of age, and household type. Additionally, this model tested the interactions between disability and race and disability and gender to determine whether the effect of disability type is different for Blacks compared to whites and for males compared females. The overall model significantly predicted family welfare receipt; *Cox and Snell* = 0.190, *Wald F* (21, 94) = 316.25, $p \leq 0.0001$. The model correctly classified 84.8% of the cases. All variables included in the model were significant with the exception of male headed households, age, and year. The interactions between race and mental disability, and the interaction between gender and mental disability, were not significant in predicting welfare receipt within families. Regression coefficients are presented in Table 34.

Table 34. Logistic Regression Predicting Family Welfare Receipt among Working-aged Adults with Disabilities in the United States between 1996 and 2011.

	B	*SE*	*CI*		*t*	*OR*	*p*	DEFT
			LL	UL				
Black	0.80	0.06	0.70	0.91	14.60	2.24	*	7.80
Women	0.19	0.05	0.10	0.28	4.00	1.21	*	6.54
Mental Disability	0.53	0.06	0.42	0.64	9.70	1.70	*	8.74
Hispanic	0.37	0.05	0.27	0.47	7.19	1.45	*	9.78
Work Limitation	1.79	0.03	1.74	1.85	64.78	6.00	*	5.18
Number of Kids Under 18								
One Child	0.40	0.04	0.31	0.48	8.93	1.48	*	7.79
Two Children	0.60	0.05	0.49	0.70	11.32	1.82	*	8.39
Three or More Children	1.03	0.06	0.92	1.14	18.16	2.80	*	7.49
Marital (Married)								
Never Married	0.92	0.06	0.80	1.04	14.93	2.51	*	8.03
Widowed/ Divorced/ Separated	0.55	0.06	0.44	0.67	9.47	1.74	*	6.87
Education (High School Graduate)								
No High School	0.73	0.05	0.63	0.83	14.79	2.07	*	6.27
Some High School	0.51	0.04	0.43	0.59	12.39	1.66	*	7.08
Some College	-0.49	0.04	-0.56	-0.42	-13.67	0.61	*	7.18
College Graduate	-1.04	0.09	-1.22	-0.86	-11.32	0.35	*	11.24

Advanced Degree	-1.45	0.13	-1.70	-1.20	-11.51	0.23	*	7.47
Age	-0.00	0.00	-0.00	0.00	-0.33	1.00		7.55
Year	-0.00	0.00	-0.01	0.01	-0.37	1.00		9.49
Household Type (Married Household)								
Female Headed	0.27	0.06	0.16	0.38	4.91	1.31	*	7.53
Male Headed	0.07	0.06	-0.06	0.19	1.09	1.07		8.02
Black x Mental Disability	-0.16	0.07	-0.30	-0.01	-2.13	0.85		8.06
Woman x Mental Disability	-0.01	0.06	-0.12	0.11	-0.11	0.99		6.62

Note: * Indicates significance at the $p \leq 0.001$ level.

When reviewing the study results on individual and family welfare receipt in relationship to the original hypotheses, about half of the hypotheses were supported. A summary of the hypotheses and research results can be found in Table 35.

Table 35. Study Hypotheses for Welfare Receipt and Summary of Research Findings

Welfare
H_{4a}= Individuals with mental disabilities have a greater chance of receiving welfare than individuals with non-mental disabilities *Results:* Individuals with mental disabilities are more likely to receive individual and family welfare assistance than individuals with non-mental disabilities
$H_{4b=}$ Having a mental disability has a greater effect on predicting chances of welfare receipt when compared to individuals with non-mental disabilities. *Results:* Individuals with mental disabilities are not predicted to have a greater chance of individual welfare receipt when compared to individuals with non-mental disabilities. Individuals with mental disabilities are significantly more likely to receive family assistance from welfare when compared to individuals with non-mental disabilities.
H_{4c}= The interaction between race and mental disabilities has a significant effect on predicting differences in welfare receipt. *Results:* The interaction between race and mental disabilities significantly predicts individual receipt of welfare but does not significantly predict family receipt of welfare.
H_{4d}= The interaction between gender and mental disabilities has a significant effect on predicting differences in welfare receipt. *Results:* This hypothesis is not supported, the interaction between gender and mental disabilities does not have a significant effect on predicting individual or family welfare receipt.

Entering Poverty

> 7a. Does the development of a mental disability trigger entry into poverty and does it have a greater chance of triggering an entry into poverty than the development of a non-mental disability?

To explore factors that could contribute to an individual entering poverty, a Cox proportional hazard regression was conducted. The following transition events were used to determine poverty entry: (1) development of a mental type disability, (2) development of a non-mental type of disability, (3) development of a work limitation, (4) addition of a child to the family, (5) loss of work, and (6) loss of a marriage (becoming divorced, separated, or widowed). Race, Gender, Hispanic ethnicity, household type, and age were independent variables that were treated as fixed factors in the model. Only individuals not in poverty 20 months prior to the last time they were surveyed were included in the analysis. This left a total of 34,424 respondents in the survey that represented a total of 4,343 respondents who experienced an entry into poverty. The Cox regression determined that all variables with the exception of gaining a mental disability, gaining a non-mental type disability, having a child, and losing a marriage were significant predictors of poverty entry; *Wald F* (12, 93) = 2.07, $p \leq 0.05$. The regression censored 87.8% of the cases because few individuals entered poverty during this time. Regression coefficients are presented in Table 36.

When examining entrances into poverty a gain in a mental type and a gain in a non-mental type of disability were both non- significant triggers for poverty entry. A disability that caused a work limitation, on the other hand, was met with over one and a half times greater risk of poverty entry during the 20 months examined (Exp[0.45] = 1.57, $p \leq 0.05$). Individuals who lost their job during this time were at the greatest risk of entering poverty with over three times greater risk than individuals who did not experience job loss (Exp[1.22] = 3.39, $p \leq 0.05$).

Table 36. Risk of Poverty Entry for Working-Age Adults in the U.S. between 1996 and 2011.

	B	*HR*	*SE*	*CI*		*t*	*p*	DEFT
				LL	UL			
Black	0.36	1.43	0.06	0.25	0.47	6.41	*	2.59
Female	0.20	1.22	0.06	0.08	0.33	3.16	*	2.95
Gain in Mental Disability	-0.11	0.90	0.10	-0.30	0.09	-1.08		2.87
Gain in Non-Mental Disability	-0.02	0.98	0.07	-0.16	0.12	-0.26		2.97
Hispanic	0.68	1.98	0.08	0.53	0.84	8.60	*	4.61
Household Type (Married Type)								
Female Headed	1.18	3.25	0.07	1.04	1.32	16.64	*	3.22
Male Headed	1.10	3.00	0.09	0.92	1.28	12.06	*	3.31
Gain in Work Limitation	0.45	1.57	0.06	0.34	0.57	7.81	*	2.08
Gain in Children	-0.09	0.91	0.05	-0.19	0.00	-1.91		1.97
Loss of Work	1.22	3.39	0.06	1.11	1.33	21.49	*	2.77
Loss of Marriage	0.04	1.04	0.06	-0.08	0.17	0.68		2.77
Age	-0.02	0.98	0.00	-0.02	-0.01	-7.25	*	3.24

Note: * $p \leq 0.05$

When reviewing the study results on entry into poverty in relationship to the original hypotheses, none of the hypotheses were supported. A summary of the hypotheses and research results can be found in Table 37.

Table 37. Study Hypotheses for Poverty Entry and Summary of Research Findings

Poverty Entry
H_{9a}= Developing a mental disability significantly predicts an entry into poverty within 20 months.
Results: This hypothesis is not supported, gaining a mental disability does not significantly predict poverty entry.
$H_{9b=}$ Developing a mental disability has a significantly greater chance of triggering an entry into poverty within 20 months than developing a non-mental disability
Results: This hypothesis is not supported, neither gaining a mental nor a non-mental disability significantly predicted an entry into poverty

Exiting Poverty

7b. Does the loss of a mental disability trigger an exit from poverty and does it have a greater chance of triggering an exit from poverty than the loss of a non-mental disability.

To determine exits from poverty the following trigger events were included: (1) recovery from a mental type disability, (2) recovery from a non-mental type disability, (3) recovery from a

work limitation, (4) gain in education, (5) becoming married, and (6) gaining work. Race, gender, Hispanic ethnicity, age, and household type were independent variables and treated as fixed factors. Only individuals that were in poverty 20 months prior to the last time they were surveyed were included in the analysis. Since this was very few individuals this greatly reduced the number of cases in the data set. A total of 5,447 respondents represented a total of 4,692 exits from poverty.

A Cox proportional hazards regression demonstrated that most variables included in the model (recovery from a mental type disability, recovery from a non-mental type disability, becoming married, gaining a level of education, and age) were not significant predictors of exiting poverty. The regression censored 12.3% of the cases. Regression coefficients are presented in Table 38.

When examining poverty exits only one variable included significantly predicted an exit from poverty, gaining work. Although other variables in the model were significant they all indicated a significant reduction in the odds of exiting poverty. These variables included: being Black American, being a women, having Hispanic ethnicity, belonging to a female headed household, and belonging to a male headed household.

Table 38. Risk of Poverty Exit for Working-age Adults in the U.S.

	B	*HR*	*SE*	*CI*		*t*	*p*	DEFT
				LL	UL			
Black	-0.16	0.86	0.06	-0.27	-0.04	-2.68	*	3.03
Female	-0.05	0.95	0.02	-0.10	-0.01	-2.20	*	1.31
Hispanic	-0.19	0.83	0.06	-0.31	-0.08	-3.27	*	3.13
Loss in Mental Disability	-0.01	0.99	0.04	-0.08	0.07	-0.15		1.85
Loss in Other Disability	0.03	1.03	0.04	-0.05	0.10	0.71		1.66
Loss in Work Limitation	-0.08	0.03	-0.14	-0.01	-2.30	0.03	*	1.59
Household Type (Married Type)								
Female Headed	-0.20	0.82	0.04	-0.28	-0.11	-4.66	*	2.17
Male Headed	-0.12	0.88	0.04	-0.20	-0.05	-3.17	*	1.79
Gain in Marriage	0.01	1.01	0.03	-0.05	0.07	0.33		1.99
Gain in Work	0.15	1.16	0.03	0.09	0.21	4.98	*	1.91

Gain in Education	0.04	1.05	0.03	-0.01	0.09	1.74	1.43
Age	0.00	1.00	0.00	-0.00	0.00	0.81	1.40

Note: * $p \leq 0.05$

When reviewing the study results on entry into poverty in relationship to the original hypotheses, none of the hypotheses were supported. A summary of the hypotheses and research results can be found in Table 39.

Table 39. Study Hypotheses for Poverty Entry and Summary of Research Findings

Poverty Exit
H_{10a}= Recovering from a mental disability significantly triggers an exit from poverty within 20 months.
Results: This hypothesis is not supported, losing a mental disability does not significantly predict an exit from poverty.
$H_{10b=}$ Losing a mental disability has a greater chance of triggering an exit poverty within twenty months than losing a non-mental disability.
Results: Recovering from a mental disability has a greater chance of triggering an exit from poverty within 20 months than recovering from a non-mental disability.

American with Disability Amendments of 2008

Federal policies that provide employment protections, ensure wage equality, and outlaw discrimination against individuals with disabilities have the potential to secure fair economic outcomes. To investigate the effect of the 2008 Amendments to the ADA on predicted total individual income two t-test were conducted. Prior to analysis years 2004 through 2007 were considered before the 2008 Amendments, and years 2008 through 2011 were considered after the amendments. The first t-test investigated total predicted individual income for all working-age adults with disabilities and determined that there were significant differences when comparing income before and after the implementation of the amendments. Americans with disabilities earned about $42 less per month after the implementation of the ADA amendments than individuals with disabilities prior to the amendments (See Table 40).

Table 40: Means Comparison of Individual Income for Working-age Americans with Disabilities Before and After the ADA Amendments of 2008.

	Mean	*SE*	*CI*		*t*	*p*	DEFT
			LL	UL			
Before Amendments	$1,594.43	7.72	1579.15	1609.72	206.64	*	14.28
After Amendments	$1,552.22	7.50	1537.37	1567.07	207.02	*	9.55

Note: * Indicates significance at the $p \leq 0.001$ level.

A second t-test explored predicted income specifically among individuals with mental type disabilities and determined that there were significant differences in income before and after the amendments. Individuals with mental type disabilities earned about $56 dollars less following the implementation of the ADA amendments in 2008 (See Table 41).

Table 41: Means Comparison of Individual Income for Working-age Americans with Mental Disabilities Before and After the ADA Amendments of 2008.

	Mean	*SE*	*CI*		*t*	*p*	DEFT
			LL	UL			
Before Amendments	$1,414.97	10.672	1393.83	1436.12	132.58	*	14.87
After Amendments	$1,359.06	9.738	1339.77	1378.35	139.57	*	9.12

Note: * Indicates significance at the $p \leq 0.001$ level.

Chapter 6: Discussion

The research findings demonstrate that race, gender, and disability play an important role in economic outcomes. Overall, individuals with mental disabilities tend to do worse economically when compared to individuals who have non-mental disabilities. Individuals with mental disabilities experience greater inequalities in income and earnings, higher unemployment, and have greater chances of experiencing poverty. The remainder of this chapter will discuss the implication of study findings, study limitations, and provide a discussion of how this dissertation can be used to frame future disability research.

Income and Earnings

When examining income and earnings, individuals with mental disabilities have lower individual and family income and fewer earnings than individuals with non-mental disabilities. In general, individuals with mental type disabilities have yearly total individual incomes that are $4,453 less per year and total family incomes that were $9,674 less per year than individuals with a non-mental type of disability (See Table 42). For working-age adults with disabilities it appears that being a part of a family can help create a buffer from economic hardship, since families tend to have greater incomes and earnings than individuals. Still, individuals with disabilities do not completely escape income and earning inequality within the family since individuals with mental disabilities continue to have comparatively less resources than individuals with non-mental disabilities.

Table 42. Average Predicted Annual Income and Earnings for Individual and Families by Disability Type.

Disability Type	Individual Income	Family Income	Individual Earnings	Family Earnings
Mental Disability	17,089.01	45,244.95	10,113.01	32,137.62
Non-Mental Disability	21,542.21	54,919.60	14,200.32	41,459.44

When looking at Americans with disabilities race and gender are also met with inequality in income and earnings. Women with disabilities, on average, earn $4,847 less in individual income and $1,502 less in family income annually when compared to men with disabilities (See Table 43). Black Americans with disabilities earn $3,915 less in individual income and $15,438 less in family income annually when compared to whites.

Table 43. Average Predicted Annual Income and Earnings for Working-age Individuals with Mental and Non-Mental Disabilities between 1996- 2011.

	Individual Income	Family Income	Individual Earnings	Family Earnings
Race				
Black	$16,069.34	$37,124.61	$8,846.44	$24,998.03
White	$19,983.90	$52,563.06	$12,827.67	$39,069.56
Gender				
Women	$17,356.36	$49,637.74	$11,254.24	$36,906.38
Men	$22,202.94	$51,140.22	$13,581.25	$37,084.39

When examining the interaction of race with disability and gender with disability, only the effect of disability and gender was significant for individual income and individual earnings. Women with mental disabilities earn approximately $3,438 less in individual income annually and $3,611 less in individual earnings annually when compared to women with non-mental disabilities (See Table 44). Men with mental disabilities earned $6,410 less in individual income and $5,022 less in individual earnings when compared to men with non-mental disabilities. Overall, the influence of mental disabilities on individual income and earnings was much greater for men than for women. Although men with mental disabilities experience greater income disparity this does not indicate that they have the worst economic outcomes. Rather, women with mental disabilities earn $3,438 less in individual income annually than women with non-mental disabilities and $9,966 less than men with non-mental disabilities. This suggests that women experience income disparities relative to men and that gap widens when disability is

considered in the analysis. These findings are consistent with the work of Baldwin and Johnson (1994 & 1995) that demonstrated women and men with disabilities experience differences in income when compared to workers who do not have disabilities. The current study expands upon this earlier work by providing evidence that differences in income occur along gender lines but are accentuated when examining disability type.

Table 44. Average Predicted Annual Income and Earnings for Working-age Individuals with Disabilities by Gender between 1996-2011.

	Individual Income	**Individual Earnings**
Gender x Disability		
Women x Non-Mental	$18,936.41	$12,913.96
Women x Mental	$15,498.46	$9,302.66
Men x Non-Mental	$25,464.04	$16,136.36
Men x Mental	$19,054.51	$11,114.40

Throughout the many economic outcomes investigated in this study, none were more similar than income and earnings. One reason for this is because, for most individuals in this study, the majority of income is attained from working. The original expectation that informed including both income and earnings in the study was that individuals who were economically more secure might have sources of income outside of employment, such as dividends from investments. The similarity between income and earnings may also partially be caused by topcoding in the public use SIPP. An exploration of income and earnings in the same study might be more lucrative when using the SIPP Gold Standard restricted-use data.

Employment and Work Limitation

One study result that presented consistently across most of the analyses was the importance of work in informing economic well-being. American's with disabilities who are unemployed have a much larger chance of experiencing poverty when compared to those who

are working full-time jobs (See Table 45). This highlights the importance having equal access to jobs for economic well-being in the United States.

Table 45. Percentage of Working-Age Adults with Disabilities Employed Full-time, Employed Part-time, and Not Working by Poverty Status between 1996 to 2011.

	Full-time Work	Part-time Work	Not Working
Family Poverty			
Yes	10.7%	10.8%	78.6%
No	52.1%	11.9%	36.0%

Most of the time individuals who report having a disability also note that this disability does not interfere with working (46.5% of individuals with a mental disability and 34.8% of individuals with a non-mental disability). Still, individuals with mental type disabilities are more likely to report having a work limitation. One explanation for this trend could be that individuals with mental disabilities experience more severe symptoms that cause a greater interference with working than individuals with non-mental disabilities. Another probable explanation is also that individuals with mental disabilities internalize some of the experience of being excluded from the labor market by employers that may be reluctant to hire or provide the necessary work accommodations for employees with mental disabilities. If an individual is unable to attain employment, and perceives that this may be due to having a disability, they could begin to feel that their disability causes a limitation in working despite the fact that there may be many jobs that they could perform.

Additionally, there is a relationship between lack of economic resources and the ability to access needed medical care. Research that has explored the connection between economic resources and health has suggested that the unequal distribution of resources contributes to individuals having greater health challenges (Mehta, Sudharsanan, & Elo, 2014). From this standpoint, it may be that individuals with mental disabilities experience more work limitation

than individuals with non-mental disabilities because of the additional economic challenges which may prevent equal access to needed health services.

Regardless of the precise reason that individuals with mental disabilities have higher rates of work limitation, individuals who report having a work limitation experience much greater economic inequality than individuals who do not have work limitations. In fact, work limitation may have a greater impact on income inequality than disability, race, or gender. Individuals with non-mental disabilities without work limitation earn $8,212 less in individual income and $17,286 less in family income than individuals with non-mental disabilities who have a work limitation (See Table 46). This difference is even greater for individuals with mental disabilities with work limitations who earn $8,549 less annually in individual income and $18,168 less in family income when compared to individuals with mental disabilities who do not have work limitations.

Table 46. Predicted Annual Income and Earnings for Working-age Individuals Disabilities who Experience Work Limitation between 1996 and 2011.

	Individual Income	**Family Income**	**Individual Earnings**	**Family Earnings**
Work Limitation				
Mental Disability	$12,502.51	$35,498.71	$3,335.50	$19,232.24
Non-Mental Disability	$16,190.55	$43,655.42	$6,232.15	$26,836.03
No Work Limitation				
Mental Disability	$21,052.40	$53,667.10	$15,969.76	$43,289.73
Non-Mental Disability	$24,403.36	$60,941.77	$18,460.35	$49,277.56

In summary, the results from this research have shown that solely investigating disability without considering work limitations presents an incomplete picture of inequality in individual and family income. Work limitation does not appear to affect all individuals with disabilities in the same manner but it does have a significant overall effect on economic well-being. Although

relationship to the labor market is partially explanatory when exploring economic inequalities for individuals with disabilities in the United States it is not completely comprehensive.

Effects of Disability on Poverty

When exploring the chances of family poverty several factors seemed critical to consider including: level of education, work limitation, race, gender, and disability. One of the most important factors that affected poverty was education. Individuals with disabilities and no high school education had two times the odds of experiencing poverty when compared to individuals with disabilities who had attained a high school diploma or GED. Work limitation also plays a significant role in family poverty. Americans with disabilities and work limitations were shown to have nearly two and a half times the odds of experiencing poverty when compared to individuals with disabilities who did not have a work limitation. These findings are similar to the work of Durham, Houtenville, and Ruiz (2011) that demonstrated that individuals who are disabled and have work limitations are much more likely to experience poverty when compared to Americans with disabilities who do not have a work limitation. The findings in this study expand on the work of Durham and colleagues by showing that race and gender were also important to consider when looking at poverty since Black Americans with disabilities were over one and a half times more likely to experience poverty than whites and women were nearly one and a quarter times more likely to experience poverty than men.

Entrances and Exits from Poverty

When examining the relationship between disability and poverty over time, a number of interesting results revealed themselves. First, developing a mental or non-mental type of disability was not found to significantly inform an entry into poverty and recovery from a mental or non-mental type of disability did not significantly inform an exit from poverty. Although

disability is a significant factor when exploring overall economic well-being its relationship in time is much more difficult to determine. This may partially be explained by findings in previous research that have shown that individuals who have disabilities are more likely to experience poverty but this is because some of the aspects of poverty, such as lack of access to adequate nutrition, plays a role in the development of a disability. This may indicate that it could be important for future studies to include an analysis that looks at the way that poverty triggers an entry into disability.

One of the most consistent findings when looking at entry and exit from poverty came from exploring employment. The loss of a job was found to be the most significant predictors of an entry to poverty since individuals who experienced a job loss in the past 20 months had over three times the odds of experiencing poverty when compared to individuals who did not lose work during that time (See Table 37). Also, gaining a job was the only trigger event that significantly predicted an exit from poverty within 20 months, as individuals who gained employment during that time had over one times the odds of exiting poverty (See Table 37). These findings are similar to those of McKernan and Ratcliffe (2002) which noted that changes in employment were the most common trigger event for entry into poverty, followed by changes in work limitation status.

One surprising finding when looking at poverty exits in this study was that recovering from a work limiting disability did not significantly predict exiting poverty. This may indicate that having a work limitation has such a critical effect on economic well-being that even when individuals with disabilities are no longer work limited that the economic effect of having a work limitation lingers.

Welfare Receipt and Economic Well-being

Social welfare, although important in protection from severe poverty, probably does not ever have the capability to provide the type of protections that would be necessary for long-term economic well-being. This is largely due to the fact that the types of social welfare that are the most generous, such as SSDI, are linked to having a fairly consistent work history and benefits that tend to be means-tested, such as food stamps or TANF, offer much less assistance.

In general, families that are most likely to experience poverty are also the families that are most likely to receive welfare. This indicates that that welfare in the United States is accessed at the greatest rate by those who are the most economically vulnerable. For example, as aforementioned, Black Americans with disabilities are the most likely race group to experience poverty and they are also the most likely to be receiving welfare at slightly over two times the odds of whites. Still, even more critical than race, gender, or disability type, individuals who have work limitations and have over two times the odds of experiencing poverty and have six times the odds of receiving assistance from social welfare. This trend is probably caused by the fact that work limitation is a requirement of receiving several types of social welfare assistance in the United States.

When examining average monthly amounts received from welfare, additional trends emerge. In general, when looking at individuals who received at least $0.01 in any type of social welfare between 1996 and 2011 average receipt amounts generally remain quite low (See Table 47). Even among groups that have much higher chances of poverty and economic hardship, very little difference in the amount of welfare received exists. Although receipt of welfare provide a buffer from experiencing extreme poverty, this finding supports the belief that the receipt of

social welfare in the United States does not have the ability to challenge economic inequalities by race, gender, or disability.

Table 47. Average Monthly Amount of Welfare Receipt for Working-age Adults with Disabilities in the United States*

	Individual Receipt	Family Receipt
Disability Type		
Mental Disability	619.54	700.78
Non-Mental Disability	614.26	687.98
Gender		
Women	608.71	685.15
Men	631.62	712.05
Race		
Black	624.41	706.00
White	615.14	692.43
Work Limitation		
Yes	627.16	713.23
No	562.90	642.76

**Note:* Only individuals and families who received at least $0.01 in individual welfare benefits or services.

Recommendation for Welfare Programs

As discussed in the literature review section of this dissertation, since the welfare reforms in 1996 many types of welfare have become increasingly tied to employment in the United States. Although, as this study indicates, employment is undoubtedly an important factor in securing economic well-being, there are a number of challenges that occur when welfare becomes based in work, especially for individuals with disabilities.

Individuals with mental type disabilities tend to have worse economic well-being when compared to individuals with non-mental type disabilities. This disparity may be partially caused by the fact that the Americans with Disabilities Act (ADA) did not provide adequate protections for individuals with mental type disabilities and that they experienced labor market exclusion at a greater rate than other individuals with disabilities which, in turn, had an effect on lowering their economic security.

Regardless of the precise reason that employment and economic disparities continue to exist, one thing does remain clear, that connecting welfare receipt to work fails to recognize that individuals with disabilities belong to a group of individuals that are less likely to be included in the labor market. By tying social welfare, especially some of the programs that offer the most generous protections, to employment, individuals with disabilities are unfairly disadvantaged because they do not experience equality in hiring despite the protections outlined in the ADA. Until all working age adults who want a job can access a job that offers a living wage and adequate health benefits, social welfare should not be tied to work. Rather, social welfare programs that focus on job creation, that ensure jobs provide a living wage, and reduce employment discrimination could have a much stronger effect on securing economic well-being for Americans with disabilities.

Intersection of Race and Disability

The interaction of race and disability was only found to be statistically significant when examining the chances of individual welfare receipt. What is important about this finding is that Black Americans with mental disabilities were found to be significantly *less* likely of receiving welfare when compared whites and individuals with non-mental disabilities. Although, when examining main effects, Black Americans and individuals with mental disabilities are each separately more likely to experience poverty than whites and individuals with non-mental disabilities, and are among one of the more economically vulnerable groups in this study, they are not more likely to receive welfare assistance. One of the reasons for this finding is that all types of social welfare, not only means-tested transfer programs, were included in the analysis on welfare. Means-tested transfer programs are designed to help the most economically vulnerable but they are also among the most restrictive and least generous of the social welfare programs.

The findings in this study demonstrate that government protections may be more easily secured by individuals that belong to more privileged groups rather than by those who have the greatest need for social welfare protections.

At first glance, gender and disability may appear to be more statistically relevant in many of the analyses in this study than race and disability. Still, the lack of results for many of the interactions when examining economic measures does not necessarily indicate a lack of findings. Rather, the lack of findings when examining interaction effects indicates that the separate effect of race and disability in statistical models are such strong predictors of economic well-being that the interaction of race and disability does not provide additional information in a statistical model. This is supported by the main effects findings on income and earnings that show race and disability as consistently significant predictors at both the individual and family level.

Findings and Discussion of Theory

In general, the findings in this study indicate that dominant groups are more likely to be able to secure important resources, such as a job, that contribute to economic security and well-being. From a critical standpoint, dominant groups secure valuable resources at the detriment of non-dominant groups. If individuals with mental disabilities are less privileged when compared to individuals with non-mental disabilities then they would also be less empowered to advocate for equal economic and labor market protections. This could explain why individuals with mental disabilities were not adequately protected by the Americans with Disabilities Act until 2008, 18 years after the ADA was enacted.

This study hypothesized that race and gender would be two of the most important factors to investigate when examining intersecting inequalities among individuals with disabilities. Although race and gender were found to be important, work limitation was found to be one of

the most critical contributors to economic inequality. Although disability on its own was shown to have an effect on many types of economic outcomes, the relationship of disability to participation in the labor market appears to have a compounding effect on economic inequalities. As the findings show, individuals with mental type disabilities and individuals with work limiting disabilities are more economically vulnerable when compared to individuals with non-mental disabilities and individuals with work limiting disabilities. One reason that work limitation may be such an important indicator of economic well-being is because individuals with disabilities who participate in the labor market are more likely to be included in society and, therefore, are more likely to be able to secure economic resources and political power. This supports the posits put forth by critical disability that states that the inequalities experienced by individuals with disabilities are often constructed in society and, because of this, need to be challenged in society.

The importance of work limitation also suggests, that when using intersectionality to frame complex inequality among individuals with disabilities, researchers must be aware that even within the category of disability that individual can experience varying levels of oppression or privilege. This idea that privilege and oppression occur within, and not just outside of, disability has an important effect on research that utilizes intersectionality to frame inquiry into complex inequalities. Although disability is frequently recognized as an important factor to include when examining intersecting inequalities, very few articles that have explored disability from an intercategorical approach have considered the oppressions and privileges that may exist within the category of disability. The findings from this study suggest that future intersectional research that utilizes an intercategorical approach should include disability type and work

limitation to develop a more comprehensive understanding of the inequality experienced by individuals with disabilities.

Oppression and Disability Type

Throughout the findings from this research individuals with mental disabilities are repeatedly found to have greater economic and labor market challenges when compared to individuals with non-mental type disabilities. Despite these findings, it is not the intention of this study to state that individuals with non-mental disabilities do not experience economic inequality, but rather, that individuals with mental disabilities may experience social exclusion in a ways that entrenches existing economic and labor market inequalities experienced by all individuals with disabilities.

Currently individuals with mental disabilities have not been equally incorporated into the discourse on disability rights and social inclusion. Due to this, the extent to which American society has created accommodations for individuals with mental disabilities has been negligible. For example, when discussing the social accommodations that may be required to ensure that individuals with physical disabilities are included equally in society there is often discussion about physical changes that are needed to ensure that the environment is inclusive. This can involve building ramps, widening doorways, installing automatic doors, and creating reserved parking spaces. When discussing the accommodations are needed to better include individuals with mental disabilities in society, the modifications will not be concrete changes to the environment, but instead, will be changes in culture and attitudes. In many ways, cultural and attitudinal changes may be difficult create and enforce. Despite this, discourse on the types of accommodations that should be implemented to better include individuals with mental

disabilities must occur to challenge the economic and labor market inequalities discussed in this dissertation.

Americans with Disabilities Act Amendments

When looking at results from the examination of the income among working-age adults with disabilities before and after the ADA amendments, it appears at first glance that it has been ineffective since individuals with disabilities show significantly reduced income following 2008. Still, this is a premature conclusion that does not take into account the serious economic recession that also occurred in 2008. In reality, the amendments to the ADA most likely had a great effect on extending labor market and economic protections to individuals with disabilities, especially those with mental type disabilities. Since the simple analysis provided in this dissertation does not control for the 2008 recession, the benefit of the ADA amendments becomes "invisible" against the background of greater national economic forces. This provides an apt example of why statistics, especially those that examine economic conditions, should be paired with an understanding of historical trends in the market to ensure that accurate conclusions are being drawn from research that examines federal policies and programs that are designed to reduce inequality and poverty. Continued research on the ADA amendments, especially as the economy continues to recover, will be critical to a complete understanding of the economic effect that this federal policy has had for individuals with disabilities in the United States.

Recommendations to the ADA

Since the results from this dissertation highlight the importance of employment in economic well-being, the focus of federal disability policy on employment protections and equality in the labor market helps promote greater equality for Americans with disabilities.

Greater enforcement of labor protections outlined in the ADA especially with insurance of equal hiring practices and wage equality will be a critical step towards securing economic equality for Americans with disabilities. A second policy recommendation that is derived from study findings is the necessity for the ADA to have clearer outlines of accommodations for individuals with mental type limitations. Since this study shows that individuals with mental disabilities are more likely to report a work limitation and are less likely to be employed when compared to individuals with non-mental disabilities suggests that accommodations may not be as clearly outlined. For example, for individuals with a physical or mobility limitation the ADA outlines a requirement for buildings and sidewalks have ramps that can be accessed by wheelchairs. The accommodations for individuals with mental type disabilities are not as well defined. Accommodations for individuals with mental type disabilities may include work culture changes, such as allowing individuals with a mental disability to come to work an hour later than other employees and leave an hour later if they are taking psychotropic medications that create excessive drowsiness. Additionally, the ADA could outline additional protections if an employee needs to take an hour out of the work day to attend a therapy session or a meeting with the psychiatrist and, in turn, work later into the evening one night a week. Frequently accommodations like this are not particularly expensive to employers but can be difficult to negotiate since flex schedules and work accommodation privileges are sometimes reserved for senior level employees or administrators.

Social Work Implications

This dissertation demonstrates that when looking at race, gender, and disability that there are economic and labor market inequalities that interfere with economic well-being for many Americans. This is a critical area for social workers to examine because we know that class

inequalities are not limited to economic well-being alone but often translate into health inequalities and inequalities in total well-being. Although social workers have not traditionally been the largest voice in the economic literature exploring inequality, this research demonstrates the importance of a social work perspective in economics. In the United States researchers such as Richard Wilkinson (2006) have demonstrated that growing levels of inequality contribute to a number of social ills such as elevated homicide rates, higher mortality rates, and greater probability of violence. The social justice standpoint for social workers is critical for a clearer understanding of how these inequalities operate on a national level since many economists do not use social justice theories to underpin their research. Social workers have traditionally played a role in challenging community level poverty but it is critical that we play a larger role in outlining national policies to reduce poverty and inequality in the United States.

Limitations

There are several limitations to the research in this dissertation that should be noted. First, exploring disability in nationally representative data sets can be challenging. The concept of a disability is a difficult one to measure. Data sets like the SIPP must try to standardize difficulty concepts like disability in a way that is easily quantified. Currently the SIPP tracks disability with a survey module completed once a year. This module asks an extensive number of questions that cover many different areas of limitation which researchers use to create various disability categories. Unfortunately, this approach can be a limited method of truly understanding various disability types since often these categories are somewhat vague. For example, mental disorders are created from a range of questions in the SIPP that ask about learning disabilities, Alzheimer's, developmental disabilities, difficulty concentrating, and

problems with anxiety. Since these limitations may not occur at the same time during the life course the effect that they have on economic well-being can vary greatly.

Determining how individuals are actually classified in large surveys like the SIPP can be difficult for researchers. For example, if someone is dealing with chronic and severe back pain they may also begin to have symptoms of depression or have difficulty concentrating. Does this technically classify as a physical disability, since that is the issue that is causing the most limitation, or would this individual be classified as having both a physical and mental type disability because of the secondary symptoms caused by pain? Researchers and government surveyors alike must ask themselves what categories most accurately reflect the way that this individual experiences their limitation and attempt to capture this in a quantifiable manner. Undoubtedly, nationally representative disability research could be greatly strengthened with the addition of a qualitative component. Unfortunately, qualitative research is often time consuming to collect and analyze which makes it cost prohibitive for many large government agencies. Additionally, the inclusion of the International Statistical Classification of Diseases and Related Health Problems codes (ICD-9) could be particularly helpful in creating an additional level of understanding on what underlying health issues may be most important to consider for the respondent.

The second weakness in this dissertation was in its ability to manage income and earnings variables. The SIPP prevents identification of survey participants in the public use data files by topcoding income and earnings data for individuals that earn more than $12,500 per month. Extremely low incomes are also bottom-coded in some instances where it is believed that the loss of income could be identifying. Also, since the SIPP attempts to track program participation in the United States, it purposefully oversamples in low income areas. The level of modification

that occurs to income data in the SIPP creates challenges for researchers using the public use data. Usually, the best way to manage income and earnings data is to conduct a logarithmic transformation to ensure that the data meets assumptions of normality as closely as possible. In this study the usual method of transforming income data caused a negative skew that forced the researcher to forgo the usual transformations to income and earnings data and tolerate some deviation from normality for income and earnings. Performing this study on the SIPP Gold Standard restricted-use data could add additional information to the analyses provided in this dissertation. Since the SIPP Gold Standard data can include potentially identifying information about survey respondents it is more difficulty to access requiring a petition to be submitted to the U.S. Census Bureau that can take up to a year to review. Additionally, analyses on the Gold Standard data can only occur in a U.S. Census Bureau Restricted Data Center (RDC) where all study results are reviewed before they are released to ensure that they cannot be used to identify survey participants.

A final limitation to the research in this dissertation is its generalizability to working-age adults over the age of 61. For the purposes of analyses individuals that are over the age of 61 were excluded from this study even though most working age adults work well into, and beyond, their sixties. The exclusion of individuals over the age of 61 was necessary for this dissertation since many working-age adults in the United States become applicable for Social Security around this time. Social Security can provide a buffer from poverty and enhance the economic well-being of workers who become disabled at this age. Additionally, as individuals age their chances of developing a physical type disability increase. The combined effect of a growing chance of developing a disability and Social Security receipt could artificially boost the economic trajectory observed among individuals with non-mental type disabilities. The

inclusion of a separate analysis that exclusively examines working-age Americans over the age of 61 could strengthen the analysis in this dissertation.

Future Research

Despite its limitations, this dissertation provides an important step for several future inquiries into the role of disability in effecting economic and labor market outcomes. The first research study that could be derived from this dissertation is an examination of the effect that race, gender, and disability has on complex poverty measures. Poverty is generally understood as a concept by which households and families have an inability to attain needed material goods and services and that the lack of resources creates a deprivation. Many poverty and inequality researchers argue that a simple exploration of income poverty, like the one in this dissertation, does not get at the root of understanding deprivation in the lives of individuals and families. For example, a researcher might assume that a family in poverty might be dealing with food insufficiency but a family that lives in an area with a strong food bank may not experience hunger to the same degree as a family living in a region that doesn't have a food bank. To explore more complicated aspects of poverty material hardship should be used. Material hardship, unlike simple income measures, can assess for deprivation or the inability for households and families to meet their most basic needs. Generally, material hardship measures are focused on four key areas: food security, housing, unmet medical needs, and access to consumer durables (i.e. clothing, electricity) (Ouellette, Burstein, Long, & Beecroft, 2004). An examination of the effect of race, gender, and disability on material hardship measures could create a better picture of how poverty is experienced for individuals with disabilities in the United States.

A second research study that could be aided by this dissertation is an exploration of current disability measures in the United States with the aim of improving disability categories in nationally representative data sets. As mentioned earlier in this dissertation Burkhauser, Houtenville, & Rovba (2005) suggest that one of the reasons national disability research is under examined in the U.S. is because the U.S. Bureau of the Census does not officially track disability among working-age adults. Since this dissertation illuminates the necessity for disability to be explored when examining income and labor market inequality, it should be a priority to ensure that strong definitions of disability and limitation types are a present part of all national data sets. As disability researchers use nationally representative data sets they continually inform the need for stronger measures and help agencies like the U.S. Census Bureau to gather the necessary information to create efficient and accurate surveys.

A third, and final, study that could build off the research in this dissertation is an international exploration of income and labor market inequality among individuals with disabilities. Most developed nations survey its citizens and often this data can be accessed by interested researchers. Although many nations, especially those in the European Union, have more restrictive data use policies than that of the United States, often nationally representative data for most countries can be accessed easily with the submission of an appropriate application and a disclosure of research findings. International explorations of inequality can be essential to conduct because they provide invaluable information on the ways that differences in federal policies, social welfare systems, and public attitudes can affect differences in income, employment, and poverty. Also, an exploration of the ways that other countries have succeeded in challenging inequality and reducing poverty can provide important clues to the ways that the United States may be able to do the same.

Conclusion

The findings in this dissertation provides further evidence that Americans with mental disabilities experience a number of economic and labor market inequalities, such as increased chances of poverty and lower incomes. The examination of these inequalities over the course of several years demonstrates that, despite the implementation of federal policies and social welfare protections, many disparities remain largely unchallenged. Factors such as disability type and work limitation were found to accentuate existing inequities for individuals with disabilities. These factors should be considered in addition to race and gender when examining complex inequality. Understanding the ways that Americans with disabilities experience economic and labor market disparities is essential to design policies that are more adept at challenging inequality.

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ABSTRACT

MENTAL DISORDERS AND INEQUALITY IN THE UNITED STATES: INTERSECTION OF RACE, GENDER, AND DISABILITY ON EMPLOYMENT AND INCOME

by

JESSICA K. CAMP LMSW, CAADC

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Advisor: Dr. Stella M. Resko

Major: Social Work

Degree: Doctor of Philosophy

Purpose: Existing research has shown that individuals with mental disorders experience inequality when looking at income, wages, and poverty in the United States. Still, there has been a dearth of literature exploring how individuals with mental disorders fare economically when exploring multiple inequalities. In this study disability, race, and gender are explored to examine differences in economic and labor market outcomes for Americans with mental disorders. This study hypothesizes that when looking at working-aged Americans, individuals with mental disorders will tend to experience the greatest amount of economic inequality when compared to individuals with non-mental disabilities and that these inequalities will be accentuated in traditionally marginalized race and gender groups.

Methods: The public use files of the Survey of Income and Program Participation Core and Functional Limitations and Disability Topical Module between the years of 1996 to 2011 are used to explore the ways that disability, race, and gender intersect to create differences in income, earnings, employment, work limitation, welfare receipt and poverty. A series of complex samples regressions are conducted to explore each of these economic and labor market

outcomes. A discrete time hazard rate analysis is conducted to look at the effect that disability has on poverty entrances and exits over time.

Results: The research findings in this dissertation demonstrate that race, gender, and disability play an important role in economic outcomes. In general, the results from this study demonstrate that individuals with mental disabilities tend to do worse economically when compared to individuals who have non-mental disabilities. Individuals with mental disabilities experience greater inequalities in income and earnings, higher unemployment, and greater chances of experiencing poverty.

AUTOBIOGRAPHICAL STATEMENT

Jessica K. Camp is a PhD Candidate at Wayne State University School of Social Work and a former adult therapist for the Detroit/ Wayne County Community Mental Health system. Her research focuses on challenging poverty and inequality in the United States, especially among working-age adults in recovery from mental health and substance abuse disorders. As a doctoral student her work has focused on labor market and economic inequalities by race, gender, and disability both in the U.S. and internationally.