An Analysis of ADA Title I Allegations of Workplace Discrimination as Filed with the EEOC by Persons with Mental Illness

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AN ANALYSIS OF ADA TITLE I ALLEGATIONS OF WORKPLACE DISCRIMINATION AS FILED WITH THE EEOC BY PERSONS WITH MENTAL ILLNESS

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Health Related Sciences—Rehabilitation Leadership

By

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DEDICATION

For those with disabilities who face discrimination of any kind—especially that of the employment variety
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ABSTRACT

AN ANALYSIS OF ADA TITLE I ALLEGATIONS OF WORKPLACE DISCRIMINATION AS FILED WITH THE EEOC BY PERSONS WITH MENTAL ILLNESS

Jessica Erin Hurley

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Health Related Sciences—Rehabilitation Leadership

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Dissertation Chair: Brian T. McMahon, Ph.D., CRC

This study explores employment discrimination as experienced by persons with mental illness who filed allegations under Title I (the employment provisions) of the Americans with Disabilities Act (ADA) of 1990. The entire universe of employment discrimination allegations filed under Title I of the ADA from July 26, 1992 (its first effective date) until the present is maintained by the Equal Employment Opportunity Commission (EEOC) in a database named the Intermission System (IMS). This database contains over 2 million allegations of workplace discrimination filed not only under Title I of the ADA, but also under all statutes in its jurisdiction. From the IMS, two extractions containing ADA Title I allegations only and ranging from July 26, 1992 through December 31, 2008 [the last date before the Americans with Disabilities Act Amendments Act (ADAAA) of 2008 went into effect] were made: the first including all
Title I allegations for all impairments, not just mental illness (402,291); and the second containing only those Title I allegations filed by persons with mental illness (56,846 total: depression (25,375); unknown mental illness (11,977); anxiety disorder (10,370); bipolar disorder (7,675); and schizophrenia 1,449). Using nonparametric tests of proportion, each group of allegations is compared to the balance of mental illness allegations that is left once the group of allegations is removed. In addition, each group individually, as well as the complete group of all mental illness allegations, is evaluated with an exploratory technique called the Exhaustive Chi Squared Interaction Detector. Lastly, findings are provided and implications for employees, employers, rehabilitation professionals, policy makers, and future researchers are discussed.
CHAPTER 1: INTRODUCTION

The Americans with Disabilities Act (ADA) of 1990 is a civil rights law which prohibits discrimination against persons with disabilities in several areas including employment, workplace accommodations, transportation, and communication. The current study focuses exclusively on the employment provisions (or Title I) of the Act. Under Title I, all personnel activity must be unrelated to the existence or consequence of disability.

The Equal Employment Opportunity Commission (EEOC), the agency that enforces Title I, maintains and continuously updates a database, named the Intermission System (IMS), of all Title I allegations from the first effective date of the ADA (July 26, 1992) until the present. Through an interagency personnel agreement with Virginia Commonwealth University, Dr. Brian T. McMahon, Full Professor in VCU’s Department of Rehabilitation Counseling and Assistant Dean for Research in the School of Allied Health Professions, first secured access to these data in 2003 and thereby launched the National EEOC ADA Research Project (The Project). The Project, which was designed to explore the ADA Title I allegations from the IMS database, has twice received funding from the National Institute on Disability and Rehabilitation Research: once in 2003 for a 2-year cycle; and again in 2006 for a 5-year cycle. To date, the Project, with over 50 researchers and personnel at over 20 agencies and universities around the county, has resulted in over 70 articles published in peer-reviewed journals, 6 dissertations, and
hundreds of presentations and posters at national conferences and other forums. The current study uses an extraction [ranging from July 26, 1992 (the date the ADA first went into effect) through December 31, 2008 (the last date before the Americans with Disabilities Act Amendments Act; ADAAA) of 2008 went into effect] from the EEOC’s IMS database to explore the ADA Title I allegation activity of persons with mental illness (more specifically, anxiety, depression, bipolar disorder, schizophrenia, and unknown mental illness).

Statement of the Problem/Need for the Study

Persons with mental illness face many barriers to employment. In her update of a report for President George W. Bush’s New Freedom Commission for Mental Health (2006), Cook lists the following ten barriers to employment for persons with mental illness: 1) low educational attainment; 2) unfavorable labor market dynamics; 3) low productivity; 4) lack of appropriate vocational and clinical services; 5) labor force discrimination; 6) failure of protective legislation; 7) work disincentives caused by state/federal policies; 8) poverty-level income; 9) linkage of health care access to disability beneficiary status; and 10) ineffective work incentive programs.

Cook (2006) provides three relevant statistics to clarify the magnitude of this issue. First, it is estimated that 35% (or 6.7 million) of people aged 18 or older in the United States have a mental disability in which at least one area of functioning is severely limited. This number excludes those in institutions or who are military personnel. Second, the World Health Organization lists mental disorders as the leading cause of disability for individuals between 15 and 44 years of age. Third, only 22-40% of non-
institutionalized, working-aged adults with mental illness are actually employed (Cook, 2006).

Stuart (2006) describes the consequences of these statistics. First, as a result of this low labor force participation rate and the barriers listed above, persons with mental illness often view themselves as, “unemployable.” If and when they do secure employment, they may be more willing to abide unsatisfactory working conditions such as employment discrimination. Second, despite their skill levels, work experience, and education level achieved, persons with mental illness are much more likely to be employed in the secondary labor market where jobs require unskilled labor, are only temporary, or do not include benefits. In fact, half of the competitive or primary labor market jobs acquired by persons with mental illness will end unfavorably as a result of interpersonal difficulties.

**Historical Overview of the Americans with Disabilities Act (ADA) of 1990**

*The Rehabilitation Act of 1973: Precursor to the ADA*

Until the Rehabilitation Act of 1973, most of the legislation pertaining to people with disabilities was geared toward some type of compensation, either monetary or otherwise, for being different from those without disabilities (e.g., The Smith-Hughes Act of 1917, The Soldier’s Rehabilitation Act of 1918; The Smith-Fess Act of 1920; The Rehabilitation Act of 1954; and The Social Security Act of 1965). The notion of mainstreaming or inclusion into the American experience was not part of the spirit or intent of these laws (Rubin & Roessler, 2008). Title V of The Rehabilitation Act of 1973 was the first law to make discrimination against people with disabilities unlawful in some
sectors, conferring upon them the civil rights protections similar to those of protected classes under the Civil Rights Act of 1964 (i.e., racial and ethnic minorities, religious minorities, and women; Rubin & Roessler, 2008). More specifically, Section 501 required affirmative action in employment by federal agencies and 503 did likewise for federal contractors in the private sector. Sections 502 and 504 began the process of ensuring accessibility in public buildings, public transportation, and higher education (Rubin & Roessler, 2008).

By the early 1980s, President Reagan had established a, “Task Force on Regulatory Relief,” under the leadership of Vice President George H. Bush, whose mission it was to review and revise regulations which were too burdensome on businesses (Eads & Fix, 1984). Only strident advocacy efforts from the disability community prevented the de-regulation of Sections 501-504 which, together with the Civil Rights Act of 1964, eventually became the foundation of the Americans with Disabilities Act.

_The Americans with Disabilities Act of 1990_

The Americans with Disabilities Act of 1990 is organized according to five titles; however, only the Employment Provisions (Title I) pertain to the current study:

- **Title I:** Persons with disabilities are protected from employment discrimination. This Title protects “qualified individuals” (those with disabilities as defined and covered under the ADA) during the hiring process, once the job is secured, and for a period of time after the person with a disability is no longer employed (EEOC, 2010). This Title exists in order to ensure that all employment actions (on
both the side of the person with a disability as well as the side of the employer) occur independently of the existence or consequence of disability. Title I is enforced by the Equal Employment Opportunity Commission.

- **Title II: Nondiscrimination on the Basis of Disability in State and Local Government Services** (or Public Entities; US DOJ, 2010). This Title protects “qualified individuals” with disabilities from discrimination on the basis of disability in the services, programs, or activities of all State and Local governments. This Title is enforced by the U.S. Department of Justice.

- **Title III: Nondiscrimination on the Basis of Disability in Public Accommodations and Commercial Facilities** (US DOJ, 2010). This Title requires places of public accommodations or commercial facilities to be designed, constructed, and altered in compliance with the accessibility standards established in order to prevent discrimination of “qualified individuals” with disabilities. Title III is enforced by the U.S. Department of Justice.

- **Title IV: Increased Access to Telecommunications**. This title requires that certain telecommunications be made accessible by the Federal Communications Commission to those who are hearing impaired through dual-party relay systems [or telecommunication devices for the deaf (TDD)] or to those who are hearing or visually impaired by way of closed captioning, which is mandated for public service announcements. Video description, which is the auditory description of visual elements of a video, was recently mandated to be studied by the FCC for feasibility (US DOJ, 2010) and may eventually be mandated under
this title if shown to be feasible. Title IV is enforced by the U.S. Department of Justice.

- **Title V: Miscellaneous Provisions.** This Title includes a variety of additional prohibitory and procedural provisions. Examples of these are prohibiting retaliation and coercion against an individual who has opposed an act or practice made unlawful by the ADA, procedural guidelines for making historic buildings and facilities accessible to persons with disabilities, and the fact that the United States Congress was the first to include its own hiring practices by prohibiting employment discrimination due to disability (Rubin and Roessler, 2008). Title V is enforced by the U.S. Department of Justice.

  *The ADA of 1990’s Definition of Disability and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008*

The Americans with Disabilities Act of 1990’s definition of disability does not explicitly list disabilities by name; instead, part of the definition includes, “a physical or mental impairment which *substantially limits* functioning in one or more major life activity” (Kichaven, 2002; West et al., 2008; McMahon, West, & Hurley, 2008, p.178). The Act’s disability definition was intended to be inclusive in spirit; however, determining whether or not one is covered under the Act has at times, proved difficult for people with disabilities (McMahon et al., 2008; West et al., 2008; McMahon et al, 2006).

Nine years after passage of the ADA, a series of Supreme Court decisions narrowed the ADA’s definition of disability in ways that the U.S. Congress never intended. In 1999, the Supreme Court ruled that mitigating measures—medication,
prosthetics, hearing aids, other auxiliary devices, diet and exercise, or any other treatment—must be considered in determining whether an individual has a disability under the Act. As a result of these restrictions, people with all types of conditions who are fortunate enough to find a treatment that makes them more capable and independent—and more able to work—often find that they are not protected by the ADA at all. The following three Supreme Court cases which narrowed the ADA definition of disability became known as, “The Sutton Trilogy,”: Sutton v. United Airlines, Inc., 527 U.S. 471 (1999); Murphy v. United Parcel Service, Inc., 527 U.S. 516 (1999); Albertson’s, Inc. v. Kirkingburg, 527 U.S. 555 (1999). In addition to the verdicts in this trilogy of cases, in 2002, the Supreme Court further emphasized that courts should interpret the definition of disability conservatively in order to create a more stringent standard for qualifying as a person with a disability for the case of Toyota Motor Manufacturing, Kentucky, Inc. v. Williams, 534 U.S. 184, 197 (2002).

The net effect of these restrictive rulings is obvious. The very people whom the U.S. Congress had intended to protect (i.e., those with disabilities such as epilepsy, diabetes, cancer, HIV, or mental illness) were suddenly denied protection from disability discrimination. In a “post-Sutton” society, the person is impaired but not impaired enough to substantially limit a major life activity (like walking or working), or the impairment substantially limits something, like liver function, that does not qualify as a “major life activity.” In brief, far fewer people could meet the new definition of disability even when they were clearly discriminated against because of it. The result was a Catch-22-like situation in
which an employer may say a person is “too disabled” to do the job but not “disabled enough” to be protected by the law (Blanck, 2009).

According to McMahon (2010), because the Sutton Trilogy had narrowed the ADA definition of disability considerably, the ADA definition of disability was re-evaluated in the years following the 3 U.S. Supreme Court decisions and disability advocates and legislators later passed the ADA Amendments Act of 2008 which amended the definition of disability in the following ways:

1. The Equal Opportunity Commission is the enforcement agency for Title I. The ADAAA clearly directs the EEOC to relax the regulations defining the term “substantially limits” in a way that is inclusive, stating it should be read as “….. an impairment that prevents or severely restricts a major life activity.” The idea is that a demanding standard for meeting the criteria for disability is to be disallowed.

2. The ADAAA expands the notion of “major life activity” by creating two non-exhaustive lists as follows:
   a. caring for oneself; performing manual tasks; everyday activities such as breathing, seeing, hearing, speaking, eating, sleeping, and walking; standing, lifting, and bending; learning, reading, concentrating, thinking, and communicating; and working.
   b. major bodily functions such as those of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions.
The ADAAA also clarifies that one need only be substantially limited in a single major life activity to meet the definition. (To simplify the process it is generally recommended that the life activity of “working” be considered only when no other major life activity applies. To do so avoids confusion with the social security and worker compensation depictions of “working” which are not ADA consistent).

3. The ADAAA clarifies that an “impairment” that is episodic or in remission (such as multiple sclerosis, diabetes, epilepsy, HIV, or cancer) is a disability if the impairment would be substantially limited to a major life activity when active.

4. Most importantly, the ADAAA states that mitigating measures other than "ordinary eyeglasses or contact lenses" shall not be considered in assessing whether an individual has a disability and provides specific guidance on this issue and includes every conceivable product and service that rehabilitation professionals provide such as medications, prosthetics, orthotics, counseling, and assistive technology. Considered the most powerful of all ADAAA changes, by disallowing consideration of mitigating measures in the determination of disability status, it involves evaluating the individual in his/her “naked state.” Clearly this will broaden the umbrella of ADA protections.

Purpose of the Study

Due to factors associated with mental illness such as severe stigma, interpersonal misunderstandings, frequent hospitalizations during acute or other stages, the unpredictable nature, and increased suicidality, persons with mental illness experience
employment discrimination at much higher rates than other groups (Thornicroft, Brohan, Rose, Satorius, & Leese, 2009; Stuart, 2006). The purpose of this study is to explore and document the employment discrimination experiences of persons with mental illness which can thereby inform researchers, policy makers, educators, places of employment, and persons with mental illness about these experiences.

Key EEOC Terms and Definitions for This and Other Project Studies

The EEOC uses the following terms and definitions in order to describe ADA Title I allegations in its IMS database:

- A Charging Party is the employee (would be, current, or past) who files a Title I allegation with the EEOC.
- A Respondent is the employer against who the Title I allegation is filed.
- A Title I allegation that is resolved by the EEOC, “with merit,” indicates that actual discrimination did occur.
- A Title I allegation that is resolved by the EEOC, “without merit,” indicates that no discriminatory act took place.

In addition, Table 1 displays the EEOC’s definition for each of the mental illness allegation types included in this study.

Study Significance

This study explores and documents the phenomenon of employment discrimination as experienced by persons with mental illness who file a Title I allegation under the Americans with Disabilities Act. Secondary data from the National EEOC ADA
Research Project’s will be used to investigate this theme. This study is significant for the following reasons:

1. Much of the previous research on employment discrimination of persons with mental illness has focused on employer attitudes (Corrigan, 2007). An analysis of the ADA Title I allegations in the current study will offer a quantitative analysis of actual acts of discrimination as determined by the EEOC, not merely a study on employer attitudes about such discrimination which can be prone to halo effects and the like.

2. A study done by Moss et al. (2001) of the IMS database which pre-dates the National EEOC ADA Research Project included an analysis of all ADA mental illness allegations (from July 26, 1992 through March 31, 1998) filed not only with the EEOC, but also at state and local Fair Employment Practices Agencies (FEPAs). In a nutshell, FEPAs are in charge of enforcing state and local employment statues. Although FEPAs are under contract with the EEOC when a claimant wishes to file simultaneously under state or local statues as well as the ADA, the National EEOC ADA Research Project, as well as the proposed study, removes such dually-filed charges to include pure ADA Title I allegations only, so as not to confound the data. This same level of data purity which is applied to studies Project-wide, will be used in the current study to focus solely on Federal mental illness allegations filed under Title I of the ADA and not a mixture of State and Federal as in the Moss et al. (2001) study. In addition, the Moss et al.
(2001) study was done before the effects of the Sutton trilogy of 1999 could be felt and then later rectified with the ADA Amendment Act of 2008.

Table 1. Mental Illness Allegation Types Defined*

<table>
<thead>
<tr>
<th>Type</th>
<th>EEOC’s Definition</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Atypical degree of sadness and melancholy. Symptoms may include poor appetite and weight loss or increased appetite and weight gain, sleep disturbance, loss of energy, loss of interest or pleasure in the usual activities, diminished ability to think or concentrate, and recurrent thoughts of death or self-harm.</td>
<td>25,375</td>
<td>44.638</td>
</tr>
<tr>
<td>Unknown Mental Illness</td>
<td>Any other emotional or psychiatric impairment not otherwise defined by Depression, Anxiety Disorder, Bipolar Disorder, or Schizophrenia.</td>
<td>11,977</td>
<td>21.069</td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>Characterized by anxiety and avoidance behavior, this impairment includes fear (phobic) disorders, obsessive compulsive disorders, post-traumatic stress disorders, and panic disorders.</td>
<td>10,370</td>
<td>18.242</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>Periodic, recurrent mood disorder with alternation between periods of mania and depression and intervening periods of typical mood. (Mania periods are characterized by persistently “high” (euphoric) or irritable mood states, appetite disturbance, increased activity, pressured speech, racing thoughts, and a loss of self control and judgment.)</td>
<td>7,675</td>
<td>13.501</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>Psychosis (commonly characterized by a disorder in the thinking processes, such as delusions and hallucinations) and an extensive withdrawal of interest in the outside world. Schizophrenia is now considered to be a group of mental disorders rather than a single entity.</td>
<td>1,449</td>
<td>2.549</td>
</tr>
</tbody>
</table>

Total for All Mental Illness Allegations 56,846 100.000%

*Ranked by prevalence

3. A dissertation completed by Sunghee An (2010) used an earlier version of the ADA Title I data filed with the EEOC from July 1992 through September 30, 2005 to compare all mental illness allegations (N = 40,859) to allegations filed by those with non-mental illness allegations (N = 272,442) using chi square analyses.
Because An’s study had been done using Project data (i.e., Federal allegations only), had been executed relatively recently, had been done using analyses that are akin to those completed in the current study (i.e., nonparametric tests of proportion and the Exhaustive Chi Squared Automatic Interaction Detector), and the data had only increased by 10% between 2005 and 2008, this comparison was not repeated in the current study. Instead, the current study evaluates all mental illness allegations as a total group, as compared to other mental illness allegations, and each individual mental illness allegation group,—the next logical methodological steps for studying ADA Title I allegation activity under the auspices of the Project.

Research Questions

The following Research Questions guided this study:

- **Research Question 1:** Which factors drive merit activity in ADA Title I allegations filed by persons with All Mental Illnesses (54,846 allegations or 100.00% of All Mental Illness allegations)?

- **Research Question 2a:** Is the difference in proportion between the number of ADA Title I allegations filed by persons with Anxiety (10,370 allegations or 18.24% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non-Anxiety Mental Illnesses (NAMI; 46,476 allegations or 81.76% of 56,846 All Mental Illness allegations) statistically significant?
• Research Question 2b: Which factors drive merit activity in ADA Title I allegations filed by persons with Anxiety (10,370 allegations or 18.24% of 56,846 All Mental Illness allegations)?

• Research Question 3a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Depression (25,375 allegations or 44.64% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non-Depression Mental Illnesses (NDMI; 31,471 allegations or 55.72% of 56,846 All Mental Illness allegations) statistically significant?

• Research Question 3b: Which factors drive merit activity in ADA Title I allegations filed by persons with Depression (25,375 allegations or 44.64% of 56,846 All Mental Illness Allegations)?

• Research Question 4a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Bipolar Disorder (7,675 allegations or 13.50% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non Bipolar Disorder Mental Illnesses (NBDMI; 49,171 allegations or 86.50% of 56,846 All Mental Illness allegations) statistically significant?

• Research Question 4b: Which factors drive merit activity in ADA Title I allegations filed by persons with Bipolar Disorder (7,675 allegations or 13.50% of 56,846 All Mental Illness Allegations)?
• Research Question 5a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Schizophrenia (1,449 allegations or 2.55% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non Schizophrenia Disorder Mental Illnesses (NSMI; 55,397 allegations or 97.45% of 56,846 All Mental Illness allegations) statistically significant?

• Research Question 5b: Which factors drive merit activity in ADA Title I allegations filed by persons with Schizophrenia (1,449 allegations or 2.55% of 56,846 All Mental Illness allegations)?

• Research Question 6a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Known Mental Illnesses (KMI; i.e., Anxiety, Depression, Bipolar Disorder, and Schizophrenia (42,869 allegations or 75.41% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Unknown Mental Illnesses (UMI; 11,977 allegations or 21.069% of 56,846 All Mental Illness allegations) statistically significant?

• Research Question 6b: Which factors drive merit activity in ADA Title I allegations filed by persons with Unknown Mental Illnesses (42,869 allegations or 75.41% of 56,846 All Mental Illness allegations)?
CHAPTER 2: REVIEW OF THE LITERATURE

Attribution Theory

Overview and History of Causal Attribution Theory

Causal attribution theory asserts that individuals attribute causes to events and behaviors in order to make sense of themselves, the environment, and others. Causal attributions are important for two reasons: 1) they help an individual predict and control the environment; and 2) they help determine an individual’s feelings, attitudes, and behaviors (Taylor, Peplau, & Sears, 1997).

Causal attribution theory includes three dimensions of causal attributions which can be used to describe how individuals understand and react to themselves, the environment, and others (Taylor, Peplau, & Sears, 1997). The first of these dimensions is locus (or location) of causality, which describes whether the causal attribution is internal (inherent to the individual) or external (inherent to the environment). Examples of causal attributions with an internal locus of causality include: moods, attitudes, personality traits, abilities, health, preferences, or wishes. On the other hand, examples of causal attributions with an external locus of causality include: pressure from others, money, the nature of a social situation, and the weather. The next dimension of causal attributions is the stability (or fixedness) of such an attribution, which describes whether the causal
attribution is stable (or unchanged) or unstable (or changed). Examples of causal attributions with a stable status may include: moods or amount of money (two areas previously used above as examples of internal and external causal attributions, respectively) which can remain unchanged; however, moods or amount of money could also change abruptly and in some cases be examples of unstable dimensions of causal attributions. And, lastly, the final dimension of causal attributions is controllability or whether or not an aspect or event in question can be controlled. Again, using the example of moods or the amount of money one has, moods and/or amount of money could be either controllable or uncontrollable. The overlapping, interconnecting relationships between these dimensions are displayed in Figure 1.

Although these dimensions provide a very easy-to-understand approach to the many potential relationships between causal attributions, some researchers have viewed them as somewhat of an oversimplification and have thus questioned whether these dimensions exist at all (Anderson, 1991). In fact, the internal/external dimension has been the most frequently criticized with researchers positing that they might not be opposites, but may actually co-occur (White, 1991; Bassili & Racine, 1990; Taylor & Koivumaki, 1976). Nevertheless, these dimensions have been used in explaining a multitude of situations: helping requests (Weiner, 1980; Schmidt & Weiner, 1988); reactions to people who have AIDS (Weiner, Perry, & Magnusson, 1988; Graham, Weiner, Guiliano, & Williams, 1993; Weiner, 1995; Steins & Weiner, 1999); and sporting events (Tenebaum & Furst, 1986). In addition, these dimensions have demonstrated some degree of cross-cultural generalizability in cultures as diverse as the United States, Britain,

Figure 1: The Interconnected Nature of Dimensions of Causal Attributions

Fritz Heider, a social psychologist, was among the first to begin theorizing about causal attributions. In 1958, in his book entitled, “The Psychology of Interpersonal Relations,” he proposed two strong motives in human beings: the need to form a
coherent understanding of the world and the need to control the environment. If a person
can not predict how others will behave, then he or she will view the world as random.
Similarly, in order to have a satisfactory level of control over the environment, an
individual must be able to predict the behavior of others. Heider believed that in order to
form a coherent understanding of the environment as well as predict and control it,
ordinary individuals (not just psychologists) have an innate theory of human behavior,
which he termed, naïve psychology (Taylor, Peplau, & Sears, 1997; Benesh & Weiner,
1982).

In 1967, Harold Kelley generated the most formal and comprehensive analysis of
causal attribution theory which he called, the covariation model. The term, covariation,
refers to people’s tendency to look for an association between a particular effect and a
particular cause across a number of conditions (Taylor, Peplau, & Sears, 1997). If a given
cause is always associated with an effect, and if the effect does not occur in the absence
of the cause, the effect can be attributed to that cause. In a sense, the principle of
covariation is much the same as that of the scientific method. Kelly asserted that
everyone uses the model of covariation, either explicitly or implicitly, to make decisions,
not just scientists. Kelley’s assertion that anyone could be a scientist was an extension of
Heider’s principle of naïve psychology in which everyone is presumed to at least have a
very basic understanding of psychology principles without formal training. As a result,
Kelley’s model of covariation has also been called, “The Naïve Scientist Model,” by
others. In order to form causal attributions about others, each “naïve scientist,” checks to
see whether or not the same effect occurs across stimulus objects, actors (or persons), and
contexts/occasions. Stated differently, each person evaluates whether or not the effect is specific to a particular object, actor, or context (Kelley, 1972).

According to Kelley, the following three types of information are gathered during an individual’s formation of casual attributions about others: 1) Distinctiveness: Does the person act in this manner only in regard to the stimulus and not in regard to other objects?; 2) Consensus: Do other people act in the same way in this same situation?; and 3) Consistency: Does this person consistently react the same way at other times or in other situations? Kelley asserted that for an individual to make an external attribution (or one in which cause is assigned to something other than the individual in question, such as the environment) about another, the individual forming the external causal attribution must rate the attribution about the other individual high on distinctiveness, consensus, and consistency. Similarly, in order for an individual to form an internal attribution (something within the individual in question) about another individual, the individual forming the internal causal attribution must rate the attribution about the other individual with low distinctiveness, low consensus, and high consistency (Kelley, 1972). In a classic study, McArthur (1972), tested and confirmed Kelley’s findings.

Kelley also asserted a principle, called the discounting principle, which describes what happens when a behavior or event has many possible causal explanations. According to Kelley, the role of a given cause in producing a given effect is discounted (or eliminated from being considered plausible any longer) if other plausible causes are also present (Kelley, 1972). Much research in later years has confirmed Kelley’s model
of covariation and discounting principle (e.g., Olson, 1992; Cheng & Novick, 1990; Morris & Larrick, 1995).

Causal attribution theory is somewhat generalizable across cultures; however, individuals in non-western cultures tend to place more emphasis on situational/external attributions and less emphasis on dispositional/internal attributions. As a result, less blame is assigned to the individual for any given behavior or event (Schweder & Bourne, 1984; Markus & Kitayama, 1991). Furthermore, when it comes to comparing and contrasting the specific content of attributions, much less generalizability is possible (Agar, 1981; Taylor, 1982; Levy-Bruhl, 1925; Hewstone, 1989).

Humans are faced with a plethora of social and other information to process daily. Because of the sheer volume of social information, humans have the need for linguistic and cognitive shortcuts in day-to-day social interactions (Taylor, Peplau, & Sears, 1997), in order to process such information in the most efficient way possible. As a result of this need for efficiency, attributional biases can occur when humans take cognitive shortcuts, either explicitly or implicitly, about social and other information. Table 2 lists and defines some of these attributional biases.

<table>
<thead>
<tr>
<th>Attributional Bias</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Salience</td>
<td>Perceiving the most salient stimuli as the most influential</td>
</tr>
<tr>
<td>Fundamental Attribution Error</td>
<td>Over attribution to disposition and under attribution to situations</td>
</tr>
<tr>
<td>Actor-observer Bias</td>
<td>Inherent misattribution of causal attributions of others because all</td>
</tr>
<tr>
<td></td>
<td>attributions of others are made by the observer, not the actor</td>
</tr>
<tr>
<td>False Consensus</td>
<td>Individuals imagine that everyone responds the way they do</td>
</tr>
<tr>
<td>False Uniqueness</td>
<td>Individuals undervalue the specialness of peers’ abilities and overvalue</td>
</tr>
<tr>
<td></td>
<td>the specialness of their own abilities</td>
</tr>
<tr>
<td>Self Serving Attributional Bias</td>
<td>Deny responsibility for failures and over credit successes</td>
</tr>
<tr>
<td>Self Centered Bias</td>
<td>Exaggerating one’s own contribution to a group activity and downplaying</td>
</tr>
<tr>
<td></td>
<td>those from other group members</td>
</tr>
</tbody>
</table>
Previous Studies on Attribution Theory and Stigma or Impairment Type

In 1988, Weiner, Perry, & Magnusson conducted an attributional analysis of stigma for certain impairment types by investigating the perceived responsibility of 10 impairments, selected unsystematically and only as a result of having received much media attention at the time. These impairments (referred to by the authors as, “stigmas”) included Alzheimer’s disease, blindness, cancer, heart disease, paraplegia (all considered physical), Vietnam War Syndrome, acquired immune deficiency syndrome (AIDS), child abuse, drug abuse, and obesity (all considered mental-behavioral). The study consisted of two experiments designed to explore 2 of the three dimensions of causal attributions described above (stability/instability and controllability/uncontrollability); however, the third dimension of causal attributions (internal/external) was not included in the study for reasons not explicitly stated. Perhaps the decision to exclude the internal/external dimension is a result of this dimension’s existence being questioned by some researchers (White, 1991; Bassili & Racine, 1990; Taylor & Koivumaki, 1976).

The first experiment in Weiner et al. (1988) tested 59 male and female introductory psychology students at UCLA on the 10 stigmas listed above across 13 dependent variables which included: responsibility, blame, like, pity, anger, assistance, charitable donations, change, technical job training, professional job training, welfare, medical treatment, and psychotherapy. These 13 dependent variables were given on a 130-item instrument (10 stigmas X 13 variables) where each participant was asked to rate each stigma along a continuum of each of the 13 dependent variables which were rated for severity on a scale of 1-9. ANOVAs were performed to investigate if there was a
significant difference between mental-behavioral stigmas and physical stigmas, with the analyses supporting the hypothesis that the mental-behavioral stigmas were perceived as more controllable and more stable (or unchanged) while the physical stigmas were perceived as less controllable and less stable (amenable to change). Two potential problems were not controlled for: 1) combining Vietnam War Syndrome, acquired immune deficiency syndrome (AIDS), child abuse, drug abuse, and obesity, stigmas from conditions which are too different, into one homogenous group; and 2) sampling a small number of introductory psychology students at one university and, as a result, getting results that are not very generalizable.

The second experiment in Weiner et al. (1988) was designed to replicate finding in experiment 1, by making the sample considerably larger and somewhat more diverse (149 male and female introductory psychology students at UCLA as well as 171 male and female introductory psychology students at the University of Manitoba, Canada). They were tested in group settings and either given information regarding stigma onset and personal responsibility or no such information was provided. A 2 X 2 MANOVA was performed to determine whether or not data from the two countries could be combined. Because the interaction effects were relatively weak, the authors were able to combine the two countries. Correlational analyses were performed and findings supported what was found in experiment 1: the mental-behavioral stigmas were perceived as more controllable and more stable (or unchanged) while the physical stigmas were perceived as less controllable and less stable (amenable to change). Again, one problem which was not controlled for was combining Vietnam War Syndrome, acquired immune deficiency
syndrome (AIDS), child abuse, drug abuse, and obesity, stigmas from conditions which are extremely different, into one group that was supposed to be homogeneous.

In 2000, Corrigan et al. conducted a study designed to address some of the issues encountered in the Weiner et al. 1988 study such as the heterogeneity of the mental-behavioral group as well as the inclusion of child abuse and AIDS in a mental illness category, since neither of these is listed in the DSM-IV and seems to represent more closely a mental illness stereotype. Therefore, it is not clear if society’s negative view of child abuse and AIDS was behind much of the effect since these stigmas were included under mental-behavioral in Weiner et al. (1988). Corrigan et al. (2000) also extended their investigation into whether or not persons with different types of mental illnesses included in the DSM-IV showed variability between mental illness diagnoses along the causal attribution dimensions of stability/instability and controllability/uncontrollability (2000).

Corrigan et al. (2000) recruited 152 Chicago-area community college students with the rationale that community college students tend to be more diverse and thus more representative of the community as opposed to students from a four-year college. Participants completed an instrument [called the Psychiatric Disability Questionnaire (PDAQ)] which was constructed by the authors and based on Weiner et al.’s (1988) attribution analysis. Because Weiner et al. (1988) had been concerned about limited reliability and validity of their measure since the participant had to rate 130 different scenarios (10 stigmas X 13 dependent variables), Corrigan et al. (2000) limited their instrument to only 6 disability groups: Four commonly stigmatized psychiatric
disabilities: mental retardation, cocaine addiction, psychosis, depression; and 2 physical
disabilities included in Weiner et al. (1988): cancer [which was rated most
sympathetically by Weiner et al. (1988)] and AIDs [which was rated most negatively by
Weiner et al. (1988)]. These disability groups were examined along 6 attributions: 3
stability with 2 from Weiner et al. (1988) as well as 1 new; and 3 controllability with 2
from Weiner et al. (1988) as well as 1 new. These attributions were ranked in severity for
each disability group along a 7-pt scale.

Corrigan et al. (2000) performed 6 principal component factor analyses on the
disability groups of the PDAQ, as Weiner et al. (1988) had failed to do so. These
analyses were used to generate stability and controllability factor scores for the PDAQ.
Test-retest reliability was determined for two factors across the six disability groups.
Within group ANOVAs were performed which showed significant differences across the
six disability groups for each factor.

Results of Corrigan et al. (2000) suggest two key findings: 1) Stability reflected
expectations about the changeability of the disorder and controllability reflected
expectations about whether the individual (vs. the environment) caused the disability; and
2) Persons make more negative attributions about changeability and controllability for
psychosis, cocaine addiction, and AIDs vs. those made for depression and cancer (which
were viewed rather benignly) while mental retardation was viewed most negatively.

In 2004, Chan, McMahon, Cheing, Rosenthal, & Bezyak, performed a study
about attribution theory, using the Equal Employment Opportunity Commission’s ADA
Title I data, which was based on both Weiner et al. (1988)’s and Corrigan et al. (2000)’s
study. Chan et al. (2004) compared the merit rates (actual employment discrimination as determined by EEOC outcomes) of two groups: Group A: impairments rated by Corrigan et al. (2000) as uncontrollable and stable: visual impairment, cardiovascular impairment, and spinal cord injury; and Group B: impairments rated by Corrigan et al. (2000) as controllable and unstable: depression, schizophrenia, alcohol and other drug abuse, and HIV/AIDs. These group assignments were driven by controllability and stability attributions as documented by Corrigan et al. (2000), and by extension, by Weiner et al. (1998). An Exhaustive CHAID analysis was performed to explore actual employment discrimination between these attributionally differing groups.

Results did not support the hierarchy of controllability-stability as put forth by Corrigan et al. (2000) or Weiner et al. (1998). With the exception of HIV/AIDs which did follow along the lines of Corrigan et al. (2000) and Weiner et al. (1998), Group A impairments showed much more actual disability-based employment discrimination than group B; a finding which does not support aspects of attribution theory as described by Weiner et al. (1998) or Corrigan et al. (2000). Perhaps, employment discrimination against persons with disabilities is a special case and the two previous studies which were based on student attributions about the target groups were not sensitive to the phenomenon which occurs in disability-based employment discrimination. Furthermore, if attribution is part of the employment discrimination phenomenon against persons with disabilities, perhaps it is only one small piece. It is also possible that the allegations ranging from July 26, 1992 through December 31, 2003 did not reflect earlier stigma severity for conditions such as HIV/AIDs. Because there may be more factors involved in
the phenomenon of employment discrimination against persons with disabilities than only one single attribute (e.g., disability type), the multivariate technique of Exhaustive CHAID was an appropriate technique for use, allowing Chan et al., to consider many variables at once.

How the Traditional Diagnostic and Statistical Manual of the American Psychological Association Definitions of Mental Illness Differ from Those of The Equal Employment Opportunity Commission (EEOC)

The Equal Employment Opportunity Commission (EEOC), the enforcement agency of Title I of the Americans with Disability Act of 1990, uses the ADA definition of disability (pre-ADA Amendments Act of 2008 for the current study) to define all disabilities including mental illness. More specifically, the, “EEOC Enforcement Guidance on Psychiatric Disabilities,” (1997) elaborates on the ADA definition of disability as it relates to mental illness:

The ADA rule defines "mental impairment" to include "[a]ny mental or psychological disorder, such as . . . emotional or mental illness." Examples of "emotional or mental illness[es]" include major depression, bipolar disorder, anxiety disorders (which include panic disorder, obsessive compulsive disorder, and post-traumatic stress disorder), schizophrenia, and personality disorders. The current edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (now the fourth edition, DSM-IV) is relevant for identifying these disorders. The DSM-IV has been recognized as an important reference by courts and is widely used by American mental health professionals for diagnostic and insurance reimbursement purposes.

Not all conditions listed in the DSM-IV however, are disabilities, or are even impairments, for purposes of the ADA. For example, the DSM-IV lists several conditions (e.g., paraphilias such as voyeruism) that Congress expressly excluded from the ADA's definition of "disability."
While the DSM-IV covers conditions involving drug abuse, the ADA provides that the term "individual with a disability" does not include an individual who is currently engaging in the illegal use of drugs, when the covered entity acts on the basis of that use. The DSM-IV also includes conditions that are not mental disorders but for which people may seek treatment (for example, problems with a spouse or child). Because these conditions are not disorders, they are not impairments under the ADA. (EEOC, Section 1, 1997).

The ADA definition of disability does not explicitly list any specific disabilities regardless of type; however, the EEOC’s definition of mental illness, which is used in the the EEOC’s Intermission System Database and, by extension, the current study, uses the DSM-IV to describe 5 mental illness categories (i.e., depression, anxiety disorder, bipolar disorder, and schizophrenia) as well as 1 more general category of unknown mental illness since those conditions are, by definition, unknown as a result of a charging party opting not to self report or data collection errors. Because all previous and current versions of the DSM have been a world-renown standard in providing mental health professionals and others an extremely detailed guide to all mental illnesses recognized by the American Psychiatric Association for describing diagnostic criteria for mental illnesses, the EEOC incorporates this guide into its own mental illness categories and definitions. The most recent and current version of the DSM, which came out in 2000, is the DSM-IV-TR (Diagnostic and Statistical Manual-IV-Text Revision). As a result of the DSM being such a standard for many including the EEOC, DSM definitions of specific mental illnesses included in the EEOC’s Intermission System Database as well as this study follow:

- Depression: Characterized by low mood. Symptoms include: difficulty with concentration, remembering details, or making decisions; fatigue and decreased
energy; feelings of guilt, worthlessness, and/or helplessness, feelings of hopelessness and/or pessimism; insomnia, early-morning wakefulness, or excessive sleeping; irritability or restlessness; loss of interest in activities or hobbies once pleasurable, including sex; overeating or appetite loss; persistent aches or pains, headaches, cramps, digestive problems that do not ease even with treatment; persistent sadness, anxiousness, or “empty feelings; and thoughts of suicide or suicide attempts (APA, 2000).

- **Anxiety Disorder**: Characterized by worry and restlessness. Symptoms include: restlessness or feeling of being “on edge”; being easily fatigued; difficulty concentrating or a sense your mind might be going blank; irritability; muscle tension; difficulty sleeping; trembling, twitching, or muscle soreness; headaches, sweating or chills, nausea, dizziness; shortness of breath, irritable bowel syndrome; or being easily startled (APA, 2000).

- **Bipolar Disorder**: Characterized by alternating periods of Mania (or high mood) and Depression (or low mood). Symptoms include:
  - **Mania Phase**: euphoria or irritability; excessive talk or racing thoughts; inflated self esteem; unusual energy or less need for sleep; or impulsiveness or a reckless pursuit of gratification (shopping sprees, impetuous travel, more and sometimes promiscuous sex, high-risk business investments, fast driving; APA, 2000).
  - **Depression Phase**: see depression as its own condition above, as the symptoms are the same.
• Schizophrenia: Characterized by a general break from reality. Symptoms are typically broken up into two groups:
  o Positive (or added) symptoms: delusions (firm, unshakable beliefs not grounded in reality such as the belief that one is being followed), or hallucinations (hearing or seeing things that are not actually there), disorganized speech (frequent derailment or incoherence); grossly disorganized behavior (unpredictable agitation or silliness, social disinhibition, or behaviors that can look bizarre to onlookers; APA, 2000).
  o Negative (or deficit) symptoms: social withdrawal; flat or blunted emotions or affect; alogia (the lessening of speech fluency and productivity) adhedonia or the inability to feel pleasure; loss of appetite; loss of hygiene; and avolition or the loss of goal directed behavior (these negative symptoms are usually mistaken for laziness; APA, 2000).

The Benefits of Work for Persons with Mental Illness

Because the many and varied benefits of employment are not attainable through any other activity alone, obtaining and retaining employment for persons with mental illness is imperative to their well being (Crowther, Marshall, Bond, & Huxley, 2001). The literature repeatedly states that employment plays a vital role in the recovery and rehabilitation of persons with mental illness by providing routine and structure, social contact, meaning and purpose, a self-esteem boost, and a reduction in symptom severity (e.g. Crowther et al., 2001; Stuart, 2006; Cook, 2006; Thornicroft et al., 2009; Mueser, Salyers, & Mueser, 2001). Contrary to popular belief, being unemployed and collecting
Social Security disability benefits is often not optimal or preferred by persons with mental illness. In fact, most of them want deeply to be included in the workforce in order to reap the intrinsic benefits of work as well as to be able to participate in normative practices such as contributing financially through taxes like the majority of persons who live in the United States (Mueser, et al., 2001).

Each year, mental illness costs Americans $193 billion in lost earnings (American Psychological Association, 2008). In addition, people who are seriously impaired (with conditions such as schizophrenia or bipolar disorder) make about $16,603 less per year on average than those without such conditions (American Psychological Association, 2008).

Either in the process of securing a job or once a job has been secured, persons with mental illness are often reluctant to disclose their disability status in order to gain protections under the ADA (Pardeck, 1998). According to the ADA, persons with disabilities must disclose their disability status to their employer in order to benefit from its employment protections. Although this disclosure does not have to be a full disclosure in which the nature or exact type of disability is explained to the employer, persons with mental illness often feel even a generic disability disclosure to an employer is not worth risking their job for ADA protections. This reluctance is often the result of having endured much disability discrimination and stigma in social or other life sectors outside of employment (Pardeck, 1998). In this way, persons with mental illness often settle for unsatisfactory employment conditions instead of seeking protections under the Act in order to ensure their employment is not interrupted (Stuart, 2006). As a result of this fear,
actual numbers of employment discrimination for persons with mental illness may exceed initial estimates (Pardeck, 1998).

The Employment Experiences of Persons with Mental Illness

It has been estimated that between 15-30% of employees will experience some form of mental health difficulty during their working lives, with depression representing the most frequent problem. In addition, three percent of employees will have a mental illness in any given year (Stuart, 2007). Mental illnesses are among the most disabling conditions, particularly in modern work environments which place a premium on cognitive skills (Stuart, 2007). Although the prevalence for meeting full diagnostic criteria for the mental illness described above is 6.2% of workers (with 5.6% among full-time and 8.7% among part time workers), one study reported a prevalence rate as high as 34% for those workers whose symptoms were in a prodromal (or sub-clinical) stage. Thus, many more workers are experiencing symptoms of mental illness without meeting full diagnostic criteria and employees, business, & the labor market are feeling the effects (Stuart, 2007).

Three types of workplaces have been linked with an increased prevalence of mental illness: jobs with high demands and low control; jobs in which rewards are seen to be incommensurate with the work requirements so that the workers find the workplace demoralizing; and workplaces which are experienced as unjust either because of poor treatment by managers or unfair decision making (Stuart, 2007).

Recently, much research has focused on productivity costs of depression considering that it is one of the most prevalent and disabling conditions affecting working
populations. The average disability period for depression (40 days) exceeds that for other physical conditions (such as back pain at 37 days, heart disease at 37 days, or high blood pressure at 27 days) as well as all other mental disorders at 32 days. Also, a 12-month return-to-disability-status is higher for depression than for other disorders. Therefore, depressive disorders not only produce longer periods of disability as compared with other chronic physical and mental disorders, they also show a significantly higher relapse rate of within one year (Stuart, 2007).

In a study done by Baldwin & Marcus using data from the 1994-95 U.S. National Health Interview Survey Disability Supplement, the authors compared 1,139 persons who had a mental illness and who had worked in the month prior, with 66,341 workers who did not have mental disabilities (2006). Twenty percent of those participants with mental illness had experienced job-related discrimination such as being refused employment, transfer, promotion, or access to training; having had difficulty changing jobs; having had difficulty advancing in a job; or having been fired or laid-off. Experiences of job-related discrimination ranged from 21% among those with mood disorders such as depression and bipolar disorder, 22% among those with anxiety disorders, and 29% among those with a psychotic disorder such as schizophrenia (Baldwin & Marcus, 2006).

Persons with mental illness have enormous differences in their backgrounds and experiences. These pronounced differences demonstrate just how diverse the group is and the gigantic range of vocational needs which should be fully addressed. One strategy to address such a heterogeneous population is to tailor vocational and other approaches to the individual and to be as specific as possible (Killeen & O’day, 2004).
In a qualitative study in which the authors interviewed 32 persons with all types of mental illness, Killen & O’day (2004) found that one of the most common factors across disability types was the overall negative message about the individual’s employment potential the individual received from persons in charge of policies and programs. For example, some of these negative messages included: 1) upon initial hospitalization, doctors or nurses gave the impression that they would never work again; or 2) although college educated or having solid work histories, being placed by well-meaning vocational rehabilitation or mental health counselors into unskilled, low wage positions and encouraged to remain there for the sake of maintaining disability benefits. In addition to negative messages from those in charge of policies or programs, study participants also cited negative messages from family, friends, and the media about the absence of their potential for work. Beliefs concerning one’s potential can be powerfully affected by spoken or unspoken messages and assumptions one receives from others (White & Epston, 1990). These beliefs in turn can affect one’s actions (Killeen & O’day, 2004).

Employer attitudes continue to play a role in whether or not people with mental illness are accepted into the workforce and the extent to which reasonable accommodations are made. Stigma remains one of the top barriers to full employment for persons with mental illness (Corrigan, 2007). Also, many employers have been shown to still hold stock in myths and stereotypes about workers with mental illness such as that they are limited in cognitive abilities, may become violent, or that they must only work in low stress environments (Stuart, 2007). The majority of employers are reluctant to hire a
person with mental illness and one in four would dismiss someone with a mental disorder (Stuart, 2006).

EEOC investigators and mediators have agreed that cases involving persons with mental illness are often among the most exhausting and expensive to resolve (Kichaven, 2002). Because it can be challenging for persons with mental illness to communicate reasonable accommodation requests, employers do not always know how to accommodate persons with mental illness in the workplace. Most employers are familiar with ADA accommodations such as ramps and wheelchair accessible restrooms for persons with physical disabilities; however, it is much less clear what is expected of them to meet the accommodation needs of persons with mental illness (MacDonald-Wilson, Rogers, & Massaro, Lyass, & Crean, 2002).

A Brief History of the Equal Employment Opportunity Commission (EEOC)

The EEOC is an independent federal agency which was first conceived of in 1964 as an agency that would enforce Title VII (which prohibits employment discrimination for all persons, not just those with disabilities) of the Civil Rights Act of the same year. Instead, as a result of political compromise, the agency wound up with more of a complaint processing role. From the very beginning, EEOC staff were unable to keep up with the volume of complaints due to a limited budget and organizational restraints; in spite of this, Congress increased the agency’s workload by eventually adding an enforcement element as well as periodically adding new statutes to its jurisdiction (Moss, Burris, Ullman, Johnsen, & Swanson, 2001).
Throughout the EEOC’s existence, its administrators have attempted several agency approaches to processing a high volume of claims of employment discrimination filed under many different federal employment discrimination statutes with limited financial and personnel resources. From 1964-1977, the approach was to investigate every claim thoroughly, which ultimately, because of the EEOC’s somewhat inadequate resources, led to a backlog of claims. As a result, from 1977-1983, EEOC administrators utilized a fact-finding approach which effectively cut the backlog of claims, but led to complaints of individual unfairness. Consequently, from 1983-1995, EEOC administrators reverted back to the approach of investigating every claim, considering this approach to be the lesser of two evils at the time. Still questioning claim processing efficiency, EEOC administrators implemented yet another system (which is currently in use), one which uses a quick assessment technique to prioritize claims based on their apparent validity. This current system has once again reduced claim backlog, but at what cost (Moss, et al., 2001)?

Despite these varied administrative approaches, the EEOC has still had an ever present backlog of discrimination claims. For example, the EEOC had first been projected to receive 2000 claims its first year (1964), but instead, it received 8,856 claims. In 1969, the rate of filing claims did not decrease and the agency received 12,148 discrimination claims with 71,023 in 1975. Continuing to receive discrimination claims at such a high rate resulted in the EEOC having a backlog of 53,410 claims in 1972 and the median claim resolution time being thirty-two months. Although the EEOC attempted to keep up with the immensely high rate of filing discrimination claims, its limited resources
did not allow for such a high volume of claim filing activity and by 1973, the backlog had reached 79,783 claims and 98,000 claims in 1974 (Moss et al., 2001).

In 1990, Congress assigned the EEOC the task of ADA Title I enforcement, the fourth in a long line of 5 federal employment discrimination statues for which the EEOC was responsible for claim processing and statue enforcement. In addition to Title I of the ADA, the federal employment statues also enforced by the EEOC include: Title VII of the Civil Rights Act of 1964, the Equal Pay Act, the Age Discrimination in Employment Act, and Section 501 of the Rehabilitation Act of 1973 (Moss & Johnsen, yr unk). Adding ADA Title I claim processing and enforcement was the largest EEOC expansion to date and did not come with sufficient additional budget or personnel resources. As a result, the EEOC received 63,898 claims from all statues in its jurisdiction in 1991 (before the effects of ADA Title I claim processing and enforcement could be felt), but by 1994, that rate had swelled 42.7% to 91,189 claims from all statues—a rather severe increase; however, it should be noted that the Civil Rights Act of 1991, which allowed employees filing litigation for intentional discrimination cases to seek compensatory damages against their employers and have jury trials, could have also had an effect on this substantial increase (Moss et. al., 2001).

Filing an ADA Title I Allegation with the EEOC and the EEOC’s Investigative Process

Any individual who believes that his or her employment rights have been violated on the basis of disability may file an ADA Title I charge with the EEOC. In addition, an individual, organization, or agency may file a Title I charge on behalf of another person in order to protect the aggrieved person’s identity. An individual may file by mail or in
person at the nearest EEOC office. Persons who need an accommodation in order to file a Title I charge (e.g., a sign language interpreter or print materials in an alternate format), can inform the EEOC field office in order to make arrangements. The person filing the Title I charge should include his or her name, address, and telephone number as well as the name, address, and telephone number of the accused offending employer, employment agency, or union and number of employees or union members if known. An individual should also include a short description of the alleged offense and the date it occurred. A Title I charge must be filed with the EEOC within 180 days from the alleged violation. This 180-day period is extended to 300 days if the charge is also covered by a state or local anti-discrimination law. (EEOC, 2010).

Many states and localities have their own employment anti-discrimination laws as well as their own agencies responsible for enforcing these laws. The EEOC calls these agencies, “Fair Employment Practices Agencies (FEPAs).” If a charge is filed with a FEPA and is also covered by a federal law (e.g., Title I of the ADA), the FEPA dual files the charge with the EEOC to protect federal and state rights simultaneously. The charge is usually then retained by FEPA for handling. Similarly, if a charge is filed with the EEOC and also is covered by state or local law, the EEOC dual files the charge with the state or local FEPA, but usually retains the charge for handling. This division of duty between the EEOC and FEPAs prevents any duplication of effort while ensuring that a charging party’s rights are simultaneously protected under federal and state laws (EEOC, 2010). The EEOC has 50 field offices in 33 states and the District of Columbia and a total.
of 125 FEPAs in 48 states, the District of Columbia, and two territories (Moss et al., 2001).

When an employer is notified that an ADA Title I charge has been filed, the charge may be handled in a number of ways. A Title I charge may be assigned for priority investigation if the initial facts appear to support a law violation. The EEOC can settle a Title I charge at any stage of the investigation if the charging party and the employer express interest in doing so. If settlement is not successful, the investigation continues. During the investigation process, the EEOC may request information, interview people, review documents, or visit the facility where the alleged offense took place. When the investigation is complete, the EEOC will discuss the evidence with the charging party or employer as appropriate. The EEOC may select the Title I charge for its mediation program if both the charging party and the employer are interested in this option. Mediation is offered as an alternative to a potentially lengthy investigation process and participation in it is voluntary and confidential. If mediation is unsuccessful, the Title I charge is returned to investigation. A Title I charge may be dismissed from investigation at any point if, in the EEOC’s best judgment, further investigation will not establish violation of the law. A Title I charge may also be dismissed by the EEOC at the time it is filed if an initial in-depth interview does not produce evidence to support it. When a Title I charge is dismissed, a notice is issued in accordance with the law which gives the charging party 90 days in which to file a lawsuit on his or her own behalf (EEOC, 2010).
If the evidence establishes that discrimination has occurred, the employer and charging party will be informed in a letter of determination which explains the finding. The EEOC will then attempt conciliation with the employer to find a solution for the discrimination. If the case is successfully conciliated, or if a case has earlier been successfully mediated or settled, neither the EEOC nor the charging party may go to court unless the conciliation, mediation, or settlement agreement is not honored. If the EEOC is unable to successfully conciliate a case, the agency will decide whether or not to bring suit in federal court. If the EEOC decides not to sue, it will issue a notice closing the case and giving the charging party 90 days in which to file a lawsuit on his or her own behalf. In ADA Title I cases against state or local governments, the Department of Justice takes these actions (EEOC, 2010).

A charging party can request a notice of, “right to sue,” from the EEOC 180 days after the Title I charge was first filed with the agency. Only for a 90-day period after a charging party receives this notice may he or she file an employment discrimination lawsuit in court (EEOC, 2010).

Available remedies or relief for employment discrimination under ADA Title I may include any of the following: back pay, hiring, promotion, reinstatement, front pay, reasonable accommodation, or other actions that will make the individual whole (e.g., in the condition he or she would have been without having faced discrimination). Remedies may also include payment of attorney’s fees, expert witness fees, and court costs (EEOC, 2010).
Under the Title I of the ADA, both compensatory and punitive damages are available where intentional discrimination is found. Damages may compensate for actual monetary losses, for future monetary losses, mental anguish, and inconvenience. Punitive damages may be included if the employer was found to have acted with malice or reckless indifference; however, punitive damages are not available against state or local governments. In cases involving reasonable accommodation under Title I of the ADA, compensatory or punitive damages may not be awarded to the charging party if the employer can demonstrate that a, “good faith,” effort was made to provide reasonable accommodation. An employer may be required to post notices to all employees addressing the violations of a specific charge and advising them of their rights under the laws the EEOC enforces (including Title I of the ADA) and their right so that they may feel free to file a claim if necessary and to be free from retaliation in so doing. These notices must be accessible to all persons, including those who have a visual or other impairment which affects reading such a notice. An employer may also be required by the outcome of the lawsuit to take corrective or preventive actions to abolish the source of the identified discrimination and minimize the chance of its recurrence or discontinue certain discriminatory practices involved in the case (EEOC, 2010).

Categories of Employment Discrimination Charges Filed with the EEOC

When a charge of employment discrimination is filed under any of the statues in its jurisdiction, the EEOC categorizes these charges into three separate categories of priority (which the EEOC has named the Priority Charge Handling Procedures):
- Category A: claims including clear violations of established discrimination principles
- Category B: claims with the potential to support discrimination law development
- Category C: claims pertaining to the effectiveness of the EEOC’s enforcement process

Each category contains several subcategories with all ADA Title I claims falling automatically under Category B, due to the fact that the ADA was a relatively new statute at the time and certain definitions and such were still being solidified. As a result, ADA Title I claims, at least theoretically, could be held up longer than those in Category A just by virtue of being an ADA claim. One intended purpose of categorization was to communicate how much investigation a claim might require. Thus, a claim’s categorization could change depending on evidence discovered during the investigation process; however, Category C cases are usually quickly dismissed for lacking evidence and do not have time to matriculate through the categorical system. (workworld.org; Moss et al., 2001).

Moss et. al (2001) found that while interviewing 50 EEOC personnel in charge of categorizing claims about the claim categorization process, they frequently cited a claim’s categorization to be a function of the claimant’s ability to clearly articulate the discrimination offense. In this way, a claim made by a more articulate claimant may receive a higher charge priority categorization and thus stand a better chance of litigation being pursued, whereas a claim from a less articulate claimant might require more investigation or be more likely to be dismissed under Category C. This has clear
implications for certain disability groups with diminished ability to articulate, such as persons with intellectual disabilities, sensory impairments, mental illness, or certain physical disabilities such as traumatic brain injury. Claims from these groups are more likely to be dismissed under Category C regardless of the EEOC personnel’s efforts to interview others involved, like the claimant’s employer.

Previous Studies on Employment Discrimination and Persons with Mental Illness

Involving Title I Allegations from the EEOC’s IMS Database

Generally, a person may file a charge of employment discrimination with either the EEOC (for federal statues) or FEPA (state or local statues); however, when a charge contains employment discrimination which violates not only Title I of the ADA, but also state or local laws, the charge is considered to be a, “dually filed,” charge and filed with both the EEOC and the Fair Employment Practices Agency (FEPA). Moss, Ullman, Starrett, Burris, & Johnsen (2001) used the EEOC’s IMS database to investigate employment discrimination claims filed not only under the ADA at an EEOC field office, but also those filed with state or local FEPAs simultaneously. When an ADA Title I claim is also filed under state or local employment discrimination statues, the FEPA office is under a joint contract with the EEOC who oversees the FEPA’s investigation process. Moss et al.’s (2001) study included ADA Title I employment discrimination claims ranging from the first effective date of the ADA (July 26, 1992) through March 31, 1998 for a total of 175,226 claims with 57% filed by EEOC field offices and 43% filed by FEPAs. Although Moss et al., (2001) do place EEOC and FEPA claims into two separate categories for a comparison which describes the big picture of the EEOC and
FEPAs, dually filed charges are still included in the study. In order to prevent any confounding variables which could arise from dually filed charges, the National EEOC ADA Research Project (as well as the current study) has chosen to focus squarely on allegations filed with the EEOC for the sake of parsimony and clarity and to eliminate potential influence from FEPA allegations.
CHAPTER 3: METHOD

The Equal Employment Opportunity Commission’s Integrated Mission System Database

As ADA Title I’s enforcement agency, the Equal Employment Opportunity Commission gathers data about each allegation of employment discrimination filed under the Act. These data describe three main aspects of each ADA Title I allegation: 1) the charging party or employee who is filing the allegation; 2) the employer or respondent against whom the allegation is filed; and 3) the outcome or resolution of the allegation (i.e. in whose favor did the allegation result). The agency enters these details into its Integrated Mission System (IMS) Database, which contains over 2 million allegations of employment discrimination, and includes allegations filed not only under Title I of the ADA, but also under other federal statutes (e.g. The Civil Rights Act of 1964) in the EEOC’s jurisdiction; however, for the purpose of this study, only Title I allegations were examined as this study focuses squarely on the employment discrimination of persons with mental illness. Through an Interagency Personnel Agreement between the EEOC and Virginia Commonwealth University (VCU), the author was allowed access to these data.

The National Equal Employment Opportunity ADA Research Project Master Database

Dr. Brian T. McMahon, who directs the National EEOC ADA Research Project (the Project) and is the author’s dissertation committee chair, along with the author and
Dr. Mehdi Mansouri merged and cleaned data from the IMS to create a Project database. This Project database includes all the ADA employment allegations filed under Title I with the EEOC from July 26, 1990 (the date ADA first went into effect) through December 31, 2008 (the last date before the ADA Amendments Act of 2008 went into effect), not just those filed by persons with mental illness, but by those with all disabilities. All identifying information was eliminated in this process; a condition of IMS usage made by the EEOC and honored by Project researchers. The resulting Project database contains a total of 402,291 allegations and only those allegations no longer under investigation (or closed) by the EEOC. Also excluded were allegations filed under state or federal employment discrimination laws other than Title I of the ADA or allegations filed in the spirit of retaliation. The individual who files a Title I allegation may bring more than one Title I allegation if more than one discrimination event has occurred against the same employer. The unit of measure in the Project database is a Title I allegation of employment discrimination, not the individual who brings the claim. In addition, the Project database does not include any known recording or duplication errors.

The Project database includes the following employee or charging party categories: “Basis” or disability (42 impairments such as back, cerebral palsy, hearing, vision, schizophrenia, depression, alcoholism, or drug addiction; the “Issue” of discrimination under which the charging party filed his or her claim (44 issues such as Hiring, Firing, Harassment, Intimidation, or Posting Notices; Race (White, Black, Hispanic, Asian, Mixed, Native American/Alaskan Native, Other, or Null), Age (ranging from 15-87 years and having a mean of 44 years), and Sex (Male, Female, or Null). The following
employer or respondent categories are also included in the Project database: Employer Size (15-100, 101-200, 201-500, 501+, or Null workers), Employer Industry (21 Industries such as Agriculture/Forestry/Fishing/Hunting, Mining, Construction, Retail Trades, Finance/Insurance, Educational Services, or Health Care/Social Assistance), and Employer U.S. Census Region (Northeast, South, Midwest, West, Territories, or Foreign). The Project database also includes the allegation Resolution Year (1992-2008) as well as the allegation Resolution Status [either closed with merit (i.e., employment discrimination occurred) or without merit (i.e., employment discrimination did not occur).

This study explores employment discrimination as experienced by persons with mental illness who filed an ADA Title I allegation by using secondary data from the National EEOC ADA Research Project’s database (extracted as detailed above from the EEOC’s IMS database) to investigate this phenomenon. This investigation is quantitative in nature. Although the National EEOC ADA Research Project has over 70 articles which explore the Project database in various iterations in peer-reviewed journals, only one dissertation and a subsequent article exist which focus solely on mental illness; however, the majority of these 70 articles explore mental illness as a much smaller piece of other EEOC categories (e.g., Gender, Race, Employment Discrimination Issues, Disability Type, or Industry) which are the sole focus of the study.
Analyses of the National EEOC ADA Research Project’s Database in the Current Study

Procedures

From the National EEOC ADA Research Project Database described above (with 402,291 employment discrimination allegations as filed by persons with all types of impairments under Title I of the ADA), a study-specific database was further extracted to include only those allegations filed by persons with mental illness [depression (25,375 or 44.638% of all mental illness allegations), Unknown Mental Illness (11,977 or 21.069% of all mental illness allegations), anxiety disorder (10,370 or 18.242% of all mental illness allegations), bipolar disorder (7,675 or 13.501% of all mental illness allegations) or schizophrenia (1,449 or 2.549% of all mental illness allegations)] for a total of 56,846 allegations or 100.000% of all mental illness allegations. Allegation groups as defined by the EEOC, as well as their respective sizes and percentages are detailed in Table 3.

Table 3. Mental Illness Allegation Types Defined*

<table>
<thead>
<tr>
<th>Type</th>
<th>EEOC’s Definition</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Atypical degree of sadness and melancholy. Symptoms may include poor appetite and weight loss or increased appetite and weight gain, sleep disturbance, loss of energy, loss of interest or pleasure in the usual activities, diminished ability to think or concentrate, and recurrent thoughts of death or self-harm.</td>
<td>25,375</td>
<td>44.638</td>
</tr>
<tr>
<td>Unknown Mental Illness</td>
<td>Any other emotional or psychiatric impairment not otherwise defined by Depression, Anxiety Disorder, Bipolar Disorder, or Schizophrenia.</td>
<td>11,977</td>
<td>21.069</td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>Characterized by anxiety and avoidance behavior, this impairment includes fear (phobic) disorders, obsessive compulsive disorders, post-traumatic stress disorders, and panic disorders.</td>
<td>10,370</td>
<td>18.242</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>Periodic, recurrent mood disorder with alternation between periods of mania and depression and intervening periods of typical mood. (Mania periods are characterized by persistently “high” (euphoric) or irritable mood states, appetite disturbance, increased activity, pressured speech, racing thoughts, and a loss of self control and judgment.)</td>
<td>7,675</td>
<td>13.501</td>
</tr>
</tbody>
</table>
Table 3 Continued

<table>
<thead>
<tr>
<th>Type</th>
<th>EEOC’s Definition</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>Psychosis (commonly characterized by a disorder in the thinking processes, such as delusions and hallucinations) and an extensive withdrawal of interest in the outside world. Schizophrenia is now considered to be a group of mental disorders rather than a single entity.</td>
<td>1,449</td>
<td>2.549</td>
</tr>
<tr>
<td>Total for All Mental Illness Allegations</td>
<td></td>
<td>56,846</td>
<td>100.000%</td>
</tr>
</tbody>
</table>

*Ranked by prevalence

Analyses

The following statistical analyses were performed on the extraction detailed above which includes all mental illness allegations filed under Title I of the Americans with Disabilities Act (a total of 56,846 allegations).

Nonparametric Tests of Proportion

These tests compare the proportion of one group with the proportion of another in order to determine whether or not the difference between the proportions is significant. These tests provide a measure of magnitude of this difference in Z-scores which lends itself well to effect size interpretation. Significance levels were set conservatively at $p < .01$. Five nonparametric tests of proportion were performed using Minitab 15 Statistical Software in order to explore mental illness allegation activity by answering the following Research Questions (NOTE: Because Research Question 1 as well as Research Questions 2b, 3b, 4b, 5b, and 6b require a different type of data analysis, they are listed separately in the section which directly follows this one):

- Research Question 2a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Anxiety (10,370 allegations or
18.24% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non-Anxiety Mental Illnesses (NAMI; 46,476 allegations or 81.76% of 56,846 All Mental Illness allegations) statistically significant?

- Research Question 3a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Depression (25,375 allegations or 44.64% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non-Depression Mental Illnesses (NDMI; 31,471 allegations or 55.72% of 56,846 All Mental Illness allegations) statistically significant?

- Research Question 4a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Bipolar Disorder (7,675 allegations or 13.50% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non Bipolar Disorder Mental Illnesses (NBDMI; 49,171 allegations or 86.50% of 56,846 All Mental Illness allegations) statistically significant?

- Research Question 5a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Schizophrenia (1,449 allegations or 2.55% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non Schizophrenia Disorder Mental Illnesses (NSMI; 55,397 allegations or 97.45% of 56,846 All Mental Illness allegations) statistically significant?
Research Question 6a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Known Mental Illnesses (KMI; i.e., Anxiety, Depression, Bipolar Disorder, and Schizophrenia (42,869 allegations or 75.41% of 56,846 All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Unknown Mental Illnesses (UMI; 11,977 allegations or 21.069% of 56,846 All Mental Illness allegations) statistically significant?

The Exhaustive Chi-Squared Automatic Interaction Detector (CHAID)

Historically, large databases have been analyzed successfully for important variable differences using an exploratory technique called the Exhaustive Chi-Squared Automatic Interaction Detector (Kosciulek, 2004). The Exhaustive CHAID algorithm reduces the number of predictor categories by merging categories when there is no significant difference between them. When no more categories can be merged, the predictor can be split and a node (or branch) forms. This splitting process (based on the chi square algorithm) continues forming a hierarchical Exhaustive CHAID classification tree with nodes depicting significant differences in predictor variables with respect to an outcome variable of interest. Because the original CHAID (Non Exhaustive) bases significance on the last predictor category split tested, it is not always guaranteed to find the most significant split. In order to remedy this, the Exhaustive CHAID (the technique used in the current study) merges categories without taking predictor significance levels into account until only two categories remain for each predictor and then finally splits them based on the largest significance value, not on the last predictor tested (Fielding, 2007).
Because the current study involves a relatively large database with multiple predictors, e.g., Charging Party Basis or disability, Discrimination Issue, Race, Age, Gender, and Employer Size, Industry and U.S. Census Region, and a single outcome variable of interest (Merit Resolution status), the Exhaustive CHAID is an appropriate technique for use. More specifically, the author’s intention in using the technique in the current study was to detect which of these above predictor variables differentiates an allegation of mental illness discrimination resolved without Merit from one with a Merit Resolution. The Exhaustive CHAID is flexible and does not require that traditional assumptions be met; the technique only requires that the predictors be measured on a nominal or ordinal scale. Six Exhaustive CHAIDs were performed using SPSS Answer Tree 3.1 with confidence intervals set conservatively at 0.01 (to ensure that any significant differences detected in such a large dataset did not occur by chance and to reduce the likelihood of type I or type II errors) as follows:

- Research Question 1: Which factors drive merit activity in ADA Title I allegations filed by persons with All Mental Illnesses (54,846 allegations or 100.00% of 56,846 All Mental Illness allegations)?

- Research Question 2b: Which factors drive merit activity in ADA Title I allegations filed by persons with Anxiety (10,370 allegations or 18.24% of 56,846 All Mental Illness allegations)?

- Research Question 3b: Which factors drive merit activity in ADA Title I allegations filed by persons with Depression (25,375 allegations or 44.64% of 56,846 All Mental Illness Allegations)?
Research Question 4b: Which factors drive merit activity in ADA Title I allegations filed by persons with Bipolar Disorder (7,675 allegations or 13.50% of 56,846 All Mental Illness Allegations)?

Research Question 5b: Which factors drive merit activity in ADA Title I allegations filed by persons with Schizophrenia (1,449 allegations or 2.55% of 56,846 All Mental Illness allegations)?

Research Question 6b: Which factors drive merit activity in ADA Title I allegations filed by persons with Unknown Mental Illnesses (42,869 allegations or 75.41% of 56,846 All Mental Illness allegations)?

Database Limitations

As is often the case with secondary data like that of the IMS database, it is impossible to ensure that the EEOC staff members who entered the data about the parameters and outcomes of the ADA Title I cases they are investigating have entered all data without error. Similarly, parameters of cases might be unknown by the investigator or the charging party and thus must remain blank and counted as “null”. In addition, some of the parameters recorded by the EEOC investigators, such as impairment, are the results of self-report by the charging party in some cases, and could potentially be inaccurate. Despite these several chances for errors to occur in the EEOC data collection and entering process, most of these potential errors will probably not effect such a large population of allegations (over 56,000 allegations) unless there was a consistent, pervasive, systematic error in data collection or entering.
Study Limitations

In addition to the potential IMS database limitations listed above, some more broad study-wide limitations also exist. Perhaps one of the most prominent is that the IMS database, and by extension, this study, contain only *reported* employment discrimination against those with disabilities. As a result, if there are any systematic or random phenomena occurring that are preventing certain individuals (e.g., women or Hispanics) with disabilities from reporting incidents of employment discrimination, then this study is not sensitive to them. Therefore, the author can not make inferences about the entire universe of employment discrimination against those with disabilities, only the entire universe of employment discrimination against those with disabilities as filed with the EEOC under Title I of the ADA. In addition, interaction effects between Title I of the ADA and other Federal anti-discrimination laws (e.g., the Civil Rights Act of 1964) or each state’s Fair Employment Practices laws can also not be determined by the current study.
This chapter is a detailed description of the results of each statistical analysis performed in this study. It is organized by condition in the following way: All Mental Illness (AMI) Allegations; Anxiety Allegations; Depression Allegations; Bipolar Disorder Allegations; Schizophrenia Allegations; and Unknown Mental Illness (UMI) Allegations.

All Mental Illness Allegations

Results of the Exhaustive CHAID for All Mental Illness (AMI) Allegations

In response to Research Question 1: Which factors drive merit activity in ADA Title I allegations filed by persons with All Mental Illnesses (56,846 allegations or 100.00% of All Mental Illness allegations)?, an Exhaustive CHAID was performed for All Mental Illness allegations combined. In understanding Exhaustive CHAID results, it is helpful to have an understanding of a descriptive figure called, “merit rate,” which is used throughout the National EEOC ADA Research Project to summarize actual discrimination activity as determined by the EEOC (McMahon et al. 2005; McMahon et al 2008). This figure is calculated in the following manner: Number of merit allegations ÷ total number of allegations X 100%. The merit rate for All Mental Illness (AMI) allegations was 19.83% (or 11,273 of 56,846 allegations). Results of the Exhaustive CHAID for AMI allegations combined (N=56,846) substantiated that the merit rate for AMI allegations was 19.83%. This merit rate is considerably lower than that of non-
mental Illness (NMI) ADA Title I allegation merit rate which is 23.40% (or 80,824 of 345,445 allegations). Stated differently, the AMI allegation merit rate, or actual discrimination as determined by the EEOC, is considerably lower than the NMI allegation merit rate, or actual discrimination as determined by the EEOC. In addition, the AMI merit rate is also considerably lower than the overall merit rate for all Title I allegations, all disabilities of 22.89% (or 92,097 of 402,291 allegations). This relatively low AMI merit rate compared to that of all Title I allegations, all disabilities, suggests that either employees with mental illness experience less actual discrimination than those with all disabilities combined or that employees with mental illness have discrimination cases which are inherently more difficult to prove than those filed by persons with all disabilities combined and thus less often end in a merit resolution.

In addition to substantiating the AMI merit rate, the Exhaustive CHAID for AMI allegations also highlighted those factors which both contribute to the raising and the lowering of the AMI merit rate. Generally speaking, the Exhaustive CHAID highlights these highs and lows by using its chi-square algorithm to search through all predictor variables and their respective categories to determine which of these, if any, most greatly drives (or influences) an outcome variable like merit. After applying the Exhaustive CHAID to all AMI allegations, the major finding is that the main driver of or contributing predictor variable to the merit activity for AMI allegations is [discrimination] Issue. The analysis also provided a detailed breakdown of all 41 Issues and to what degree each contributes to the overall merit activity in AMI allegations. Some Issues stand alone to form nodes of significance and others combine to do so. In turn, some of these nodes of
significance are driven by other nodes, which in turn are driven by others. In other words, some nodes of significance or drivers have one or two levels of sub-nodes or sub-drivers. The Exhaustive CHAID neatly displays all of these nodes of significance or drivers and sub-nodes or sub-drivers in the form of a hierarchical tree diagram. A detailed breakdown of merit rate of the primary driver of Issue for AMI is displayed in Table 4.1 which contains the primary driver only. Table 4 is followed by several figures containing partial hierarchical tree diagrams which further detail each sub driver for the primary driver of Issue.

Table 4. Breakdown of Merit Rate for AMI’s Primary Driver: Issue*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Merit Rate</th>
<th>Number/Total Allegations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADEA Waiver and Posting Notices (Part A)</td>
<td>64.47%</td>
<td>49/76</td>
</tr>
<tr>
<td>Prohibited Medical Inquiry</td>
<td>49.24%</td>
<td>129/262</td>
</tr>
<tr>
<td>Benefits—Insurance</td>
<td>42.78%</td>
<td>228/533</td>
</tr>
<tr>
<td>Tenure and Qualification Standards</td>
<td>31.33%</td>
<td>26/83</td>
</tr>
<tr>
<td>Exclusion/Segregated Union</td>
<td>29.82%</td>
<td>17/57</td>
</tr>
<tr>
<td>Benefits—General</td>
<td>28.76%</td>
<td>237/824</td>
</tr>
<tr>
<td>Reinstatement</td>
<td>26.42%</td>
<td>177/670</td>
</tr>
<tr>
<td>Other and Segregated Facilities</td>
<td>24.60%</td>
<td>278/1,130</td>
</tr>
<tr>
<td>Recall</td>
<td>23.42%</td>
<td>37/158</td>
</tr>
<tr>
<td>Benefits—Pension</td>
<td>23.42%</td>
<td>26/111</td>
</tr>
<tr>
<td>RA</td>
<td>22.84%</td>
<td>2,158/9,449</td>
</tr>
<tr>
<td>Terms/Conditions of Employment</td>
<td>20.83%</td>
<td>1,055/5,065</td>
</tr>
<tr>
<td>Job Classification</td>
<td>21.74%</td>
<td>15/69</td>
</tr>
<tr>
<td>Intimidation</td>
<td>21.49%</td>
<td>211/982</td>
</tr>
<tr>
<td>Wages</td>
<td>21.14%</td>
<td>189/894</td>
</tr>
<tr>
<td>Assignment</td>
<td>21.07%</td>
<td>146/693</td>
</tr>
<tr>
<td>References Unfavorable</td>
<td>20.75%</td>
<td>33/159</td>
</tr>
<tr>
<td>Promotion</td>
<td>18.78%</td>
<td>176/937</td>
</tr>
<tr>
<td>Discipline</td>
<td>18.70%</td>
<td>533/2,850</td>
</tr>
<tr>
<td>Harassment</td>
<td>18.52%</td>
<td>1,108/5,982</td>
</tr>
<tr>
<td>Training</td>
<td>18.34%</td>
<td>42/229</td>
</tr>
<tr>
<td>Constructive Discharge</td>
<td>17.76%</td>
<td>315/1,774</td>
</tr>
<tr>
<td>Involuntary Retirement</td>
<td>17.07%</td>
<td>21/123</td>
</tr>
<tr>
<td>Hiring, Seniority, Testing, and Apprenticeship</td>
<td>13.76%</td>
<td>296/2,151</td>
</tr>
</tbody>
</table>
Table 4 Continued

<table>
<thead>
<tr>
<th>Issue</th>
<th>Merit Rate</th>
<th>Number/Total Allegations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral</td>
<td>12.28%</td>
<td>7/57</td>
</tr>
<tr>
<td>Union Representation, Early Retirement Incentive, Maternity, and Advertising</td>
<td>6.47%</td>
<td>18/278</td>
</tr>
</tbody>
</table>

*Ranked by Merit

More specific details are provided for Issue drivers and sub drivers for AMI allegations in partial hierarchical CHAID diagrams below.

**Detailed Description of Issue Drivers Which Contain Sub Drivers for AMI Allegation**

The Issue of Discharge had a merit rate of 17.33% (or 3,198 of 18,450 allegations), which is not only well below the AMI merit rate of 19.83%, but also well below the NMI merit rate of 23.40%. Thus, Discharge merit activity contributes to lowering the overall merit rate for AMI allegations. In turn, Discharge merit activity is driven by Charging Party Age for AMI allegations. More specifically, Charging Party Age is split into two nodes with one including 16-34 Years, 35-54 Years, and 55-64 Years with a merit rate of 16.78% (or 2,764 of 16,649 allegations) and the other including 65+ Years and Null Age with a merit rate of 21.91% (or 434 of 1,981 allegations). These findings indicate that employees with mental illness who are 64 years of age or younger and who file a discrimination allegation on the Issue of Discharge face less actual discrimination than among employees with mental illness who are 65 years of age or older and who file an allegation of discrimination under the same Issue. A partial hierarchical decision tree of the merit activity of Discharge is shown in Figure 2.

The Issue of Harassment had a merit rate of 18.52% (or 1,108 of 5,982 Harassment allegations), which is not only well below the AMI merit rate of 19.83%),
ALL MENTAL ILLNESS
M = 19.83% (11,273)
NM = 80.17% (45,573)
TOTAL = 100.00% (56,846)

DISCHARGE
M = 17.33% (3,198)
NM = 82.67% (15,252)
TOTAL = 32.46% (18,450)

AGE: 16-34; 35-54; & 55-64
M = 16.78% (2,764)
NM = 83.22% (13,705)
TOTAL = 28.97% (16,469)

AGE: 65+ & NULL
M = 21.91% (434)
NM = 78.09% (1,547)
TOTAL = 3.48% (1,981)

Figure 2. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Discharge in AMI Allegations
but also well below the NMI merit rate of 23.40%. Thus, Harassment merit activity plays a role in lowering the overall Merit rate for AMI allegations. In turn, Harassment merit activity is driven by Employer Size for AMI allegations and in turn, Employer Size is split into two nodes with one including 15-100 Employees, 201-500 Employees, and Null Employer Size with a merit rate of 21.41% (or 514 of 2,401 allegations) and the other including 101-200 Employees and 501+ Employees with a merit rate of 16.59% (or 594 of 3,581 allegations). These findings indicate that employees with mental illness who work at places with 15-100 employees, 201-500 employees, or null employees and who file a discrimination allegation on the Issue of Harassment face more actual discrimination than among employees with mental illness who work at places with 101-200 employees or 501+ employees and who file an allegation of discrimination under the same Issue. A partial hierarchical decision tree of the merit activity of Harassment is shown in Figure 3.

The Issue of Reasonable Accommodation (RA) had a merit rate of 22.84% (or 2,158 of 9,449 allegations), which is moderately higher than the AMI merit rate of 19.83%). As a result, the merit activity of RA allegations contributes to increasing the overall merit activity for AMI allegations. However, this 22.84% merit rate for RA allegations is only slightly below the merit rate of 23.40%. In that respect, the merit activity for RA allegations in AMI is about average when compared to the merit activity of allegations from persons with NMI. In turn, RA merit activity is driven by Employer Industry [as described by the North American Industry Classification System (NAICS)] for AMI allegations and is split into five nodes including the following NAICS categories:
ALL MENTAL ILLNESS
M = 19.83% (11,273)
NM = 80.17% (45,573)
TOTAL = 100.00% (56,846)

DISCHARGE
M = 17.33% (3,198)
NM = 82.67% (15,252)
TOTAL = 32.46% (18,450)

AGE: 16-34; 35-54; & 55-64
M = 16.78% (2,764)
NM = 83.22% (13,705)
TOTAL = 28.97% (16,469)

AGE: 65+ & NULL
M = 21.91% (434)
NM = 78.09% (1,547)
TOTAL = 3.48% (1,981)

Figure 3. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Harassment in AMI Allegations
1. Node 1: Null; Manufacturing; and Transportation and Warehousing with a merit rate of 22.37% (or 688 of 3,075 allegations). This finding indicates that RA merit activity in these Employer Industries is slightly below average for overall RA merit activity (22.84%), but moderately above average for merit activity for AMI allegations (19.83%).

2. Node 2: Remediation Services with a merit rate of 19.79% (or 426 of 2,153 allegations). This finding indicates that RA merit activity in these Employer Industries is moderately below average for overall RA merit activity (22.84%) and also only slightly below average for merit activity for AMI allegations (19.83%).

3. Node 3: Health Care and Social Assistance; Utilities; Retail Trades; Information; Finance and Insurance; and Other Services except Public Administration with a merit rate of 24.48% (or 844 of 3,448 allegations). This finding indicates that RA merit activity in these Employer Industries is moderately above average for overall RA merit activity (22.84%), and well above average for merit activity for AMI allegations (19.83%).

4. Node 4: Agriculture, Forestry, Fishing and Hunting; Wholesale Trades; Professional, Scientific, and Technical; Arts, Entertainment, and Recreation; Accommodation and Food Services; and Management of Companies and Enterprises with a merit rate of 29.13% (or 180 of 618 allegations). This finding indicates that RA merit activity in these Employer Industries is extremely above average activity for allegations filed by persons with AMI. Stated
differently, employees with AMI who file an allegation of RA discrimination and who are employed in these industries have allegations which much more often result in a merit resolution, which reflects actual discrimination.

5. Node 5: Mining and Construction with a merit rate of 12.90% (or 20 of 155 allegations). This finding indicates that RA merit activity in these Employer Industries is extremely below average for overall RA merit activity (22.84%), and also extremely below average for merit activity for AMI allegations (19.83%). In fact, of the five RA nodes of merit activity for allegations filed by persons with AMI, this node’s merit rate of 12.90% was the lowest of any other RA node. Stated differently, employees with AMI who file an allegation of RA discrimination and who are employed in these industries have allegations which much less often result in a merit resolution, which reflects actual discrimination. A partial hierarchical decision tree for the merit activity of the Issue of RA is shown in Figure 4.

The Issue of Terms/Conditions of Employment had a merit rate of 20.83% (or 1,055 of 5,065 Terms/Conditions of Employment) allegations, which is slightly above the AMI merit rate of 19.83% but also well below the NMI merit rate of 23.40%. As such, those who file a discrimination allegation on the Issue of Terms/Conditions of Employment face less actual discrimination than among employees with mental illness and who are other, Asian, null race, White, or Native American/Alaskan Native and who file an allegation of discrimination under the same Issue. A partial hierarchical decision
Figure 4. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of RA in AMI Allegations
tree for the merit activity of the Issue of Terms/Conditions of Employment is shown in Figure 5.

The Issue of Wages had a merit rate of 21.14% (or 189 of 894 Wages allegations), which is moderately higher than the AMI merit rate of 19.83%. As a result, the merit activity of Wages allegations contributes to raising the overall merit activity for AMI allegations. However, this 21.14% merit rate for Wages allegations is moderately below the NMI merit rate of 23.40%. In that respect, the merit activity for Wages allegations in AMI is moderately below average when compared to the merit activity of allegations from persons with NMI. In turn, AMI Wages merit activity is driven by Employer Industry and is split into three nodes including the following NAICS categories:

1. Node 1: Null; Educational Services; Public Administration; Agriculture, Forestry, Fishing, and Hunting; Mining; Wholesale Trades; Retail Trades; Finance and Insurance; Real Estate, Rental, and Leasing, Professional, Scientific, and Technical; and Other Services Except Public Administration with a merit rate of 14.53% (or 69 of 475 allegations). This finding indicates that Wages merit activity in these Employer Industries is extremely below average for overall Wages merit activity (21.14%), and also extremely below average for merit activity for AMI allegations (19.83%). In fact, of the three nodes of Wages merit activity for allegations filed by persons with AMI, this node’s merit rate of 14.53% was the lowest of any other node. Stated differently, employees with AMI who file an allegation of Wages discrimination and who are employed in these
Figure 5. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Terms/Conditions of Employment
industries have allegations which much less often result in a merit resolution, which
effects actual discrimination.

2. Node 2: Manufacturing; Health Care and Social Services; and Information with a
merit rate of 24.62% (or 64 of 260 allegations). This finding indicates that Wages
merit activity in these Employer Industries is moderately above average for
overall Wages merit activity (21.14%) and also moderately above average for
merit activity for AMI allegations (19.83%).

3. Node 3: Transportation and Warehousing; Utilities; Construction;
Administrative, Support, Waste Management, and Remediation Services; Arts,
Entertainment, and Recreation; and Accommodation and Food Services with a
merit rate of 29.13% (or 180 of 618 allegations). This finding indicates that
Wages merit activity in these Employer Industries is extremely above average for
overall Wages merit activity (21.14%), and also extremely above average for
merit activity for AMI allegations (19.83%). In fact, of the three nodes of Wages
merit activity for allegations filed by persons with AMI, this node’s merit rate of
29.13% was the highest of any other node. Stated differently, employees with
AMI who file an allegation of Wages discrimination and who are employed in
these industries have allegations which much more often result in a merit
resolution, which reflects actual discrimination.

A partial hierarchical decision tree for the merit activity of the Issue of Wages is shown
in Figure 6.
Figure 6. Partial Hierarchical Decision Tree of the Merit Activity

(M = Merit and NM = Non Merit) of the Issue of Wages

ALL MENTAL ILLNESS
M = 19.83% (11,273)
NM = 80.17% (45,573)
TOTAL = 100.00% (56,846)

WAGES
M = 21.14% (189)
NM = 78.86% (705)
TOTAL = 1.57% (894)

NAICS: NULL; EDUCAT; PUB ADMIN; AGRICULT; MINING; WHOLESALE; RETAIL; FINANCE; REAL ESTATE; PROFES; & OTHER
M = 14.53% (69)
NM = 85.47% (406)
TOTAL = 0.84% (475)

NAICS: MANUFACT; HEALTH; & INFO
M = 24.62% (64)
NM = 75.38% (196)
TOTAL = 0.46% (260)

NAICS: TRANSP; UTILITIES; CONSTRUCT; ADMIN; ARTS; & ACCOMM
M = 35.22% (56)
NM = 64.78% (103)
TOTAL = 0.28% (159)
The Issue of Intimidation had a merit rate of 21.49% (or 211 of 982 Intimidation allegations), which is moderately higher than the merit rate of 19.83% (or 11,273) of 56,846 AMI allegations. As a result, the merit activity of Intimidation allegations contributes to increasing the overall merit activity for AMI allegations. Nonetheless, this 21.49% merit rate for Intimidation allegations is moderately below the NMI merit rate of 23.40%. In that respect, the AMI merit activity for Intimidation allegations is moderately below average when compared to the merit activity of allegations from persons with NMI. In turn, Intimidation merit activity is driven by Employer Industry for AMI allegations and is split into four nodes including the following NAICS categories:

1. Node 1: Null; Educational Services; Public Administration; Wholesale Trades; Finance and Insurance; Arts, Entertainment and Leisure; and Other Services except Public Administration with a merit rate of 16.26% (or 74 of 455 allegations). This finding indicates that Intimidation merit activity in these Employer Industries is moderately below average for overall Intimidation merit activity (21.49%) and also moderately below average for merit activity for AMI allegations (19.83%).

2. Node 2: Manufacturing; Health Care and Social Services; Utilities; Construction; Retail Trades; and Real Estate, Rental, and Leasing have a merit rate of 24.72% (or 89 of 360 allegations). This finding indicates that Intimidation merit activity in these Employer Industries is moderately above average for overall Intimidation merit activity (21.49%) and also moderately above average for merit activity for AMI allegations (19.83%).
3. Node 3: Transportation and Warehousing; Agriculture, Forestry, Fishing, and Hunting; Professional, Scientific, and Technical; and Accommodation and Food Services with a combined merit rate of 42.31% (44 of 104 allegations). This finding indicates that Intimidation merit activity in these Employer Industries is extremely above average for overall Intimidation merit activity (21.49%), and also extremely above average for merit activity for AMI allegations (19.83%). In fact, of the four nodes of Intimidation merit activity for allegations filed by persons with AMI, this node’s merit rate of 42.31% was the highest of any other node. Stated differently, employees with AMI who are file an allegation of Intimidation discrimination and who are employed in these industries have allegations which much more often result in a merit resolution, which reflects actual discrimination.

4. Node 4: Mining and Information have a combined merit rate of 6.35% (4 of 63 allegations). This finding indicates that Intimidation merit activity in these Employer Industries is extremely below average for overall Intimidation merit activity (21.49%), and also extremely below average for merit activity for AMI allegations (19.83%). In fact, of the four nodes of Intimidation merit activity for allegations filed by persons with AMI, this node’s merit rate of 6.35% was the lowest of any other node. Stated differently, employees with AMI who file an allegation of Intimidation discrimination and who are employed in these industries have allegations which much less often result in a merit resolution, which reflects actual discrimination.
A partial hierarchical decision tree for the merit activity of the Issue of Wages is shown in Figure 7. The combined Issues of Other and Segregated Facilities had a merit rate of 17.38% (or 278 of 1,130 allegations), which is not only well below the AMI merit rate of 19.83%, but also well below the NMI merit rate of 23.40%. As such, the combined Issues of Other and Segregated Facilities’ merit activity contributes to lowering the AMI merit rate. In turn, AMI merit activity from the combined Issues of Other and Segregated Facilities is driven by Charging Party Race. More specifically, Charging Party Race is split into two nodes with one including Hispanic, Other, Null, and Mixed with a merit rate of 17.38% (or 77 of 443 allegations) and the other including Asian, White, and Native American and Alaskan Native with a merit rate of 29.26% (or 201 of 687 allegations). These findings indicate that employees with mental illness who are Hispanic, Other, Null, or Mixed Race and who file a discrimination allegation on the Issue of Other or Segregated facilities face less actual discrimination than among employees with mental illness who are Asian, White, or Native American/Alaskan Native and who file an allegation of discrimination under the same Issues. A partial hierarchical decision tree of the merit activity of Discharge is shown in Figure 8.

The combined Issues of Hiring, Seniority, Testing, and Apprenticeship had a merit rate of 13.76% (or 296 of 2,156 allegations), which is much lower than the AMI merit rate of 19.83%). As a result, the merit activity of allegations from the combined Issues of Hiring, Seniority, Testing, and Apprenticeship contributes to reducing the overall merit activity for AMI allegations. This 13.76% merit rate for allegations from the
Figure 7. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Intimidation in AMI Allegations
Figure 8. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit)

of the Combined Issues of Other and Segregated Facilities in AMI Allegations
combined Issues of Hiring, Seniority, Testing, and Apprenticeship is also well below the NMI merit rate of 23.40%. In that respect, the merit activity for allegations from the combined Issues of Hiring, Seniority, Testing, and Apprenticeship in AMI is well below average when compared to the merit activity of allegations from persons with NMI. The merit rate of these combined Issues is driven by Age which is split into three nodes including the following categories:

1. **Node 1: Age 16-34 Years** with a merit rate of 22.18% (or 65 of 296 allegations).
   
   This finding indicates that the merit activity in this Age category is only slightly above average for the overall merit activity for the combined Issues of Hiring, Seniority, Testing, and Apprenticeship (13.76%), and also only slightly above average for merit activity for AMI allegations (19.83%). In fact, of the three nodes of merit activity for these combined Issues for allegations filed by persons with AMI, this node’s merit rate of 29.13% was the highest of any other node. Stated differently, employees with AMI who file an allegation of discrimination under the Issues of Hiring, Seniority, Testing and Apprenticeship and who are employed in these industries have allegations which much more often result in a merit resolution, which reflects actual discrimination.

2. **Node 2: Age 35-54 Years and 55-64 Years** with a merit rate of 14.98% (or 213 of 1,422 allegations). This finding indicates that Age merit activity in these Employer Industries is slightly above average for the overall merit activity of the combined Issues of Hiring, Seniority, Testing, and Apprenticeship (13.76%) and moderately below average for merit activity for AMI allegations (19.83%).
3. Node 3: Age Null and 65+ Years with a merit rate of 4.13% (or 18 of 436 allegations). This finding indicates that the merit activity in these Employer Industries is extremely below average for overall merit activity in the combined Issues of Hiring, Seniority, Testing, and Apprenticeship (13.76%), and also extremely below average for merit activity for AMI allegations (19.83%). In fact, of the three nodes of merit activity for allegations from these combined Issues filed by persons with AMI, this node’s merit rate of 4.13% was the lowest of any other node. Stated differently, employees with AMI who file an allegation of Wages discrimination and who are employed in these industries have allegations which much less often result in a merit resolution, which reflects actual discrimination.

A partial hierarchical decision tree for the merit activity of the Issue of Wages is shown in Figure 9.

The Issue of Discipline had a merit rate of 18.70% (or 533 of 2,850 Discipline allegations), which is slightly above the AMI merit rate of 19.83%, but also well below the NMI merit rate of 23.40%. As a result, the merit activity in Discipline contributes to lowering the overall merit rate for AMI allegations. Moreover, the merit activity of Discipline is driven by Employer Size for AMI allegations. More specifically, Employer Size is split into two nodes with one including 15-100 and 201-500 Employees with a merit rate of 24.13% (or 228 of 945 allegations) and the other including 101-200, 501+, and Null Employer Size with a merit rate of 16.01% (or 305 of 1,905 allegations). These findings indicate that employees with mental illness and those who are employed by
All Mental Illness
M = 19.83% (11,273)
NM = 80.17% (45,573)
TOTAL = 100.00% (56,846)

Hiring; Seniority; Testing; & Apprenticeship
M = 13.76% (296)
NM = 86.24% (1,855)
TOTAL = 3.78% (2,151)

Age: 16-34
M = 22.18% (65)
NM = 77.82% (228)
TOTAL = 0.52% (293)

Age: 35-54 & 55-64
M = 14.98% (213)
NM = 85.02% (1,209)
TOTAL = 2.50% (1,422)

Age: NULL & 65+
M = 4.13% (18)
NM = 95.87 (418)
TOTAL = 0.77% (436)

Figure 9. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Combined Issues of Hiring, Seniority, Testing, and Apprenticeship in AMI Allegations
Employers with 15-100 or 201-500 Employees and who file a discrimination allegation on the Issue of Discipline face more actual discrimination than among employees with mental illness who are employed by Employers with 101-200, 501+, or Null Employees and who file an allegation of discrimination under the same Issue. A partial hierarchical decision tree for the merit activity of the Issue of Terms/Conditions of Employment is shown in Figure 10.

The Issue of Benefits--General had a merit rate of 28.76% (or 237 of 824 allegations), which is much higher than the AMI merit rate of 19.83%, and is also well above the NMI merit rate of 23.40%. As a result, the merit activity in Benefits—General contributes to increasing the overall merit rate for AMI allegations. In turn, the merit activity of Benefits--General is driven by Employer Industry for AMI allegations. More specifically, Employer Industry is split into two nodes with one including the NAICS categories of Null, Manufacturing, Health Care/Social Assistance, Public Administration, Agriculture/Forestry/Fishing/Hunting, Mining, Wholesale Trades, Retail Trades, Real Estate/Rental/Leasing, Administrative/Support/Waste Management/Remediation Services and Other with a merit rate of 22.79% (or 111 of 487 allegations) and the other including the NAICS categories of Transportation/Warehousing, Educational Services, Utilities, Construction, Information/Finance, Professional/Scientific/Technical, Arts/Entertainment, and Accommodation/Food Services with a merit rate of 37.39% (or 126 of 337 allegations). These findings indicate that employees with mental illness and who are employed in the former Employer Industries and who file a discrimination allegation on the Issue of Benefits—General face less actual discrimination than among
Figure 10. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Discipline in AMI Allegations
employees with mental illness who are employed in the latter Employer Industries and who file an allegation of discrimination under the same Issue. A partial hierarchical decision tree for the merit activity of the Issue of Benefits—General is shown in Figure 11.

The Issue of Benefits—Pension had a merit rate of 23.42% (or 26 of 111 allegations), which is moderately higher than the AMI merit rate of 19.83%, and is also well above the NMI merit rate of 23.40%. As such, the merit activity in Benefits—Pension contributes to increasing the overall merit rate for AMI allegations. In turn, the merit activity of Benefits--Pension is driven by Employer Industry for AMI allegations. More specifically, Employer Industry is split into two nodes with one including Null, Health Care/Social Assistance, Public Administration, Retail Trades, Information/Finance, Professional/Scientific/Technical, and Accommodation/Food Services with a merit rate of 1.72% (or 1 of 487 allegations) and the other including Manufacturing, Transportation/Warehousing, Educational Services, Utilities, Wholesale Trades, Finance/Insurance, and Other with a merit rate of 47.17% (or 25 of 53 allegations). These findings indicate that employees with mental illness and who are employed in the former Employer Industries and who file a discrimination allegation on the Issue of Benefits—Pension face less actual discrimination than among employees with mental illness who are employed in the latter Employer Industries and who file an allegation of discrimination under the same Issue. A partial hierarchical decision tree for the merit activity of the Issue of Benefits—Pension is shown in Figure 12.
Figure 11. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Benefits—General in AMI Allegations
ALL MENTAL ILLNESS
M = 19.83% (11,273)
NM = 80.17% (45,573)
TOTAL = 100.00% (56,846)

BENEFITS--PENSION
M = 23.42% (26)
NM = 76.58% (85)
TOTAL = 0.20% (111)

NAICS: NULL; HEALTH; PUB ADMIN; RETAIL; INFO; PROFESS; & ACCOMM
M = 1.72% (1)
NM = 98.28% (57)
TOTAL = 0.86% (487)

NAICS: MANUFACT; TRANSP; EDUCAT; UTILITIES; WHOLESALE; FINANCE; & OTHER
M = 47.17% (25)
NM = 52.83% (28)
TOTAL = 0.09% (53)

Figure 12. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Benefits—Pension in AMI Allegations
The Issue of Prohibited Medical Inquiry had a merit rate of 49.24% (or 129 of 262 allegations), which is extremely higher than the AMI merit rate of 19.83%, and is also well above the NMI merit rate of 23.40%. As a result, the merit activity in Prohibited Medical Inquiry contributes to increasing the overall merit rate for AMI allegations. In turn, the merit activity of Prohibited Medical Inquiry is driven by Employer Industry for AMI allegations. More specifically, Employer Industry is split into two nodes with one including Public Administration, Information/Finance, Finance/Insurance, Real Estate/Rental/Leasing, Administrative/Support/Waste Management/Remediation Services, and Arts/Entertainment with a merit rate of 29.31% (or 34 of 116 allegations) and the other including the NAICS categories of Manufacturing, Transportation/Warehousing, Educational Services, Health Care/Social Assistance, Agriculture/Forestry/Fishing/Hunting, Utilities, Construction, Wholesale Trades, Retail Trades, Professional/Scientific/Technical, Accommodation/Food Services, and Other with a merit rate of 65.07% (or 95 of 146 allegations). These findings indicate that employees with mental illness and who are employed in the former Employer Industries and who file a discrimination allegation on the Issue of Prohibited Medical Inquiry face much less actual discrimination than among employees with mental illness who are employed in the latter Employer Industries and who file an allegation of discrimination under the same Issue. A partial hierarchical decision tree for the merit activity of the Issue of Prohibited Medical Inquiry is shown in Figure 13.

The Issue of Benefits—Insurance had a merit rate of 42.78% (or 228 of 533 allegations), which is not only well above the AMI merit rate of 19.83%, but also well above the NMI
merit rate of 23.40%. As a result, the Issue of Benefits—Insurance’s merit activity contributes to increasing the overall merit rate for AMI allegations. In turn, AMI allegations. More specifically, Charging Party Race is split into two nodes with one including Hispanic, African American, and Null with a merit rate of 21.88% (or 28 of 128 allegations) and the other including Other, Asian, White, and Native American/Alaskan Native with a merit rate of 49.38% (or 200 of 405 allegations). These findings indicate that employees with mental illness who are Hispanic, African American, or Null, and who file a discrimination allegation on the Issue of Benefits—Insurance face less actual discrimination than among employees with mental illness who are Other, Asian, White, or Native American/Alaskan Native and who file an allegation of discrimination under the same Issues. A partial hierarchical decision tree of the merit activity of Discharge is shown in Figure 14.

Anxiety Allegations

*Nonparametric Tests of Proportion for Anxiety Allegations vs. Non Anxiety Mental Illness (NAMI) Allegations*

In response to Research Question 2a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with anxiety (10,370 allegations or 18.24% of All Mental Illness allegations) and the number of ADA Title I Allegations filed by persons with Non Anxiety Mental Illnesses (NAMI; 46,476 allegations or 81.76% of All Mental Illness allegations) statistically significant?, nonparametric tests of proportion were performed for allegations filed by employees with Anxiety (10,370) vs. non Anxiety mental illness (NAMI; 46,476) across the following variables: Charging Party Gender,
Figure 13. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Prohibited Medical Inquiry in AMI Allegations
Figure 14. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Benefits—Insurance in AMI Allegations
Age, and Race; Discrimination Issue; Employer Industry, Size, and Region; and Resolution Status. Charging Party Gender and Age provided no significant differences except for the Null age category, which is provided in Table 5. Charging Party Race consists of 8 categories: White, Hispanic, Asian, Mixed, African American, Native American/Alaskan Native, Other, and Null. The nonparametric tests of proportion for Race resulted in a significantly higher proportion of allegations filed by employees with Anxiety for only the variable categories of White ($Z = 3.36, p < .01$) and Hispanic ($Z = 2.66, p < .01$). A significantly higher proportion of allegations were filed by employees with NAMI for only the Null category ($Z = -3.47, p < .01$); all other Race categories did not have manifest significant differences, which are provided in Table 5.

Table 5. Categories of the Charging Party Variables, Age and Race, with Significant Differences in Proportion Between Anxiety Allegations (10,370) and Non Anxiety Mental Illness Allegations (46,476) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>AGE</th>
<th>ANX N</th>
<th>ANX %</th>
<th>NAMI N</th>
<th>NAMI %</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>923</td>
<td>8.90</td>
<td>10.28</td>
<td>4,782</td>
<td>NAMI</td>
<td>-4.43</td>
<td>0.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RACE</th>
<th>ANX N</th>
<th>ANX %</th>
<th>NAMI N</th>
<th>NAMI %</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>6,406</td>
<td>61.77</td>
<td>60.00</td>
<td>27,886</td>
<td>ANX</td>
<td>3.36</td>
<td>0.001</td>
</tr>
<tr>
<td>Hispanic</td>
<td>516</td>
<td>4.98</td>
<td>4.35</td>
<td>2,024</td>
<td>ANX</td>
<td>2.66</td>
<td>0.008</td>
</tr>
<tr>
<td>Null</td>
<td>1,189</td>
<td>11.47</td>
<td>12.67</td>
<td>5,891</td>
<td>NAMI</td>
<td>-3.47</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*p < .01
**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Anxiety nor employees with NAMI are therefore not included in the table above.

Discrimination Issue has 40 categories. Of these, only two had a significantly higher proportion of Anxiety allegations: RA ($Z = 8.07, p < .01$) and Harassment ($Z = 4.45, p < .01$). In addition, only four Issues had a significantly higher proportion of NAMI allegations: Hiring ($Z = -14.74, p < .01$); Discharge ($Z = -7.29, p < .01$); Tenure (Z
The aggregation of all six issues constitutes 62.52% (6,484/10,370) of all Anxiety allegations and 63.67% (29,593/46,476) of all NAMI allegations. Table 6 depicts significant categories for the variable of Issue.

Table 6. Categories of the Charging Party Variable, Issue, with Significant Differences in Proportion Between Anxiety Allegations (10,370) and Non Anxiety Mental Illness Allegations (46,476) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Issue</th>
<th>ANX N</th>
<th>ANX %</th>
<th>NAMI N</th>
<th>NAMI %</th>
<th>Signif. High. Prop. Of __ Allege. N</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasonable</td>
<td>2,014</td>
<td>19.42</td>
<td>7,435</td>
<td>ANX</td>
<td>8.07</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Accommodation</td>
<td>1,222</td>
<td>11.78</td>
<td>4,760</td>
<td>ANX</td>
<td>4.45</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Harassment</td>
<td>9</td>
<td>0.87</td>
<td>90</td>
<td>NAMI</td>
<td>-3.02</td>
<td>0.003</td>
<td></td>
</tr>
<tr>
<td>Posting Notices</td>
<td>1</td>
<td>0.01</td>
<td>30</td>
<td>NAMI</td>
<td>-3.61</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>3,058</td>
<td>29.49</td>
<td>15,392</td>
<td>NAMI</td>
<td>-7.29</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Discharge</td>
<td>180</td>
<td>1.74</td>
<td>1,886</td>
<td>NAMI</td>
<td>-14.74</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Anxiety nor employees with NAMI are therefore not included in the table above.

Employer Industry has 21 unique categories. The following five categories had a significantly higher proportion of Anxiety allegations: Finance and Insurance (Z = 4.31, p < .01); Professional, Scientific, and Technical Services (Z = 3.74, p < .01); Utilities (Z = 3.00, p < .01); Information (Z = 2.78, p < .01); and Transportation and Warehousing (Z = 2.77, p < .01). The following three categories had a significantly higher proportion of NAMI allegations: Accommodation and Food Services (Z = -16.17, p < .01); Health Care and Social Assistance (Z = -5.30, p < .01); and Management of Companies and Enterprises (Z = -4.36, p < .01). These significant differences are highlighted in Table 7.
Employer U.S. Census Region has six categories. Two of these had a significantly higher proportion of Anxiety allegations: Northeast ($Z = 4.82$, $p < .01$) and West ($Z = 4.66$, $p < .01$) and two of these had a significantly higher proportion of NAMI allegations: Null ($Z = -5.96$, $p < .01$) and Foreign and Territories ($Z = -2.89$, $p < .01$).

Table 7. Categories of the Employer Variable, Industry, with Significant Differences in Proportion Between Anxiety Allegations (10,370) and Non Anxiety Mental Illness Allegations (46,476) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Industry</th>
<th>ANX N</th>
<th>ANX %</th>
<th>NAMI %</th>
<th>NAMI N</th>
<th>Signif. High. Prop. Of __ Allegs.</th>
<th>Z-Score</th>
<th>p Value *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance and Insurance</td>
<td>790</td>
<td>7.46</td>
<td>6.31</td>
<td>2,972</td>
<td>ANX</td>
<td>4.31</td>
<td>0.000</td>
</tr>
<tr>
<td>Professional, Scientific and</td>
<td>321</td>
<td>3.10</td>
<td>4.27</td>
<td>2,011</td>
<td>ANX</td>
<td>3.74</td>
<td>0.000</td>
</tr>
<tr>
<td>Technical Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>219</td>
<td>2.07</td>
<td>1.63</td>
<td>768</td>
<td>ANX</td>
<td>3.00</td>
<td>0.003</td>
</tr>
<tr>
<td>Information</td>
<td>675</td>
<td>6.37</td>
<td>5.69</td>
<td>2,682</td>
<td>ANX</td>
<td>2.78</td>
<td>0.005</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>443</td>
<td>4.18</td>
<td>3.62</td>
<td>1,706</td>
<td>ANX</td>
<td>2.77</td>
<td>0.006</td>
</tr>
<tr>
<td>Management of Companies and Enterprises</td>
<td>0</td>
<td>0.000</td>
<td>0.04</td>
<td>19</td>
<td>NAMI</td>
<td>-4.36</td>
<td>0.000</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>1,127</td>
<td>10.63</td>
<td>12.51</td>
<td>5,895</td>
<td>NAMI</td>
<td>-5.30</td>
<td>0.000</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>112</td>
<td>1.06</td>
<td>3.14</td>
<td>1,480</td>
<td>NAMI</td>
<td>-16.17</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Anxiety nor employees with NAMI are therefore not included in the table above.

Table 8 highlights these categories.

Employer Size has five categories. One of these had a significantly higher proportion of Anxiety allegations: 501+ Employees ($Z = 5.29$, $p < .01$). Two categories had a significantly higher proportion of NAMI allegations: Null ($Z = -5.30$, $p < .01$) and 15-100 Employees ($Z = -5.12$, $p < .01$). Two-hundred-one-500 Employees ($Z = 1.45$, $p <
Table 8. Categories of the Employer Variable, Region, with Significant Differences in Proportion Between Anxiety Allegations (10,370) and Non Anxiety Mental Illness Allegations (46,476) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Region</th>
<th>ANX N</th>
<th>ANX %</th>
<th>NAMI %</th>
<th>NAMI N</th>
<th>Signif. High. Prop. Of __Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>1,172</td>
<td>11.30</td>
<td>9.66</td>
<td>4,492</td>
<td>ANX</td>
<td>4.82</td>
<td>0.000</td>
</tr>
<tr>
<td>West</td>
<td>1,849</td>
<td>17.83</td>
<td>15.91</td>
<td>7,393</td>
<td>ANX</td>
<td>4.66</td>
<td>0.000</td>
</tr>
<tr>
<td>Foreign and Territories</td>
<td>21</td>
<td>0.20</td>
<td>0.35</td>
<td>164</td>
<td>NAMI</td>
<td>-2.89</td>
<td>0.004</td>
</tr>
<tr>
<td>Null</td>
<td>1,805</td>
<td>17.41</td>
<td>19.89</td>
<td>9,242</td>
<td>NAMI</td>
<td>-5.96</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Anxiety nor employees with NAMI are therefore not included in the table above.

.01) and 101-201 Employees (Z = 0.48, p < .01) did not have a significantly higher proportion of Anxiety or NAMI allegations. Table 9 displays only the results for significantly different categories.

Table 9. Categories of the Employer Variable, Employer Size, with Significant Differences in Proportion Between Anxiety Allegations (10,370) and Non Anxiety Mental Illness Allegations (46,476) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Employer Size</th>
<th>ANX N</th>
<th>ANX %</th>
<th>NAMI %</th>
<th>NAMI N</th>
<th>Signif. High. Prop. Of __Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>501+ Employees</td>
<td>5,184</td>
<td>49.900</td>
<td>47.116</td>
<td>21,898</td>
<td>ANX</td>
<td>5.29</td>
<td>0.000</td>
</tr>
<tr>
<td>15-100 Employees</td>
<td>2,583</td>
<td>24.908</td>
<td>27.328</td>
<td>12,701</td>
<td>NAMI</td>
<td>-5.12</td>
<td>0.000</td>
</tr>
<tr>
<td>Null</td>
<td>375</td>
<td>3.616</td>
<td>4.719</td>
<td>2,193</td>
<td>NAMI</td>
<td>-5.30</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Anxiety nor employees with NAMI are therefore not included in the table above.

Two categories which describe the variable of the Resolution Status of every allegation: Merit or Non Merit. Neither Merit (Z = 0.01, p < .01) nor Non Merit (Z = -0.01, p < .01) had a significantly higher proportion of Anxiety or NAMI allegations. As a result, there are no significant Resolution Status categories to display in table format.
Results of the Exhaustive CHAID for All Anxiety Allegations

In response to Research Question 2b: Which factors drive merit activity in ADA Title I allegations filed by persons with Anxiety (10,370 allegations or 18.24% of All Mental Illness Allegations?), an Exhaustive CHAID was completed on all Anxiety allegations. Results substantiated the merit rate of 19.84% or (2,057 of 10,370 allegations). The merit rate for Anxiety is almost the same as that of AMI allegations (19.83%). In this sense, Anxiety is typical of AMI allegations. Charging Parties with Anxiety experience less actual discrimination than those with both NAMI, Non Mental Illness, and all disability filed with the EEOC under ADA Title I. The merit rate for Anxiety is driven by Issue with no sub-nodes/sub-drivers. As a result, a list of Issue categories and merit rates is provided in Table 10 in lieu of partial hierarchical tree diagrams.

Table 10. Detailed Breakdown of Merit Rate for Anxiety’s Primary Driver: Issue*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Merit Rate</th>
<th>Number/Total Allegations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prohibited Medical Inquiry, Qualification, ADEA Waiver, and Posting Notices</td>
<td>50.00%</td>
<td>32/64</td>
</tr>
<tr>
<td>Benefits—Insurance and Benefits—Pension</td>
<td>42.06%</td>
<td>53/126</td>
</tr>
<tr>
<td>Benefits—General, Reinstatement, and References Unfavorable</td>
<td>31.25%</td>
<td>85/272</td>
</tr>
<tr>
<td>Other and Recall</td>
<td>25.33%</td>
<td>58/229</td>
</tr>
<tr>
<td>Promotion</td>
<td>23.64%</td>
<td>165</td>
</tr>
<tr>
<td>RA and Exclusion/Segregated Unions</td>
<td>21.50%</td>
<td>435/2,023</td>
</tr>
<tr>
<td>Discipline</td>
<td>21.39%</td>
<td>37/173</td>
</tr>
<tr>
<td>Wages</td>
<td>20.93%</td>
<td>36/172</td>
</tr>
<tr>
<td>Suspension</td>
<td>20.77%</td>
<td>43/207</td>
</tr>
<tr>
<td>Discipline, Job Classification, Involuntary, Testing</td>
<td>20.14%</td>
<td>117/581</td>
</tr>
<tr>
<td>Retirement, and Testing</td>
<td>19.66%</td>
<td>46/234</td>
</tr>
<tr>
<td>Intimidation</td>
<td>19.05%</td>
<td>177/929</td>
</tr>
<tr>
<td>Terms/Conditions of Employment</td>
<td>17.76%</td>
<td>217/1,222</td>
</tr>
</tbody>
</table>
Table 10 Continued

<table>
<thead>
<tr>
<th>Issue</th>
<th>Issue 17.72%</th>
<th>Issue 542/3,058</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge</td>
<td>17.72%</td>
<td>542/3,058</td>
</tr>
<tr>
<td>Assignment</td>
<td>17.26%</td>
<td>26/151</td>
</tr>
<tr>
<td>Constructive Discharge</td>
<td>17.16%</td>
<td>58/338</td>
</tr>
<tr>
<td>Hiring</td>
<td>15.56%</td>
<td>28/180</td>
</tr>
<tr>
<td>Seniority, Training, and Referral</td>
<td>13.24%</td>
<td>9/68</td>
</tr>
<tr>
<td>Layoff</td>
<td>14.16%</td>
<td>16/113</td>
</tr>
<tr>
<td>Severance Pay, Union Representation, Early Retirement Incentive, Maternity, Apprenticeship, Segregated Facilities, and Tenure</td>
<td>4.62%</td>
<td>3/65</td>
</tr>
</tbody>
</table>

*Ranked by merit rate

Depression Allegations

Nonparametric Tests of Proportion for Depression Allegations

vs. Non Depression Mental Illness Allegations

In response to Research Question 3a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Depression (25,375 allegations or 44.64% of All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non Depression Mental Illnesses (NDMI; 31,471 allegations or 55.72% of All Mental Illness allegations) statistically significant?, nonparametric tests of proportion were performed for Depression allegations (25,375) vs. non-Depression mental illness (NDMI) allegations (31,471) across the following variables: Charging Party Gender, Age, and Race; Discrimination Issue; Employer Industry, Size, and Region; and Resolution Status.

Nonparametric tests of proportion for the Charging Party variable of Gender resulted in a significantly higher proportion of allegations filed by females with
Depression (Z = 12.32, p < .01); and a significantly higher proportion of allegations filed by males with NDMI (Z = 0.86, p < .01). For Gender, the Null category (Z = 0.86, p < .01) did not manifest significant differences, which are highlighted in at the top of Table 11.

The Charging Party variable of Age has five categories with two of these, 35-54 Years (Z = 6.19, p < .01) and Null (Z = 4.45, p < .01), having a significantly higher proportion of Depression allegations and one of these, 16-34 Years (Z = -10.77, p < .01), having a significantly higher proportion of NDMI allegations. All significantly different findings are shown in the middle of Table 11.

The Charging Party variable of Race has eight categories. Results of nonparametric tests of proportion for Race showed that one of these categories had a significantly higher proportion of Depression allegations: Other (Z = 3.13, p < .01). Significantly higher merit rates for NDMI allegations were discovered in two categories, White (Z = -3.80, p < .01) and Mixed (Z = -2.85, p < .01). Other ethnic groups did not manifest a significantly higher proportion of Depression or NDMI allegations. All significantly different findings are displayed at the bottom of Table 11.

Of 40 discrimination Issue categories only three, Demotion (Z = 3.46, p < .01), Discharge (Z = 3.35, p < .01) and Discipline (Z = 2.84, p < .01), had a significantly higher proportion of Depression allegations. Similarly, only three Issue categories, Hiring (Z = -4.29, p < .01), References Unfavorable (Z = -3.45, p < .01) and Benefits-Insurance (Z = -3.45, p < .01), had a significantly higher proportion of NDMI allegations. Thirty-four Issues did not have significantly higher proportions for either Depression or NDMI
Table 11. Categories of the Charging Party Variables, Gender, Age, and Race, with Significant Differences in Proportion Between Depression Allegations (25,375) and Non Depression Mental Illness Allegations (31,471) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Variable</th>
<th>DEPRESS</th>
<th>DEPRESS</th>
<th>NDMI</th>
<th>NDMI</th>
<th>Signif.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>14,686</td>
<td>57.92</td>
<td>52.72</td>
<td>16,591</td>
<td>DEPRESS</td>
<td>12.32</td>
<td>0.000</td>
</tr>
<tr>
<td>Male</td>
<td>10,544</td>
<td>41.55</td>
<td>46.76</td>
<td>14,717</td>
<td>NDMI</td>
<td>-12.46</td>
<td>0.000</td>
</tr>
<tr>
<td>AGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-54</td>
<td>16,446</td>
<td>64.81</td>
<td>62.30</td>
<td>19,607</td>
<td>DEPRESS</td>
<td>6.19</td>
<td>0.000</td>
</tr>
<tr>
<td>Null</td>
<td>2,706</td>
<td>10.66</td>
<td>9.53</td>
<td>2,999</td>
<td>NDMI</td>
<td>-10.77</td>
<td>0.000</td>
</tr>
<tr>
<td>16-34</td>
<td>4,031</td>
<td>15.89</td>
<td>19.33</td>
<td>6,083</td>
<td>NDMI</td>
<td>-17.00</td>
<td>0.000</td>
</tr>
<tr>
<td>RACE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1,575</td>
<td>6.21</td>
<td>5.58</td>
<td>1,757</td>
<td>DEPRESS</td>
<td>3.13</td>
<td>0.002</td>
</tr>
<tr>
<td>Mixed</td>
<td>8</td>
<td>0.30</td>
<td>0.90</td>
<td>28</td>
<td>NDMI</td>
<td>-2.85</td>
<td>0.004</td>
</tr>
<tr>
<td>White</td>
<td>15,087</td>
<td>59.46</td>
<td>61.02</td>
<td>19,205</td>
<td>NDMI</td>
<td>-3.80</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Depression nor employees with NDMI are therefore not included in the table above.

allegations. Issues which were significantly different are highlighted in Table 12.

Table 12. Categories of the Charging Party Variable, Issue, with Significant Differences in Proportion Between Depression Allegations (25,375) and Non Depression Mental Illness Allegations (31,471) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Issue</th>
<th>DEPRESS</th>
<th>DEPRESS</th>
<th>NDMI</th>
<th>NDMI</th>
<th>Signif.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demotion</td>
<td>507</td>
<td>2.00</td>
<td>1.61</td>
<td>506</td>
<td>DEPRESS</td>
<td>3.46</td>
<td>0.001</td>
</tr>
<tr>
<td>Discharge</td>
<td>8,422</td>
<td>33.19</td>
<td>31.86</td>
<td>10,028</td>
<td>DEPRESS</td>
<td>3.35</td>
<td>0.001</td>
</tr>
<tr>
<td>Discipline</td>
<td>1,346</td>
<td>5.30</td>
<td>4.78</td>
<td>1,504</td>
<td>DEPRESS</td>
<td>2.84</td>
<td>0.005</td>
</tr>
<tr>
<td>Benefits--</td>
<td>204</td>
<td>0.804</td>
<td>1.04</td>
<td>329</td>
<td>NDMI</td>
<td>-3.01</td>
<td>0.003</td>
</tr>
<tr>
<td>Insurance</td>
<td>5</td>
<td>0.20</td>
<td>0.35</td>
<td>109</td>
<td>NDMI</td>
<td>-3.45</td>
<td>0.001</td>
</tr>
<tr>
<td>References-Unfavorable</td>
<td>50</td>
<td>0.20</td>
<td>0.35</td>
<td>109</td>
<td>NDMI</td>
<td>-3.45</td>
<td>0.001</td>
</tr>
<tr>
<td>Hiring</td>
<td>828</td>
<td>3.26</td>
<td>3.93</td>
<td>1,238</td>
<td>NDMI</td>
<td>-4.29</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Depression nor employees with NDMI are therefore not included in the table above.
Of 21 Employer Industry categories, four had a significantly higher proportion of allegations for Depression: Professional, Scientific, and Technical Services (Z = 0.48, p < .01); Information (Z = 2.87, p < .01); Finance and Insurance (Z = 2.86, p < .01) and Null (Z = 2.80, p < .01). Similarly, four had a significantly higher proportion of allegations for NDMI: Retail Trades (Z = -8.43, p < .01); Accommodation and Food Services (Z = -6.03, p < .01); Other Services Except Public Administration (Z = -3.64, p < .01) and Transportation and Warehousing (Z = -3.00, p < .01). Thirteen industries showed significant differences for neither Depression nor NDMI allegations. All Industry categories which manifest significant differences are displayed in Table 13.

Table 13. Categories of the Employer Variable, Industry, with Significant Differences in Proportion Between Depression Allegations (25,375) and Non Depression Mental Illness Allegations (31,471) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Industry</th>
<th>DEPRESS N</th>
<th>DEPRESS %</th>
<th>NDMI %</th>
<th>NDMI N</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>1,215</td>
<td>4.79</td>
<td>3.55</td>
<td>1,117</td>
<td>DEPRESS</td>
<td>7.29</td>
<td>0.000</td>
</tr>
<tr>
<td>Information</td>
<td>1,579</td>
<td>6.22</td>
<td>5.65</td>
<td>1,778</td>
<td>DEPRESS</td>
<td>2.87</td>
<td>0.004</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>1,764</td>
<td>6.95</td>
<td>6.35</td>
<td>1,998</td>
<td>DEPRESS</td>
<td>2.86</td>
<td>0.004</td>
</tr>
<tr>
<td>Null</td>
<td>4,160</td>
<td>16.39</td>
<td>15.53</td>
<td>4,887</td>
<td>DEPRESS</td>
<td>2.80</td>
<td>0.005</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>892</td>
<td>3.51</td>
<td>3.99</td>
<td>1,257</td>
<td>NDMI</td>
<td>-3.00</td>
<td>0.003</td>
</tr>
<tr>
<td>Other Services (Except Public Administration)</td>
<td>744</td>
<td>2.93</td>
<td>3.47</td>
<td>1,092</td>
<td>NDMI</td>
<td>-3.64</td>
<td>0.000</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>322</td>
<td>1.27</td>
<td>1.90</td>
<td>597</td>
<td>NDMI</td>
<td>-6.03</td>
<td>0.000</td>
</tr>
<tr>
<td>Retail Trades</td>
<td>1,387</td>
<td>5.47</td>
<td>7.18</td>
<td>2,261</td>
<td>NDMI</td>
<td>-8.43</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01
**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Depression nor employees with NDMI are therefore not included in the table above.

Employer U.S. Census Region has six categories. Two of these had a significantly higher proportion of Depression allegations: Midwest ($Z = 5.15$, $p < .01$) and South ($Z = 3.15$, $p < .01$). Two regions had a significantly higher proportion of NDMI allegations: West ($Z = -5.02$, $p < .01$) and Null ($Z = -3.17$, $p < .01$). The Northeast Region and Foreign Countries and Territories did not manifest significant differences. Categories which had significant differences in proportion are displayed in Table 14.

**Table 14. Categories of the Employer Variable, Region, with Significant Differences in Proportion Between Depression Allegations (25,375) and Non Depression Mental Illness Allegations (31,471) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Region</th>
<th>DEPRESS N</th>
<th>DEPRESS %</th>
<th>NDMI N</th>
<th>NDMI %</th>
<th>Signif. High. Prop. Of</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwest</td>
<td>5,979</td>
<td>23.56</td>
<td>6,842</td>
<td>27.74</td>
<td>DEPRESS</td>
<td>5.15</td>
<td>0.000</td>
</tr>
<tr>
<td>South</td>
<td>8,143</td>
<td>32.09</td>
<td>9,711</td>
<td>30.86</td>
<td>DEPRESS</td>
<td>3.15</td>
<td>0.002</td>
</tr>
<tr>
<td>Null</td>
<td>4,783</td>
<td>18.850</td>
<td>6,264</td>
<td>19.90</td>
<td>NDMI</td>
<td>-3.17</td>
<td>0.002</td>
</tr>
<tr>
<td>West</td>
<td>3,907</td>
<td>15.40</td>
<td>5,335</td>
<td>16.95</td>
<td>NDMI</td>
<td>-5.02</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Depression nor employees with NDMI are therefore not included in the table above.

Employer Size has five categories only one of which had a significantly higher proportion of Depression allegations: 501+ Employers ($Z = 2.60$, $p < .01$). One category had a significantly higher proportion of NDMI allegations: Null ($Z = -3.65$, $p < .01$). The three remaining size categories manifest no significant differences, which are highlighted in Table 15.
Table 15. Categories of the Employer Variable, Employer Size, with Significant Differences in Proportion Between Depression Allegations (25,375) and Non Depression Mental Illness Allegations (31,471) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Employer Size</th>
<th>DEPRESS N</th>
<th>DEPRESS %</th>
<th>NDMI %</th>
<th>NDMI</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>501+ Employees</td>
<td>12,243</td>
<td>48.25</td>
<td>47.15</td>
<td>14,839</td>
<td>DEPRESS</td>
<td>2.60</td>
<td>0.009</td>
</tr>
<tr>
<td>Null</td>
<td>1,045</td>
<td>4.12</td>
<td>4.10</td>
<td>1,291</td>
<td>NDMI</td>
<td>-3.65</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Depression nor employees with NDMI are therefore not included in the table above.

The Resolution of all allegations involves two mutually exclusive statuses: Merit or Non Merit Resolutions. Neither status had a significantly higher proportion of Depression or NDMI allegations: Merit (Z = 2.06, p < .01) and Non Merit (Z = -2.06, p < .01). As a result, there are no significant Resolution Status categories to display in table format.

Results of the Exhaustive CHAID for All Depression Allegations

In response to Research Question 3b: Which factors drive merit activity in ADA Title I allegations filed by persons with Depression (25,375 allegations or 44.64% of All Mental Illness allegations)?, an Exhaustive CHAID was performed for all Depression allegations combined. Results corroborated the merit rate of 19.45% (4,935 of 25,375 allegations). This is modestly lower than the merit rate for AMI allegations (19.83%). Charging Parties with Depression experience slightly less actual discrimination than those with other mental illness. The Depression merit rate is also well below the NMI merit rate of 23.40%. This suggests that Charging Parties with Depression experience much less actual discrimination than those with NMI. In turn, when compared to the merit rate for the whole EEOC database of all allegations, all disabilities (22.89% or
92,097 of 402,291 allegations), Depression is still moderately below average. This indicates that employees with Depression experience proportionately less actual discrimination than all other disabilities. The merit rate for Depression is driven by the primary driver of Industry designation, which is broken down in Table 16.

Table 16. Detailed Breakdown of Merit Rate for Depression’s Primary Driver: Issue*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Merit Rate</th>
<th>Number/Total Allegs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prohibited Medical Inquiry, ADEA Waiver, and Posting Notices (part A)</td>
<td>61.11%</td>
<td>88/144</td>
</tr>
<tr>
<td>Benefits—Insurance and Tenure</td>
<td>37.27%</td>
<td>82/220</td>
</tr>
<tr>
<td>Reinstatement and Qualification</td>
<td>31.25%</td>
<td>90/288</td>
</tr>
<tr>
<td>Standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recall</td>
<td>27.87%</td>
<td>17/61</td>
</tr>
<tr>
<td>Benefits—General</td>
<td>26.34%</td>
<td>98/372</td>
</tr>
<tr>
<td>Other</td>
<td>25.53%</td>
<td>133/521</td>
</tr>
<tr>
<td>RA, Job Classification, and Benefits—Pension</td>
<td>22.76%</td>
<td>981/4,311</td>
</tr>
<tr>
<td>Assignment</td>
<td>22.15%</td>
<td>70/316</td>
</tr>
<tr>
<td>References Unfavorable</td>
<td>22.00%</td>
<td>11/50</td>
</tr>
<tr>
<td>Intimidation and Posting Notices (part B)</td>
<td>20.94%</td>
<td>89/425</td>
</tr>
<tr>
<td>Wages</td>
<td>20.48%</td>
<td>85/415</td>
</tr>
<tr>
<td>Demotion</td>
<td>20.32%</td>
<td>103/507</td>
</tr>
<tr>
<td>Terms/Conditions of Employment</td>
<td>19.79%</td>
<td>439/2,218</td>
</tr>
<tr>
<td>Layoff</td>
<td>19.69%</td>
<td>51/259</td>
</tr>
<tr>
<td>Suspension</td>
<td>18.61%</td>
<td>91/489</td>
</tr>
<tr>
<td>Discipline</td>
<td>17.98%</td>
<td>242/1,346</td>
</tr>
<tr>
<td>Harassment</td>
<td>17.59%</td>
<td>469/2,666</td>
</tr>
<tr>
<td>Discharge</td>
<td>17.51%</td>
<td>1,475/8,422</td>
</tr>
<tr>
<td>Training and Severance Pay</td>
<td>16.39%</td>
<td>20/122</td>
</tr>
<tr>
<td>Promotion</td>
<td>16.33%</td>
<td>65/398</td>
</tr>
<tr>
<td>Constructive Discharge</td>
<td>16.26%</td>
<td>126/775</td>
</tr>
<tr>
<td>Involuntary Retirement and</td>
<td>14.67%</td>
<td>11/75</td>
</tr>
<tr>
<td>Exclusion/Segregated Union Locals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hiring, Seniority, Referral, and Testing</td>
<td>10.45%</td>
<td>91/871</td>
</tr>
<tr>
<td>Union Representation, Early Retirement</td>
<td>7.69%</td>
<td>8/104</td>
</tr>
<tr>
<td>Incentive, Segregated Facilities, Maternity, and Apprenticeship</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Ranked by merit rate.
More specific details are provided for Issue nodes with sub nodes for Depression allegations in partial hierarchical CHAID diagrams.

*Detailed Description of Issue Drivers Which Contain Sub Drivers for Depression Allegations*

For Depression allegations, the Issue of Discharge had a merit rate of 17.51% (1,475 of 8,422 allegations), which is lower than the Depression merit rate of 19.45%. As a result, Discharge merit activity contributes to decreasing the overall merit activity for Depression. In turn, Discharge merit activity is driven by Employer Industry which is split into four nodes including the following NAICS groupings:

1. Node 1: Null NAICS; Agriculture, Farming, Fishing and Hunting; Mining; Manufacturing; Wholesale Trades; Retail Trades; Information; Professional, Scientific, and Technical; Administrative, Support, Waste Management, and Remediation Services; Educational Services; and Health Care and Social Assistance with a merit rate of 17.38% (or 1,071 of 6,163 allegations). This finding indicates that Node 1 provides a stabilizing influence upon overall Discharge merit activity (17.51%)...

2. Node 2: Utilities; Construction; Finance and Insurance; Accommodation and Food Services; and Other with a merit rate of 20.38% (or 244 of 1,197 allegations). This finding indicates that merit activity in these Employer Industries is above average and has an elevating effect upon the overall Discharge merit rate (17.51%).
3. Node 3: Transportation and Warehousing and Public Administration with a merit rate of 13.04% (or 121 of 928 allegations). This finding indicates that merit activity in these Employer Industries is well below average and has a deterrent effect upon the overall Discharge merit rate (17.51%).

4. Node 4: Real Estate, Rentals, and Leasing; Management of Companies and Enterprises; and Arts and Entertainment with a merit rate of 29.10% (or 39 of 135 allegations). This finding indicates that merit activity in these Employer Industries is well above average and serves to elevate the overall Discharge merit rate (17.51%). The decision tree for Discharge as an influence upon the Depression merit rate is given in Figure 15.

For Depression allegations, the Issue of Harassment had a merit rate of 17.29% (or 469 of 2,666 allegations), which is below the Depression merit rate of 17.51%. In turn, the merit activity of the Harassment driver for Depression is driven by Employer Size which is split into two nodes. One includes Null, 15-100 and 201-500 Employees with a elevating merit rate of 21.12% (or 227 of 1,075 allegations.) The other includes 101-200 and 501+ Employees with a deterrent merit rate of 15.21% (or 242 of 1,591 allegations). The decision tree for Harassment and its influence on the Depression merit rate is shown in Figure 16.

For Depression allegations, the Issue of Terms/Conditions of Employment had a merit rate of 19.79% (or 439 of 2,218 allegations) which is roughly equivalent to and a stabilizing force upon the Depression merit rate of 19.45%. The merit rate of this Issue
Figure 15. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Discharge in Depression Allegations
DEPRESSION
M = 19.45% (4,935)
NM = 80.55% (20,440)
TOTAL = 100.00% (56,846)

HARASSMENT
M = 17.29% (469)
NM = 82.41% (2,197)
TOTAL = 10.51% (2,666)

EMP SIZE: NULL; 15-100; & 201-500
M = 21.12% (227)
NM = 78.88% (848)
TOTAL = 4.24% (1,075)

EMP SIZE: 101-200 & 501+
M = 15.21% (242)
NM = 84.79% (1,349)
TOTAL = 6.27% (1,591)

Figure 16. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Harassment in Depression Allegations
is, in turn, driven by Employer Industry which is split into three nodes including the following categories:

1. **Node 1:** NAICS: Null; Construction; Manufacturing; Retail Trades; Transportation and Warehousing; Information; Educational Services; Health Care and Social Assistance; and Other with a merit rate of 19.30% (or 288 of 1,492 allegations). This finding indicates that this Employer Industry grouping has a stabilizing effect upon the Terms/Conditions merit rate (19.79%). The Node 1 Merit rate was, in turn, heavily influenced by Race with Whites and Asians inflating the rate (21.90%) and all other minority groups depressing the rate (10.24)

2. **Node 2:** NAICS: Agriculture, Forestry, Fishing, and Hunting; Utilities; Finance and Insurance; Professional, Scientific, and Technical; Administrative, Support, Waste Management, and Remediation Services; Arts, Entertainment, and Recreation; and Accommodation and Food Services with a merit rate of 27.39% (or 109 of 398 allegations). This is well above average and provides an elevating influence upon the Terms/Conditions merit rate (19.79%).

3. **Node 3:** NAICS: Mining; Wholesale Trades; Real Estate, Rental, and Leasing; and Public Administration with a merit rate of 12.80% (or 42 of 326 allegations). This finding indicates that merit activity in these Employer Industries is well below the merit rate for Terms/Conditions (19.79%) upon which it has a deterrent effect. The decision tree for Terms/Conditions and its influences on the Depression merit rate is illustrated in Figure 17.
Figure 17. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of Issue of Terms/Conditions of Employment in Depression Allegations
For Depression allegations, the Issue of Discipline had a merit rate of 17.98% (or 242 of 1,346 allegations), which is lower than and a deterrent to the Depression merit rate of 19.45%. In turn, Discipline merit activity is driven by Employer Size which is split into two nodes. One includes Null, 15-100 Employees, 101-200 Employees and 201-500 Employees, with a merit rate of 22.18% (or 132 of 595 allegations), an elevating effect. The other node includes 501+ Employees with a merit rate of 14.65% (or 110 of 751 allegations), a deterrent effect. A partial hierarchical decision tree depicting the Issue of Discipline and its effect upon the Depression merit rate is shown in Figure 18.

For Depression allegations, the combined Issues of Hiring, Seniority, Referral, and Testing had a merit rate of 10.45% (or 91 of 871 combined allegations) which is much lower than the Depression merit rate of 19.45%. This low merit rate is driven by Charging Party Age which is split into three nodes including the following categories:

1. Node 1: Charging Party Age: Null and 65+ Years with a merit rate of 0.90% (or 3 of 334 allegations). This finding indicates that the merit activity in for Charging Parties with Depression in this age range is well below the already depressed merit rate of the combined-issue group (10.45%). This low node is mitigated by Females with a merit rate of 3.90% (or 3 of 77 allegations) but is lowered by Males who have a merit rate of 0.00% (or 0 out of 257 allegations).

2. Node 2: Charging Party Age: 35-54 Years with a merit rate of 14.71% (or 59 of 401 allegations). This finding indicates that merit activity for Charging Parties with Depression in this age range is moderately above average and an elevating influence on the combined-issue group merit rate (10.45%).
Figure 18. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Issue of Discipline in Depression Allegations.
3. Node 3: Charging Party Age: 15-34 Years and 55-64 Years with a merit rate of 21.32% (or 29 of 136 allegations). This finding indicates that merit activity in these Charging Party Age ranges is well above and a strong elevating influence upon the combined-issue group merit rate of 10.45%. A partial hierarchical decision tree of the merit activity for the combined Issues of Hiring, Seniority, Referral, and Testing upon the merit rate for Depression is shown in Figure 19.

Bipolar Disorder Allegations

*Nonparametric tests of proportion for Bipolar Disorder Allegations vs. Non Bipolar Disorder Mental Illness Allegations*

In response to Research Question 4a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Bipolar Disorder (7,675 allegations or 13.50% of All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non Bipolar Disorder Mental Illnesses (NBDMI; 49,171 allegations or 86.50% of All Mental Illness allegations) statistically significant?, nonparametric tests of proportion were performed for bipolar disorder allegations (7,675) vs. non bipolar disorder mental illness (NBDMI) allegations (49,171) across the following variables: Charging Party Gender, Age, and Race; Discrimination Issue; Employer Industry, Size, and Region; and Resolution Status.

Gender is a Charging Party variable with 3 categories: Male, Female, and Null. Male allegations favored bipolar disorder ($Z = 3.02, p < .01$) and Female allegations favored NBDMI allegations. Null allegations ($Z = 2.06, p < .01$) favored neither the target nor comparison group. Gender results are shown at the top of Table 17.
Figure 19. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Combined Issues of Hiring, Seniority, Referral, and Testing in Depression Allegations
Age was significant for bipolar disorder allegations for the variable category of 16-34 and NBDMI allegations for the variable categories of 55-64 ($Z = -6.13, p < .01$) and 35-54 ($Z = -3.58, p < .01$). The middle of Table 17 shows Age results.

The two Race categories of Null ($Z = 9.81, p < .01$) and White ($Z = 4.36, p < .01$) were significant for bipolar disorder allegations. Four Race categories were significant for NBDMI allegations: African American ($Z = -8.27, p < .01$); Hispanic ($Z = -6.88, p < .01$); Other ($Z = -6.54, p < .01$); and Asian ($Z = -4.10, p < .01$). The Race categories of Mixed ($Z = 1.54, p < .01$) and Native American/Alaskan Native ($Z = 0.00, p < .01$) were not significant for bipolar disorder of NBDMI allegations. Race results are shown at the bottom of Table 17.

Table 17. Categories of the Charging Party Variables, Gender, Age, and Race, with Significant Differences in Proportion Between Bipolar Disorder Allegations (7,675) and Non Bipolar Disorder Mental Illness Allegations (49,171) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Variable</th>
<th>BIPOLAR N</th>
<th>BIPOLAR %</th>
<th>NBDMI N</th>
<th>NBDMI %</th>
<th>Signif.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3,533</td>
<td>46.03</td>
<td>21,728</td>
<td>44.19</td>
<td>NIPOLAR</td>
<td>3.02</td>
<td>0.003</td>
</tr>
<tr>
<td>Female</td>
<td>4,083</td>
<td>53.12</td>
<td>27,194</td>
<td>55.30</td>
<td>NBDMI</td>
<td>-3.44</td>
<td>0.001</td>
</tr>
<tr>
<td>AGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-34</td>
<td>1,681</td>
<td>21.90</td>
<td>8,433</td>
<td>17.15</td>
<td>BIPOLAR</td>
<td>9.47</td>
<td>0.000</td>
</tr>
<tr>
<td>35-54</td>
<td>4,726</td>
<td>61.58</td>
<td>31,327</td>
<td>63.71</td>
<td>NBDMI</td>
<td>-3.58</td>
<td>0.000</td>
</tr>
<tr>
<td>55-64</td>
<td>504</td>
<td>6.57</td>
<td>4,161</td>
<td>8.46</td>
<td>NBDMI</td>
<td>-6.13</td>
<td>0.000</td>
</tr>
<tr>
<td>RACE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Null</td>
<td>1,246</td>
<td>16.23</td>
<td>5,834</td>
<td>11.85</td>
<td>BIPOLAR</td>
<td>9.81</td>
<td>0.000</td>
</tr>
<tr>
<td>White</td>
<td>4,802</td>
<td>62.57</td>
<td>29,490</td>
<td>59.97</td>
<td>BIPOLAR</td>
<td>4.36</td>
<td>0.000</td>
</tr>
<tr>
<td>Asian</td>
<td>54</td>
<td>0.70</td>
<td>561</td>
<td>1.14</td>
<td>NBDMI</td>
<td>-4.10</td>
<td>0.000</td>
</tr>
<tr>
<td>Other</td>
<td>338</td>
<td>4.40</td>
<td>2,994</td>
<td>6.09</td>
<td>NBDMI</td>
<td>-6.54</td>
<td>0.000</td>
</tr>
<tr>
<td>Hispanic</td>
<td>242</td>
<td>3.153</td>
<td>2,298</td>
<td>4.67</td>
<td>NBDMI</td>
<td>-6.88</td>
<td>0.000</td>
</tr>
<tr>
<td>African</td>
<td>942</td>
<td>12.27</td>
<td>7,698</td>
<td>15.656</td>
<td>NBDMI</td>
<td>-8.27</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Bipolar Disorder nor employees with NBDMI are therefore not included in the table above.
Out of 40 Discrimination Issue categories, eight categories were significant for either bipolar disorder or NBDMI allegations. Three of these eight were significant for bipolar disorder allegations: Discharge ($Z = 7.06, p < .01$); Posting Notices ($Z = 4.15, p < .01$); and Benefits—Insurance ($Z = 3.39, p < .01$). Five were significant for NBDMI allegations: Maternity ($Z = -3.46, p < .01$); Testing ($Z = -3.28, p < .01$); Harassment ($Z = -3.27, p < .01$); (Z = -3.04, p < .01); and RA ($Z = -3.00, p < .01$). Table 18 displays results for Discrimination.

Table 18. Categories of the Charging Party Variables, Issue, with Significant Differences in Proportion Between Bipolar Disorder Allegations (7,675) and Non Bipolar Disorder Mental Illness Allegations (49,171) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Issue</th>
<th>BIPOLAR N</th>
<th>BIPOLAR %</th>
<th>NBDMI N</th>
<th>NBDMI %</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge</td>
<td>2,766</td>
<td>36.04</td>
<td>15,684</td>
<td>31.90</td>
<td>BIPOLAR</td>
<td>7.06</td>
<td>0.000</td>
</tr>
<tr>
<td>Posting Notices</td>
<td>35</td>
<td>0.46</td>
<td>64</td>
<td>0.13</td>
<td>BIPOLAR</td>
<td>4.15</td>
<td>0.000</td>
</tr>
<tr>
<td>Benefits—Insurance</td>
<td>103</td>
<td>1.34</td>
<td>430</td>
<td>0.87</td>
<td>BIPOLAR</td>
<td>3.39</td>
<td>0.001</td>
</tr>
<tr>
<td>Reasonable Accommodation</td>
<td>1,187</td>
<td>15.47</td>
<td>8,262</td>
<td>16.80</td>
<td>NBDMI</td>
<td>-3.00</td>
<td>0.003</td>
</tr>
<tr>
<td>Wages</td>
<td>93</td>
<td>1.21</td>
<td>801</td>
<td>1.63</td>
<td>NBDMI</td>
<td>-3.04</td>
<td>0.002</td>
</tr>
<tr>
<td>Harassment</td>
<td>729</td>
<td>9.50</td>
<td>5,253</td>
<td>10.68</td>
<td>NBDMI</td>
<td>-3.27</td>
<td>0.001</td>
</tr>
<tr>
<td>Testing</td>
<td>1</td>
<td>0.01</td>
<td>35</td>
<td>0.07</td>
<td>NBDMI</td>
<td>-3.28</td>
<td>0.001</td>
</tr>
<tr>
<td>Maternity</td>
<td>0</td>
<td>0.00</td>
<td>12</td>
<td>0.02</td>
<td>NBDMI</td>
<td>-3.46</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*p < .01
**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Bipolar Disorder nor employees with NBDMI are therefore not included in the table above.

The difference in proportion between bipolar disorder and NBDMI allegations for the variable of Employer Industry was significant for 8 categories: 5 for bipolar disorder allegations: Other Services Except Public Administration ($Z = 9.56, p < .01$); Accommodation and Food Services ($Z = 5.56, p < .01$); Retail Trades ($Z = 4.11, p < .01$);
Health Care and Social Assistance (Z = 4.07, p < .01); and Management of Companies and Enterprises (Z = 2.69, p < .01); and 3 for NSMI allegations: Manufacturing (Z = -76.28, p < .01); Public Administration (Z = -8.49, p < .01); and Administrative, Support, Waste Management, and Remediation Services (Z = -2.95, p < .01). Detailed Employer Industry results are listed in Table 19.

Table 19. Categories of the Employer Variable, Industry, with Significant Differences in Proportion Between Bipolar Disorder Allegations (7,675) and Non Bipolar Disorder Mental Illness Allegations (49,171) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Bipolar N</th>
<th>Bipolar %</th>
<th>NBDMI N</th>
<th>NBDMI %</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Services (Except Public Administration)</td>
<td>244</td>
<td>3.18</td>
<td>1.21</td>
<td>594</td>
<td>BIPOLAR</td>
<td>9.56</td>
<td>0.000</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>193</td>
<td>2.51</td>
<td>1.48</td>
<td>726</td>
<td>BIPOLAR</td>
<td>5.56</td>
<td>0.000</td>
</tr>
<tr>
<td>Retail Trades</td>
<td>580</td>
<td>7.56</td>
<td>6.23</td>
<td>3,068</td>
<td>BIPOLAR</td>
<td>4.11</td>
<td>0.000</td>
</tr>
<tr>
<td>Health Care and Social Assistance Management of Companies and Enterprises</td>
<td>1,010</td>
<td>13.16</td>
<td>12.22</td>
<td>6,011</td>
<td>BIPOLAR</td>
<td>4.07</td>
<td>0.000</td>
</tr>
<tr>
<td>Administrative, Support, Waste Management, and Remediation Services</td>
<td>10</td>
<td>0.13</td>
<td>0.02</td>
<td>9</td>
<td>BIPOLAR</td>
<td>2.69</td>
<td>0.007</td>
</tr>
<tr>
<td>Public Administration</td>
<td>228</td>
<td>3.01</td>
<td>3.59</td>
<td>1,767</td>
<td>NBDMI</td>
<td>-2.95</td>
<td>0.003</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>594</td>
<td>7.74</td>
<td>10.59</td>
<td>5,205</td>
<td>NBDMI</td>
<td>-8.49</td>
<td>0.000</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,055</td>
<td>13.75</td>
<td>48.30</td>
<td>23,752</td>
<td>NBDMI</td>
<td>-76.28</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Bipolar Disorder nor employees with NBDMI are therefore not included in the table above.

The difference in proportion was significant for all 5 categories of Employer U.S. Census Region. Null (Z = 22.34, p < .01) favored bipolar disorder allegations while
South ($Z = -8.36$, $p < .01$); Northeast ($Z = -8.19$, $p < .01$); Midwest ($Z = -5.97$, $p < .01$); West ($Z = -4.20$, $p < .01$); and Foreign and Territories ($Z = -3.73$, $p < .01$) favored NBDMI allegations. Employer U.S. Census Region Results are displayed in Table 20.

Table 20. Categories of the Employer Variable, Region, with Significant Differences in Proportion Between Bipolar Disorder Allegations (7,675) and Non Bipolar Disorder Mental Illness Allegations (49,171) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Region</th>
<th>BIPOLAR N</th>
<th>BIPOLAR %</th>
<th>NBDMI N</th>
<th>NBDMI %</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>2,309</td>
<td>30.08</td>
<td>8,738</td>
<td>17.77</td>
<td>BIPOLAR</td>
<td>22.34</td>
<td>0.000</td>
</tr>
<tr>
<td>Foreign and Territories</td>
<td>12</td>
<td>0.16</td>
<td>173</td>
<td>0.35</td>
<td>NBDMI</td>
<td>-3.73</td>
<td>0.000</td>
</tr>
<tr>
<td>West</td>
<td>1,126</td>
<td>14.67</td>
<td>8,116</td>
<td>16.05</td>
<td>NBDMI</td>
<td>-4.20</td>
<td>0.000</td>
</tr>
<tr>
<td>Midwest</td>
<td>1,535</td>
<td>20.00</td>
<td>11,286</td>
<td>22.95</td>
<td>NBDMI</td>
<td>-5.97</td>
<td>0.000</td>
</tr>
<tr>
<td>Northeast</td>
<td>584</td>
<td>7.61</td>
<td>5,080</td>
<td>10.33</td>
<td>NBDMI</td>
<td>-8.19</td>
<td>0.000</td>
</tr>
<tr>
<td>South</td>
<td>2,109</td>
<td>4.29</td>
<td>15,778</td>
<td>32.09</td>
<td>NBDMI</td>
<td>-8.36</td>
<td>0.000</td>
</tr>
</tbody>
</table>

$p < .01$

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Bipolar Disorder nor employees with NBDMI are therefore not included in the table above.

The difference in proportion between bipolar disorder and NBDMI allegations for the variable of Employer Size was significant for two categories; 15-100 Employees ($Z = 5.18$, $p < .01$) favored bipolar disorder allegations and 501+ Employees ($Z = -5.81$, $p < .01$) favored NBDMI allegations. Employer Size results are detailed in Table 21.

Table 21. Categories of the Employer Variable, Employer Size, with Significant Differences in Proportion Between Bipolar Disorder Allegations (7,675) and Non Bipolar Disorder Mental Illness Allegations (49,171) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Employer Size</th>
<th>BIPOLAR N</th>
<th>BIPOLAR %</th>
<th>NBDMI N</th>
<th>NBDMI %</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-100</td>
<td>2,279</td>
<td>29.69</td>
<td>13,005</td>
<td>26.45</td>
<td>BIPOLAR</td>
<td>5.81</td>
<td>0.000</td>
</tr>
<tr>
<td>501+</td>
<td>3,421</td>
<td>44.57</td>
<td>23,661</td>
<td>48.12</td>
<td>NBDMI</td>
<td>-5.81</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01
**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Bipolar Disorder nor employees with NBDMI are therefore not included in the table above.

Bipolar Disorder allegations were significant for the Resolution category of Merit \( (Z = 3.02, p < .01) \) and NBDMI allegations were significant for the Resolution category of Non Merit \( (Z = -3.02, p < .01) \). Resolution results are displayed in Table 22.

Table 22. Categories of the Outcome Variable, Resolution Status, with Significant Differences in Proportion Between Bipolar Disorder Allegations (7,675) and Non Bipolar Disorder Mental Illness Allegations (49,171) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Resolution Status</th>
<th>BI-POLAR N</th>
<th>BI-POLAR %</th>
<th>NBDMI %</th>
<th>NBDMI N</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>P Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Merit Resolutions</td>
<td>1,622</td>
<td>21.13</td>
<td>19.63</td>
<td>9,651</td>
<td>BIPOLAR</td>
<td>3.02</td>
<td>0.003</td>
</tr>
<tr>
<td>All Non Merit Resolutions</td>
<td>6,053</td>
<td>78.87</td>
<td>80.37</td>
<td>39,520</td>
<td>NBDMI</td>
<td>-3.02</td>
<td>0.003</td>
</tr>
</tbody>
</table>

*P < .01

Results of the Exhaustive CHAID for Bipolar Disorder Allegations

In response to Research Question 4b: Which factors drive merit activity in ADA Title I allegations filed by persons with Bipolar Disorder (7,675 allegations or 13.50% of All Mental Illness allegations)?, an Exhaustive CHAID was performed for all Bipolar Disorder allegations combined. Results corroborated the merit rate for bipolar disorder allegations as 21.13% (or 1,622 of 7,675 allegations). This is a slightly higher merit rate compared to the one for AMI allegations of 19.83% (or 11,273 of 56,846 allegations). In this way, merit activity for bipolar disorder allegations contributes to raising the overall merit resolution activity for all of mental illness allegations, but only slightly. As a result,
bipolar disorder merit activity is typical for mental illness. The merit rate for bipolar disorder is driven by Employer Industry. A detailed breakdown of Merit for this primary driver is shown in Table 23.

Table 23. Detailed Breakdown of Merit Rate for Bipolar Disorder’s Primary Driver: Issue*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Merit Rate</th>
<th>Number/Total Allegations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits—Insurance, Posting Notices (Part A), Exclusion/Segregated Union Locals, Tenure, Waiver of ADEA, and Severance Pay</td>
<td>55.07%</td>
<td>76/138</td>
</tr>
<tr>
<td>Prohibited Medical Inquiry, Benefits—General, and Involuntary Retirement Intimidation, Recall, and Job Classification</td>
<td>37.41%</td>
<td>52/139</td>
</tr>
<tr>
<td>Reinstatement and Qualification Standards</td>
<td>30.07%</td>
<td>42/143</td>
</tr>
<tr>
<td>RA</td>
<td>25.33%</td>
<td>288/1,187</td>
</tr>
<tr>
<td>Other</td>
<td>23.07%</td>
<td>152/659</td>
</tr>
<tr>
<td>Assignment</td>
<td>24.26%</td>
<td>64/302</td>
</tr>
<tr>
<td>Hiring</td>
<td>21.52%</td>
<td>17/79</td>
</tr>
<tr>
<td>Harassment</td>
<td>21.19%</td>
<td>157/729</td>
</tr>
<tr>
<td>Suspension</td>
<td>20.85%</td>
<td>31/128</td>
</tr>
<tr>
<td>Constructive Discharge</td>
<td>20.00%</td>
<td>53/274</td>
</tr>
<tr>
<td>Discipline</td>
<td>19.34%</td>
<td>17/122</td>
</tr>
<tr>
<td>Promotion</td>
<td>18.57%</td>
<td>70/377</td>
</tr>
<tr>
<td>Demotion</td>
<td>16.26%</td>
<td>20/123</td>
</tr>
<tr>
<td>Benefits—Pension, References</td>
<td>13.98%</td>
<td>12/102</td>
</tr>
<tr>
<td>Unfavorable, and Training</td>
<td>11.76%</td>
<td>11/124</td>
</tr>
<tr>
<td>Wages and Referral</td>
<td>11.76%</td>
<td>12/102</td>
</tr>
<tr>
<td>Layoff, Union Representation, Apprenticeship, Seniority, Advertising, Early Retirement Incentive, Segregated Facilities, and Testing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Ranked by merit rate

More specific details are provided for Issue nodes and sub nodes (if applicable) for bipolar disorder allegations in partial hierarchical CHAID diagrams which follow.
Detailed Description of Reasonable Accommodation and its Sub Drivers for Bipolar Disorder Merit Activity

For bipolar disorder allegations, the sole Issue of Reasonable Accommodation (RA) had a merit rate of 24.26% (or 288 of 1,187 RA allegations), which well above the bipolar disorder merit rate of 21.13%. In turn, RA merit activity is driven by Charging Party Race where it is split into two nodes. One node is comprised of Native American/Alaskan Native, Hispanic, Asian, African American, and Mixed Charging Parties with a merit rate of 11.88% (or 19 of 160 allegations), a deterrent effect. The other node includes Other Race, White, and Null with a merit rate of 26.19% (or 269 of 1,027 allegations), an elevating effect. A partial hierarchical decision tree of the merit activity for bipolar disorder on the Issue of RA is shown in Figure 20.

Schizophrenia Allegations

Nonparametric Tests of Proportion for Schizophrenia Allegations vs. Non Schizophrenia Mental Illness Allegations

In response to Research Questions 5a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Schizophrenia (1,449 allegations or 2.55% of All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Non-Schizophrenia Disorder Mental Illnesses (NSMI; 55,397 allegations or 97.45% of All Mental Illness allegations) statistically significant?, nonparametric tests of proportion were performed for Schizophrenia allegations (1,449) vs. Non Schizophrenia Mental Illness Allegations (NSMI) (55,397) across the following.
Figure 20. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of Reasonable Accommodation in Bipolar Disorder Allegations
variables: Charging Party Gender, Age, and Race; Discrimination Issue; Employer Industry, Size, and Region; and Resolution Status. The difference in proportions between Schizophrenia and NSMI allegations for the variable of Gender resulted in a Schizophrenia merit rate favoring Male allegations \( (Z = 17.64, p < .01) \) and the NSMI merit rate favoring Female allegations \( (Z = -17.78, p < .01) \) favoring NSMI. The Null category \( (Z = 0.39, p < .01) \) was not significant for either Schizophrenia or NSMI allegations. Gender results are depicted in the top of Table 24.

Results of the Age variable provided no significant results for any age category and as such do not appear in Table 4.21. The Schizophrenia merit rate favored only African American allegations \( (Z = 13.03, p < .01) \) whereas the NSMI merit rate favored allegations derived from \( (Z = -10.30, p < .01) \), Mixed \( (Z = -6.00, p < .01) \), and Other \( (Z = -4.68, p < .01) \). The bottom of Table 24 details results for Race.

Table 24. Categories of the Charging Party Variables, Gender and Race, with Significant Differences in Proportion Between Schizophrenia Allegations (1,449) and Non Schizophrenia Mental Illness Allegations (55,397) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Variable</th>
<th>SCHIZ</th>
<th>SCHIZ</th>
<th>NSMI</th>
<th>NSMI</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GEN-</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>958</td>
<td>66.11</td>
<td>43.87</td>
<td>24,303</td>
<td>SCHIZ</td>
<td>17.64</td>
<td>0.000</td>
</tr>
<tr>
<td>Female</td>
<td>482</td>
<td>33.26</td>
<td>55.59</td>
<td>30,795</td>
<td>SCHIZ</td>
<td>-17.78</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>RACE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African</td>
<td>445</td>
<td>30.71</td>
<td>14.78</td>
<td>8,195</td>
<td>SCHIZ</td>
<td>13.03</td>
<td>0.000</td>
</tr>
<tr>
<td>Amer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>52</td>
<td>3.59</td>
<td>5.92</td>
<td>3,280</td>
<td>NSMI</td>
<td>-4.68</td>
<td>0.000</td>
</tr>
<tr>
<td>Mixed</td>
<td>0</td>
<td>0.00</td>
<td>0.06</td>
<td>36</td>
<td>NSMI</td>
<td>-6.00</td>
<td>0.000</td>
</tr>
<tr>
<td>White</td>
<td>681</td>
<td>47.00</td>
<td>60.67</td>
<td>33,611</td>
<td>NSMI</td>
<td>-10.30</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Schizophrenia nor employees with NSMI are therefore not included in the table above.
Discrimination Issues has 40 variable categories. Only the merit rate for Hiring (Z = 10.98, p < .01) was significant for Schizophrenia allegations. 10 Issue categories were significant for NSMI allegations: RA (Z = -8.11, p < .01); Exclusion/Segregated Union (Z = -7.55, p < .01); Demotion (Z = -6.99, p < .01); Tenure (Z = -5.57, p < .01); Severance Pay (Z = -4.24, p < .01); Waiver of ADEA Rights (Z = -4.12, p < .01); Early Retirement Incentive (Z = -3.74, p < .01); Harassment (Z = -3.56, p < .01); Segregated Facilities (Z = -2.83, p < .01); and Apprenticeship (Z = -2.65, p < .01). Table 25 details Issue results.

Table 25. Categories of the Charging Party Variable, Issue, with Significant Differences in Proportion Between Schizophrenia Allegations (1,449) and Non Schizophrenia Mental Illness Allegations (55,397) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Issue</th>
<th>SCHIZ N</th>
<th>SCHIZ %</th>
<th>NSMI %</th>
<th>NSMI N</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiring</td>
<td>191</td>
<td>13.18</td>
<td>3.38</td>
<td>1,875</td>
<td>SCHIZ</td>
<td>10.98</td>
<td>0.000</td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>0</td>
<td>0.00</td>
<td>0.01</td>
<td>7</td>
<td>NSMI</td>
<td>-2.65</td>
<td>0.008</td>
</tr>
<tr>
<td>Segregated Facilities</td>
<td>0</td>
<td>0.00</td>
<td>0.01</td>
<td>8</td>
<td>NSMI</td>
<td>-2.83</td>
<td>0.005</td>
</tr>
<tr>
<td>Harassment</td>
<td>116</td>
<td>8.01</td>
<td>10.59</td>
<td>5,866</td>
<td>NSMI</td>
<td>-3.56</td>
<td>0.000</td>
</tr>
<tr>
<td>Early Retirement Incentive</td>
<td>0</td>
<td>0.000</td>
<td>0.02</td>
<td>14</td>
<td>NSMI</td>
<td>-3.74</td>
<td>0.000</td>
</tr>
<tr>
<td>Waiver of ADEA Rights</td>
<td>0</td>
<td>0.000</td>
<td>0.03</td>
<td>17</td>
<td>NSMI</td>
<td>-4.12</td>
<td>0.000</td>
</tr>
<tr>
<td>Severance Pay</td>
<td>0</td>
<td>0.00</td>
<td>0.03</td>
<td>18</td>
<td>NSMI</td>
<td>-4.24</td>
<td>0.000</td>
</tr>
<tr>
<td>Tenure</td>
<td>0</td>
<td>0.00</td>
<td>0.06</td>
<td>31</td>
<td>NSMI</td>
<td>-5.57</td>
<td>0.000</td>
</tr>
<tr>
<td>Demotion</td>
<td>7</td>
<td>0.48</td>
<td>1.82</td>
<td>1,006</td>
<td>NSMI</td>
<td>-6.99</td>
<td>0.000</td>
</tr>
<tr>
<td>Exclusion/Segregated Union</td>
<td>0</td>
<td>0.00</td>
<td>0.10</td>
<td>57</td>
<td>NSMI</td>
<td>-7.55</td>
<td>0.000</td>
</tr>
<tr>
<td>Reasonable Accommodation</td>
<td>148</td>
<td>10.21</td>
<td>16.30</td>
<td>9,031</td>
<td>NSMI</td>
<td>-8.11</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Schizophrenia nor employees with NSMI are therefore not included in the table above.
Two categories were significant for the variable of Employer Industry for Schizophrenia allegations: Retail Trades ($Z = 6.07$, $p < .01$) and Accommodation and Food Services ($Z = 5.56$, $p < .01$). Four categories were significant for NSMI allegations: Finance and Insurance ($Z = -6.82$, $p < .01$); Educational Services ($Z = -6.52$, $p < .01$); Information ($Z = -5.34$, $p < .01$); and Management of Companies and Enterprises ($Z = -4.36$, $p < .01$). Employer Industry results are detailed in Table 26.

Table 26. Categories of the Employer Variable, Industry, with Significant Differences in Proportion Between Schizophrenia Allegations (1,449) and Non Schizophrenia Mental Illness Allegations (55,397) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Industry</th>
<th>SCHIZ N</th>
<th>SCHIZ %</th>
<th>NSMI %</th>
<th>SCHIZ N</th>
<th>NSMI %</th>
<th>SCHIZ</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Trades</td>
<td>165</td>
<td>11.387</td>
<td>6.287</td>
<td>3,483</td>
<td>6.07</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>68</td>
<td>4.693</td>
<td>1.536</td>
<td>851</td>
<td>5.56</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of Companies and Enterprises</td>
<td>0</td>
<td>0.000</td>
<td>0.034</td>
<td>19</td>
<td>-4.36</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>49</td>
<td>3.382</td>
<td>5.971</td>
<td>3,308</td>
<td>-5.34</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Services</td>
<td>44</td>
<td>3.037</td>
<td>6.051</td>
<td>3,352</td>
<td>-6.52</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>49</td>
<td>3.382</td>
<td>6.703</td>
<td>3,713</td>
<td>-6.82</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Schizophrenia nor employees with NSMI are therefore not included in the table above.

For the variable of Employer U.S. Census Region, only one category, Null ($Z = 4.32$, $p < .01$), was significant for Schizophrenia allegations. Three categories, West ($Z = -5.12$, $p < .01$), Northeast ($Z = -3.91$, $p < .01$), and Foreign and Territories ($Z = -3.60$, $p < .01$), were significant for NSMI allegations. Midwest ($Z = 1.93$, $p < .01$) and South ($Z = -5.34$, $p < .01$), were significant for NSMI allegations.
0.23, p < .01) were not significant for Schizophrenia or NSMI allegations. Table 27 describes Employer U.S. Census Region results.

Table 27. Categories of the Employer Variable, Region, with Significant Differences in Proportion Between Schizophrenia Allegations (1,449) and Non Schizophrenia Mental Illness Allegations (55,397) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Region</th>
<th>SCHIZ N</th>
<th>SCHIZ %</th>
<th>NSMI N</th>
<th>NSMI %</th>
<th>SCHIZ N</th>
<th>NSMI N</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>351</td>
<td>24.22</td>
<td>19.301</td>
<td>10,696</td>
<td>4.32</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign and Territories</td>
<td>1</td>
<td>0.07</td>
<td>0.33</td>
<td>184</td>
<td>NSMI</td>
<td>-3.60</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>106</td>
<td>7.31</td>
<td>10.03</td>
<td>5,558</td>
<td>NSMI</td>
<td>-3.91</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>173</td>
<td>11.94</td>
<td>16.37</td>
<td>9,069</td>
<td>NSMI</td>
<td>-5.12</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .01
**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Schizophrenia nor employees with NSMI are therefore not included in the table above.

For the variable of Employer Size, 15-100 Employees (Z = 5.81, p < .01) was significant for Schizophrenia allegations and 501+ Employees (Z = -5.81, p < .01) was significant for NSMI allegations. Employer Size results are shown in Table 28.

Table 28. Categories of the Employer Variable, Employer Size, with Significant Differences in Proportion Between Schizophrenia Allegations (1,449) and Non Schizophrenia Mental Illness Allegations (55,397) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Employer Size</th>
<th>SCHIZ N</th>
<th>SCHIZ %</th>
<th>NSMI N</th>
<th>NSMI %</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-100 Employees</td>
<td>462</td>
<td>31.884</td>
<td>26.756</td>
<td>14,822</td>
<td>Schizophrenia</td>
<td>4.14</td>
<td>0.000</td>
</tr>
<tr>
<td>101-200 Employees</td>
<td>124</td>
<td>8.557</td>
<td>10.771</td>
<td>5,967</td>
<td>NSMI</td>
<td>-2.97</td>
<td>0.003</td>
</tr>
<tr>
<td>501+ Employees</td>
<td>630</td>
<td>43.478</td>
<td>47.750</td>
<td>26,452</td>
<td>NSMI</td>
<td>-3.24</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*p < .01
**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Schizophrenia nor employees with NSMI are therefore not included in the table above.
For the variable of Resolution Status, Non Merit Resolutions \((Z = 3.46, p < .01)\) favored Schizophrenia allegations and Merit Resolutions \((Z = -3.46, p < .01)\) favored NSMI allegations. Results for Resolution Status are displayed in Table 29.

Table 29. Categories of the Outcome Variable, Resolution Status, with Significant Differences in Proportion Between Schizophrenia Allegations (1,449) and Non Schizophrenia Mental Illness Allegations (55,397) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Resolution Status</th>
<th>SCHIZ N</th>
<th>SCHIZ %</th>
<th>NSMI N</th>
<th>NSMI %</th>
<th>Signif. High. Prop. Of Allegs</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Non Merit Resolutions</td>
<td>1,210</td>
<td>83.51</td>
<td>44,363</td>
<td>80.08</td>
<td>SCHIZ</td>
<td>3.46</td>
<td>0.001</td>
</tr>
<tr>
<td>All Merit Resolutions</td>
<td>239</td>
<td>16.49</td>
<td>11,034</td>
<td>19.92</td>
<td>NSMI</td>
<td>-3.46</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*p < .01
**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with Schizophrenia nor employees with NSMI are therefore not included in the table above.

Results of the Exhaustive CHAID for All Schizophrenia Allegations

In response to Research Question 5b: Which factors drive merit activity in ADA Title I allegations filed by persons with Schizophrenia (1,449 allegations or 2.55% of All Mental Illness allegations)\?, an Exhaustive CHAID was performed for all Schizophrenia allegations combined. Results cooborated that the merit rate for schizophrenia allegations was 16.49% (or 239 of 1,449 allegations). This is considerably lower than the merit rate for AMI allegations of 19.83%, upon which it provides a deterrent effect. Stated differently, employees with schizophrenia who file Title I allegations experience much less actual discrimination than other mental illness. In turn, the merit rate for schizophrenia is driven by Employer Industry. A detailed breakdown of Merit for this primary driver of Employer Industry is provided in Table 30.
Table: 30. Detailed Breakdown of Merit Rate for Schizophrenia’s Primary Driver: Industry*

<table>
<thead>
<tr>
<th>Industry</th>
<th>Merit Rate</th>
<th>Number/Total Allegs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional/Scientific/Technical</td>
<td>44.07%</td>
<td>26/59</td>
</tr>
<tr>
<td>Accommodation and Food Services, Finance and Insurance, Administrative/Support/Waste</td>
<td>24.73%</td>
<td>46/186</td>
</tr>
<tr>
<td>Management/Remediation Services, Wholesale Trades, and Real Estate/Rentals/Leasing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Null, Manufacturing, Health Care and Social Assistance, and Arts, Entertainment, and Recreation</td>
<td>12.28%</td>
<td>76/619</td>
</tr>
<tr>
<td>Information, Construction, Mining, Utilities, and Agriculture/Forestry/Fishing/Hunting</td>
<td>4.67%</td>
<td>5/107</td>
</tr>
</tbody>
</table>

*Ranked by merit rate

More specific details are provided for Employer Industry nodes with sub nodes for schizophrenia allegations in partial hierarchical CHAID diagrams as follows.

**Detailed Description of the Primary Driver of Industry’s Sub Drivers for Schizophrenia Allegations**

For schizophrenia allegations, the primary driver of merit rate is Employer Industry and is driven by five sub drivers:

1. **Node 1**: NAICS: Null; Manufacturing; Health Care and Social Assistance; and Arts, Entertainment, and Recreation with a merit rate of 12.28% (or 76 of 619 allegations), a strong deterrent effect.

2. **Node 2**: NAICS: Accommodation and Food Services; Finance and Insurance; Administrative, Support, Waste Management, and Remediation Services; Wholesale Trades; and Real Estate, Rental, and Leasing with a merit rate of 24.73% (or 46 of 186 allegations), a strong elevating effect.
3. Node 3: NAICS: Information, Construction, Mining, Utilities, and Agriculture, Forestry, Fishing, and Hunting with a merit rate of 4.67% (or 5) of 102 allegations), a strong deterrent effect.

4. Node 4: NAICS: Public Administration; Transportation and Warehousing; Other; Retail Trades; and Educational Services with a merit rate of 17.99% (or 86 of 478 allegations), a moderately elevating effect. This finding indicates that the merit activity for Charging Parties with schizophrenia who are employed in these Industries is somewhat above. In turn, Node 4 is driven by the following sub drivers:

a. Node 4 A: Gender: Female with a merit rate (or 26.81% or 37 out of 138 allegations). Females who have schizophrenia and work in these Employer Industries report more actual discrimination as indicated by a higher merit rate than males with schizophrenia who work in the same Employer Industries.

b. Node 4B: Gender: Male with a merit rate (or 14.41% or 49 out of 340 allegations). Males who have schizophrenia and work in these Employer Industries report more much less actual discrimination as indicated by a lower merit rate than females with schizophrenia who work in the same Employer Industries.

5. Node 5: NAICS: Professional, Scientific, and Technical with a merit rate of 44.07% (or 26 of 59 allegations), a very strong elevating effect.
A partial hierarchical decision tree of the merit activity for these secondary drivers of Employer Industry for schizophrenia allegations is shown in Figure 21.

**Known vs. Unknown Mental Illness Allegations**

**Nonparametric Tests of Proportion for Known Mental Illness Allegations vs. Unknown Mental Illness Allegations**

In response to Research Question 6a: Is the difference in proportion between the number of ADA Title I allegations filed by persons with Known Mental Illnesses (KMI; i.e., Anxiety, Depression, Bipolar Disorder, and Schizophrenia; 42,869 allegations or 75.41% of All Mental Illness allegations) and the number of ADA Title I allegations filed by persons with Unknown Mental Illnesses (UMI; 11,977 allegations or 21.07% of All Mental Illness allegations) statistically significant?), nonparametric tests of proportion were performed for Known Mental Illness (KMI) allegations (11,977) vs. Unknown Mental Illness (UMI) allegations (44,869) across the following variables: Charging Party Gender, Age, and Race; Discrimination Issue; Employer Industry, Size, and Region; and Resolution Status.

For the Charging Party variable of Gender, the merit rate for Males \((Z = 7.21, p < .01)\) was significant whereas Females \((Z = -6.78, p < .01)\), was significant in the UMI group. The Null category \((Z = -3.35, p < .01)\) was not significant. Gender results are displayed at the top of Table 31.

Nonparametric tests of proportions between KMI and UMI allegations indicated that the Age categories of 55-64 \((Z = 3.53, p < .01)\) and 16-34 \((Z = 2.60, p < .01)\)
Figure 21. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Sub Drivers for the Primary Driver, Industry, in Schizophrenia Allegations

SCHIZOPHRENIA
M = 16.49% (239)
NM = 83.51% (1,210)
TOTAL = 100.00% (1,449)

NAICS: NULL; MANUFACT; HEALTH; & ARTS
M = 12.28% (76)
NM = 87.72% (543)
TOTAL = 42.72% (619)

NAICS: ACCOMM; FINANCE; ADMIN; WHOLESALE; & REAL ESTATE
M = 24.73% (46)
NM = 75.27% (140)
TOTAL = 12.84% (186)

NAICS: INFO; CONSTRUCT; MINING; UTILITIES; & AGRICULT
M = 4.67% (5)
NM = 95.33% (102)
TOTAL = 7.38% (107)

NAICS: PUB ADMIN; TRANSP; OTHER; RETAIL; & EDUCAT
M = 17.99% (86)
NM = 782.01% (392)
TOTAL = 32.99% (478)

NAICS: PROFESS
M = 44.07% (26)
NM = 55.93% (33)
TOTAL = 4.07% (59)

GENDER: FEMALE
M = 26.81% (37)
NM = 73.19% (101)
TOTAL = 9.52% (138)

GENDER: MALE
M = 14.41% (49)
NM = 85.59% (291)
TOTAL = 23.46% (340)
were significant for KMI allegations. The Age category of 35-54 \((Z = -4.41, p < .01)\) was significant for UMI allegations. The middle of Table 31 depicts Age results.

With respect to race and ethnicity, Other Race \((Z = 4.58, p < .01)\) and Native American/Alaskan Native \((Z = 3.14, p < .01)\), categories were significant for KMI allegations. Null \((Z = -6.99, p < .01)\) was the only Race category significant for UMI allegations. The bottom of Table 31 shows Results for Race.

Table 31. Categories of the Charging Party Variables, Gender, Age, and Race with Significant Differences in Proportion Between Known Mental Illness Allegations (11,977) and Unknown Mental Illness Allegations (44,869) Ranked by Z-Score**

<table>
<thead>
<tr>
<th></th>
<th>KMI N</th>
<th>KMI %</th>
<th>UMI N</th>
<th>UMI %</th>
<th>Signif. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENDER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5,672</td>
<td>47.36</td>
<td>4,589</td>
<td>43.66</td>
<td>KMI</td>
<td>7.21</td>
<td>0.000</td>
</tr>
<tr>
<td>Female</td>
<td>6,261</td>
<td>52.27</td>
<td>5,816</td>
<td>55.75</td>
<td>UMI</td>
<td>-6.78</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>1,080</td>
<td>9.02</td>
<td>3,585</td>
<td>7.99</td>
<td>KMI</td>
<td>3.53</td>
<td>0.000</td>
</tr>
<tr>
<td>16-34</td>
<td>2,229</td>
<td>18.61</td>
<td>7,885</td>
<td>17.57</td>
<td>KMI</td>
<td>2.60</td>
<td>0.009</td>
</tr>
<tr>
<td>35-54</td>
<td>7,388</td>
<td>61.68</td>
<td>28,665</td>
<td>63.87</td>
<td>UMI</td>
<td>-4.41</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>RACE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>812</td>
<td>6.78</td>
<td>2,520</td>
<td>5.62</td>
<td>KMI</td>
<td>4.58</td>
<td>0.000</td>
</tr>
<tr>
<td>Native</td>
<td>91</td>
<td>0.76</td>
<td>220</td>
<td>0.49</td>
<td>KMI</td>
<td>3.14</td>
<td>0.002</td>
</tr>
<tr>
<td>American/Alaskan Native</td>
<td>1,278</td>
<td>10.67</td>
<td>5,802</td>
<td>12.93</td>
<td>UMI</td>
<td>-6.99</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with KMI nor employees with UMI are therefore not included in the table above.

Out of 40 Issue categories, two -- Reinstatement \((Z = 18.93, p < .01)\) and Hiring \((Z = 6.49, p < .01)\) -- were significant for KMI allegations and three -- Discharge \((Z = -
3.97, p < .01), Posting Notices (Z = -3.83, p < .01) and RA (Z = -3.66, p < .01) -- were
significant for UMI allegations. Issue Results are shown in Table 32.

Table 32. Categories of the Charging Party Variables, Issue, with Significant Differences in Proportion Between Known Mental Illness Allegations (11,977) and Unknown Mental Illness Allegations (44,869) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Issue</th>
<th>KMI N</th>
<th>KMI %</th>
<th>UMI N</th>
<th>UMI %</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinstatement</td>
<td>461</td>
<td>3.85</td>
<td>0.47</td>
<td>209</td>
<td>KMI</td>
<td>18.93</td>
<td>0.000</td>
</tr>
<tr>
<td>Hiring</td>
<td>565</td>
<td>4.72</td>
<td>3.34</td>
<td>1,501</td>
<td>KMI</td>
<td>6.49</td>
<td>0.000</td>
</tr>
<tr>
<td>Reasonable</td>
<td>1,861</td>
<td>15.54</td>
<td>16.91</td>
<td>7,588</td>
<td>UMI</td>
<td>-3.66</td>
<td>0.000</td>
</tr>
<tr>
<td>Accommodation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posting Notices</td>
<td>9</td>
<td>0.07</td>
<td>0.20</td>
<td>90</td>
<td>UMI</td>
<td>-3.83</td>
<td>0.000</td>
</tr>
<tr>
<td>Discharge</td>
<td>3,708</td>
<td>30.96</td>
<td>32.86</td>
<td>14,742</td>
<td>UMI</td>
<td>-3.97</td>
<td>0.000</td>
</tr>
<tr>
<td>Totals</td>
<td>11,977</td>
<td>44,869</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with KMI nor employees with UMI are therefore not included in the table above.

Three categories for the variable Employer Industry showed significant differences in proportions for KMI allegations: Public Administration (Z = 7.61, p < .01); Accommodation and Food Services (Z = 3.28, p < .01); and Other Services Except Public Administration (Z = 2.95, p < .01). Similarly, three Employer Industry categories showed significant differences in proportions for UMI allegations: Information (Z = -6.80, p < .01); Finance and Insurance (Z = -4.86, p < .01); and Professional, Scientific, and Technical (Z = -3.44, p < .01). Employer Industry results are shown in Table 33.

For the variable of Employer U.S. Census Region, 3 variable categories were significant for KMI allegations: West (Z = 6.46, p < .01); Northeast (Z = 4.69, p < .01); and South (Z = 4.59, p < .01). Null (Z = -14.78, p < .01) was the only Employer U.S. Census Region category which was significant for UMI allegations. Employer U.S. Census Region results are displayed in Table 34.
Table 33. Categories of the Employer Variable, Industry, with Significant Differences in Proportion Between Known Mental Illness Allegations (11,977) and Unknown Mental Illness Allegations (44,869) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Industry</th>
<th>KMI N</th>
<th>KMI %</th>
<th>UMI %</th>
<th>UMI N</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Administration</td>
<td>1,459</td>
<td>12.182</td>
<td>9.673</td>
<td>4,340</td>
<td>KMI</td>
<td>7.61</td>
<td>0.000</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>224</td>
<td>1.870</td>
<td>1.424</td>
<td>639</td>
<td>KMI</td>
<td>3.28</td>
<td>0.001</td>
</tr>
<tr>
<td>Other Services (Except Public Administration)</td>
<td>440</td>
<td>3.674</td>
<td>3.111</td>
<td>1,396</td>
<td>KMI</td>
<td>2.95</td>
<td>0.003</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>428</td>
<td>3.574</td>
<td>4.243</td>
<td>1,904</td>
<td>UMI</td>
<td>-3.44</td>
<td>0.001</td>
</tr>
<tr>
<td>Information and Insurance</td>
<td>681</td>
<td>5.686</td>
<td>3.867</td>
<td>3081</td>
<td>UMI</td>
<td>-4.86</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial</td>
<td>563</td>
<td>4.701</td>
<td>6.227</td>
<td>2,794</td>
<td>UMI</td>
<td>-6.80</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with KMI nor employees with UMI are therefore not included in the table above.

Table 34. Categories of the Employer Variable, Region, with Significant Differences in Proportion Between Known Mental Illness Allegations (11,977) and Unknown Mental Illness Allegations (44,869) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Region</th>
<th>KMI N</th>
<th>KMI %</th>
<th>UMI %</th>
<th>UMI N</th>
<th>Signif. High. Prop. Of Allegs.</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>2,187</td>
<td>18.260</td>
<td>15.724</td>
<td>7,055</td>
<td>KMI</td>
<td>6.46</td>
<td>0.000</td>
</tr>
<tr>
<td>Northeast</td>
<td>1,335</td>
<td>11.146</td>
<td>9.648</td>
<td>4,329</td>
<td>KMI</td>
<td>4.69</td>
<td>0.000</td>
</tr>
<tr>
<td>South</td>
<td>3,978</td>
<td>33.214</td>
<td>30.999</td>
<td>13,909</td>
<td>KMI</td>
<td>4.59</td>
<td>0.000</td>
</tr>
<tr>
<td>Null</td>
<td>1,799</td>
<td>15.020</td>
<td>20.611</td>
<td>9,248</td>
<td>UMI</td>
<td>-14.78</td>
<td>0.000</td>
</tr>
</tbody>
</table>

p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with KMI nor employees with UMI are therefore not included in the table above.
For the variable Employer Size, Null (Z = 9.01, p < .01) was the only variable category which was significant. Null favored KMI allegations. No Employer Size category favored UMI allegations. Table 35 displays Employer Size results.

Table 35. Categories of the Employer Variable, Employer Size, with Significant Differences in Proportion Between Known Mental Illness Allegations (11,977) and Unknown Mental Illness Allegations (44,869) Ranked by Z-Score**

<table>
<thead>
<tr>
<th>Employer Size</th>
<th>KMI N</th>
<th>KMI %</th>
<th>UMI N</th>
<th>UMI %</th>
<th>Signif. High. Prop. Of</th>
<th>Z-Score</th>
<th>p Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>745</td>
<td>6.22</td>
<td>1,823</td>
<td>4.06</td>
<td>KMI</td>
<td>9.01</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*p < .01

**Variable categories which showed no significant difference in the proportion of allegations filed by neither employees with KMI nor employees with UMI are therefore not included in the table above.

Differences in proportions were not significant for Merit (Z = 1.15, p < .01) or Non Merit (Z = -1.15, p < .01) Resolutions for either KMI or UMI allegations.

Results of the Exhaustive CHAID for UMI Allegations

In response to Research Question 6b: Which factors drive merit activity in ADA Title I allegations filed by persons with Unknown Mental Illnesses (UMI; 42,869 allegations or 75.41% of All Mental Illness allegations)?, an Exhaustive CHAID was performed for all UMI allegations combined. Results substantiated that the merit rate for UMI allegations was 20.21% (or 2,420 of 11,977 allegations) and highlighted those factors which contribute to both raising and lowering the UMI merit rate. The UMI merit rate of 20.21% is only slightly higher than the merit rate of 19.83% for all mental illness (AMI) allegations. Stated differently, the UMI merit rate is fairly typical for overall merit resolution activity or actual employment discrimination of a mental illness nature.
This suggests that employees with unknown mental illnesses are slightly more likely to file an ADA Title I allegation of employment discrimination which the EEOC determines to have merit. The merit rate for UMI allegations is driven by Issue. A detailed breakdown of Merit for this primary driver is provided in Table 36.

Table 36: Detailed Breakdown of Merit Rate for Unknown Mental Illness’s Primary Driver: Issue*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Merit Rate</th>
<th>Number/Total Allegations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits—Insurance, Exclusion/Segregated Union Locals, Severance Pay, Segregated Facilities, ADEA Waiver, Apprenticeship, and Posting Notices</td>
<td>44.97%</td>
<td>67/149</td>
</tr>
<tr>
<td>Prohibited Medical Inquiry</td>
<td>38.71%</td>
<td>24/62</td>
</tr>
<tr>
<td>Benefits—General, Training, and Seniority</td>
<td>30.04%</td>
<td>76/253</td>
</tr>
<tr>
<td>Wages</td>
<td>25.95%</td>
<td>48/185</td>
</tr>
<tr>
<td>Suspension</td>
<td>24.39%</td>
<td>60/246</td>
</tr>
<tr>
<td>RA</td>
<td>23.97%</td>
<td>446/1,861</td>
</tr>
<tr>
<td>Other</td>
<td>23.58%</td>
<td>58/246</td>
</tr>
<tr>
<td>Terms/Conditions of Employment</td>
<td>23.51%</td>
<td>272/1,157</td>
</tr>
<tr>
<td>Assignment</td>
<td>21.97%</td>
<td>29/132</td>
</tr>
<tr>
<td>Constructive Discharge</td>
<td>21.57%</td>
<td>74/343</td>
</tr>
<tr>
<td>Reinstatement</td>
<td>21.53%</td>
<td>45/209</td>
</tr>
<tr>
<td>Promotion</td>
<td>21.43%</td>
<td>48/224</td>
</tr>
<tr>
<td>Demotion</td>
<td>20.59%</td>
<td>42/204</td>
</tr>
<tr>
<td>Harassment</td>
<td>20.10%</td>
<td>251/1,249</td>
</tr>
<tr>
<td>Intimidation, Tenure, Job Classification, and Referral</td>
<td>20.08%</td>
<td>51/254</td>
</tr>
<tr>
<td>Layoff</td>
<td>19.72%</td>
<td>28/142</td>
</tr>
<tr>
<td>Discipline</td>
<td>19.22%</td>
<td>103/536</td>
</tr>
<tr>
<td>Recall and References Unfavorable</td>
<td>18.82%</td>
<td>16/85</td>
</tr>
<tr>
<td>Discharge, Benefits—Pension, and Qualification Standards</td>
<td>15.83%</td>
<td>594/3,753</td>
</tr>
<tr>
<td>Hiring, Involuntary Retirement, and Testing</td>
<td>13.84%</td>
<td>85/614</td>
</tr>
<tr>
<td>Union Representation, Early Retirement</td>
<td>4.11%</td>
<td>3/730</td>
</tr>
</tbody>
</table>

*Ranked by merit rate
Detailed Description of the Primary Driver of Issue and its Sub Drivers for UMI Allegations

For UMI allegations, the Issue of Terms/Conditions of Employment had a merit rate of 23.51% (or 272 of 1,157 allegations), a moderately elevating effect upon the UMI merit rate of 20.21%. In turn, this elevated Terms/Conditions merit rate is driven by Employer Industry which is split into three sub nodes:

1. Node 1: NAICS: Null; Public Administration; Educational Services; Finance and Insurance; Mining; Utilities; Construction; Manufacturing; Information; Health Care and Social Services; and Accommodations and Food Services with a merit rate of 22.31% (or 203 of 910 allegations), an elevating effect.

2. Node 2: NAICS: Professional, Scientific, and Technical; Other; Transportation and Warehousing; Agriculture, Forestry, Fishing, and Hunting; Wholesale Trades; Real Estate, Rentals, and Leasing; and Arts, Entertainment, and Recreation with a merit rate of 39.86% (or 57 of 143 allegations), a strong elevating effect.

3. Node 2: NAICS: with a merit rate of 11.54% (or 12 of 104 allegations), a strong deterrent effect to discrimination.

A partial hierarchical decision tree of the merit activity for Unknown Mental Illness Conditions on the Issue of Terms/Conditions of Employment is shown in Figure 22.

For UMI allegations, the Issue of Discipline had a merit rate of 19.22% (or 272 of 1,157 allegations), which is a stabilizing effect upon the UMI merit rate of 20.21%. In turn, Discipline merit activity is driven by Employer Size for UMI allegations. More specifically, Employer Size is split into three sub nodes:
Figure 22. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Sub Drivers for the Primary Driver, Issue, of Terms/Conditions, in UMI Allegations
1. Node 1: Employer Size: Null and 101-200 Employees with a Merit Rate of 6.67% (or 5 of 75 allegations), a deterrent effect.

2. Node 2: Employer Size: 15-100 Employees and 500+ Employees with a merit rate of 19.05% (or 76 of 399 allegations), a stabilizing effect.

3. Node 3: Employer Size: 201-500 Employees with a merit rate of 35.48% (or 22 of 62 allegations) a strong elevating effect.

A partial hierarchical decision tree of the sub drivers of the primary Issue driver in unknown mental illness allegations is shown in Figure 23.

For UMI allegations, the combined Issues of Intimidation, Tenure, Job Classification, and Referral had a merit rate of 20.08% (or 51 of 254 combined Issue allegations) a stabilizing effect upon the UMI merit rate of 20.21%. In turn, the merit activity of these combined Issues is driven by Employer Industry for UMI allegations. More specifically, Employer Industry is split into two nodes. The first node includes including Null; Public Administration; Educational Services; Professional, Scientific, and Technical; Other; Mining; Manufacturing; Retail Trades; Information; Administration, Support and Waste Management; Accommodation and Food Services; Real Estate, Rentals, and Leasing; and Art, Entertainment and Recreation Industries with a merit rate of 13.02% (or 25 of 192 allegations), a deterrent effect. The second note includes Finance and Insurance; Utilities; Construction; Transportation and Warehousing; Health Care and Social Services; Agriculture, Forestry, Fishing, and Hunting; and Wholesale Trades Industries with a merit rate of 41.94% (or 26 of 62 allegations), a strong elevating effect. A partial hierarchical decision tree of the merit activity for UMI
UNKNOWN MENTAL ILLNESS

\[ M = 20.21\% \ (2,420) \]
\[ NM = 79.79\% \ (9,557) \]
\[ TOTAL = 100.00\% \ (11,977) \]

DISCIPLINE

\[ M = 19.22\% \ (103) \]
\[ NM = 80.78\% \ (433) \]
\[ TOTAL = 4.48\% \ (536) \]

EMP SIZE: NULL & 101-200

\[ M = 6.67\% \ (5) \]
\[ NM = 93.33\% \ (70) \]
\[ TOTAL = 0.63\% \ (75) \]

EMP SIZE: 15-100 & 500+

\[ M = 19.05\% \ (76) \]
\[ NM = 80.95\% \ (323) \]
\[ TOTAL = 3.33\% \ (399) \]

EMP SIZE: 201-500

\[ M = 35.48\% \ (22) \]
\[ NM = 64.52\% \ (40) \]
\[ TOTAL = 0.52\% \ (62) \]

Figure 23. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) Sub Drivers for the Primary Driver, Issue of Discipline, in UMI Allegations
allegations involving Issues grouping of Intimidation, Tenure, Job Classification, and Referral is shown in Figure 24.
Figure 24. Partial Hierarchical Decision Tree of the Merit Activity (M = Merit and NM = Non Merit) of the Combined Issues of Intimidation, Tenure, Job Classification, and Referral in UMI Allegations
CHAPTER 5: IMPLICATIONS AND CONCLUSIONS

This chapter includes implications for findings reported in Chapter 4, overall conclusions, and recommendations for future research. These implications are organized by allegation type as follows: Anxiety, Depression, Bipolar Disorder, Schizophrenia, Unknown Mental Illnesses, and All Mental Illnesses. Implications for findings that had proportionally more or less allegations for the category of Null would neither shed light on the phenomena in this study nor assist in answering its research questions. As a result, these have been excluded from this chapter.

Implications for Anxiety Findings for CPs, Employers, Vocational and Other Rehabilitation Professionals, and Policy Makers

Charging Parties (CPs) with anxiety who are either White or Hispanic filed proportionately more Title I allegations. While Whites typically tend to more often be employed in the primary labor market (e.g., white collar or professional jobs like medical doctors) and Hispanics typically tend to be more often employed in the secondary labor market (e.g., blue collar or paraprofessional jobs like factory workers), each labor market extreme brings with it it’s own set of inherently specific stressors (Cook, 2006; Fogg, Harrington, & McMahon, 2010). For example, for those employed in the primary labor market, some inherent stressors might be much pressure to maintain a high level of performance or risk termination and therefore be unable to maintain a high standard of living. Similarly, for those employed in the secondary labor market, some inherent
stressors might be working only part time and/or scraping by paycheck to paycheck. These inherent stressors from both the primary and secondary labor market could lead an employee who is prone to anxiety to begin to struggle with symptoms and potentially risk workplace discrimination against him or herself and even termination as their respective circumstances could only serve to exacerbate symptoms (Cook, 2006). Therefore, it would be prudent to educate and alert Whites and Hispanics with anxiety and potential employers to this possibility and encourage them to be watchful and proactive regarding such stressors and the potential for anxiety workplace discrimination.

CPs with anxiety who file a Title I allegation under the Issue of Reasonable Accommodation file proportionally more allegations. Perhaps employers perceive anxiety as being difficult to accommodate because they have no frame of reference as to what an anxiety accommodation might look like (MacDonald –Wilson, Rogers, Massaro, Lyass, & Crean, 2002). Or, perhaps the absence of pervasive or obvious symptoms for this disorder serves to complicate matters when employees request reasonable accommodations. In the absence of overt symptoms, employers may have a fundamental attribution error bias and thus perceive this request to be an overreaction or to be hypochondriacal in nature and thus to be less about the actual anxiety symptoms and to be more about a CP’s moral failings or weaknesses. Results also indicated that CPs with anxiety file more Harassment allegations. Similarly, sometimes in the presence of overt anxiety symptoms, employers may hold yet another fundamental attribution bias and thereby perceive these symptoms as a moral failing on the part of the CP instead of as a result of the person being able to control genuine symptoms themselves. Such a bias may
lead an employer or coworker to overtly or inadvertently harass a CP with anxiety who is displaying genuine symptoms. In any event, employees with anxiety and potential employers should be educated regarding these potential biases and encouraged to be watchful and proactive regarding matters of anxiety and Reasonable Accommodation and Harassment in the workplace.

CPs with anxiety filed proportionately less Title I allegations for the following discrimination Issues: Hiring, Discharge, Tenure, and Posting Notices. Of particular interest are Hiring and Discharge, two issues that make up only 36.09% of total anxiety Issue allegations (and 36.09% of combined All Mental Illness Issue allegations including those filed by persons with anxiety) when compared to non anxiety mental illnesses which tend to be higher on these more prevalent issues; however, for these high prevalence issues, anxiety has a below average allegation activity level suggesting that employers are doing relatively better here in regard to CPs with anxiety. Perhaps anxiety is viewed as a normal aspect of the Hiring process, and even a normal pat of the assumption of new or continued work responsibilities, thus, employers are less likely to confront CPs with anxiety that is mild or moderate (McMahon, Hurley, West, Chan, Roessler, & Rumrill, 2008; McMahon, Hurley, West, Chan, Roessler, & Rumrill, 2008; McMahon, Roessler, Rumrill, Hurley, West, Chan, & Carlson, 2008; McMahon, Hurley, Chan, Rumrill, & Roessler, 2008). Therefore, such mild or moderate symptoms are less likely to be attributed by employers to the performance problems that are usually associated with Discharge allegations in general and thus are less likely to end in an allegation of Discharge discrimination against employers of CPs with anxiety (Hurley,
2010; Rumrill, Fitzgerald, & McMahon, 2010; Rumrill & Fitzgerald, 2010). It is also possible that in stressful times some CPs are able to temporarily summon the inner resources to “put on a happy face” more readily than workers with other mental illnesses (APA, 2000).

CPs with anxiety filed proportionately more allegations against employers representing the Industries of: Finance and Insurance; Professional, Scientific, and Technical Services; Utilities; Information; and Transportation and Warehousing. Traditionally, persons with anxiety receiving VR services have been placed in data-driven jobs (e.g., Finance and Insurance; Professional, Scientific, and Technical Services; and Information) under the assumption that less social interaction would enable these persons to be more successful (Rubin & Roessler, 2008; Szymanski & Parker, 1996; Zunker, 2006). This finding of more discrimination allegations in data driven jobs suggests that that practice should be re-examined. Indeed, deliberate placement into those industries with lower levels of allegation activity (i.e., Accommodation and Food Services; Health Care and Social Assistance; and Management of Companies and Enterprises) may be more prudent. Although results indicating the model behavior of these Employer Industries are compelling, it is also possible that CPs with anxiety have historically self-selected into such people-free environments as the representation of workers with anxiety is less than average in people-rich environments which could partially explain the favorably low levels of discrimination allegations.

Charging Parties with anxiety filed more Title I allegations in the Employer U.S. Census Regions of Northeast and West. This could be a result of these regions having
more anxiety-provoking and stressor-rich large cities and urban areas than the South or Midwest (U.S. Census, 2010). On the other hand, CPs with anxiety filed proportionately less Title I allegations when employed in the Employer U.S. Census Region of Foreign and Territories. Perhaps the distance from home also serves to exacerbate anxiety and results in lower employment rates, even though CPs are still protected abroad if the Employer is a U.S. company with at least 15 employees. It is important to note that

The largest Employers (501+ Employees) had the highest proportion of Title I allegations made by CPs with anxiety while the smallest Employers (15-100 Employees) had the least. Again this may be linked to avoidance of crowded workplaces as a coping strategy, with larger Employers being presumably more stressful work settings (Renckly, 2011). This finding also may explain why CPs with anxiety are experiencing more difficulties with Reasonable Accommodation; i.e., smaller Employers have fewer HR professionals and less financial resources for accommodations even despite most accommodations being less than $500 (McDonald-Wilson, et al., 2002; Stuart, 2007).

A Title I allegation that the EEOC resolves with merit indicates that an actual act of employment discrimination did occur. Likewise, an allegation of employment discrimination that the EEOC resolves without merit indicates that no actual act of discrimination occurred. There were no significant differences between anxiety and non-anxiety mental illness allegations with respect to merit rate. This indicates that CPs with anxiety encounter a level of actual discrimination that is typical for those with all mental illnesses, regardless of type.
The anxiety merit rate is driven by Issue. The following Issues serve to elevate the anxiety Merit Rate: Prohibited Medical Inquiry, Qualification Standards, ADEA Waiver, and Posting Notices; Insurance and Pension Benefits; General Benefits, Reinstatement, and Unfavorable References, Other Issue and Recall; Promotion; Reasonable Accommodation and Exclusion/Segregated Union, Discipline; Wages; Suspension; and Discipline, Job Classification, Involuntary Retirement, and Testing. Generally speaking, because each of these issues is so vital to employment and job performance success, each one may be more anxiety-provoking for a CP with anxiety who feels pressure to maintain quality work by redoubling efforts to keep anxiety symptoms under control which in the end, only begins to exacerbate anxiety and interfere with job performance. Educating employers, charging parties with anxiety, VR professionals, and others could play a role in shrinking the merit activity surrounding these Issues. Issues which reduce the anxiety merit rate include Severance Pay, Union Representation, Early Retirement Incentive, Maternity, Apprenticeship, Segregated Facilities, and Tenure; Layoff; Seniority, Training, and Referral; Hiring; Constructive Discharge; Assignment; Discharge; Harassment; Terms/Conditions of Employment; and Intimidation. Therefore, there is less need for ADA Title I education surrounding these issues when the impairment involves anxiety. Instead, training resources would be better applied to the aforementioned Issues which contribute to actual workplace discrimination against CPs with anxiety.
Implications for Depression Findings for CPs, Employers, Vocational and Other Rehabilitation Professionals, and Policy Makers

Female CPs with depression file proportionately more Title I allegations than Male CPs with depression. This finding is not surprising considering that more women than men experience depression in their lifetimes (NIMH, 2010). In addition, CPs with Depression age 35-54 years file proportionately more Title I allegations than CPs with depression age 16-34 years. Conversely, older workers with depression (55-64 years and 65+ years) file proportionately less allegations. Because it is generally believed that the rate of depression increases with age due to an increase in environmental and life stressors (NIMH, 2010), these age-related findings are counterintuitive. Clearly, more research is needed to address this unexpected finding.

CPs with depression from White or Mixed racial groups filed significantly lower levels of allegations than other racial groups. This finding is not surprising as individuals from racial and ethnic minorities often choose to file employment discrimination claims under Title VII of the Civil Rights Act of 1964 (Hurley, Lewis, Koch, Armstrong, Gary, & McMahon, 2010; Lewis, Hurley, Armstrong, Koch, Gary, & McMahon, 2010) because when they experience employment discrimination, they often attribute it to what might be their most salient characteristic even in spite of an ADA-covered disability. In this way, an attributional bias of salience can result as the potentially less salient disability characteristics are assumed to not play a role when in fact they can. This can especially be the case for invisible disabilities like depression. In addition, there is much literature surrounding the phenomenon of persons from racial and ethnic minorities experiencing a
doubly disadvantaged, double jeopardy, or intersectionality effect when membership in more than one under-represented group can result in multiplying the effects of discrimination (e.g., Nelson & Probst, 2010; Purdie-Vaughn & Eibach, 2008; Shaw, Chan, McMahon, & Hurley, in press; Armstrong, Koch, Lewis, Hurley, Lewis, & McMahon, 2011; Koch, Armstrong, Hurley, Lewis, McMahon, & Lewis).

CPs with depression filed proportionately more discrimination allegations on the Issues of: Demotion; Discharge; and Discipline. Symptoms of depression such as lack of motivation, inability to concentrate, or sleeping disturbances can and do affect job performance (Cook, 2006). Therefore, higher levels of allegation activity on these Issues are not surprising. Yet, CPs with depression generate lower levels of allegation activity with respect to Hiring, Unfavorable References, and Insurance Benefits which are job acquisition (or “front-end”) Issues. In brief, it appears that CPs with depression experience employment-related problems that are not manifested at the hiring stage and therefore they may have more problems with job retention and job performance over the long term (Rumrill, Fitzgerald & McMahon, 2010; Rumrill & Fitzgerald (2010; Hurley, 2010).

Proportionately more CPs with depression filed Title I allegations against employers in the Industries of Professional, Scientific, and Technical Services; Information; and Finance and Insurance than employees with other mental illness. It is possible that the white collar occupations subsumed under these Industries cannot or will not tolerate the aforementioned potential performance-related problems secondary to depression (Cook, 2006; Fogg, Harrington, & McMahon, 2010). However, CPs with
depression filed proportionately fewer allegations against employers in Industries such as Retail Trades, Accommodation and Food Services, Other Services Except Public Administration, and Transportation and Warehousing. Perhaps occasional workplace errors related to depression symptoms are better tolerated in the more blue collar occupations subsumed under these industries (Cook, 2006; Fogg, Harrington, & McMahon, 2010).

CPs with depression filed proportionately more allegations of discrimination against employers located in the Midwest and Southern Census Regions. Explanations for this finding are purely speculative, but perhaps, this is partially because the Midwest has a climate that may contribute to depression for its residents. Similarly, the South’s economy may be relatively poorer (US Census 2010) with fewer depression resources and less financial security for its residents. However, depression allegation levels are much lower in the Western United States, where there is generally more awareness and sensitivity to mental illness issues in general. Perhaps this awareness trickles down into the Employer arena where tolerance and accommodation of depressive symptoms is more normalized and routine. Further research could shed light on these regional/cultural differences.

CPs with depression file proportionately more Title I allegations against employers who have 501+ Employees. As with anxiety, does this suggest that larger employers are inherently more stressful places of work? If so, are these stress levels mitigated by the availability of Employee Assistance Programs, Disability Management
Programs, and more sophisticated Human Resources in general (Renckly, 2011)? Only additional research can clarify these questions.

The merit rates for allegations derived from employees with depression vs. employees with NDMI are roughly equivalent. In other words, much like workers with anxiety, workers with depression do not experience any more actual employment discrimination than those with other mental illnesses. In terms of the validity of the allegations filed by CPs, those with anxiety and depression are representative of mental illness as a whole, which is lower than the merit rate of Non Mental Illness allegations.

The merit rate for depression is driven once again by Issue just like anxiety. The following Issues serve to elevate the merit rate for depression: Prohibited Medical Inquiry, ADEA Waiver, and Posting Notices; Insurance Benefits and Tenure; Reinstatement and Qualification Standards; Recall; General Benefits; Other Issue; Reasonable Accommodation, Job Classification, and Pension Benefits; Assignment; Unfavorable References; Intimidation and Posting Notices; Wages; Demotion; Terms/Conditions of Employment; and Layoff. It is not surprising that among them are prohibited medical inquiry, Insurance and Other Benefits, Unfavorable References and Reasonable Accommodation. These Issues can be very sensitive for people with depression because it is likely that employees with depression will inevitably be dealing with some symptoms in the workplace over their lifetime and thus be at risk for discrimination in these areas. Therefore, educating employers, employees with depression, VR professionals, and about these particular personnel actions could help to lower the Merit Rate for depression. Issues which serve to reduce the merit rate for
depression include: Union Representation, Early Retirement Incentive, Segregated Facilities, Maternity, and Apprenticeship; Hiring, Seniority, Referral, and Testing; Involuntary Retirement and Exclusion/Segregated Union Locals; Constructive Discharge; Promotion; Training and Severance Pay; Discharge; Harassment; Discipline; and Suspension. In regard to ADA Title I training for employees with depression, training with respect to these particular issues could be reduced as they are not contributing to actual discrimination against claimants with depression.

Implications for Bipolar Disorder Findings for CPs, Employers, Vocational and Other Rehabilitation Professionals, and Policy Makers

Male CPs with bipolar disorder filed proportionately more Title I allegations which could be a reflection of their over-representation in the bipolar disorder population (NIMH, 2010). In addition, CPs with bipolar disorder who were between the ages of 16 and 34 years, filed proportionately more Title I allegations. Generally speaking, persons with bipolar disorder traditionally begin to experience their first bout of symptoms (such as elevated mood, increased energy, impulsivity control problems, irritability, arrogance, depressed mood, inability to concentrate, decreased motivation, sleep disturbance) during these years (NIMH, 2010, APA, 2000). Symptoms are often followed by a period of remission that can last from days to months to years before they occur again. Often this first bout of symptoms may come and go for a few months to several years before the person is diagnosed or medicated properly. Persons with bipolar disorder are often unable to control the frequency, intensity, or severity of their symptoms without medication (APA 2000). This can often leave them very vulnerable to events with unforeseen
negative consequences from theirs and others' actions when not taking medication. However, by and large, employees with bipolar disorder are usually medicated by about age 35 (APA, 2000; Cook, 2006; Stuart, 2006), which reflects the results of this study: CPs with bipolar disorder age 35-64 years did not have proportionately more Title I allegations than employees with non bipolar disorder mental illness. However, CP’s between the ages of 16-34 filed proportionately more workplace discrimination allegations which is consistent with the nature of the illness according to the Diagnostic and Statistical Manual of the American Psychological Association (2000) which reports that this age period is when individuals begging experiencing symptoms and as a result, may or may not be aware of the condition, medicated, or medicated properly yet.

Similarly the National Alliance for the Mentally Ill (2010) reports that the incidence of bipolar disorder in men and women is similar but that men tend to experience more symptoms of mania (e.g., irritability, inflated self esteem, etc) which might be less tolerated in the workplace than those symptoms experienced more by women who tend to experience more symptoms of depression (e.g., lack of concentration, uncontrollable crying, etc). Therefore, the finding that CPs with bipolar disorder who are male file proportionately more allegations of employment discrimination is not surprising and should be targeted in ADA Title I training for males with bipolar disorder and their employers.

White employees with bipolar disorder filed proportionately more Title I allegations than those employees who are African American, Hispanic, Other Race, or Asian. Because diagnostic tools for bipolar disorder and other mental illnesses are based
on normative data derived primarily from Whites (NIMH, 2010; Cohen & Swerdlik, 2005), perhaps those employees from non-White races were less likely to have been diagnosed with bipolar disorder in the first place. Such a finding might also be the result of non-White employees with bipolar disorder filing discrimination claims under other anti-discrimination laws (e.g., Civil Rights Act of 1964) which, as stated above, offer additional protections to protected classes which may sometimes be more salient to a person with a disability.

CPs with bipolar disorder filed proportionately more Title I allegations on the Issues of Discharge, Posting Notices, and Insurance Benefits and proportionately less allegations on the Issues of Maternity, Testing, Harassment, Wages, and Reasonable Accommodation. Because employees with bipolar disorder can have almost limitless energy during manic or hypo manic episodes, their work productivity tends to be substantial during these times. The finding of low Harassment suggests a tolerance for bipolar disorder workers since they tend to have a wonderful work ethic and can be exciting to be around during periods of mania or hypomania (APA, 2008) but, as discussed above, the finding of high Discharge suggests this tolerance has its limits, especially when mania is accompanied by extreme irritability, inflated self esteem, or eventually ends in a bout of depression. Discharge is doubly complicated for workers with bipolar disorder in that it mars one’s work history and documents a pre-existing condition, which can potentially complicate re-employment with full benefits (Renckly, 2011) even though this type of action is illegal on the part of an employer. Still, a stark reality may be that refusal to hire or termination on the basis of disability because of
feared or actual increased insurance premiums may be happening covertly and explain the elevated allegation activity for Insurance Benefits category for this population. Stated differently, employers sometimes point to other, more overt issues such as performance-based ones, as distraction from the real issue of covert insurance benefit discrimination against CPs with bipolar disorder.

CPs with bipolar disorder filed proportionately more Title I allegations against employers in the following five Industries: Other Services Except Public Administration; Accommodation and Food Services; Retail Trades; Health Care and Social Assistance; and Management of Companies and Enterprises. Traditionally in VR, persons with bipolar disorder were placed in jobs that were very people-oriented (Rubin & Roessler, 2008; Zunker, 2006; Szymanski & Parker, 2002). All of the Industries above tend to be very people-oriented, yet have the highest rates of discrimination allegation activity. The wisdom of this practice is called into question by this finding. If the goal is to avoid potential workplace discrimination, future placement efforts may be redirected toward less people-oriented industries with less allegation activity: Manufacturing; Public Administration; and Administrative, Support, Waste Management, and Remediation Services. At a minimum, a frank discussion with VR clients who have bipolar disorder appears warranted. However, it is also possible that there are more allegations filed by persons with bipolar disorder in people-oriented fields because they self-select them based on their typically outgoing and gregarious nature.

CPs with bipolar disorder file proportionately fewer Title I allegations in all geographic census regions (South, Northeast, Midwest, West, Foreign and Territories)
when compared to non bipolar disorder mental illness allegations. CPs with bipolar disorder who worked for small employers with 15-100 Employees filed proportionately more Title I allegations than those with NBDMI. Similarly, CPs with bipolar disorder who worked at employers with 501+ Employees filed proportionately less Title I allegations. This finding could be the effect of employees with bipolar disorder being more behaviorally conspicuous in the smallest employer workplaces and being able to blend into the fray of the largest Employers.

Unlike anxiety and depression which were typical in merit outcomes or actual discrimination when compared to all mental illness allegations, allegations made by CPs with bipolar disorder were determined to have a slightly higher merit rate than those filed by CPs with non bipolar disorder mental illnesses. As a result, ADA Title I trainings should be targeted slightly more toward employees with bipolar disorder and their employers. However, the bipolar disorder merit rate is still well below that of all the Non Mental Illness allegations.

Bipolar disorder merit activity is driven by the influence of allegation Issue. The following Issues have merit activity or actual discrimination which is above that which is average for bipolar disorder: Insurance Benefits, Posting Notices (Part A), Exclusion/Segregated Unions, Tenure, Waiver of ADEA, and Severance Pay; Prohibited Medical Inquiry, General Insurance Benefits, and Involuntary Retirement; Intimidation, Recall, and Job Classification; Reinstatement and Qualification Standards; Reasonable Accommodation; Other Issue; Terms/Conditions of Employment and Posting Notices (Part B), Assignment, and Hiring. As mentioned above, these Issues tend to have a more
covert discrimination nature so it is not surprising that there would be more actual discrimination as determined by the EEOC within these Issues experienced by CPs with bipolar disorder. Bipolar disorder symptoms are usually tolerated to a point because CPs with this illness usually have an almost super-human work ethic when experiencing mania or hypomania. However, this tolerance does have an end point and show where the threshold for that tolerance into actual discrimination can be found. Educating employees with bipolar disorder, VR professionals, and employers could play a role in shrinking the merit activity surrounding these Issues. Conversely, Discrimination Issues which had the lowest merit activity and actual discrimination for CPs with bipolar disorder included: Layoff, Union Representation, Apprenticeship, Seniority, Advertising, Early Retirement Incentive, Segregated Facilities, and Testing; Wages and Referral; Pension Benefits, Unfavorable References, and Training; Demotion; Promotion; Discharge; Discipline; Constructive Discharge; Suspension; and Harassment. Therefore, employers are doing better here when it comes to these issues and employees with bipolar disorder so they may be set at a lowered priority in terms of training emphasis.

Implications for Schizophrenia Findings for CPs, Employers, Vocational and Other Rehabilitation Professionals, and Policy Makers

Male CPs with schizophrenia filed proportionately more Title I allegations than CPs with non-schizophrenia mental illnesses. This finding likely reflects the higher number of males in the schizophrenia population (NIMH, 2010). No age category was significantly higher or lower. African American CPs with schizophrenia filed proportionately more Title I allegations that again may reflect the relatively high number
of persons who are diagnosed with schizophrenia and who are African American. More specifically, if White and African American people are both exhibiting the similar symptoms, the African American person is more likely to be diagnosed with Schizophrenia (NIMH, 2010; U.S. Surgeon General’s Report on Mental Health, 2010) due to cultural differences. This could lead to a systematic bias in the number of African American employees with schizophrenia who are filing employment discrimination. It is also conceivable that African American employees may be more educated about civil rights protections (such as under the Civil Rights Act of 1964) than people of other races, especially whites, and may therefore have more awareness about EEOC processes and remedies.

CPs with schizophrenia filed proportionately more Title I allegations under the Issue of Hiring. Such a finding may be a reflection upon the way the condition manifests itself and employers’ reactions to those symptoms (Cook, 2006; Stuart, 2006; APA, 2000). Typically, when a person with schizophrenia is having symptoms, these symptoms are so pervasive that even with medication, symptoms may be obvious to a potential employer and as a result, potentially cause even an otherwise qualified individual to be denied employment. Positive schizophrenia symptoms include hallucinations, delusions, disorganized speech, confusion, and catatonia while negative symptoms include withdrawal, loss of pleasure in once pleasurable things, loss of goal-directed behavior, loss of executive functioning and planning, loss of hygiene, and loss of speech, balance, and memory (APA, 2000). Although some of these symptoms can be diminished with medications, persons with this condition unfortunately, as a symptom of their condition,
sometimes lack the insight necessary to seek treatment or medication on their own and often experience intermittent and sometimes involuntary hospitalizations. Symptoms of the condition can be mild to severe but usually without medication, can cause a major interruption in work readiness and as a result, problems obtaining and maintaining employment. Medicating the individual correctly is often difficult and usually results in at least some breakthrough symptoms even while medicated. Schizophrenia is chronic and episodic in nature with acute flare-ups followed by periods of remission (APA, 2000; NIMH, 2010; Stuart, 2006; Cook, 2006). Some do manage to find and keep a job with the right supports or if their level of vocational functioning is less impaired. Still, these unpredictable and difficult to control factors make obtaining and maintaining work impossible for a number of persons with schizophrenia who become recipients of Social Security Disability Insurance or Supplemental Security Insurance, frequently with assistance from a friend, family member, advocate, case manager or attorney, or who may eventually end up homeless due to a lack of insight into their illness or other factors. This potential for diminished capacity for work is reflected in the relatively small number of Title I allegations (only 2.55% of all AMI allegations and only 0.36% of all Title I allegations, all disabilities). However, it is noted that persons with schizophrenia make up only 1.1% of the U.S. population (NIMH, 2010).

CPs with Schizophrenia filed proportionately more Title I allegations against employers in the following Industries: Retail Trades and Accommodation and Food Services. Perhaps this finding reflects years of VR professionals placing employees with schizophrenia into very non-people oriented jobs at people-oriented employers and places
of business in these Industries (Szymanski, 1996; Zunker, 2006; Rubin & Roessler, 2008). For example, a person with schizophrenia might be placed in a table bussing role (non-people oriented) at a local restaurant (very people-oriented place of business). Perhaps placements such as these are appealing to some employees with schizophrenia who are more symptomatic because these jobs are solo yet do not require as much cognitive focus which may be diminished due to distracting symptoms caused by physical brain abnormalities such as the loss of gray matter or neurotransmitter imbalances (NIMH, 2010; Corrigan & Watson, 2004; APA, 2000). Occupations such as these are characteristic of the secondary labor market (Cook, 2006) and from the standpoint of mitigating workplace discrimination, jobs such as these in the Industries of Retail Trades and Accommodation and Food Services may be problematic if such Industries are more often associated with allegations of workplace discrimination against employees with schizophrenia. Therefore, job placement personnel and career counselors at all levels might be well advised to expand the range of occupations considered, perhaps with an emphasis on the “low allegation level” Industries such as: Finance and Insurance; Educational Services; Information; and Management of Companies and Enterprises. Alternately, the high allegation industries might be revisited if they were to receive targeted anti-discrimination training for future and current employees with schizophrenia.

CPs with schizophrenia filed proportionately fewer Title I allegations involving the following Issues: Reasonable Accommodation; Exclusion/Segregated Union; Demotion; Tenure; Severance Pay; Waiver of ADEA Rights; Early Retirement Incentive;
Harassment; Segregated Facilities, and Apprenticeship. However, because of the relatively small number of Title I allegations filed by CPs with schizophrenia, it is impossible to determine if these differences in proportions reflect actual differences which can be applied to all employees with schizophrenia regardless of whether or not a Title I allegation was filed, or only actual differences in a relatively small number of schizophrenia allegations which may only be applicable to employees with schizophrenia who did file an allegation of employment discrimination. This is especially the case for schizophrenia employment discrimination Issue allegations with smaller N’s and percentages for both schizophrenia and other mental illness allegations such as: Exclusion/Segregated Union (0.00% vs. 0.103%); Demotion (0.483% vs. 1.816%); Tenure (0.000% vs. 0.056%); Severance Pay (0.000% vs. 0.032%); Waiver of ADEA Rights (0.000 vs. 0.031%); Early Retirement Incentive (0.000% vs. 0.025%); Segregated Facilities (0.000% vs. 0.014%); and Apprenticeship (0.000% vs. 0.013%).

None of the Employer U.S. Census Regions had proportionately more Title I allegations filed by CPs with schizophrenia compared to those with NSMI. However, West, Northeast, and Foreign and Territories had proportionately fewer Title I allegations filed by CPs with Schizophrenia. This finding may be the result of fewer people with schizophrenia employed or living in these regions or more tolerance of employees with schizophrenia in these areas. VR professionals and current and future workers with schizophrenia who are tempted to pursue these as more accepting and accommodating regions should be mindful that this is a relatively small number of allegations upon which
to draw such conclusions and comparisons between those with schizophrenia who did file a Title I claim and all employees with schizophrenia might be poorly drawn.

CPs with schizophrenia filed proportionately more Title I allegations against employers with 15-100 Employees and they filed proportionately fewer Title I allegations against employers with 501+ Employees or 101-200 Employees. Proportionately, more allegation activity is occurring in the smallest employer organizations where persons with potentially bizarre, uncontrollable, or unpredictable symptoms are more likely to be conspicuous out. When VR professionals and others consider job placement for employees with schizophrenia, persons with the schizophrenia might be more like to obtain and maintain long-term placement at employers of at least 100 or more workers.

Allegations filed by CPs with schizophrenia have a markedly lower merit rate of 16.49% than allegations filed by CPs with non-schizophrenia mental illnesses which indicates either less actual discrimination is occurring for CPs with schizophrenia or that Title I allegations filed by persons with schizophrenia and other mental illnesses are somehow inherently more difficult to prove due to potential communication barriers on the part of the CP and sometimes much better documentation on the side of the employer. The low merit rate for schizophrenia allegations could in part be a result of the relatively low N for schizophrenia being only 1,449 allegations (or a little over 2% of all mental illness allegations). However, considering the chronic, pervasive, and potentially bizarre nature of schizophrenia, this finding is not surprising because many persons with schizophrenia do not end up getting or keeping a job since the disease can affect work readiness throughout one’s lifetime (U.S. Surgeon General’s Report on Mental Health,
In addition, the EEOC filing and investigative processes require a measure of patience, persistence, memory, documentation, and focus each of which represents a challenge to working age adults with schizophrenia. The cognitive confusion and disordered thinking which characterize mental illness are likely to impede follow through efforts to even file a Title I charge in the first place.

Employer Industry drives schizophrenia merit activity. The following Employer Industries have elevated merit rates for schizophrenia: Professional, Scientific, and Technical; Accommodation and Food Services, Finance and Insurance, Administrative, Support, Waste Management, and Remediation Services; Wholesale Trades; and Real Estate, Rentals, and Leasing. Educating employers, employees with schizophrenia, and VR professionals could play a role in shrinking the merit activity in these Employer Industries. Exemplary Employer Industries with less merit activity for CPs with schizophrenia include: Information, Construction, Mining, Utilities, and Agriculture, Forestry, Fishing, and Hunting; Manufacturing, Health Care and Social Assistance, and Arts, Entertainment, and Recreation. These low merit industries may make more appropriate job placement targets for providers of VR services and their clients with schizophrenia.

Implications for Unknown Mental Illness Findings for CPs, Employers, Vocational and Other Rehabilitation Professionals, and Policy Makers

Unknown Mental Illness (UMI) includes mental illness impairments other than those specifically identified in the EEOC database (anxiety, depression, bipolar disorder, and schizophrenia). In that there are 297 non-discrete disorders listed in the Diagnostic
and Statistical Manual for Mental Disorders IV-TR (in current use), and given that some of these are listed by the EEOC as neurological (e.g., cognitive disability, traumatic brain injury), there remain well over 200 conditions that could be included in the EEOC’s UMI category, comprising about 20% of AMI allegations. However, the specific composition of UMI in terms of exact diagnoses is not available.

Within UMI allegations, allegations derived from Female CPs are proportionately greater than those derived from Male CPs. The Age Group 35-64 is higher in the UMI group, and Age Groups 6-34 and 55-63 are higher in the known mental illness (KMI) allegation groups. Female CPs are among the largest of KMI impairments (depression), especially in the 35-64 Age Group. Speculation about what impairments might be included in the unknown mental illness category might point to those mental illnesses that are obscure, male-driven, and effecting 35-64 year-old employees.

CPs with UMI filed proportionately more Title I allegations involving Issues of Hiring and Reinstatement. CPs with KMI filed proportionately more Title I allegations involving Issues of Discharge, Posting Notices, and Reasonable Accommodation. This follows naturally from the previously reported findings that each known issue had proportionately more allegations on these three issues with one exception. Discharge and Reasonable Accommodation were proportionately lower for CPs with schizophrenia, which has a fairly small number of allegations. CPs with UMI filed proportionately more Title I allegations against employers in the following Industries: Public Administration; Accommodation and Food Services; and Other Services (Except Public Administration). Each of these industries involves an element of service in one form or another. This
finding underscores the importance of re-evaluating traditional VR placement techniques of placing persons with mental illnesses into service-, people-, or data-oriented jobs, based on mental illness type alone. It is less effective to generalize placement of VR clients by mental illness type and CPs with mental illnesses would be better served by individualized placement efforts. With KMI filed proportionately more Title I allegations against employers in the following industries: Information; Finance and Insurance; and Professional, Scientific, and Technical Services. When compared to their UMI counterparts, CPs with KMI file more Title I allegations in industries which do not typically employ persons with mental illness.

CPs with KMI filed proportionately more Title I allegations for the Employer U.S. Census Regions of West, Northeast, or South. None of the regions had proportionately more Title I allegations filed by CPs with UMI. There were no significant differences between KMI and UMI groups with respect to Employer Size or merit rate activity.

The merit rate for UMI allegations was only slightly above the merit rates for NMI allegations, but well below the merit rate for NMI. Stated differently, CPs with UMI experience slightly more actual discrimination than those with KMI, and lower levels of actual discrimination than those with non-mental illness conditions.

Issue drives UMI merit rate. The following Issues have merit activity which elevates the UMI Merit Rate: Insurance Benefits, Exclusion/Segregated Unions, Severance Pay, Segregated Facilities, Waiver of ADEA, Apprenticeship, and Posting Notices; Prohibited Medical Inquiry; General Benefits, Training, and Seniority; Wages;
Suspension; Reasonable Accommodation; Other Issue; Terms/Conditions of Employment; Assignment; Constructive Discharge; Reinstatement; Promotion; and Demotion. Educating employers, employees with UMI, VR professionals, and EEOC personnel may serve to mitigate actual discrimination involving these Issues. However without knowing which mental illnesses are included in UMI allegations, it is impossible to fully advocate for CPs who might be affected by these Issues. The following Issues have lower merit rates which serve to deter the UMI merit rate: Union Representation, Early Retirement Incentive, and Maternity; Hiring, Involuntary Retirement, and Testing, Discharge, Pension Benefits, and Qualification Standards; Recall and Unfavorable References; Discipline; Layoff; Intimidation, Tenure, Job Classification, and Referral; and Harassment. Again, because the types of mental illnesses affecting CPs are not known in UMI allegations, it is impossible to match up specific CPs with these Issues. When it comes to unspecified mental illnesses, less of a focus on training or technical assistance services may be in order.

Implications for All Mental Illness Findings for CPs, Employers, Vocational and Other Rehabilitation Professionals, and Policy Makers

The merit rate for the entire set of All Mental Illness (AMI) allegations is considerably lower than the merit rate for all non-mental Illness (NMI) allegations in the EEOC Title I data. This lower Merit Rate suggests one or both of the following implications: 1. Employees with mental illness experience lower levels of actual discrimination; or 2. Employees with mental illness have discrimination cases that are
inherently more difficult to prove or substantiate, especially when compared to the often well documented employer side, and thus they are resolved without merit.

Some light may be shed by on this situation by the finding that Issue so heavily influences AMI Merit Rate. What happens when we consider again those Issues that drive the merit rate for all mental illness allegations upward? These include (listed in order of merit rate from highest to lowest): Waiver of ADEA and Posting Notices (Part A); Prohibited Medical Inquiry; Insurance Benefits; Tenure and Qualification Standards; Exclusion/Segregated Union; General Benefits; Severance Pay and Posting Notices (Part B); Reinstatement; Other Issue and Segregated Facilities; Recall; Pension Benefits; Reasonable Accommodation; Terms/Conditions of Employment; Job Classification; Intimidation; Wages; Assignment; and References Unfavorable. This is the area in which AMI CPs are prevailing when allegations are filed. In addition, we find that these Issues contain at least two high prevalent Issues; i.e., Reasonable Accommodation and Terms/Conditions of Employment. This supports cause #2; i.e., that AMI CPs are prevailing on those Issues in which there are fewer allegations. Perhaps these issues are more vulnerable to attributional biases held by employers (e.g., salience; fundamental attribution error; or actor-observer bias) which contribute to more actual discrimination against CPs with mental illnesses. All constituencies who wish to drive down actual mental illness employment discrimination would do well to focus their ADA Title I implementation efforts upon the Issues above.

It is also helpful to consider those Issues that are driving the AMI Merit Rate downward. These include (listed in order of merit rate from lowest to highest merit rate):
Union Representation, Early Retirement Incentive, and Maternity and Advertising; Referral; Hiring, Seniority, Testing and Apprenticeship; Involuntary Retirement; Constructive Discharge; Training; Harassment; Discipline; and Promotion. Once again, two high prevalence issues appear on this list; i.e., Hiring and Harassment. This is the area in which employers can say they are doing well from a human resources perspective. This is the area in which CPs are far less able to sustain and verify their claims. Perhaps these issues are less vulnerable to attributional biases held by employers (e.g., salience; fundamental attribution error; or actor-observer bias) which contribute to less actual discrimination against CPs with mental illnesses. Further education of the protected class is certainly warranted on these Issues, provided by purveyors of ADA technical assistance such as the ADA National Network, Job Accommodations Network, Centers for Independent Living, and state Protection and Advocacy Services.

Overall Conclusions

Table 5.0 displays all allegation types ranked first by prevalence and then by merit rate. It is evident that for all of these allegation types, merit rate is not necessarily a function of prevalence or vice versa. However, the one exception is schizophrenia allegations since this group of allegations happens to be the least prevalent and also have the lowest merit rate. These details are highlighted in Table 37.

It is clear that workplace discrimination is different for persons with mental illness vs. non-mental illness conditions. For the CP with mental illness, the nature of the Issues contested, as well as the outcomes of investigations, are entirely different. One cannot say that employment discrimination toward persons with mental illnesses are
Table 37. Allegation Types Ranked First by Prevalence and Then by Merit Rate

<table>
<thead>
<tr>
<th>Allegation Type</th>
<th>Merit Rate</th>
<th>Number/Total Allegs</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Disabilities, All Allegations</td>
<td>22.89%</td>
<td>92,097/402,291</td>
</tr>
<tr>
<td>All Non Mental Illness Allegations</td>
<td>23.40%</td>
<td>80,824/345,445</td>
</tr>
<tr>
<td>All Mental Illness (Known) Allegations</td>
<td>19.83%</td>
<td>11,273/56,846</td>
</tr>
<tr>
<td>All Depression Allegations</td>
<td>19.45%</td>
<td>4,935/25,375</td>
</tr>
<tr>
<td>All UMI Allegations</td>
<td>20.21%</td>
<td>2,420/11,977</td>
</tr>
<tr>
<td>All Anxiety Allegations</td>
<td>19.84%</td>
<td>2,057/10,370</td>
</tr>
<tr>
<td>All Schizophrenia Allegations</td>
<td>16.49%</td>
<td>239/1,449</td>
</tr>
<tr>
<td>All Non Mental Illness Allegations</td>
<td>23.40%</td>
<td>80,824/345,445</td>
</tr>
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</tr>
<tr>
<td>All Schizophrenia Allegations</td>
<td>16.49%</td>
<td>239/1,449</td>
</tr>
</tbody>
</table>

worse than for other disabling conditions. Indeed, levels of allegation activity are modest
(perceived discrimination) and outcomes with merit (actual discrimination) are markedly
lower, especially for schizophrenia, than for non-mental illness allegations. However, the
ways in which people with mental illness experience workplace discrimination (Issues)
are very unique when compared to employment discrimination allegations filed by CPs
with conditions other than mental illness.

Perhaps most important is the discovery that even within the all mental illness
group, all mental illnesses are not the same in terms of how they “behave” regarding
workplace discrimination. The specific diagnostic category matters when it comes to the
nature and scope of workplace discrimination in terms of CP characteristics; Employer
size, industry and region, Issue in contention, and outcome or resolution status. Perhaps,
due to its relatively low allegation number as well as the difficulty that comes along with filing an allegation for a CP with schizophrenia, schizophrenia may be even more affected by workplace discrimination than results indicate. Stated differently, the relatively low schizophrenia merit rate may in fact be somewhat higher if circumstances surrounding the illness (e.g., severity and complexity of symptoms including frequent hospitalizations; less work readiness over a lifetime; tendency for those with schizophrenia to be on Social Security Disability Income, homeless, or jobless; and the level of communication, among other skills, needed to file a Title I allegation of workplace discrimination) did not so greatly affect the number of allegations. Throughout mental illness allegations, the nature of the allegation (Issue) continues to be a pervasive influence on the nature of discrimination as well as investigatory outcomes. Finally, a number of findings (e.g., those resulting from the analysis of Title I allegations filed by CPs with schizophrenia) call for more research using different methodologies; however analyses in the current study have illuminated the nature and scope of workplace discrimination as experienced by persons with mental illnesses.

Recommendations for Future Research

Over 70 articles that involve quantitative analyses of Title I allegations covering the entire history of the ADA have been published from the National EEOC ADA Research Project. However, the Project has yet to complete any qualitative analyses in order to describe the context of or otherwise cross validate these findings. As such, some studies using qualitative or mixed methods such as surveys, interviews or focus groups are in order. In the case of this particular study, findings could be cross-validated with
surveying, interviewing, or holding focus groups for persons with mental illness who have never been employed, used to be employed, and are currently employed as well as their employers and employers in general. All participants would be measured on their ADA Title I protection knowledge, attitude, and personal experiences with the Act.

Following the next Project update of the EEOC ADA Title I data in 2011, it will be possible to begin to evaluate the effects of the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Once the pre-ADAAA and post-ADAAA Title I data sets are extracted, comparing and contrasting the Project variables should prove very illuminating and progressively so as the data continues to be updated every 3 years. Indeed, this may be the first empirical investigation of the impact of amendments of a major Civil Rights law in U.S. history. Although the EEOC Title I data typically only grows 10% with every 3 year update, such a study should yield very revealing findings.

The single greatest value of a data-mining exercise is often the generation of new and meaningful questions or hypotheses. This study has been no exception in that it calls for additional investigation of new and sometimes counter-intuitive findings such as:

- Why is mental illness allegation activity so minimal relative to the size of the mental illness working-age population in the U.S.?
- Why are merit rates markedly lower for mental illness vs. non-mental illness resolutions?
- If depression increases with age, why do older workers with depression report proportionately lower levels of workplace discrimination?
• If females are over-represented in the depression population, why are unknown mental illness allegations proportionately more female in origin when depression is not included?
• Specifically, what is it about schizophrenia that results in such low merit rate activity?
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the ADA: Characteristics of employers. *Journal of Occupational Rehabilitation*,
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Charging Party Issue Categories and their Definitions (Listed Alphabetically)

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>Expression of a preference or restriction as to disability/health status when soliciting applicants for employment, training, apprenticeship, or union membership by announcements in print or radio or television by an employer, union, or employment agency.</td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>Failure or refusal to admit a person into a program or job which will serve as a learning experience, usually involving a contractual arrangement between the employer, labor organization and the apprentice.</td>
</tr>
<tr>
<td>Assignment</td>
<td>Designation of an employee to less desirable duty, shift, or work location.</td>
</tr>
<tr>
<td>Benefits</td>
<td>Inequities based on race, color, religion, sex, national origin, disability or age in providing non-wage compensation items, such as: providing free or reduced rate parking, gifts or bonuses at holidays, employee discounts, etc. As a general rule benefits which can be reduced to monetary value, and do not fall into any of the following specific benefit categories, should be identified using this code. Benefits which cannot be reduced to monetary value are to be identified using Code “Terms and Conditions”.</td>
</tr>
<tr>
<td>Benefits: Pension</td>
<td>Discrimination with respect to the awarding of pension/retirement benefits.</td>
</tr>
<tr>
<td>Benefits: Insurance</td>
<td>Discrimination with respect to the provision of insurance benefits.</td>
</tr>
<tr>
<td>Waiver of ADEA Suit Rights</td>
<td>Respondent made provision of benefits contingent upon employee’s agreement to waive the right to seek redress under the ADEA.</td>
</tr>
<tr>
<td><strong>Severance Pay</strong></td>
<td>Denial of severance pay upon leaving employment.</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td><strong>Early Retirement Incentive</strong></td>
<td>Represent allegations that a Respondent offered early retirement to induce older workers to leave the workforce.</td>
</tr>
<tr>
<td><strong>Constructive Discharge</strong></td>
<td>Employee is forced to quit or resign because of the employer’s discriminatory restrictions, constraints, or intolerable working conditions.</td>
</tr>
<tr>
<td><strong>Demotion</strong></td>
<td>Involuntary downgrading to a lower paid or less desirable job or classification with reduced benefits or lesser opportunities for advancement.</td>
</tr>
<tr>
<td><strong>Discharge</strong></td>
<td>Involuntary termination of employment status on a permanent basis.</td>
</tr>
<tr>
<td><strong>Discipline</strong></td>
<td>The assessment of disciplinary action by an employer against an employee.</td>
</tr>
<tr>
<td><strong>Exclusion/Segregated Unions</strong></td>
<td>Failure or refusal of a labor organization to admit individual to membership. Use this code only when respondent is a labor organization or join an apprenticeship council; or the maintenance of two or more separate labor organizations or subdivisions of a labor organization which represents the same or similar class of employees in the same geographic area in which the separate labor organizations’ membership consists solely or primarily of persons with disability.</td>
</tr>
<tr>
<td><strong>Harassment</strong></td>
<td>Same as Intimidation except that this issue would be used to describe antagonism directed at an individual because of disability in non-employment situations or settings.</td>
</tr>
<tr>
<td><strong>Hiring</strong></td>
<td>Failure or refusal by an employer to engage a person as an employee.</td>
</tr>
<tr>
<td><strong>Intimidation</strong></td>
<td>Bothering, tormenting, troubling, ridiculing or coercing a person because of disability. For example: (1) making, allowing or condoning the use of jokes, epithets or graffiti; (2) application of different or harsher standards of performance of constant or excessive supervisions; (3) the assignment to more difficult, unpleasant, menial or hazardous jobs; (4) threats or verbal abuse; or (5) application of stricter disciplinary measures such as verbal warning, written reprimands, impositions or fines or temporary suspensions.</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Job Classification</td>
<td>Restriction of employees with a disability to a certain type of job or class of jobs.</td>
</tr>
<tr>
<td>Layoff</td>
<td>Temporary involuntary separation from the respondent work force due to a lack of work. Facts must clearly indicate that the involuntary separation is temporary in nature.</td>
</tr>
<tr>
<td>Maternity</td>
<td>Treating a woman differently from others who are similar in their ability or inability to work for any employment related purpose based upon her pregnancy, childbirth or related medical conditions, or her child care/health care responsibilities.</td>
</tr>
<tr>
<td>Other</td>
<td>Issues alleged which do not fit under any other defined code.</td>
</tr>
<tr>
<td>Promotion</td>
<td>Advancement to a higher level or work usually involving higher pay, potential for higher pay or more prestigious work environment.</td>
</tr>
<tr>
<td>Prohibited Medical Inquiry</td>
<td>Respondent unlawfully required an individual to take a medical examination (e.g., during pre-job-offer stage) or to respond to prohibited medical inquires (e.g., on a job application from or during a pre-employment interview).</td>
</tr>
<tr>
<td>Posting Notices</td>
<td>Failing to post a required notice.</td>
</tr>
<tr>
<td>Qualification Standards</td>
<td>Discrimination with respect to the factors or criteria used in determined one’s fitness for employment, referral, promotion, admission to membership in a labor organization, training or assignment to a job or class of jobs.</td>
</tr>
<tr>
<td>Recall</td>
<td>The calling back to regular employment status of persons who have been in a layoff status (see Layoff above) or in general the system used to determine the order or sequence of persons called back from layoff status.</td>
</tr>
<tr>
<td>References Unfavorable</td>
<td>Providing or causing to be provided to potential employers references which are designed to place an individual in an unfavorable light because of disability.</td>
</tr>
<tr>
<td>Referral</td>
<td>Failure or refusal by a labor organization or employment agency to nominate an applicant for hire, training or apprenticeship or nomination of an applicant for jobs or training other than those requested by the applicant based on the applicant’s disability.</td>
</tr>
<tr>
<td>Reinstatement</td>
<td>Failure or refusal of an employer to reinstate a person as an employee.</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Involuntary Retirement</td>
<td>Compelling an employee to retire.</td>
</tr>
<tr>
<td>Reasonable Accommodation</td>
<td>Respondent failed to provide reasonable accommodation to the known physical or mental limitations of a qualified individual with a disability.</td>
</tr>
<tr>
<td>Segregated Facilities</td>
<td>Maintenance by instruction or common usage and custom of separate facilities such as separate locker rooms, restrooms dining areas, entrances, exits, pay lines, first aid stations, water fountains, coat racks, rest or smoking areas, interview rooms, recreational facilities, sports teams, picnics and outings, sponsored trips or transportation on the basis of disability.</td>
</tr>
<tr>
<td>Segregated Union Locals</td>
<td>Two or more separate labor organizations based on disability which represent a similar class of employees.</td>
</tr>
<tr>
<td>Seniority</td>
<td>The length of service in employment or membership. Usually the issue will occur in conjunction with the use made of seniority; for example in referral, promotion, layoff, demotion or transfer; charging parties allege that they are not allowed to use their seniority in the same manner as others.</td>
</tr>
<tr>
<td>Suspension</td>
<td>Suspension of employment status because of disability.</td>
</tr>
<tr>
<td>Tenure</td>
<td>The granting of the status of holding a position on a permanent basis upon fulfillment of certain requirements; for educational institutions only.</td>
</tr>
<tr>
<td>Terms/Conditions</td>
<td>Denial or inequitable application of rules relating to general working conditions or the job environment and employment privileges which cannot be reduced to monetary value. If a privilege or benefit can be reduced to monetary value, it is coded as “Wages.” Examples include: (1) assignment to unpleasant work stations or failure to provide adequate tools or supplies; (2) inequities in shift assignments or vacation preferences; or (3) restriction as to mode of dress or appearance.</td>
</tr>
<tr>
<td>Testing</td>
<td>Use of written or oral tests in determining a person fitness for employment, referral, promotion, admission to membership in a labor organization, training or assignment to a job or class of jobs.</td>
</tr>
<tr>
<td>Training</td>
<td>Failure or refusal to admit a person into a training program or job which will serve as a learning experience sometimes involving a contractual arrangement between the employer, labor organization and the trainee.</td>
</tr>
<tr>
<td>Union</td>
<td>Failure or refusal by a labor organization empowered to do so to process</td>
</tr>
<tr>
<td>Representation</td>
<td>or diligently pursue a grievance or dispute, or failure or refusal to adequately represent the interest of a particular group of persons because of their race, color, religion, sex, national origin, disability or age.</td>
</tr>
<tr>
<td>Wages</td>
<td>Inequities in monetary compensations paid for work performed. Wages include the hourly, weekly or monthly salary and tips, gratuities, commission on sales, amounts paid for completion of specific items or work, granting and general use of incentive rates or bonuses.</td>
</tr>
</tbody>
</table>
CHARGING PARTY GENDER, AGE, AND RACE

**GENDER:** Male, Female, Null

**AGE:** Age in years at time allegation is filed: RANGE = 15-87 yrs and MEDIAN = 44 yrs for 56,846 mental illness allegations.

**RACE** (From before 1997 US Census category changes took at www.census.gov)

<table>
<thead>
<tr>
<th>RACE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Caucasian or European American</td>
</tr>
<tr>
<td>African American</td>
<td>Black</td>
</tr>
<tr>
<td>Hispanic/Mexican</td>
<td>Hispanic/Latino/Spanish Speaking</td>
</tr>
<tr>
<td>Asian</td>
<td>Oriental/Far Eastern</td>
</tr>
<tr>
<td>Native American/Alaska Native</td>
<td>American Indian or Alaska Native</td>
</tr>
<tr>
<td>Mixed Ethnicity</td>
<td>Of more than one category</td>
</tr>
<tr>
<td>Other</td>
<td>Race other than given categories</td>
</tr>
<tr>
<td>Null</td>
<td>Missing or unknown</td>
</tr>
</tbody>
</table>
Resolution Merit Status Types

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DEFINITION</th>
<th>MERIT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawn w/ Benefits by CP</td>
<td>Withdrawn w/ benefits (e.g., after independent settlement, resolved through grievance procedure, or after Respondent unilaterally granted desired benefit to CP w/o formal “agreement”.)</td>
<td>YES</td>
</tr>
<tr>
<td>Settled w/ Benefits to CP</td>
<td>Settled w/ benefits, where EEOC was party to settlement.</td>
<td>YES</td>
</tr>
<tr>
<td>Successful Conciliation</td>
<td>Successful Conciliation. EEOC has determined discrimination occurred, and Respondent has accepted resolution.</td>
<td>YES</td>
</tr>
<tr>
<td>Conciliation Failure</td>
<td>Conciliation Failure. EEOC has determined discrimination occurred, but Respondent has not accepted resolution.</td>
<td>YES</td>
</tr>
<tr>
<td>No Cause Finding</td>
<td>Full EEOC investigation failed to support alleged violation(s).</td>
<td>NO</td>
</tr>
<tr>
<td>Admin Closure-Process</td>
<td>Administrative closure due to processing problems; e.g., Respondent out of business or cannot be located, file lost or cannot be reconstructed.</td>
<td>NO</td>
</tr>
<tr>
<td>Admin Closure: Bankruptcy</td>
<td>Administrative closure due to Respondent bankruptcy</td>
<td>NO</td>
</tr>
<tr>
<td>Admin Closure</td>
<td>Administrative closure because CP cannot be located</td>
<td>NO</td>
</tr>
<tr>
<td>Admin Closure</td>
<td>Administrative closure because CP non-responsive</td>
<td>NO</td>
</tr>
<tr>
<td>Admin Closure</td>
<td>Administrative closure because CP uncooperative</td>
<td>NO</td>
</tr>
<tr>
<td>Admin Closure</td>
<td>Administrative closure due to outcome of related litigation</td>
<td>NO</td>
</tr>
<tr>
<td>Admin Closure</td>
<td>Administrative Closure because CP failed to accept full relief</td>
<td>NO</td>
</tr>
<tr>
<td>Admin Closure</td>
<td>Administrative Closure because EEOC lacks jurisdiction; includes inability of CP to meet definitions, Respondent &lt;15 workers, etc.</td>
<td>NO</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----</td>
</tr>
<tr>
<td>Admin Closure</td>
<td>Administrative Closure because CP withdraws w/o settlement or benefits. Reason unknown</td>
<td>NO</td>
</tr>
</tbody>
</table>
### Employer Regions (Based on U.S. Census Regions)

<table>
<thead>
<tr>
<th>REGION</th>
<th>APPLICABLE STATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTHEAST</td>
<td>Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, Pennsylvania</td>
</tr>
<tr>
<td>SOUTH</td>
<td>Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Texas, Oklahoma, Mississippi, Tennessee, Arkansas, Louisiana</td>
</tr>
<tr>
<td>MIDWEST</td>
<td>Indiana, Illinois, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota</td>
</tr>
<tr>
<td>TERRITORIES</td>
<td>Puerto Rico, Guam, Virgin Islands, Palau, Northern Mariana Islands, Marshall Islands, American Samoa, Micronesia, Canal Zone</td>
</tr>
<tr>
<td>FOREIGN</td>
<td>All non-U.S. Countries</td>
</tr>
<tr>
<td>NULL</td>
<td></td>
</tr>
</tbody>
</table>
Employer Size (Listed by Number of Employees)

<table>
<thead>
<tr>
<th>NUMBER OF EMPLOYEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-100</td>
</tr>
<tr>
<td>101-200</td>
</tr>
<tr>
<td>201-500</td>
</tr>
<tr>
<td>501 +</td>
</tr>
<tr>
<td>Null</td>
</tr>
</tbody>
</table>
### Utilities

The Utilities sector comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, and sewage removal. Within this sector, the specific activities associated with the utility services provided vary by utility: electric power includes generation, transmission, and distribution; natural gas includes distribution; steam supply includes provision and/or distribution; water supply includes treatment and distribution; and sewage removal includes collection, treatment, and disposal of waste through sewer systems and sewage treatment facilities.

Excluded from this sector are establishments primarily engaged in waste management services classified in Subsector 562, Waste Management and Remediation Services. These establishments also collect, treat,
Construction

The construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems). Establishments primarily engaged in the construction of buildings have a fixed plant for the preparation of sites for new construction and establishments primarily engaged in subdividing land for sale as building sites also are included in this sector.

Construction work done may include new work, additions, alterations, or maintenance and repairs. Activities of these establishments generally are managed at a fixed place of business, but they usually perform construction activities at multiple project sites. Production responsibilities for establishments in this sector are usually specified in (1) contracts with the owners of construction projects (prime contracts) or (2) contracts with other construction establishments (subcontracts).

Establishments primarily engaged in contracts that include responsibility for all aspects of individual construction projects are commonly known as general contractors, but also may be known as design builders, construction managers, turnkey contractors, or (in cases where two or more establishments jointly secure a general contract) joint-venture contractors. Construction managers that provide oversight and scheduling only (i.e., agency) as well as construction managers that are responsible for the entire project (i.e., at risk) are included as general contractor type establishments. Establishments of the "general contractor type" frequently arrange construction of separate parts of their projects through subcontracts with other construction establishments.

Establishments primarily engaged in activities to produce a specific component (e.g., masonry, painting, and electrical work) of a construction project are commonly known as specialty trade contractors.

Activities of specialty trade contractors are usually subcontracted from other construction establishments, but especially in remodeling and repair construction, the work may be done directly for the owner of the property.

Establishments primarily engaged in activities to construct buildings to be sold on sites that they own are known as operative builders, but also may be known as speculative builders or merchant builders. Operative builders produce buildings in a manner similar to general contractors, but their production processes also include site acquisition and securing of financial backing. Operative builders are most often associated with the construction of residential buildings. Like general contractors, they may subcontract all or part of the actual construction work on their buildings.

There are substantial differences in the types of equipment, work force skills, and other inputs required by establishments in this sector. To highlight these differences and variations in the underlying production functions, this sector is divided into three subsectors.

Subsector 236, Construction of Buildings, comprises establishments of the general contractor type and operative builders involved in the construction of buildings. Subsector 237, Heavy and Civil Engineering Construction, comprises establishments involved in the construction of engineering projects. Subsector 238, Specialty Trade Contractors, comprises establishments engaged in specialty trade activities generally needed in the construction of all types of buildings.

Force account construction is construction work performed by an enterprise primarily engaged in some business other than construction for its own account and use, using employees of the enterprise. This activity is not included in the construction sector unless the construction work performed is the primary activity of a separate establishment of the enterprise. The installation and the ongoing repair and maintenance of telecommunications and utility networks is excluded from construction when the establishments performing the work are not independent contractors. Although a growing proportion of this work is subcontracted to independent contractors in the Construction Sector, the operating units of telecommunications and utility companies performing this work are included with the telecommunications or utility activities.

Manufacturing

The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the activity is appropriately classified in Sector 23, Construction.

Establishments in the Manufacturing sector are often described as plants, factories, or mills and characteristically use power-driven machines and materials-handling equipment. However, establishments that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries, candy stores, and custom tailors, may also be included in this sector. Manufacturing establishments may process materials or may contract with other establishments to process their materials for them. Both types of establishments are included in manufacturing.

The materials, substances, or components transformed by manufacturing establishments are raw materials that are products of agriculture, forestry, fishing, mining, or quarrying as well as products of other manufacturing establishments. The materials used may be purchased directly from producers, obtained through customary trade channels, or secured without recourse to the market by transferring the product from one establishment to another, under the same ownership.

The new product of a manufacturing establishment may be finished in the sense that it is ready for utilization or consumption, or it may be semifinished to become an input for an establishment engaged in further manufacturing. For example, the product of the alumina refinery is the input used in the primary production of aluminum; primary aluminum is the input to an aluminum wire drawing plant and aluminum
wire is the input for a fabricated wire product manufacturing establishment.

Manufacturing sector of NAICS. For instance, almost all manufacturing has some captive research and development or administrative operations, such as accounting, payroll, or management. These captive services are treated the same as captive manufacturing activities. When the services are provided by separate establishments, they are classified to the NAICS sector where such services are primary, not in manufacturing.

The boundaries of manufacturing and the other sectors of the classification system can be somewhat blurry. The establishments in the manufacturing sector are engaged in the transformation of materials into new products. Their output is a new product. However, the definition of what constitutes a new product can be somewhat subjective. As clarification, the following activities are considered manufacturing in NAICS:

<table>
<thead>
<tr>
<th>Activity</th>
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<tr>
<td>Milk bottling and pasteurizing;</td>
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<tr>
<td>Water bottling and processing;</td>
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<tr>
<td>Fresh fish packaging (oyster shucking, fish filleting);</td>
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<tr>
<td>Apparel jobbing (assigning of materials to contract factories or shops for fabrication or other contract operations) as well as contracting on materials owned by others; Printing and related activities;</td>
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<tr>
<td>Production;</td>
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<tr>
<td>Printing and related activities; Machine shops;</td>
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<tr>
<td>Leather converting;</td>
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<tr>
<td>Grinding of lenses to prescription; Wood preserving; Electroplating, platting, metal heat treating, and polishing for the trade; Lapidary work for the trade; Fabricating signs and advertising displays; Rebuilding or remanufacturing machinery (i.e., automotive parts);</td>
</tr>
<tr>
<td>Ship repair and renovation; Ready-mixed concrete</td>
</tr>
<tr>
<td>Tire retreading.</td>
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Conversely, there are activities that are sometimes considered manufacturing, but which for NAICS are classified in another sector (i.e., not classified as manufacturing). They include:

1. Logging, classified in Sector 11, Agriculture, Forestry, Fishing and Hunting, is considered a harvesting operation;
2. The beneficiating of ores and other minerals, classified in Sector 21, Mining, Quarrying, and Oil and Gas Extraction, is considered part of the activity of mining;
3. The construction of structures and fabricating operations performed at the site of construction by contractors, is classified in Sector 23, Construction;
4. Establishments engaged in breaking of bulk and redistribution in smaller lots, including packaging, repackaging, or bottling products, such as liquors or chemicals; the customized assembly of computers; sorting of scrap; mixing paints to customer order; and cutting metals to customer order, classified in Sector 42, Wholesale Trade or Sector 44-45, Retail Trade, produce a modified version of the same product, not a new product; and
5. Publishing and the combined activity of publishing and printing, classified in Sector 51, Information, perform the transformation of information into a product whereas the value of the product to the consumer lies in the information content, not in the format in which it is distributed (i.e., the book or software diskette).

**Wholesale Trades**

The Wholesale Trade sector comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The merchandise described in this sector includes the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing.

The wholesaling process is an intermediate step in the distribution of merchandise. There is an intermediate step in the distribution of merchandise. Wholesalers are organized to sell or arrange the purchase or sale of (a) goods for resale (i.e., goods sold to other wholesalers or retailers), (b) capital or durable nonconsumer goods, and (c) raw and intermediate materials and supplies used in production.

Wholesalers sell merchandise to other businesses and normally operate from a warehouse or office. These warehouses and offices are characterized by having little or no display of merchandise. In addition, these wholesale establishments generally do not use advertising directed to the general public. Customers are generally reached initially via telephone, in-person marketing, or by specialized advertising that may include Internet and other electronic means. Follow-up orders are either vendor-initiated or client-initiated, generally based on previous sales, and typically exhibit strong ties between sellers and buyers. In fact, transactions are often conducted between wholesalers and clients that have long-standing business relationships.

This sector comprises two main types of wholesalers: merchant wholesalers that sell goods on their own...
Retail Trade

The Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

The retailing process is the final step in the distribution of merchandise; retailers are, therefore, organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers: store and nonstore retailers.

1. Store retailers operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve business and institutional clients. These include establishments, such as office supply stores, computer and software stores, building materials dealers, plumbing supply stores, and electrical supply stores. Catalog showrooms, gasoline stations, automotive dealers, and mobile home dealers are treated as store retailers. In addition to retailing merchandise, some types of store retailers are also engaged in the provision of after-sales services, such as repair and installation. For example, new automobile dealers, electronics and appliance stores, and musical instrument and supplies stores often provide repair services. As a general rule, establishments engaged in retailing merchandise and providing after-sales services are classified in this sector.

The first eleven subsectors of retail trade are store retailers. The establishments are grouped into industries and industry groups typically based on one or more of the following criteria:

(a) The merchandise line or lines carried by the store; for example, specialty stores are distinguished from general-line stores.
(b) The usual trade designation of the establishments. This criterion applies in cases where a store type is well recognized by the industry and the public, but difficult to define strictly in terms of merchandise lines carried; for example, pharmacies, hardware stores, and department stores.
(c) Capital requirements in terms of display equipment; for example, food stores have equipment requirements not found in other retail industries.
(d) Human resource requirements in terms of expertise; for example, the staff of an automobile dealer requires knowledge in financing, registering, and licensing issues that are not necessary in other retail industries.

2. Nonstore retailers, like store retailers, are organized to serve the general public, but their retailing methods differ. The establishments of this subsector reach customers and market merchandise with methods, such as the broadcasting of "infomercials," the broadcasting and publishing of direct-response advertising, the publishing of paper and electronic catalogs, door-to-door solicitation, in-home demonstration, selling from portable stalls (street vendors, except food), and distribution through vending machines. Establishments engaged in the direct sale (nonstore) of products, such as home heating oil dealers and home delivery newspaper routes are included here.

The buying of goods for resale is a characteristic of retail trade establishments that particularly distinguishes them from establishments in the agriculture, manufacturing, and construction industries. For example, farms that sell their products at or from the point of production are not classified in retail, but rather in agriculture. Similarly, establishments that both manufacture and sell their products to the general public are not classified in retail, but rather in manufacturing. However, establishments that engage in processing activities incidental to retailing are classified in retail. This includes establishments, such as...
| **Transportation and Warehousing** | The Transportation and Warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. Establishments in these industries use transportation equipment or transportation related facilities as a productive asset. The type of equipment depends on the mode of transportation. The modes of transportation are air, rail, water, road, and pipeline.

The Transportation and Warehousing sector distinguishes three basic types of activities: subsectors for each mode of transportation, a subsector for warehousing and storage, and a subsector for establishments providing support activities for transportation. In addition, there are subsectors for establishments that provide passenger transportation for scenic and sightseeing purposes, postal services, and courier services.

A separate subsector for support activities is established in the sector because, first, support activities for transportation are inherently multimodal, such as freight transportation arrangement, or have multimodal aspects. Secondly, there are production process similarities among the support activity industries.

One of the support activities identified in the support activity subsector is the routine repair and maintenance of transportation equipment (e.g., aircraft at an airport, railroad rolling stock at a railroad terminal, or ships at a harbor or port facility). Such establishments do not perform complete overhauling or rebuilding of transportation equipment (i.e., periodic restoration of transportation equipment to original design specifications) or transportation equipment conversion (i.e., major modification to systems). An establishment that primarily performs factory (or shipyard) overhauls, rebuilding, or conversions of aircraft, railroad rolling stock, or a ship is classified in Subsector 336, Transportation Equipment Manufacturing according to the type of equipment.

Many of the establishments in this sector often operate on networks, with physical facilities, labor forces, and equipment spread over an extensive geographic area.

Warehousing establishments in this sector are distinguished from merchant wholesaling in that the warehouse establishments do not sell the goods.

Excluded from this sector are establishments primarily engaged in providing travel agent services that support transportation and other establishments, such as hotels, businesses, and government agencies. These establishments are classified in Sector 56, Administrative and Support and Waste Management and Remediation Services. Also, establishments primarily engaged in providing rental and leasing of transportation equipment without operator are classified in Subsector 532, Rental and Leasing Services.

| **Information** | The Information sector comprises establishments engaged in the following processes: (a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data.

The main components of this sector are the publishing industries, including software publishing, and both traditional publishing and publishing exclusively on the Internet; the motion picture and sound recording industries; the broadcasting industries, including traditional broadcasting and those broadcasting exclusively over the Internet; the telecommunications industries; Web search portals, data processing industries, and the information services industries.

The expressions "information age" and "global information economy" are used with considerable frequency today. The general idea of an "information economy" includes both the notion of industries primarily producing, processing, and distributing information, as well as the idea that every industry is using available information and information technology to reorganize and make themselves more productive.

For the purposes of NAICS, it is the transformation of information into a commodity that is produced and distributed by a number of growing industries that is at issue. The Information sector groups three types of establishments: (1) those engaged in producing and distributing information and cultural products; (2) those that provide the means to transmit or distribute these products as well as data or communications; and (3) those that process data. Cultural products are those that directly express attitudes, opinions, ideas, values, and artistic creativity; provide entertainment; or offer information and analysis concerning the past and present. Included in this definition are popular, mass-produced products as well as cultural products that normally have a more limited audience, such as poetry books, literary magazines, or classical records.

The unique characteristics of information and cultural products, and of the processes involved in their production and distribution, distinguish the Information sector from the goods-producing and service producing sectors. Some of these characteristics are:

1. Unlike traditional goods, an "information or cultural product," such as a newspaper on-line or television program, does not necessarily have tangible qualities, nor is it necessarily associated with a particular form. A movie can be shown at a movie theater, on a television broadcast, through video-on-demand or rented at a local video store. A sound recording can be aired on radio, embedded in multimedia products, or sold at a record store.
2. Unlike traditional services, the delivery of these products does not require direct contact between the supplier and the consumer.
3. The value of these products to the consumer lies in their informational, educational, cultural, or entertainment content, not in the format in which they are distributed. Most of these products are protected from unlawful reproduction by copyright laws.
4. The intangible property aspect of information and cultural products makes the processes involved in their production and distribution very different from goods and services. Only those possessing the rights to these works are authorized to reproduce, alter, improve, and distribute them. Acquiring and using these rights often involves significant costs. In addition, technology is revolutionizing the distribution of these products. It is possible to distribute them in a physical form, via broadcast, or on-line.
5. Distributors of information and cultural products can easily add value to the products they distribute. For instance, broadcasters add advertising not contained in the original product. This capacity means that unlike traditional distributors, they derive revenue not from sale of the distributed product to the final consumer, but from those who pay for the privilege of adding information to the original product.

### Finance and Insurance
The Educational Services sector comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments may be privately owned and operated for profit or not for profit, or they may be publicly owned and operated. They may also offer food and/or accommodation services to their students. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home, and through diverse means, such as correspondence, television, the Internet, or other electronic and distance-learning methods. The training provided by these establishments may include the use of simulators and simulation methods. It can be adapted to the particular needs of the students, for example sign language can replace verbal language for teaching students with hearing impairments. All industries in the sector share this commonality of process, namely, labor inputs of instructors with the requisite subject matter expertise and teaching ability.

### Real Estate, Rental, and Leasing
Industries in the Real Estate subsector group establishments that are primarily engaged in renting or leasing real estate to others; managing real estate for others; selling, buying, or renting real estate for others; and providing other real estate related services, such as appraisal services. Establishments primarily engaged in subdividing and developing unimproved real estate and constructing buildings for sale are classified in Subsector 236, Construction of Buildings. Establishments primarily engaged in subdividing and improving raw land for subsequent sale to builders are classified in Subsector 237, Heavy and Civil Engineering Construction. Real Estate Investment Trusts (REITs) are classified in Subsector 525, Funds, Trusts, and Other Financial Vehicles, because they are considered investment vehicles.

### Professional, Scientific, and Technical
The Professional, Scientific, and Technical Services sector comprises establishments that specialize in performing professional, scientific, and technical activities for others. These activities require a high degree of expertise and training. The establishments in this sector specialize according to expertise and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services.

This sector excludes establishments primarily engaged in providing a range of day-to-day office administrative services, such as financial planning, billing and recordkeeping, personnel, and physical distribution and logistics. These establishments are classified in Sector 56, Administrative and Support and Waste Management and Remediation Services.
| Management of Companies and Enterprises | The Management of Companies and Enterprises sector comprises (1) establishments that hold the securities of (or other equity interests in) companies and enterprises for the purpose of owning a controlling interest or influencing management decisions or (2) establishments (except government establishments) that administer, oversee, and manage establishments of the company or enterprise and that normally undertake the strategic or organizational planning and decision making role of the company or enterprise. Establishments that administer, oversee, and manage may hold the securities of the company or enterprise. Establishments in this sector perform essential activities that are often undertaken, in-house, by establishments in many sectors of the economy. By consolidating the performance of these activities of the enterprise at one establishment, economies of scale are achieved. Government establishments primarily engaged in administering, overseeing, and managing governmental programs are classified in Sector 92, Public Administration. Establishments primarily engaged in providing a range of day-to-day office administrative services, such as financial planning, billing and recordkeeping, personnel, and physical distribution and logistics are classified in Industry 56111, Office Administrative Services. |
| Administrative, Support, Waste Management, and Remediation Services | The Administrative and Support and Waste Management and Remediation Services sector comprises establishments performing routine support activities for the day-to-day operations of other organizations. These essential activities are often undertaken in-house by establishments in many sectors of the economy. The establishments in this sector specialize in one or more of these support activities and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services. The administrative and management activities performed by establishments in this sector are typically on a contract or fee basis. These activities may also be performed by establishments in part or all of the company or enterprise. However, establishments involved in administering, overseeing, and managing other establishments of the company or enterprise, are classified in Sector 55, Management of Companies and Enterprises. Establishments in Sector 55 normally undertake the strategic and organizational planning and decision making role of the company or enterprise. Government establishments engaged in administering, overseeing, and managing governmental programs are classified in Sector 92, Public Administration. |
| Educational Services | The Educational Services sector comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments may be privately owned and operated for profit or not for profit, or they may be publicly owned and operated. They may also offer food and/or accommodation services to their students. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home, and through diverse means, such as correspondence, television, the Internet, or other electronic and distance-learning methods. The training provided by these establishments may include the use of simulators and simulation methods. It can be adapted to the particular needs of the students, for example sign language can replace verbal language for teaching students with hearing impairments. All industries in the sector share this commonality of process, namely, labor inputs of instructors with the requisite subject matter expertise and teaching ability. |
| Health Care and Social Assistance | The Health Care and Social Assistance sector comprises establishments providing health care and social assistance for individuals. The sector includes both health care and social assistance because it is sometimes difficult to distinguish between the boundaries of these two activities. The industries in this sector are arranged on a continuum starting with those establishments providing medical care exclusively, continuing with those providing health care and social assistance, and finally finishing with those providing only social assistance. The services provided by establishments in this sector are delivered by trained professionals. All industries in the sector share this commonality of process, namely, labor inputs of health practitioners or social workers with the requisite expertise. Many of the industries in the sector are defined based on the educational degree held by the practitioners included in the industry. Excluded from this sector are aerobic classes in Subsector 713, Amusement, Gambling and Recreation Industries and nonmedical diet and weight reducing centers in Subsector 812, Personal and Laundry Services. Although these can be viewed as health services, these services are not typically delivered by health practitioners. |
| Arts, Entertainment, and Recreation | The Arts, Entertainment, and Recreation sector includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons. This sector comprises (1) establishments that are involved in producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) establishments that preserve and exhibit objects and sites of historical, cultural, or educational interest; and (3) establishments that operate facilities or provide services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests. Some establishments that provide cultural, entertainment, or recreational facilities and services are classified in other sectors. Excluded from this sector are: (1) establishments that provide both accommodations and recreational facilities, such as hunting and fishing camps and resort and casino hotels are classified in Subsector 721, Accommodation; (2) restaurants and night clubs that provide live |
### Accommodation and Food Services
The Accommodation and Food Services sector comprises establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption. The sector includes both accommodation and food services establishments because the two activities are often combined at the same establishment.

Excluded from this sector are civic and social organizations; amusement and recreation parks; theaters; and other recreation or entertainment facilities providing food and beverage services.

### Other Services (Except Public Administration)
The Other Services (except Public Administration) sector comprises establishments engaged in providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grantmaking, advocacy, and providing dry cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.

Private households that engage in employing workers on or about the premises in activities primarily concerned with the operation of the household are included in this sector.

Excluded from this sector are establishments primarily engaged in retailing new equipment and also performing repairs and general maintenance on equipment. These establishments are classified in Sector 44-45, Retail Trade.

### Public Administration
The Public Administration sector consists of establishments of federal, state, and local government agencies that administer, oversee, and manage public programs and have executive, legislative, or judicial authority over other institutions within a given area. These agencies also set policy, create laws, adjudicate civil and criminal legal cases, provide for public safety and for national defense. In general, government establishments in the Public Administration sector oversee governmental programs and activities that are not performed by private establishments. Establishments in this sector typically are engaged in the organization and financing of the production of public goods and services, most of which are provided for free or at prices that are not economically significant.

Government establishments also engage in a wide range of productive activities covering not only public goods and services but also individual goods and services similar to those produced in sectors typically identified with private-sector establishments. In general, ownership is not a criterion for classification in NAICS. Therefore, government establishments engaged in the production of private-sector-like goods and services should be classified in the same industry as private-sector establishments engaged in similar activities.

As a practical matter, it is difficult to identify separate establishment detail for many government agencies. To the extent that separate establishment records are available, the administration of governmental programs is classified in Sector 92, Public Administration, while the operation of that same governmental program is classified elsewhere in NAICS based on the activities performed. For example, the governmental administrative authority for an airport is classified in Industry 92612, Regulation and Administration of Transportation Programs, while operating the airport is classified in Industry 48811, Airport Operations. When separate records for multi-establishment companies are not available to distinguish between the administration of a governmental program and the operation of it, the establishment is classified in Sector 92, Public Administration.

Examples of government-provided goods and services that are classified in sectors other than Public Administration include: schools, classified in Sector 61, Educational Services; hospitals, classified in Subsector 622, Hospitals; establishments operating transportation facilities, classified in Sector 48-49, Transportation and Warehousing; the operation of utilities, classified in Sector 22, Utilities; and the Government Printing Office, classified in Subsector 323, Printing and Related Support Activities.
Jessica Erin Hurley was born on November 27, 1977 in Hackettstown, New Jersey. She graduated in 2000 from the University of North Carolina at Chapel Hill with a Bachelor’s of Arts degree in Psychology. Hurley then went on to receive a Master’s of Science degree in Rehabilitation Counseling at Virginia Commonwealth University (VCU) in 2006. During the second year of her Master’s, she began working as a Graduate Research Assistant for Brian T. McMahon, Ph.D., C.R.C, on the National Equal Employment Opportunity (EEOC) Americans with Disabilities Act (ADA) Research Project (Project), which he directs at VCU. This Project examines the employment discrimination experiences of persons who file an allegation of employment discrimination under Title I (or the employment provisions) of the ADA with the EEOC, Title I’s enforcement agency. Over the last 6 years on the Project, Hurley has authored or co-authored 21 ADA Title I-related articles in peer-reviewed journals as well as 3 additional peer-reviewed articles on other topics.