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Beliefs Influencing Hiring Agents' Selection of Qualified Autistic Candidates

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Abstract

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MBA, Western Governors University, 2012

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Dissertation Submitted in Fulfillment

of the Requirements for the Degree of

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Abstract

Qualified and capable working age autistics face an 83% unemployment rate, thus, straining the economy and deteriorating their quality of life. This research examines potential contributing factors by inquiring what hiring agents' beliefs may be influencing their selection of qualified autistic candidates. This quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple linear regression study measured the influence of hiring agents' control, normative, and behavioral beliefs upon their selection of qualified autistic candidates. Through the theoretical lens of Ajzen's theory of planned behavior, conceptually crystallized with other validated theories; a representative, simple, random probability sample of hiring agents throughout the contiguous United States (n = 212) participated in this study. This model statistically significantly identified hiring agents' beliefs influencing their selection of qualified autistic candidates to fill open positions ($F(45, 73) = 36.067$, $p < .001$, adj. $R^2 = .930$). The inclusion of autistics in organizational diversity policies and practices ($B = 0.266$), overcoming dependability stereotypes ($B = 0.195$), and the fear of embarrassment ($B = 0.187$) were the most significant ($p < .001$) quantitative influencers. Participants (30%) qualitatively conveyed a desire for comprehensive autistic education. Future study should explore public policy aimed at organizational education relative to qualified autistic candidates. This increased scientific understanding could help develop expanded public policy leading to decreased unemployment rates for autistics, increased organizational performance for all business types, and improved socioeconomic stability across the nation resulting from increased economic contributions and decreased social service expenditures.

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Dedication

I dedicate this research to Gavin, Logan, and Walter Mai, as well as the many autistics who never give up. After Gavin's diagnosis with Asperger's Syndrome (now classified as an autism spectrum disorder), I delved into learning as much as I could about the frequently misconstrued disorder. I met a variety of people and studied a plethora of literature all indicating that employment was extremely challenging despite autistics' often extremely high intellect. Most autistic adults face insurmountable difficulties gaining employment; yet, they keep trying. Though speculation existed, no one knew why employers do not hire autistics. Thus, the bravery and dedication of those struggling autistics drove me to research the problem, eventually leading to this study.

To all those on the autism spectrum, diagnosed or not; I dedicate this study to you. May this research lead to better futures for you and yours. By improving your quality of life, we improve everyone's!

Acknowledgments

Without my soulmate, Walter Mai, this research would go unfinished. Walter continually motivated me through medical, financial, and emotional challenges. Walter never lost faith in my ability to complete this doctoral-level scholarly research and gain my Ph.D. Walter truly is my best friend, partner in everything, and most significant source of inspiration! Thank you, Walter.

Other family members also cheered me along the way and showed genuine interest, encouragement, and spurred me on. Whether caressed by the shimmer of the Violetmoon, motivated by the Socket Wrench and Squirrel running rampant in my life, inspired by Betty Boop enlightenment, or reinforced by the matriarchal Gail propelling me forward, the love of my family continually supported me. Cheers to those family members who always asked how my study was coming. Thank you.

I thank all those associates and colleagues that aided and encouraged me. I thank Michael John Carley and Lee Grossman for always taking the time to respond to my countless emails. Though she did not live to see this work finished; this research would not be as comprehensive without the invaluable scholarly guidance of Dr. Fetter. Dr. Matarelli's expert critique was vital. Dr. Ferreros' statistical expertise was inestimable and Dr. Kilmnick's content review irreplaceable. Thank you all!

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Chapter 1: Introduction to the Study

The calculated unemployment for qualified autistic candidates was 83% at the end of 2017 (see detailed calculations in Chapter 2). Comparatively, the unemployment rate for the general population was 4% at the end of 2017 (U.S. Department of Labor [DOL], 2017). During the United States Great Recession of 2008, unemployment rates hit a high of 10% in October 2009 (DOL, 2017); the American people responded in alarm. Where is the concern for employable autistics facing the current 83% unemployment rate? Contrary to stereotypical associations, a diagnosis of an autism spectrum disorder (ASD) does not automatically disqualify a person from being a productive, contributing part of society and leading a fulfilling life. Rather, 75% of those diagnosed are quite capable individuals as demonstrated by literature discussed in Chapter 2.

I combined counts of working-age adults (age 18 - 64) from the year 2010, estimates of autism, and scholarly reports of functionality to determine that an excess of 3.5 million autistics are well trained, skilled, and capable of competitive employment. Most remain unemployed or underemployed. The unemployment of this disenfranchised ASD group has significant economic and social public policy implications upon the nation (Cimera, 1996 - 2016; Council of State Administrators of Vocational Rehabilitation [CSAVR], 2011; Howlin, Alcock, & Burkin, 2005; Standifer, 2012). Thus, I conducted further research into potential factors contributing to the problem. The increased scientific understanding resulting from this study could lead to expanded public policy and interventions aimed at alleviating the problem. Examples include (a) improved individual, familial, and societal economies; (b) improved quality of life (QOL) and

health factors for autistics and everyone they are related to or interact with; and (c) improved organizational performance. In this quantitatively weighted (± 90%), concurrent, mixed methods (QUAN > qual), multiple linear regression research, I aimed to increase scholarly and scientific understanding of this autistic unemployment phenomenon.

Chapter 1 includes an overall synopsis of how this study adds to the scientific knowledge base surrounding this phenomenon by identifying the gap existing in the literature before conducting this study. I briefly review the background of the literature relating to the scope of this study. I state the specific research problem by building upon current research findings. I discuss the purpose of this exploration and connect the problem with the specific focus of my research. Narrowing my intent, I then list the quantitative research questions and hypotheses and qualitative research questions. I next address the theoretical framework and include the overarching theory providing the contextual lens through which I conducted my study. I present the nature, design, rationale, variables, and methodology. I then operationally define key concepts and statistical symbols and terminology noted or used in this study. I discuss the assumed aspects of the study; along with the scope, validity, and potential generalizability. I address any potential limitations and weaknesses before explaining the significance of the research. Finally, I transition into Chapter 2 in which I explore, in depth, the relevant scholarly background and expand upon Chapter 1's introduction.

Background

The global literature on autism and employment dates back decades; it is not a new topic. Unger's (2002) exhaustive meta-analysis covered studies from 1957 through 2000. In my review of the current empirical literature, I found ample research from the perspective of autistics (supply-side); however, I did not find much from the employer perspective (demand-side). The most prominent factors I noted were the significant strides made in the last decade to ascertain the percentage of the population diagnosed with an ASD and autistics' capabilities to take part in a competitive work environment. Because of numerous studies highlighting autistic functionality, I conducted additional research within the last five years focusing on either autism or disabilities in general with relation to employment potential. In this background section, I present a general summary of the current literature; all of which I discuss in depth in Chapter 2.

Recent Employment Related Studies Regarding Autism Specifically

Both prevalence and functionality require consideration to ascertain adequate public policy. To increase accuracy in identification, prevalence, and functionality, researchers studied thousands diagnosed with an ASD (Baio, 2012; Centers for Disease Control and Prevention [CDC], 2014; Christensen et al., 2016; Mattila et al., 2011; Zablotsky, Black, Maenner, Schieve, & Blumberg, 2015). Prevalence pertains to the percentage of the potential workforce (supply) diagnosed with an ASD and functionality relates to the degree in which those individuals are capable of competitive employment. As discussed in Chapter 2, I found numerous studies exploring the prevalence and

functionality of autistics. However, a perceived prerequisite to gaining employment is also the ability to market one's self as a viable part of the workforce.

To effectively present one's self for potential employment, it follows that an individual must have the desire to work, the ability to find an appropriate job, and the capability of conveying their qualifications. In the United States, there is a significant desire to work amongst autistics that meets or exceeds that of typical individuals (Anderson, McDonald, Edsall, Smith, & Taylor, 2015; Hendricks, 2010; Wehmeyer, 2011). Thus, the first trait, the desire to work, is present. Autistics possess the ability to find appropriate job openings (the second trait) and the capability of accurately and appropriately applying for such (the third trait; Hendricks, 2010; Krieger, Kinébanian, Prodinger, & Heigl, 2012; Taylor & Seltzer, 2011). Not only did autistics demonstrate both desire and sufficient ability, but scholars also found numerous other benefits relative to autistic employment. Both the health and overall QOL of autistics improved with competitive employment (Ali, Schur, & Blanck, 2011; Chan & Rumrill, 2016; Hendricks, 2010; Krieger et al., 2012; Stankova & Trajkovski, 2010; Taylor & Seltzer, 2011; Wehman et al., 2016). Employers stand to gain countless economic, performance, and productivity benefits by hiring autistics (Asperger's Association of New England [AANE], 2013; Hendricks, 2010; Shore, 2013; Stankova & Trajkovski, 2010). The reasons why qualified autistics are still underemployed remained unaddressed; thus, existing public policies could not readily broach the issue.

Numerous studies using an array of methodologies demonstrated the existence of excessive unemployment issues for autistics, with several results inferring potential

contributing factors. Scholars have been aware of and studied the unemployment crisis for autistics extensively from the supply-side (Anderson et al., 2015; Balfe & Tantam, 2010; Hendricks, 2010; Howlin & Moss, 2012; Lorenz, Frischling, Cuadros, & Heinitz, 2016; Nord, Stancliffe, Nye-Lengerman, & Hewitt, 2016). I discuss details of those studies, including methodology, findings, statistical data, and more, in Chapter 2.

Among numerous studies researching different employment factors for autistics, I found three studies that addressed autistic employment specifically from a demand-side perspective: Scott et al. (2017), Stankova and Trajkovski (2010), and Stuckey (2016). Scott et al. surveyed Australian employers solicited via autism and disability organizations as well as blind, random telephone solicitation of employers ($n = 59$) employing at least one autistic employee. Scott et al. used multinomial regression to analyze employers' perceived costs relating to autistic workers in comparison to typical workers in a wide variety of productivity, efficiency, and quality. Scott et al. reported that autistic employees performed similarly to typical employees. While informative, Scott et al.'s study did not inquire why employers do not hire autistics. Stankova and Trajkovski conducted a mixed method (QUAN = qual) $\chi 2$ analysis ($p < .05$) validated with Fisher's Exact test in the Republic of Macedonia. Stankova and Trajkovski found employers' beliefs were the key factor inhibiting the employment of autistics. Some of those beliefs included employer lack of understanding of ASDs, lack of legislative awareness, negative attitudes, and stereotyping of autistics (Stankova & Trajkovski, 2010). A significant weakness of Stankova and Trajkovski's study included a lack of validity relative to generalizability. Using cross-tabulation ($\chi 2\ (2) = 7.913$, $p > .019$), Stuckey found

employer familiarity with ASDs and employer gender were related and influenced their employment of autistics. Stuckey's sample (n = 157) was 62% male, and only 34% female; all solicited through Rotary International in 23 states. Stuckey's purposeful limitation of participants to Rotary Club association in only 23 states significantly reduced generalizability. Thus, Stuckey's sample was not a valid representation of the United States since Rotary International promotes service and goodwill which biased associates towards hiring autistics. Since the only demand-side studies related explicitly to autistic employment had limited generalizability, limited focus similarity to my research, and potential sample bias; I had to expand my literature review to include disabilities in general rather than ASDs specifically.

Recent Employment Related Studies Relating to General Disabilities

The desire, ability, and benefits of competitive employment were equally apparent for individuals with general disabilities. In my study, general disabilities refer to physical disabilities (PD), intellectual disabilities (ID), developmental disabilities (DD), and others not specifically categorized as autistic. From Mexico to the Netherlands to the United States, disabled adults possessed an ardent desire to work (Agovino, Paroki, & Sánchez Barajas, 2014; Ali et al., 2011; Claes, Van Hove, Vandevelde, van Loon, & Schalock, 2012; Wik & Tøssebro, 2014). Socioeconomic advantages to the employment of disabled adults were also apparent. Improved QOL for disabled individuals and potential economic, performance, and productivity benefits to organizations occurs through the competitive employment of those with disabilities (Andreassen, 2012; Beyer, Brown, Akandi, & Rapley, 2010; Chan et al., 2010; Chiu et al., 2015; Claes et al., 2012; Fraser,

Ajzen, Johnson, Hebert, & Chan, 2011; Hartnett, Stuart, Thurman, Loy, & Batiste, 2011; Hashim & Wok, 2014; King et al., 2011; Wehman, 2011). I discuss these findings in depth in Chapter 2. Even with this extensive existing research, the unemployment rates for disabled adults are as high as unemployment rates for autistics. Given the significant benefits, why are their unemployment rates so high?

I found more than two decades of research regarding unemployment issues relative to disabled individuals. Cimera researched unemployment, vocational rehabilitation (VR), and cost-benefit ratios relative to disabled adults since 1996 (Rusch & Cimera, 1996). In continuing research, Cimera (1996 – 2016) reported the return on investment (ROI) of supported employment programs versus in-center care. High unemployment conditions continue to occur for disabled adults despite significant ROI experienced by governments through competitive employment (supply) and existing public policy regarding disability and occupation (which should raise demand). Harris Interactive (2010) launched a large-scale study to investigate reasons why employers do not hire disabled adults. Harris Interactive's study, as well as others discussed in Chapter 2, provided insight that that helped direct development of my study relative to autistics' unemployment. Throughout the literature, potential causes of the unemployment issues of disabled adults seemed to center around a single commonality: belief. Thus, I opted to explore beliefs influencing selection as a relevant factor in the unemployment crisis of autistics specifically. I found inference to several potential beliefs throughout the literature. Stuckey's (2016) study focusing on gender differences and familiarity was the most recent. Table 1 depicts a small sampling of others.

Table 1

Sampling of Potential Employers' Beliefs Inhibiting Selection

Belief	Reasoning	Study and Results	Scholars
Job-based Fears of Litigation	Performance-, disciplinary-, and safety-based fears related to hiring disabled individuals	Multiple regression, survey study ($p < .001$)	Fraser et al., 2011
Myriad of Hiring Costs	Recruitment, accommodation, and personnel training resulting in increased costs due to hiring disabled individuals	Multiple regression, survey study ($p < .05$); quantitative survey study	Copeland, Chan, Bezyak, & Fraser, 2010; Kaye, Jans, & Jones, 2011
Understanding of Disability	The lack of understanding the nature of the disability or believing it to place increased limitation on employee performance	Multi-item quantitative comparison study; quantitative survey study	Ang, Ramayah, & Kan VUN, 2013; Kaye et al., 2011
ADA/ADAAA Understanding	The lack of understanding the mandates of the legislation	Hierarchical regression, survey study ($p < .01$); qualitative interviews; mixed method case study	Chan et al., 2010; Hernandez et al., 2012; Wehman, 2011
ADA/ADAAA Attitudes	The belief that the legislation is of no consequence vs. organizational expectations and ROI	Multi-item quantitative comparison study; multiple regression, survey study ($R^2 = .05$, $F(3,138) = 2.20$, *ns*); quantitative survey study	Ang et al., 2013; Copeland et al., 2010; Kaye et al., 2011
VR Understanding	The belief that VR is unapproachable by employers or not able to help employers	Multiple regression, survey study ($p < .01$); mixed method case study	Fraser et al., 2011; Wehman et al., 2012
Past Negative Experiences	Prior experiences with disabled individuals has influenced beliefs	Multiple regression, survey study ($p < .001$)	Copeland et al., 2010
Disabled employees are less productive	The belief that disabled employees will not be able to perform as well as typical employees	Quantitative survey study	Kaye et al., 2011
Stereotyping and Discrimination	Societal misconceptions and associations leading to discrimination	Hierarchical regression, survey study ($p < .01$); ODEP secondary data analysis; quantitative survey study; qualitative interview; qualitative interview	Chan et al., 2010; Houtenville & Kalagyrou, 2012; Kaye et al., 2011; Wallis, 2012; Wehmeyer, 2011

Note. Adapted from "Hiring disabled people in Malaysia: An application of the theory of planned behavior" by Ang, M. C., Ramayah, T., & Khan VUN, T. (2013). *Journal of International Social Research*, *6*(27), 50-64. Retrieved from http://www.sosyalarastirmalar.com; "Demand-side factors related to employment of people with disabilities: A survey of employers in the Midwest region of the United States" by Chan, F., Strauser, D., Maher, P., Lee, E. J., Jones, R., & Johnson, E. T. (2010). *Journal of Occupational Rehabilitation*, *20*, 412-419. doi:10.1007/s10926-010-9252-6; "Assessing cognitive and affective reactions of employers toward people with disabilities in the workplace" by Copeland, J., Chan, F., Bezyak, J., & Fraser, R. (2010). *Journal of Occupational Rehabilitation*, *20*, 427-434. doi:10.1007/s10926-009-9207-y; "Understanding employers' hiring intention in relation to qualified workers with disabilities" by Fraser, R., Ajzen, I., Johnson, K., Hebert, J., & Chan, F. (2011). *Journal of Vocational Rehabilitation*, *35*, 1-11. doi:10.3233/JVR-2011-0548; "Workers with disabilities: Exploring the hiring intentions of nonprofit and for-profit employers" by Hernandez, B., Chen, B., Araten-Bergman, T., Levy, J., Kramer, M., & Rimmerman, A. (2012). *Employee Responsibilities and Rights Journal*, *24*, 237-249. doi:10.1007/s10672-011-9187-x; "People with disabilities employers' perspectives on recruitment practices, strategies, and challenges in leisure and hospitality" by Houtenville, A., & Kalargyrou, V. (2012). *Cornell Hospitality Quarterly*, *53*, 40-52. doi:10.1177/1938965511424151; "Why don't employers hire and retain workers with disabilities?" by Kaye, S. H., Jans, L. H., & Jones, E. C. (2011). *Journal of Occupational Rehabilitation*, *21*, 526-536. doi:10.1007/s10926-011-9302-8; "They said I was rude" by Wallis, L. (2012). *Nursing Standard*, *26*(39), 24-25. Retrieved from http://www.nursing-standard-journal.co.uk; "Employment for persons with disabilities: Where are we now and where do we need to go?" by Wehman, P. H. (2011). *Journal of Vocational Rehabilitation*, *35*, 145-151. doi:10.3233/JVR-2011-0562; "Supported employment for young adults with autism spectrum disorder: Preliminary Data" by Wehman, P., Lau, S., Molinelli, A., Brooke, V., Thompson, K., Moore, C., & West, M. (2012). *Research & Practice for Persons with Severe Disabilities*, *37*, 160-169. doi: 10.2511/027494812804153606; "What is next for the transition and employment supports movement?" by Wehmeyer, M. L. (2011). *Journal of Vocational Rehabilitation*, *35*(3), 153-156. Retrieved from http://www.iospress.nl/journal/journal-of-vocational-rehabilitation

Beliefs are neither true nor false, instead they are elusive and based on one's values, attitudes, beliefs, and expectations (VABEs; Clawson, 2012). A vast array of beliefs exists but the depth that each influences selection of qualified autistic candidates was not heretofore known. I discuss these and more in detail in Chapter 2. This background section touched upon several potential employer beliefs but also demonstrated some significant gaps in scientific understanding which I begin filling with this study.

Gap in Knowledge

Only Stankova and Trajkovski's (2010) and Stuckey's (2016) study explored potential demand-side factors relating to the high unemployment rates of autistics specifically. Stuckey's limitation of participants to Rotary Club association in 23 states significantly reduced generalizability due to lack of randomization and a potentially biased participant sample. Stankova and Trajkovski's research occurred in an isolated region; thereby lacking generalizability beyond Macedonia. Additionally, Stankova and Trajkovski did not limit the scope of their study to those responsible for hiring specifically nor did they reference only qualified autistic candidates. Only Stuckey limited participants to those responsible for hiring; albeit, that sample was potentially biased. Generalizable hiring experience is an aspect that my research expanded upon.

I hoped that through expanding literature review to include disabilities in general, I might begin to fill some of this vast knowledge gap. While current literature did not fill that gap, the expanded research did provide insight into the type of factors (beliefs) influencing unemployment rates of disabled adults. That insight helped define the gap

that I addressed with this study: What hiring agents' beliefs influence their selection of qualified autistic candidates? Two key factors were critical to my consideration of the study design: (a) Independent (predictor) variables (IV) consisting of beliefs were overwhelmingly indicated and (b) I could not measure the actual hiring decisions of hiring agents. Thus, I used the concepts of the theory of planned behavior (TPB; Ajzen, 1985) as a lens to predict the influences of hiring agents' beliefs (IV) upon their selection of qualified autistic candidates (dependent/criterion/outcome variable [DV]). I limited my study to addressing hiring agents' potential beliefs (IV) influencing their selection of qualified autistic candidates (DV) specifically; rather than any autistic candidates or disabled candidates in general.

Most existing literature focusing on demand-side factors involved large organizations (discussed in depth in Chapter 2). In my study, I aimed participant solicitation toward hiring agents serving medium-sized (50 – 249 employees) organizations throughout the contiguous United States. Albeit, I did not limit my sample to only that participant pool, which I discuss further in Chapter 3. My research helps increase scientific understanding of the phenomenon of the high unemployment rates of autistics, qualified and capable of competitive employment. Knowledge of such could add needed insight into establishing appropriate public policy relative to autism and occupation and help develop potential interventions to the problem.

Problem Statement

The unemployment rate for autistic individuals is 83% (details of calculation discussed in Chapter 2). The importance of employment in the health and QOL of

autistics, and their families is critical (Ali et al., 2011; Katz, Dejak, & Gal, 2015; Krieger et al., 2012; Parsons, 2015; Taylor & Seltzer, 2011; Wehman et al., 2016). The potential economic, performance, and productivity benefits to organizations through employing autistics are significant (AANE, 2013; Hendricks, 2010; Shore, 2013; Stankova & Trajkovski, 2010). The potential economic and social benefits to society with competitively employed autistics are substantial (Cimera, 1996 - 2016; CSAVR, 2011; Howlin et al., 2005; Standifer, 2012). Despite these significant potential socioeconomic benefits, qualified autistic candidates remain unemployment.

While the Americans with Disabilities Act of 1990 (ADA) and its 2008 Amendment (ADAAA) did inform public policy for disabilities in general, public policy specific to the issue of employment opportunity for autistics does not exist in the United States. ASDs are developmentally based social disabilities (American Psychiatric Association [APA], 2013; Autism Speaks, 2014; Baio, 2014; Balfe & Tantam, 2010; Hendricks, 2010; Krieger et al., 2012; National Institute of Mental Health (NIMH), 2014; Robertson, 2014; Schaller & Yang, 2005; Standifer, 2009). Thus, most autistics do not physically appear disabled (Lowth, 2015). The lack of public policy addressing this issue is concerning. My review of the current literature revealed a significant gap which, when filled, begins to provide the scientific knowledge needed to help establish appropriate public policy related to this phenomenon. I found a significant lack of adequate research relating to the nature of the relationship between the potential influence of hiring agents' beliefs (IV) and their selection of qualified autistic candidates (DV).

Competitive employment of autistics is socially and economically beneficial to autistics and society (AANE, 2013; Ali et al., 2011; Hendricks, 2010; Katz et al., 2015; Krieger et al., 2012; Parsons, 2015; Shore, 2013; Stankova & Trajkovski, 2010; Taylor & Seltzer, 2011; Wehman et al., 2016). Scholars inferred that hiring agents' beliefs appear to be responsible for the high unemployment rates of disabled adults in general. Using this study, I begin to explore what specific beliefs of hiring agents might be influencing their selection of qualified autistic candidates. Through this increased understanding, development of possible public policy interventions could lead to positive social change through improved socioeconomic conditions.

Purpose of the Study

My intent in this quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression research was the exploration of the nature of the relationship between hiring agents' beliefs and their selection of qualified autistic candidates. I individually summed and clustered (control, normative, and behavioral taxonomies) the known values of the IV (the potential beliefs influencing hiring agents as inferred from prior literature [rated from *never* to *always*]). I measured the DV (hiring agents' selection of qualified autistic candidates [as described in the definitions section later in this chapter]) on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression. The primary purpose of this regression analysis predicted the degree to which each IV (control, normative, and behavioral beliefs) influenced the DV (hiring agents' selection of qualified autistic candidates).

Control beliefs included those VABEs that stemmed from actual or perceived controlling factors. Normative beliefs included those VABEs that arose from societal influences. Behavioral beliefs included those VABEs related directly to opinion. I discuss all three of these beliefs in detail in Chapter 2. I used a multiple regression model to analyze quantitative data gathered via a 7-point Likert scale survey tool (the Hiring Agent Survey regarding Selection of Qualified Autistic Candidates [HASSQAC], Mai, 2015) that also included limited open-ended qualitative questions. I coded (themed and patterned) and analyzed qualitative data in conjunction with quantitative data. I evaluated and triangulated the data to provide insight and rich description to findings. I analyzed data through the lens of TPB. Thus, the IVs included the control, normative, and behavioral beliefs (presented and discussed in detail in Chapter 2) of the hiring agents hypothesized to influence the DV, hiring agents' selection of qualified autistic candidates.

Research Questions and Hypotheses

Research questions evolved from existing literature regarding potential beliefs influencing employers' hiring of disabled candidates in all classifications (discussed in Chapter 2). Research questions focused on beliefs influencing the hiring agents' selection of qualified autistic candidates. Six of the questions on the HASSQAC (Mai, 2015) tool were qualitatively open-ended (discussed in Chapter 3). Qualitative questions allowed respondents to add additional information that they wished to share. I phrased qualitative questions to enable elaboration of the Likert scale HASSQAC content. The following

questions provide the central overarching, quantitative, and qualitative questions addressed in this study.

Central Overarching Question

> Quantitative Research Question: What is the nature of the relationship among the IVs (the potential control, normative, and behavioral beliefs of hiring agents as assessed on a 7-point Likert scale [1 = never to 7 = always]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concept of TPB and measured using multiple regression)?

Null Hypothesis H_0: There is no statistically significant correlation among the IVs (hiring agents' control, normative, and behavioral beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates; as assessed through the HASSQAC on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions amongst; and all *B* coefficient values are not statistically significantly different from zero.

Alternate Hypothesis H_A: There is a statistically significant correlation among the IVs (hiring agents' control, normative, and behavioral beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as assessed through the HASSQAC on a percentage-based continuous level predicted through the concepts of TPB and measured

using multiple regression) when selecting qualified employees to fill competitive positions; and at least one *B* coefficient value is statistically significantly different from zero.

Quantitative Sub-questions. I identified a plethora of potential beliefs through literature review (discussed in detail in Chapter 2) as factors influencing hiring agents' selection of qualified autistic candidates. I developed quantitative research questions and hypothesis from the combined focus of TPB and existing literature. I classified potential beliefs identified through literature review into one of the three base taxonomies: control, normative, and behavioral beliefs. The theoretical structure of my study allowed for examination of contributing factors individually and within those taxonomies.

> Quantitative Research Sub-Question 1: What is the nature of the relationship among the IVs (control beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

Null Hypothesis 1 H_01: There is no statistically significant relationship among the IVs (hiring agents' control beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified

employees to fill competitive positions; and all *B* coefficient values are not statistically significantly different from zero.

Alternate Hypothesis 1 H_A1: There is a statistically significant relationship among the IVs (hiring agents' control beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and at least one *B* coefficient value is statistically significantly different from zero.

Quantitative Research Sub-Question 2: What is the nature of the relationship among the IVs (normative beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

Null Hypothesis 2 H_02: There is no statistically significant relationship among the IVs (hiring agents' normative beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and all *B* coefficient values are not statistically significantly different from zero.

Alternate Hypothesis 2 H_A2: There is a statistically significant relationship between the IVs (hiring agents' normative beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agent's selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and at least one *B* coefficient value is statistically significantly different from zero.

Quantitative Research Sub-Question 3: What is the nature of the relationship among the IVs (the behavioral beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

Null Hypothesis 3 H_03: There is no statistically significant relationship among the IVs (hiring agents' behavioral beliefs assessed through the using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and all *B* coefficient values are not statistically significantly different from zero.

Alternate Hypothesis 3 H_A3: There is a statistically significant relationship between the IVs (hiring agents' behavioral beliefs assessed through the HASSQAC using

a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agent's selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and at least one *B* coefficient value is statistically significantly different from zero.

Qualitative sub-questions. I further explored the central overarching- and three sub-research questions through minimally weighted (±10%) qualitative inquiry. The qualitative portion of my study addressed influencing control, normative, and behavioral beliefs of hiring agents potentially unexplored or confusing to participants in the quantitative measures of the HASSQAC (Mai, 2015) tool. I designed all qualitative questions to aid in exploring the quantitative research questions of this study. Six qualitatively open-ended questions concluded each section of the HASSQAC tool (discussed in Chapter 3 and included in Appendix A). Open-ended questions allowed respondents to add additional information that they wanted to share. I phrased qualitative questions to allow elaboration of the Likert scale HASSQAC content of the associated quantitative section. I included these questions to increase insight into possible influencing factors not addressed in the quantitative portion of the HASSQAC, to add depth of understanding, and to provide rich descriptive detail to findings.

Qualitative Research Sub-Question 1: "Please share here any other organizational strategies you believe could help the situation." This section focused on potential organizational strategies that hiring agents believe may increase qualified autistic candidates' chances of hire and addressed associated control beliefs.

Qualitative Research Sub-Question 2: “Please share here any other laws, regulations, or public program possibilities you believe could help the situation.” This section focused on public policy strategies that hiring agents believe may increase the chances that employers will be more likely to hire qualified autistic candidates and addressed primarily associated control beliefs.

Qualitative Research Sub-Question 3: “Please share here any other ways in which you feel that qualified autistic candidates could increase their chances of being hired.” This section focused on potential self-advocacy-related skills that hiring agents believe would increase qualified autistic candidates’ chances of hire if they possessed such and addressed a balance of normative and behavioral beliefs. Since self-advocacy skill beliefs could inform normative or behavioral beliefs, depending on the hiring agent’s qualitative responses; answers to this question were relative to either belief type.

Qualitative Research Sub-Question 4: “Please share here any other reasons related to co-worker dynamics that you feel influence hiring agents not to consider qualified autistic candidates.” This section focused on potential normative beliefs related to team interactions that could sway hiring agents’ selection of qualified autistic candidates.

Qualitative Research Sub-Question 5: “Please share here any other operational reasons that you feel would prevent hiring agents from selecting qualified autistic candidates.” This section focused on social expectations, from an operational standpoint, of hiring agents that could influence their selection of qualified autistic candidates and addressed a mix of normative, control, and behavioral beliefs with an emphasis on behavioral beliefs.

Qualitative Research Sub-Question 6: “Please share here any other reasons you believe qualified autistic candidates are not being hired to fill open positions.” This section addressed stereotypical, and other personal VABEs, that hiring agents may possess that could influence their selection of qualified autistic candidates.

Theoretical and Conceptual Framework for the Study

Ajzen’s (1985) TPB was the theoretical framework through which I analyzed the questions of my study. This theory provided a robust foundational framework for explaining behavior. The critical conceptual aspect of the framework included the application of multiple other theories. Such theoretical triangulation provided further support and explanation for Ajzen’s TPB inference that the combination and strength of control, normative, and behavioral beliefs indicate intent and behavior.

Expectancy-value theory (EVT; Fishbein, 1963) added conceptual support to the influence that perceived control beliefs have upon behaviors. Pratkanis' (2000) altercasting theory (PAT) and Fay’s (1987) critical theory (FCT) conceptually built upon the inference that society influences behavior, thus normative beliefs. Ambivalence amplification theory (AAT; Katz, Wackenhut, & Glass, 1986) and elaboration likelihood model of persuasion (ELM; Petty & Cacioppo, 1979) conceptually supported the implication that personal beliefs and experiences (behavioral beliefs) directly affect behavior. This combination theoretical and conceptual framework built a triangulated foundation for my study. This triangulation also provided an optimal lens through which I addressed the quantitative and qualitative research questions.

Since likelihood indicates intent and decisions are behaviors, it held that I needed a framework designed to provide insight into beliefs driving behavior to best explore hiring agents' beliefs. This framework, concepts of TPB specifically, provided essential aid in phrasing the HASSQAC (Mai, 2015) instrument questions and categories. Analysis of existing literature indicated that hiring agents' beliefs influence their selection of qualified autistic candidates. The unique concept of TPB that all three belief types (control, normative, and behavioral) infer intent and action provided the best lens through which to analyze data in this study. Accordingly, I classified all aspects of the qualitative questions into one, or more, of these three belief types (control, normative, and behavioral).

Theory of Planned Behavior

Per the concepts of Ajzen's (1985) TPB, control (perceived regulations), normative (societal), and behavioral (attitudes) beliefs drive behavior forming the intent to act. It is the strength of these behaviors, or lack thereof, that provides an indication that an action may, or may not, occur (Ajzen, 2011; Welbourne, 2007). I include a much more in-depth review of TPB in Chapter 2. Given Ajzen's (1985) TPB assumptions and the nature of my inquiry, TPB presented an excellent foundation for this study. With its cornerstone of compatibility; control, normative, and behavioral beliefs must all be compatible and stable over time (Ajzen, 2004). All the questions in my study pertained to the potential beliefs of hiring agents that may influence their selection of qualified autistic candidates. Variables were thus compatible and stable relative to the nature of all the research questions. Several scholars used TPB in similar studies including exploration

of hiring influences (Ang, Ramayah, & Khan VUN, 2013; Araten-Bergman, 2016; Fraser et al., 2011; Hernandez et al., 2012; Lu, Kao, & Hsieh, 2011). It was a natural evolution to explore TPB as the primary theory for building the framework of my study; thereby, developing the lens through which I conducted my multiple regression analyses.

Contextual Lens

I built analyses of the combined quantitative and qualitative data through the contextual lens of beliefs influencing behavior upon the conceptual aspect of the framework for my study. I added significant conceptual strength through triangulating the theories of PAT, FCT, AAT, ELM, and EVT, with TPB. The combination of multiple theories fine-tuned the contextual lens of the study. In this light, I increased the validity of findings due to the significant triangulation (referred to as crystallization) of the framework, theory, methodology, and overall design.

Body of Research Supporting the Study

I found a significant body of evidence to support the need for this study. Extensive supply-side research presented strong substantiation of the high unemployment rate of qualified autistic candidates (Balfe & Tantam, 2010; Hendricks, 2010; Howlin & Moss, 2012). The competitive employment of autistics presents substantial benefits to all involved (AANE, 2013; Ali et al., 2011; Hendricks, 2010; Krieger et al., 2012; Shore, 2013; Stankova & Trajkovski, 2010; Taylor & Seltzer, 2011; Wehman et al., 2016). However, the unemployment rates of autistics remain a critical public policy issue. I discuss and analyze this evidence in detail in Chapter 2. The only significant demand-side studies related to disability were ungeneralizable or included a biased portion of demand-

side stakeholders. Since there is currently insufficient understanding of the demand-side influences related to this problem, there exists a significant lack of ability to develop adequate public policy and interventions that might improve the situation.

I found literature about disabilities in general but not specifically qualified autistics. Much of the literature indicated that the beliefs of employers in general, not those responsible for hiring specifically, influenced their actions. I used Ajzen's (1985) TPB as the lens through which I analyzed the potential beliefs of hiring agents relative to their selection of qualified autistic candidates. Since, through TPB, Ajzen inferred that an individual's control, normative, and behavioral beliefs indicate intent and behavior; this foundation was optimal for my study. I present a more in-depth discussion of the framework and context in Chapter 2.

Nature of the Study

In this quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression research, I explored the degree to which hiring agents' control, normative, and behavioral beliefs (IVs) were related to their selection of qualified autistic candidates (DV). I chose multiple regression as it presented an optimal venue for predicting the influence of known values of multiple IVs (hiring agents' control, normative, and behavioral beliefs) upon an unknown value of the DV (hiring agents' selection of qualified autistic candidates). I chose a mixed method approach to provide a deeper understanding and richer picture of the predictive value that the IVs (hiring agents' control, normative, and behavioral beliefs) have upon the DV (hiring agents' selection of qualified autistic candidates). I weighted the quantitative component to

increase reliability and generalizability. I possess over 35 years of personal and professional experience and study in business administration, management, leadership, and human resource (HR) development. In my expertise, quantitative statistics are typically better accepted amongst the statistically driven organizations (employers) in the United States. Quantitative study best demonstrated inferential statistical findings useful to establish adequate public policy and potential interventions to the problem. I selected concurrent collection and analysis due to its ease of collection, reduced monetary expenditure, and to ensure that my study met the time-stable assumption of TPB.

Key Variables

The only other assumption of the TPB framework is that the variables be compatible. I present a careful analysis of each variable in Chapter 2 to increase reliability in variable compatibility and categorization into one of the three taxonomies (control, normative, and behavioral beliefs). The detailed variable analysis in Chapter 2 demonstrates the body of knowledge leading to the inclusion of aspects of the variables. Each of the IVs (control, normative, and behavioral beliefs) in this study is composed of 15 aspects of that specific taxonomy (discussed in depth in Chapter 2). I built flexibility into the survey to consider potential additional components revealed during qualitative responses. All taxonomies were related to employment of autistics from a lens of potential hiring agents' beliefs.

Methodology

Hiring agents were the targeted participants in this study. Hiring agents consisted of recruiters, HR agents, and any other recruitment, hiring or placement personnel with

any degree of responsibility for filling open positions in organizations. I focused participant recruitment throughout the contiguous United States; thus, obtaining an adequate representative probability sample. I aimed my selection of hiring agents at collecting data only from those individuals responsible for various aspects of hiring.

Participant pool. Hiring agents serving medium-sized organizations (employing 50 - 249) presented the widest generalizability due to population across the nation, potential national diversity, and likelihood to provide the broadest range of insight. There is a vast difference in United States studies regarding how many employees constitute a medium-sized business. However, international sources classify medium-sized organizations as employing 50 to 249 employees (Verheugen, 2005). The ADA and, subsequently the Equal Employment Opportunity Commission (EEOC), regulate all employers and labor management institutions, including local and state governments, employing 15 or more employees (EEOC, 2008). My study targeted hiring agents serving medium-sized organizations. Small businesses may be more numerous and diverse; however, in my experience a sizeable percentage are family owned and operated. In my experience, such intimate personal environments are less likely to have dedicated hiring professionals. Thus, the owner, operator, or manager would have the equivalent experience and insight as a hiring agent for a small business. I did not solicit small businesses (employees < 49) and large organizations (250 ≤ employees). However, I also did not exclude responses from such in my data analysis.

I carefully considered geographical parameters. The inclusion of the contiguous United States was threefold: (a) associated statistical data, (b) generalizability, and (c)

solicitation costs. The CDC collected estimates of autism prevalence throughout the contiguous United States as substantiated by CDC autism and DD monitoring (ADDM) sites (CDC, 2014). Zablotsky et al. (2015) used the National Health Interview Survey (NHIS) to collect data from a representative sample of the United States. Data collection sites (ADDM and NHIS) could be associated with Woodard's (2011, 2013, 2017) map of the American Nations today (presented and discussed in Chapter 2). Thus, geographic triangulation increased generalizability. The costs of soliciting the participant pool were the same whether limited to one state or extended to include the contiguous United States.

Sample size. I employed a confidence level (1 - α) of 95%, a margin of error (*E*) of 5%, and internal consistency (α) of .05 to calculate the desired sample size for optimal strength in reliability and generalization. I used a statistical power (1 - β) of .80 and a small effect size (*ES*) of .20. After receiving approval to commence the study from the Institutional Review Board (IRB), I solicited a non-stratified, single-stage, randomly generated list of the emails of medium-sized (50 – 249 employees) organizations from Dunn and Bradstreet. The list of businesses met the specified employee size and the geographical area targeted. I requested that the list include valid current email addresses.

Rao and Rao (2009) reported that the sample size needed does not differ much with populations over 20,000. The number of medium-sized organizations in the United States exceeded 300k (U.S. Census Bureau [USCB], 2011). Since the population of this study exceeded 20,000; it was not necessary to identify an exact population base. IE: Using a population (*N*) of 20,000 or 2,000,000 indicated a needed sample size (*n*) of 377

or 385 respectively. Thus, the exact number of the population was not necessary to calculate the needed sample size, since I knew that the population exceeded 20,000. I aimed for a sample size of 384 which I calculated based on ±1.96*z* (≈ 2 *SD*) and .95 1 - α on a normal distribution. Dunn & Bradstreet (DeJesus, 2015) reported 443,000 (*N*) medium-sized (employing 50 to 249) organizations in the contiguous United States as of the end of 2014. I employed a conservative .50 population variance (σ^2) and $E = .05$. I used Cochran's (1963) equation for determining a representative sample size (see Equation 1). Additionally, I deduced the same needed sample size of 384 using Raosoft's (Rao & Rao, 2009) sample size calculator (www.raosoft.com). To achieve the calculated sample size of 384, I requested 1,500 records from Dunn & Bradstreet allowing for an anticipated response rate of 26%. In Chapter 3, I present a more in-depth discussion of my study sample.

$$n = \frac{z^2\sigma^2 q}{e^2} = \frac{(1.96^2)(.5)(1-.5)}{(.05)^2} = 384 \quad (1)$$

I sent out email solicitations to each of the organizations on the list proved by Dunn & Bradstreet. I sent out email solicitations three times, twice through Qualtrics (2015), the survey host that I used for the HASSQAC (Mai, 2015) platform, and once through my Walden.edu email. Additionally, I created a website and a social media (Facebook) page dedicated to the study. On average, I posted three times per week to social media targeting my desired participant pool.

I uploaded and customized the HASSQAC (Mai, 2015) tool into the Qualtrics (2015) Internet survey hosting platform. I collected both quantitative and qualitative data concurrently. I incorporated insights from my extensive literature review to create the

HASSQAC. During my review of the existing literature, I found two survey tools with excellent reliability used to gather data like the data I intended to gather using the HASSQAC tool. I contacted Copeland, Chan, Bezyak, and Fraser (2010) and Kaye, Jans, and Jones (2011) regarding using aspects of each of their survey tools in the creation of the HASSQAC. Both agreed in writing to allow me to use and modify their survey tools to fit the needs of my study (see Appendices B and C). I created the HASSQAC tool using Copeland et al.'s and Kaye et al.'s surveys; the variable analysis in Chapter 2, and feedback from a pool of 13 expert panelists (see Appendices D and E). I employed the expert feedback to fine-tune the HASSQAC tool that I used to collect the quantitative and qualitative data for my study (see Appendix A). I present a more detailed accounting of the creation of the HASSQAC and validity and reliability reporting of tools used in that creation in Chapter 3. I considered the HASSQAC optimal due to the unique two-fold nature of this study: (a) the collection of data from hiring agents and (b) data limited to hiring agents' beliefs regarding the employment of qualified autistic candidates specifically. An in-depth discussion of the HASSQAC tool is in Chapter 3, along with justification for the inclusion of each question.

I analyzed data using a multiple regression technique. Scholars often use multiple regression models to analyze predictive relationships among variables when there are multiple IVs and one DV. I chose this method to help me better understand the degree, or strength, to which each IV influences the DV, as well as how combinations and the whole of them influence the DV. Frequently, researchers use regression analysis to explore prediction and forecasting questions. I aimed this study at predicting the strength of the

IVs' (hiring agents' control, normative, or behavioral beliefs) influence on the DV (hiring agents' selection of qualified autistic candidates). Multiple regression helped me to analyze the nature of the relationship among hiring agents' beliefs (IVs) and their selection of qualified autistic candidates (DV).

Definitions

This section establishes a universal meaning throughout the study's continuation to ensure the clarity of ideas and terminology. The section provides elaboration or enlightenment to that end. Selected concepts and terminology for this study are

Advocate: One who supports or promotes the interests, well-being, or cause of another (Merriam-Webster, Inc., 2012, p. 19). Allies, such as Lesbian, Gay, Bisexual, Transgender, Transsexual, Queer, Questioning, or Intersexual; Global and Regional Asperger's Syndrome Partnership; and other advocacy groups would also fall under this classification.

Autistics: Deciding upon terminology to use referencing autistics and disabled individuals was a challenge. Many scholars oppose the medical model that disabled individuals are different from the rest of society, that they need to be 'fixed,' or are somehow broken (Carley, 2014; Kaye, 2014; Robertson, 2014; Wehmeyer, 2011). Autism is a neurological DD through the social model of disability (Robertson, 2014). The only way for society to move forward in resolving the tragic unemployment issues of disabled adults is to stop using the negative aspects of the medical model of disability (Wehmeyer, 2011; World Health Organization [WHO], 2001). WHO embraces a more social, strength-based model wherein disability is merely a state of functionality

(Wehmeyer, 2011). After literature review and direct communication with numerous professionals and autistics, the consensus as of the end of 2015 was that the term autistics was the most accepted terminology.

Capable: Possessing the physical or mental ability, traits, or efficiency to perform a task (Merriam-Webster, Inc., 2012).

Clinician: Someone qualified to practice medicine, psychiatry, or psychology (Merriam-Webster, Inc., 2012).

Disability: Inability to perform in a typical manner (Merriam-Webster, Inc., 2012).

Disability interpretive lens: My study approached disability from a disability interpretive lens (DIL). This viewpoint holds disability as a dimensional difference rather than a defect (Creswell, 2014). Given that disability studies alter identity, ideology, language, politics, and other assumptions (Siebers, 2008), it was essential that such scholarly literature convey the degree of positive social change worthy of its dedication. A DIL embraces the aspect of the social model of disability. A DIL rejects the idea that disability needs fixed or corrected. A DIL also recognizes the implications of the medical model of disability relevant to the unique contributions that a disabled individual can make to society.

Employee: A non-executive employee who works for another entity for compensation (Merriam-Webster, Inc., 2012).

Employer: An entity that compensates someone for work performed on their behalf (Merriam-Webster, Inc., 2012); thus, an employer is one who does the providing.

Hiring agents: In the context of employment, to hire is to select an individual(s) for employment. An agent is authorized to act on behalf of another entity (Merriam-Webster, Inc., 2012). Thus, a hiring agent is anyone with any degree of authority or responsibility to make any decision relating to the selection of a potential employee on behalf of an organization.

The medical model of disability: This is the primary viewpoint used within the United States (Värlander, 2012). The standpoint of the medical model of disability aims to medically correct the disabled individual due to a fundamental defect, break, or weakness in that individual (Värlander, 2012). The medical model of disability also acknowledges that the disability sets the individual apart from typical individuals, an aspect of the medical model that can hold positive connotations.

Organization: A structured group striving for an established goal(s). (Merriam-Webster, Inc., 2012).

Performance: Efficiency in performing a task (Merriam-Webster, Inc., 2012).

Productivity: Productivity refers to the rate at which individuals, teams, or organizations complete work as it is relevant to the ontology of the work (Merriam-Webster, Inc., 2012).

Qualified autistic candidate: While this phrase may seem self-explanatory, I felt elaboration was necessary. The inclusion of the word qualified is purposeful to convey appropriate functionality (discussed in-depth in Chapter 2), desires employment, and is capable of employment to the degree and in the capacity to which he or she is applying for employment. The word autistic explicitly defines his or her disabling and diagnosed

condition. I include the word candidate to express that he or she is an appropriate potential applicant for employment.

The social model of disability: Used primarily in the United Kingdom. The social model of disability is a perspective that views disability as social oppression rather than an impairment of the person. The primary problem found with this model is that it presents too passive an approach, often overlooking the unique attributes that disabled individuals can offer (Värlander, 2012). I found that many disabled individuals see their disabilities as a uniqueness that sets them apart from typical individuals; a uniqueness that can offer advantages in a competitive employment environment.

Socioeconomic: Socioeconomic involves both social and economic factors (Merriam-Webster, 2012). In my study, I often refer to socioeconomic when indicating the tandem interaction of both.

Supply-side, demand-side: In the context of labor (as related to employment) supply is a reference to unemployed candidates and demand is an inference of job openings (Klemmer & Lazaneo, 2011). Thus, supply-side indicates qualified unemployed candidates (autistics) and demand-side potential employers with job openings.

Taxpayers: Per Merriam-Webster (2012), a tax is a levy of resources billed by an authority for governmental purposes. A taxpayer is someone who pays that charge. In the United States, every working citizen is a taxpayer responsible for paying taxes on their income.

Vocational service provider: Merriam-Webster (2012) referred to vocational as learning a trade or skill to further career opportunity. Thus, a vocational service provider is one who provides that training.

Statistical Terms and Symbols

ANOVA = analysis of variance

α = alpha, alpha level, coefficient alpha, or Cronbach's α: Measure of internal consistency, significance level, the probability of a Type I error

1 - α = confidence level

β = standardized beta or beta level: The probability of a Type II error

1 - β = statistical power

B = unstandardized beta slope measure

SE B = standard error for unstandardized beta

Bartlett's test of sphericity = an analysis of variance test for homoscedasticity

Cattell's scree test = used to determine the number of factors to include in FA and PCA

CI = confidence interval; the range between endpoints of the estimate or results

Cook's Distance Value = used to identify outliers

Cramer's *V* = measure of the association between two nominal/categorical coefficients

df = degrees of freedom

DfBetas = measures impact of observation on a predictor

DfFit = measures influence of a point in a regression

DW = Durbin-Watson: Tests for autocorrelation in regression analysis residuals

e = desired level of precision often referred to as sampling error or correlated to *CI*

E = margin of error

ES = effect size

FA = factor analysis

F-statistic = linear fit of a regression model

F = Fisher's F ratio, F distribution: Often used in comparing statistical models

Fisher's Exact test = hypothesis deviation test of statistical significance used in small samples

H_0 = null hypothesis

H_A = alternate hypothesis

Kaiser-Guttman rule = PCA stopping rule based on the average value of eigenvalues

KMO = Kaiser-Meyer-Olkin: Adequacy test for data suitability to factor analysis

Mahalanobis distance value = a measure of distance between a point and associated distributions

N = Total or base population

n = number of population in a sample

η^2 = Strength of a relationship

σ = sigma: Population SD

σ^2 = population variance, the rate at which participants would respond a given way

PCA = principal components analysis

Pillai's Trace = statistical hypothesis test used in MANOVA

p = p-value: Probability value, the probability of success, the degree of evidence contradicting a null hypothesis

q = probability of failure (1 - p)

r = Pearson correlation: Measures multicollinearity of multiple items to multiple categories

R = multiple correlation

R^2 = a measure of association strength; multiple correlation squared

SD = standard deviation

SE = standard error

SS_M = model sum of squares

t = t-test statistic

Tolerance = collinearity test using R^2 value of a regressed predictor on other predictors

VIF = variance inflation factor: Measures degree of variance inflation; the reciprocal of tolerance

Wilcoxon Z = non-parametric comparison of two samples in hypothesis testing

Wilk's Lambda (Λ) = a measure of probability distribution in multivariate hypothesis testing

χ^2 = chi-square distribution

$\bar{X}$ = sample mean

z = z-score: Standard score, measure of SD ± the mean ($\pm 1.96z = \approx 2\ SD$)

Assumptions

I describe and logically explain most assumptions of this study in Chapter 2; however, there are several aspects critical to the meaningfulness of the research which bear presentation in this introduction. An assumption and a statistical assumption are two

different things. Statistical assumptions are requirements to various statistical tests; I discuss these in Chapter 3. A non-statistical assumption is an aspect of the research believed to be true but not demonstrable through the previous investigation; I discuss those here. Four fundamental assumptions were essential to this study. (a) Autistic candidates are qualified. (b) Autism prevelance data from ADDM (CDC, 2014; Christensen et al., 2016) and NHIS (Zablotsky et al., 2015) sites were inclusive. (c) Hiring agents are responsible for filling open positions. (d) Participants were honest and forthright in their responses.

Autistic Candidates are Qualified

While it was not my intention in this study to sample autistics, the degree to which they are qualified for an open position was a necessary assumption. Thus, it was appropriate to establish what constitutes an autistic candidate as being qualified to fill an open position. For this study, a qualified autistic candidate refers to

- His or her desire, ability, and skill sets needed for the open position;
- His or her ability to assess their qualifications against those of the open positions;
- His or her ability to secure transportation to and from the place of employment;
- His or her ability to communicate with the hiring agent; and
- His or her ability to request appropriate accommodations.

This assumption was necessary to my study as it was not feasible within the scope of the study design to assess candidates. My intention with this study was to determine

the degree of influence that hiring agents' beliefs have on their selection of qualified autistic candidates.

ADDM and NHIS Autism Prevalence Data

Most scholars and institutions estimate the prevalence of autism in eight-year-olds for reasons discussed in Chapter 2. I also discuss my extension of those estimates to pertain to adults in Chapter 2. This assumption pertains to the possibility that the ADDM (CDC, 2014; Christensen et al., 2016) and NHIS (Zablotsky et al., 2015) autism prevalence data from which I based my calculations in Chapter 2 did not include all autistics. The 2010 and 2012 CDC studies (ADDM) sampled eight-year-olds within specified geographical areas and the 2015 study (NHIS) sampled children age 3 – 17. There is a possibility that these studies overlooked, thus excluding, some children amongst the participant pools. Therefore, I assumed that participant prevalence in these three studies did represent at least a minimal estimate. However, there is a possibility of a more substantial population size than recorded by the ADDM and NHIS study populations. Higher populations would indicate a more significant percentage of the United States population with an ASD.

I used this assumption to produce a meaningful estimate of the minimum numbers of autistics in the United States. Establishing how many autistics there are in the United States demonstrated the significant population affected by ASDs. Determining the population percentage affected by ASDs also exhibited the potential socioeconomic changes that may impact the nation. Findings from this study could result in the

development of adequate public policy and interventions aimed at reducing the current high unemployment rates of autistics.

Hiring Agents' Responsibility for Filling Open Positions

The third assumption was that hiring agents are the primary professionals responsible for interviewing, screening, and selecting candidates for filling open employment positions. While this may seem like a given fact, it was a critical assumption within the design of my study. I found no studies explicitly demonstrating that hiring agents are, in fact, responsible for new employee selection. I have over 35 years of related personal and professional experience and education. I combined that expertise with shared experiences and inferences of countless others from broad backgrounds and professional levels. That combination of insights provided the basis for this assumption and why I targeted hiring agents specifically.

It is important to note that most prior studies on the topic of employing disabled adults solicited employers in general (discussed in Chapter 2). Most prior studies did not specifically target those responsible for hiring. Widespread understanding infers that obtaining a position is the first step to employment. To get a position, one must pass the interview, screening, and selection process. It was a critical aspect of my study design that the potential participant sample includes those with a degree of responsibility or authority for an aspect of hiring candidates.

Participants' Honesty

Because of the fear of potentially incriminating themselves or the organizations they represent relative to ADA and ADAAA prohibited discrimination, I believe that

hiring agents are often reluctant to participate in these kinds of studies. I assumed that participants would be honest in their responses; however, I took steps to strengthen the chances of that honesty. I phrased questions in a similar nature as Kaye et al. (2011) so that respondents felt less threatened in answering potentially sensitive questions. Thus, I believed that respondents would be franker with their answers. I discuss this line of survey questioning in-depth in Chapter 3. I also took measures to ensure the complete anonymity of participants to further support the assumption of honesty, as well as the participants' convenience when completing the HASSQAC (Mai, 2015).

Scope and Delimitations

Scope and delimitations refer to the focus of the study and the deliberate researcher-imposed limitations. In my study, I focused on control, normative, and behavioral beliefs influencing hiring agents' selection of qualified autistic candidates only. I did not focus on other potential influencing factors. I limited the target participant solicitation of my study to the contiguous United States. I took several steps (mentioned here and reported in detail in Chapter 3) to address internal and external validity.

Internal Validity

Internal threats pose a question as to the reliability of the results. Thus, I took steps to increase internal validity (procedures, analysis, and participant experience during the study time frame) of the research design. Triangulation is a process that uses multiple sources to cross-validate data. I used triangulation to increase internal validity that applied to both quantitative and qualitative aspects of my study design. My study design included triangulation of framework, theory, and methodology. Thus, I triangulated each

aspect (dual framework, multiple theories, and mixed methods), as well as all three elements together (discussed in detail in Chapter 3). The qualitative aspect provided a rich description that enhanced statistical findings of the quantitative aspect. I expand upon my role as a researcher and the steps I took to minimize bias in Chapter 3. I also report any adverse or discrepant results in Chapter 3. I quadruple-checked qualitative coding to reduce potential drift and ensure consistency (detailed in Chapter 3). I archived all data on an external hard drive and will maintain that external hard drive for at least five years, after which I will destroy it. Three categories of internal validity bear elaboration: participant threats, analysis, and procedures.

Participant threats. Since my mixed methods study was concurrent, with no separation between groups of participants, there was minimal potential for time-related events to present threats to validity. Once a participant began the HASSQAC (Mai, 2015), he or she typically finished it in one session due to its short completion time-expectancy (estimated to be 15 minutes). Participants had the option to save the HASSQAC and come back to it within one week. All open surveys automatically closed at the end of one week regardless of the stage of completion. Each participant was only able to begin the HASSQAC once. With these safeguards in place, there was minimal potential for maturation (change) in participants during the data collection process.

Since this was not an experimental study, there was no threat of unreliable regression toward an overall mean. Since sample selection was random and targeted only hiring agents serving a specific business size and geographical location, there was

minimal chance of predisposition toward an outcome. Some participants did not finish the study. I solicited a large enough participant pool to account for such instances.

Analysis. Since I spread the participant pool across the contiguous United States, there was a minimal likelihood of participants communicating with one another. Thus, there was minimal diffusion of data collection. Since there were no differences made between how I approached participants, the administration of the survey, nor compensation provided, there was no potential for skewed results due to resentfulness or rivalry.

Procedures. Each participant only took the HASSQAC (Mai, 2015) once. Thus, I eliminated the chance of tainted data due to prior knowledge of the HASSQAC questions. Since there was no pre- or post-test, there was no possibility for such to impact data.

External Validity

External threats are those which extend beyond the process of the study, such as uninvestigated populations, theories, frameworks, and other potential influencing factors. I took steps to help increase external validity. I analyzed external factors exhaustively to find the best framework, theories, and populations to increase validity, reliability, and generalizability of the findings of my study.

Framework and theories. I reviewed both theoretical and conceptual frameworks. I studied quantitative and qualitative designs to find the most suitable for addressing the topic and overarching research question. I considered and analyzed numerous theories to determine which offered the most appropriate lens through which to analyze the data. I reviewed every theory and design referenced throughout my literature

review. Even so, I am sure there are some theories that I overlooked; these might have been better for this study and not using such could present an unknown threat to external validity.

Populations. Many scholars researched the issue from the supply-side, and those researching the demand-side inquired from a different participant pool than I did. By targeting hiring agents only and relevant to qualified autistic candidates only, I increased the external validity of the research rather than decreased it. Extending participant solicitation to the contiguous United States also added to the external validity; albeit not soliciting Alaska or Hawaii could have affected external validity.

Generalizability. Generalizability can pose an external threat when the researcher infers beyond the elements present in the sample. Sample, setting, and time-bound characteristics all make up the generalizability of a study. I addressed sample and setting characteristics with the targeted solicitation of a random representative sample of hiring agents across the contiguous United States. I included both population and setting characteristics throughout the contiguous United States in the study sample; thus, increasing generalizability and minimizing the potential for incorrect inference.

Time-bound characteristics. All studies are time-bound, meaning they take place during a given period. Thus, no study is inferable into the past or future without replication throughout time. My study was time-bound. This time-bound nature presented a threat to external validity. However, I discuss the potential further study in Chapter 5.

Limitations

A limitation is typically an uncontrollable threat to validity. My quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression research contained some limitations. Internal, external, construct, and confounding (validity), as well as participant and researcher bias, can reduce overall study validity through inherent weaknesses. I addressed such potential validity and bias weaknesses.

Validity Weaknesses

Weaknesses in design validity could extend from the framework, theory, methodology, data collection, instrumentation, analysis techniques, and more. Some weaknesses can become advantages when prepared for and addressed as part of the design. While I discuss each piece of my study's design in detail in Chapter 3, including limitations and weaknesses, I present some essential elements here.

Internal. I used a 7-point Likert scale (1 - 7) to measure degrees, or depth, of beliefs. This measurement instrument presented a potential internal weakness due to limiting my measurement of the range of hiring agents' beliefs. Increasing that scale to nine or more might have strengthened the depth of the findings. However, such expansion could have also presented increased frustration for participants and caused increased discontinuation of the HASSQAC (Mai, 2015). The 7-point Likert scale seemed the best option for my study.

Attitudes of participants at the time of taking the HASSQAC (Mai, 2015) could have affected their responses. However, I targeted a large enough sample size to offset those occurrences. I delivered the HASSQAC in English only; therefore, language

barriers could have presented a limitation. Since I only targeted hiring agents serving organizations in the contiguous United States, limitation to only the English language presented minimal restriction. The customized HASSQAC instrument could have presented measurement limitations or confusing research indicators and concepts. For this reason, I asked a panel of 13 experts to provide enlightenment to potential development (further discussed in Chapter 3).

External. The static nature of my study was a significant weakness in that I measured responses at a single point in time and thereby lack any potential for future transferability. Beliefs are subject to change; therefore, measurement on a static basis did present an apparent weakness. Another consideration is that I solicited HASSQAC (Mai, 2015) participation via email and social media and administered the survey online. Thus, there were both advantages and weaknesses. This type of data collection was useful due to the ability to target a participant pool across the entire contiguous United States. It allowed me to control the line of questioning and allowed participants to respond at their convenience. Limitations included indirect communication, thus increasing the likelihood of misunderstanding the questions or incomplete or inarticulate answers.

Construct. The confidential and anonymous nature of my study prevented any follow-up to participant responses. The conceptual aspect (multiple theories strengthening TPB) of my study, in conjunction with the customized HASSQAC (Mai, 2015) tool, may inhibit findings from acceptance by some scholars. I felt that, by giving proper attention to validity and reliability, these aspects could lead to new techniques and tools within the scientific community. I expected the unique design in conjunction with

the multiple regression to pose a challenge to conducting my study due to complexity; however, I feel I successfully overcame that challenge.

Confounder variables. Some scholars may see control mechanisms like law and organizational policy as confounding variables; I viewed those as control beliefs. Some scholars may see past experiences as confounding variables; I saw them as normative beliefs. There could be a plethora of confounding variables. I provide greater detail in Chapter 2 explaining such potential variables as control, normative, or behavioral beliefs. In this study, therefore, I included them as IVs.

Bias Weaknesses

Bias weaknesses do not just relate to the researcher but may also relate to the participants. Participants' belief in socially accepted answers or their beliefs in requirements of the law, rather than honest reflection, could influence their responses. Fear of discovery discriminating against autistics could drive participant responses. For these reasons, I discuss the creation of the HASSQAC (Mai, 2015) questions in detail in Chapter 3. I also address my own potential bias as the researcher.

Researcher bias. Due to the personal nature of face-to-face interviews, I did not conduct my study in person; instead, I used a web-based platform with email and social media solicitation to significantly minimize any potential researcher influence upon participants. While I am an advocate for autistics in the workplace, I did not allow this bias to influence my interpretation of findings. I have a 21-year-old autistic son. I did not allow my compassion for my son to influence my evaluation of the results. I remained neutral in all regard using neutrality methods such as bracketing and triangulation. Due to

my experience in the field and with my son, I have many professional and personal contacts that could have presented opportunities to influence me. I kept in mind that I am searching for unknown answers, despite any conjecture that may have been present. I had no intention to find a pre-determined answer. I kept in mind that the best way to help autistics was to do my best to find the most reliable answers to the high autistic unemployment phenomenon. Such unbiased research provided increased scientific knowledge that could lead to enhanced public policy relative to autistics and employment. In these ways, I significantly minimized my bias as the researcher.

Significance

My findings could have significant implications for (a) potential public policy; (b) autistics, their advocates, clinicians, and vocational service providers; (c) all types of organizations, including employers and hiring specialists; and (d) society and taxpayers. The high unemployment rate of autistics is a clear indication of needed public policy related to the phenomenon. Insight into why autistics face such high (83%) unemployment rates could significantly aid in identifying and developing policies and interventions. Such policies or interventions may help qualified autistics succeed in the interview process and become gainfully employed in associated professional, career positions. Numerous researchers noted the importance of employment in the health and QOL of autistics (Ali et al., 2011; Chiu et al., 2015; Hendricks, 2010; Krieger et al., 2012; Stankova & Trajkovski, 2010; Taylor & Seltzer, 2011; Wehman et al., 2016). It is vital for society to increase its comprehension of autistics for autistics to gain competitive employment. A critical aspect of increasing such knowledge and understanding must

begin with potential employers' hiring agents. Only through the competitive employment of autistics, will society begin to comprehend better the decisive significance related to that employment, as well as potential tax-related benefits. To take the first step in ascertaining components of needed public policy related to autistics and employment, expanded knowledge of the phenomenon must occur. With this study, I furthered that understanding.

Expanded Knowledge and Understanding

From legal to performance, increased comprehension of autistics could significantly benefit employers and society. Expanded knowledge could help organizations identify potential internal problems that are preventing them from engaging in equal opportunity, fair practice, and nondiscriminatory hiring procedures thereby removing some of the barriers preventing the hiring of autistics. All walks of society could attain an expanded understanding of the significant benefits that qualified autistics can offer. Such benefits include skill, ability, expertise, diverse creativity, innovation, reliability, dependability, integrity, and brutal honesty (AANE, 2013; Hendricks, 2010; Shore, 2013; Stankova & Trajkovski, 2010; Stuckey, 2016). Each of these benefits could result in improved organizational, economic, performance, and productivity (further discussed in Chapter 2). Such expanded comprehension could spread those memes throughout society. Memes are mind viruses that evolve and spread affecting the VABEs of others (Brodie, 2000). Such increased understanding and expanded knowledge related to competitive employment for autistics are essential in establishing appropriate public policy leading to significant societal benefits.

Public Policy and Practice

My findings could lead to improved public policies relative to employment for autistics and socioeconomic factors revolving around such. From taxes to law and social service programs, all of which stand to benefit, United States' public policies are an integral component of life in this country. The competitive employment of autistics could alleviate some of the tax burdens of United States' citizens. Autistics may not be as reliant on social services to provide income and medical services (Cimera, 1996 - 2016; CSAVR, 2011; Howlin et al., 2005; Standifer, 2012). Society could realize significant socioeconomic benefits, which could relieve the direct costs of those social service programs, thereby alleviating many budgetary needs of those programs. Societal socioeconomic benefits could also reduce overhead and administrative expenses associated with those services. When autistics earn a living through employment, they will be more likely to spend money, thereby increasing the economy. I discuss these concepts in detail in Chapter 2.

Positive Social Change

My study has the potential to influence public policy and drive positive social change throughout the United States. Potential improved health and QOL for autistics and society could occur. Significant benefits for employers and organizations could result in wide-spread socioeconomic relief. The nation's economy could improve through the competitive employment of autistics. My findings could lead to enlightening interventions. Such interventions might include training for autistics and their providers, increased education of personnel at all levels resulting in improved organizational

performance, and expanded public policy designed to help alleviate the high unemployment of autistics. These are just a few of the ways that my findings could lead to positive social change on a variety of levels.

Summary

Autistics face high unemployment conditions. Evaluation of current literature led me to theorize that the potential beliefs of hiring agents (IVs) influence their selection of qualified autistic candidates (DV). In Chapter 1, I presented a sound logic for researching this gap in public policy issues. I provided insight into the problem and the purpose of my quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression research. I explained the quantitative research questions and hypotheses and qualitative questions. I included limitations, scope, and delimitations; and the potential significance of the study. I highlighted the reasoning behind using TPB as the framework, foundational theory, and a contextual lens through which I conducted the study. I presented the sample, data collection and analysis methods, and relevant terminology. In Chapter 2, I present an in-depth literature review that provides a detailed discussion of the study's framework and theories, background pertinent to the study, and detailed discussion of existing knowledge. I focus on how those elements relate to the variables of the research.

Chapter 2: Literature Review

Unemployment of qualified autistic candidates remains a societal problem. Throughout this literature review, I found no clear indicators of the reasons why autistic unemployment is so high. Thus, there remains no evidence-based solution to this public concern. I discovered some research from the perspectives of autistics and a plethora of literature from the viewpoints of disabled adults in general (supply-side). However, very little, previous understanding existed about the perspectives of those responsible for hiring qualified autistic candidates, namely hiring agents (demand-side). In this quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression study, my purpose was to expand the scientific understanding of the relationship between the beliefs influencing hiring agents' (IVs) and their selection of qualified autistic candidates (DV).

One has only to lightly peruse current literature to ascertain the substantial number of the population (autistics) to which this study relates. Scholars repeatedly reported significantly high autistic unemployment levels. The benefits that competitive employment would present to autistics, as well as to the rest of society, are substantial. I conducted an in-depth review of the literature to ascertain why hiring agents do not select qualified autistic candidates. Abundant research speculated answers about legislative reasoning, employer fears, inconvenience, understanding, experience, and even attitudes. Most of the literature pertained to disabilities in general. Some of the literature was about ASDs but not qualified autistic candidates. I could not find any generalizable or unbiased scholarly or popular media literature sampling hiring agents specifically.

In Chapter 2, I review the framework and theories for my study that provide support in correlating sound logical reasoning substantiating why my findings help define solutions to this public problem. I then provide current statistics related to qualified autistic candidates, employment, and the substantial benefits of their engagement. Lastly, I delve into current literature addressing potential factors related to why hiring agents do not select qualified autistics candidates such as legislation, employers' fears and costs, inconvenience and understanding, experience, and attitudes.

To include the most current data, as well as synthesize original ideals of the construct, I performed a thorough literature review using several sources. I consulted SAGE Publications' databases for definition data, encyclopedic information, and current literature. Walden library's articles by topic and specific article databases included: Dictionaries, dissertations, encyclopedias and handbooks, Google Scholar, journals, statistics and data, tests and measures, and Thoreau: multiple databases (specifically EBSCO and eBooks). Subject areas within Walden library included business and management; health sciences; human services; policy, administration, and security; psychology; and social work. Search parameters included *theoretical* and *conceptual framework; theory of planned behavior, ambivalence amplification theory, elaboration likelihood model, Pratkanis' altercasting theory, Fay's critical theory,* and *expectancy-value theory*. I also queried *case study; affective reactions subscale and disability questionnaire; social desirability; indirect questioning; Cronbach's alpha; multiple* and *logistic regression.* I used various boolean combinations of these search parameters. Additionally, I added criteria such as *employer, attitudes, opinions, behaviors,*

understanding, knowledge, experience, and *education*. I also used various deviations such as *autism, autism spectrum disorder, ASD, Asperger syndrome, disability, discrimination, workforce, ADA, American Disabilities Act, Combating Autism Act, Amendments*; and various others as continued literature review revealed. I used numerous citations to search directly for works referenced in the various publications. I searched for authors' names to uncover additional works in related subject areas. I initially conducted searches for research conducted within the five years (2010 - 2015) preceding the commencement of this study. However, as citations or lack of literature directed, I expanded my searches to find older but still relevant data. As time progressed, I kept abreast of new literature. Thus, I maintained my review of current literature through my final submission of the study in 2017.

Study Framework and Theory

I analyzed many frameworks employed in older literature that made sense and added significant support to the reasoning behind findings. I found that the newer research, however, began to employ more current theory. Ajzen's (1985) TPB was the dominant theory most applicable to my study. Some other theories meshed well in unison with TPB thereby providing additional support and theoretical triangulation. Ajzen's TPB includes three concepts of belief: behavioral, normative, and control. To triangulate TPB, I included AAT and ELM regarding behavioral beliefs; PAT and FCT relating to normative beliefs; and EVT respective to control beliefs (see Figure 1). My empirical research included a crystallized framework containing a multidimensionality that suited the combined design.

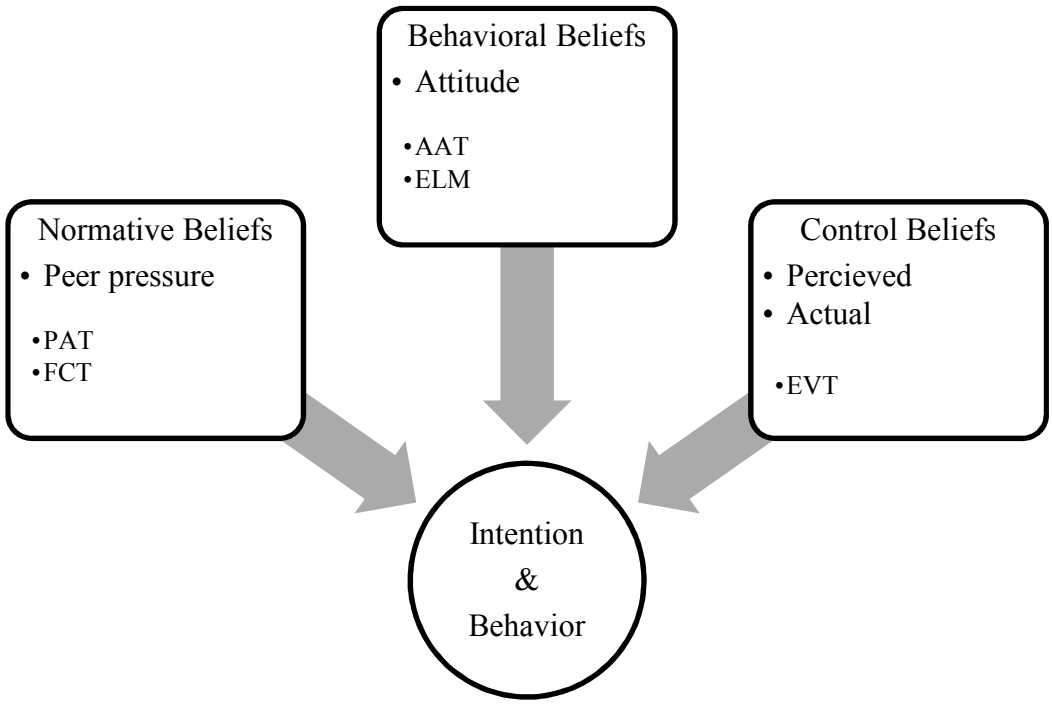

Figure 1. TPB and triangulating theories. Basic structure of TPB adapted from "Theory of planned behavior" by Ajzen, I. (2004). In N. B. Anderson, *Encyclopedia of Health and Behavior* (pp. 709-712). Thousand Oaks, CA: SAGE Publications, Inc. doi:10.4135/9781412952576.n208

Framework: Theoretical and Conceptual

My mixed methods study combined a theoretical and conceptual framework. Solid theoretical foundations support a theoretical framework, provide structure for a study, and test theory in new environments (Creswell, 2009, 2013, 2014; Frankfort-Nachmias & Nachmias, 2008; Settles, 2014). These same scholars explained that a conceptual framework applies when one does not know much about the phenomena in question or uses multiple theories to understand that phenomena. My study fits both definitions. Multiple theoretical foundations supported this study and significantly little understanding existed about the phenomenon. Synthesis and perspectives drawn from multiple theoretical sources cause a framework to be conceptual rather than merely

theoretical (Imenda, 2014); thus, I considered this framework conceptual combined with a theoretical support structure. It is appropriate to use a conceptual framework in tandem with a theoretical framework when there is a need to include multiple theories to explore a problem (Settles, 2014). A theory provides direction for research (Imenda, 2014). I used TPB as the theoretical framework for this study, conceptually supported by triangulation using AAT and ELM; PAT and FCT; and EVT (see Figure 1). I tested this framework in an environment that asked what beliefs influence hiring agents' selection of qualified autistic candidates.

Theory of Planned Behavior

From social behaviors to decision-making, to prediction, and relative to public policy, stewardship, education, and more, countless scholars have used TPB as a solid foundational theory. Introduced by Ajzen (1985), compatibility is the cornerstone of TPB in explaining behavior. The theory has become "one of the most frequently cited and influential models for prediction of human social behavior" (Ajzen, 2011, p. 1113). Per Ajzen (1985, 2011), three basic types of belief drive social behavior: control, normative, and behavioral (see Figure 1). Control beliefs relate to those regulatory factors that aid or inhibit behavior (perceived controlling factors including self-efficacy). Believed expectations of others (memes) drive normative beliefs. Behavioral beliefs center on the belief in an expected outcome driven by personal VABEs. These three variables (behavioral, normative, and control beliefs) drive the intention to behave, making the prediction of that behavior possible based on the strength of these primary factors (Ajzen, 2011; Welbourne, 2007). Other variables influence underlying beliefs indirectly. Two

conditions must be present to apply TPB: All three variables and intention must be (a) compatible and (b) remain stable over time (Ajzen, 2004). In other words, they must not only be harmonious with one another, but they also must be congruent in action, direction, context, and time. Violations of these conditions can negatively affect validity when using TPB.

Some critics of TPB noted that attitudes should include expectations of behavior, both effective and evaluative reactions, and that social pressure should include descriptive norms. Several scholars debated that the three variable classifications could interact in an unbalanced relation to each other thereby influencing the predictability of behavior (Aarts & Dijksterhuis, 2000; Bargh, 1989; Bargh & Chartrand, 1999; Brandstätter, Lengfelder, & Gollwitzer, 2001; Conner & Armitage, 1998; Greenwald & Banaji, 1995; Uhlmann & Swanson, 2004; Wegner, 2002; Wegner & Wheatley, 1999). These scholars felt that additional variables should factor into the equation such as desire, need, effect, regret, morality, and past action. They also noted that actions such as repeated performance, or other reasoned modes of operation, may influence the reliability of TPB. Sniehotta, Presseau, and Araújo-Soare (2014) posited that TPB was no longer a viable tool for predicting behavior and should be retired. However, Ajzen (2015) pointed out that Sniehotta et al.'s findings were invalid since the researchers exhibited an inadequate understanding of TPB relative to psychological research and were, thus, misguided. Considering these criticisms, a specific discussion related to the reliability and validity of TPB was in order.

Addressing questions of TPB reliability and validity. Reliability refers to the extent to which repeated use of the theory (or instrument) produces the same results and the quality of those results. Even well-designed attitudinal measures of behavior rarely present reliabilities (typically measured by Cronbach's α) over .80 (Ajzen, 2011). According to Welbourne (2007), the best expectations from correlations are $\alpha = .60$. These reliability measures indicated that an acceptable reliability correlation for my study would be from $\alpha = .50$ to .60; and that an optimal reliability could be close to $\alpha = .80$. Ajzen listed several study results by other scholars wherein their correlations ranged from $\alpha = .40$ to .67. Ajzen reported that temporal distance between measurements or participants' lack of ability to control actions typically causes results at the lower end. Since my study was not longitudinal, the temporal distance was not an issue, nor was participants' ability to control actions due to this study's non-experimental nature. All measures of this study were relative to hiring agents' behavioral, normative, and control beliefs regarding their selection of qualified autistic candidates. The relationship between the variables indicated that all three variable types were compatible. These factors addressed the two conditions of compatibility and time-sensitivity, meeting both conditions. This reasoning indicated that TPB was quite reliable for my purposes in this study.

Concern regarding the weight that the concepts of TPB place upon rationality is well-founded, and, for this study, acceptable. Ajzen (2011) developed TPB to help predict human decision-making and goal-directed self-regulating processes. Therefore, TPB inherently takes into consideration participants' reasoned actions more so than do

some other similar models (Ajzen, 2011). Sniehotta et al. (2014) expressed concern that TPB was too static a model to predict the future reliably. However, TPB does account for actions eliciting feedback which then impacts behavioral, normative, and control beliefs (Ajzen, 2015; Fishbein & Ajzen, 2010). Thus, TPB is fluid and rational. Based on over 35 years of professional experience, I understand hiring agents' likelihood of selecting a candidate for employment is a reasoned action.

Conner and Armitage (1998) argued that TPB does not account for the full impact that emotions can have on decision-making. However, Ajzen (2011) claimed that TPB naturally includes emotions and their effects since they factor into all three types of beliefs. I concurred with Ajzen as beliefs contribute to and derive from emotions and to segregate emotions from behavioral, normative, or control beliefs would be quite difficult. Ajzen further added that, in a study of anticipated emotional effect and its impact on TPB, "anticipated emotional effect made no independent contribution to the prediction of intention" (p. 1118). Kim, Njite, and Hancer (2013), however, augmented TPB with the added emotion of anticipated regret and found that the augmented model did lead to an additional correlation to statistically significant and predictable behavior ($p < .01$). Considering that TPB already accounts for emotion; it might be that Kim et al.'s study doubled up on the emotional beliefs aspect, thereby artificially causing the additional value. I did not feel that I needed to augment TPB as

- Hiring agents tend to place a higher value on rational decision-making (for which Ajzen designed TPB) and

- I used other well-established theories to further strengthen the validity of TPB for the theoretical framework of this study (see Figure 1).

While I could have added additional variables rather than theoretical triangulation to the TPB model, I felt that doing so would have produce redundant and artificial results. Fishbein and Ajzen (2010) added descriptive norms to the normative component. Several scholars have added multiple variables over the years for use in their studies, but Ajzen (2011) cautioned against doing so and recommended careful deliberation by criteria set out by Fishbein and Ajzen (2010, Chapter 10). The addition of past behavior to TPB in assorted studies has yielded inconsistent findings, and Ajzen (2011) was still investigating the matter. Considering this cautionary advice, I did not feel that adding additional variables to the TPB model was beneficial to my study. Numerous other scholars have used TPB successfully, including some in studies quite like my study.

Selected similar prior applications of TPB. In my study, I gathered data via the HASSQAC (Mai, 2015**)**, which may present some question as to the reliability of the TPB model. However, similar studies previously used TPB in a parallel fashion with high degrees of success. Hernandez et al. (2012) used TPB qualitatively to examine the behavioral intentions of employers to hire disabled adults. The similar qualitative nature of Hernandez et al.'s study to my study indicated that TPB could accommodate the minor qualitative aspect of my study. Ang et al. (2013) used a multi-item scale supported with TPB to explore factors influencing managerial intention to employ disabled adults controlling for social desirability. I did not control for social desirability as I considered it

a normative belief. I did employ a mixed methods multi-item scale supported by TPB; thus, my study had similarity to Ang et al.'s study.

Results gathered from survey tools typically provide a poor prediction of behavior when compared to actual behavior due to differing states of mind when taking a survey versus performing a behavior (Ajzen, 2011). Even so, the use of TPB has yielded reliable and valid results in studies comparable to my study. Lu et al. (2011) used an established survey tool in conjunction with TPB to predict managers' (n = 305) hiring intentions relative to the selection of older workers in Taiwan. Lu et al. accounted for 68% of the total variance (α = .83). Lu et al.'s high reliability using TPB conferred strength in the reliability of my study due to similarities in focus and design. Fraser et al. (2011) used a 7-point Likert scale survey tool and TPB to predict employers' (n = 92) hiring behaviors relative to hiring disabled adults in the Northwest United States within a six-month period after administering their survey. Fraser et al. accounted for 67% of the variance ($F(3, 73) = 48.80$, $p < .001$). After confirming that these data met the assumptions of regression analysis (i.e., normality, linearity, and homoscedasticity), Fraser et al. calculated means, standard deviations, and bivariate correlations. Fraser et al. applied regression analysis to test their hypotheses. I also employed a TPB driven regression analysis and performed some of the same tests. The high reliability in Fraser et al.'s study inferred confidence in the reliability of my model due to the significant similarities between the two studies.

The use of TPB in this type of research extends internationally. Ang, Ramayah, and Amin (2015) studied the efficacy of TPB in hiring decisions in Malaysia. Ang et al.

found that societal norms ($B = 0.53$, $p < .01$) and control behaviors ($B = 0.10$, $p < .01$) significantly affected attitudes towards hiring disabled workers and that attitudes were significantly related to the intent to hire ($B = 0.44$, $p < .01$). Similarly, Araten-Bergman (2016) employed TPB in a two-stage longitudinal mixed methods study to explore Israeli hiring managers' ($n = 250$) intentions to hire disabled employees. Araten-Bergman used a 7-point Likert scale for their regression analyses to test the relationship between intentions (as predicted through TPB) and the actual selection of disabled candidates. Araten-Bergman found a significant correlation in each of the three TPB categories with the strongest being control factors ($B = 0.477$, $t(241) = 4.82$, $p < .001$ [societal]; $B = 0.362$, $t(241) = 5.483$, $p < .001$ [behavioral]; $B = 0.170$, $t(241) = 4.82$, $p < .05$ [control]). Araten-Bergman concluded that TPB successfully predicted intentions to hire but failed to predict actual hiring. Nonetheless, Araten-Bergman reported that control behaviors such as organizational climate presented the most significant predictor of actual hiring ($B = 3.82$, $p < .01$). I selected these examples as they had a similar design as my study.

How TPB relates to my study. I focused on identifying beliefs influencing hiring agents' selection of qualified autistic candidates. I assumed that beliefs stem from a variety of behavioral, normative, and control beliefs. Through the TPB model, Ajzen (1985) considered all three of these variable types. Frequently used, TPB was a framework with a high degree of reliability, added theoretically triangulated to increase strength, and presented a valid application for my study. I tested the relationship between hiring agents' behavioral beliefs (VABEs), normative beliefs (memes), and control beliefs (perceived regulations) and their selection of qualified autistic candidates.

Behavioral beliefs. Personal VABEs compose an individual's behavioral beliefs; which can affect decision-making and action. In the case of a hiring agent tasked with selecting potential candidates for employment, established theories such as TPB, AAT, and ELM hold that his or her behavioral beliefs influence that decision. In my study, I aimed to test the relationship between hiring agents' behavioral beliefs and their selection of qualified autistic candidates using TPB triangulated and strengthened with AAT and ELM.

Altercasting amplification theory. I used AAT to provide a lens to help explain behaviors that are contradictory and confusing. IE: A hiring agent is saying he or she actively recruits autistics and at the same time does not hire them even when they are qualified for the open position. The theory originated and evolved because of research by Katz and colleagues (Katz, 1981; Katz & Glass, 1979; Katz, Hass, & Wackenhut, 1986; Katz, Wackenhut et al., 1986). Ambivalence typically refers to the concurrent feelings of compassion and hostility (Niemann, 2003). Many individuals feel a social compassion for autistics but often cannot bring themselves to welcome them into their environments. Thus, their opinions and experiences present behavioral conflict. People maintain ambivalent attitudes toward stigmatized groups and those feelings amplify because of interactions between non-stigmatized and stigmatized individuals (Katz, Hass, et al., 1986; Katz, Wackenhut, et al., 1986). The use of AAT strengthened Ajzen's (1985) TPB concept that behavioral beliefs affect intent and behavior. Events can lead to ambivalence toward a group and create a threat to that individual's self-esteem (Katz, Hass, et al., 1986; Katz, Wackenhut, et al., 1986). Both theories provided support to the concept that

hiring agents' VABEs toward autistics can affect the likelihood of their decision to hire them. I used this sound theoretical triangulation of TPB with AAT in conjunction with ELM to strengthen the assumption that behavioral beliefs affect intention and behavior.

Elaboration likelihood model. To elaborate is to convey more, or to embellish beyond the simple facts. Applying ELM, it follows that varying levels of involvement alter opinion (Petty & Cacioppo, 1979). The depth to which one is involved is typically indicative of their attitudes and opinions regarding the subject matter. Elaboration motivation, "the desire to engage in issue-relevant thinking" (O'Keefe, 2012, p. 139), occurs when the receiver's level of involvement is directly related to their interest in the issue. Elaboration ability, "the capability for issue-relevant thinking" (O'Keefe, 2012, p. 139), is directly relational to the receiver's degree of understanding of the issue. Since hiring agents' behavioral beliefs relate directly to their level of involvement, ELM provided strength to TPB concepts. Distractions or disruptions can significantly inhibit elaboration (Petty & Cacioppo, 1986); thereby, preventing absorption of a more complex idea. Weak arguments and contrary attitudinal suggestions can result in negative elaboration (O'Keefe, 2012). These opposing concepts of ELM would indicate that elaboration can have both positive and negative connotations depending on an individual's behavioral beliefs. The concepts of ELM also provide for the effects of others' interactions to add weight to the beliefs of the individual (O'Keefe, 2012). Petty and Cacioppo's ELM strengthened the TPB concept that behavioral beliefs affect intent and behavior. An inclusive normative element in ELM also allows the influence of others upon the first individual, in this case hiring agents.

Normative beliefs. Family, friends, coworkers, and society are all responsible for the formation of one's normative beliefs (societal pressure [memes]). Hiring agents must fill open positions with candidates that they feel will 'fit' with the organizational culture. Thus, they tend to place significant emphasis on perceived memes. I tested the relationship between hiring agents' normative beliefs and their selection of qualified autistic candidates using TPB triangulated and strengthened with PAT and FCT.

Pratkanis' altercasting theory. Society gives positive or negative significance to labels that influence actions accordingly. Pratkanis' (2000) related altercasting theory to the level of social acceptance and expectation of an individual's behaviors. If one desires societal acceptance, then he or she must behave accordingly (normative beliefs). Altercasting, or labeling, is an effective method to induce the desired course of action (Rhoads & Cialdini, 2002). Pratkanis and Uriel (2011) related labeling to recognized roles and their associated expectations. Altercasting serves a two-fold implication to the normative beliefs of hiring agents: The expectations of others toward their performance as hiring agents; and the opinions of others' acceptance regarding autistics.

Social pressures placed upon hiring agents are substantial. Societal pressure amplifies the potential for social sanction, and harmful exposure should social expectations go unfulfilled; thus, presenting a substantial burden (Pratkanis & Uriel, 2011). Others view hiring agents as experts in knowing whom to hire into what positions for the best interest of the organization and its employees. Pratkanis and Uriel demonstrated that, when an individual holds an expert role, he or she is more likely to succumb to peer pressure ($F(1, 76) = 11.98$, $p < .001$). The opinions of others, peer

pressure, are normative beliefs in TPB concepts. Thus, society influences hiring agents' normative beliefs and, therefore, their selection of qualified autistic candidates. Altercasting theory adds significant strength to the TPB concept of normative beliefs influencing intent and behavior in much the same manner as FCT.

Fay's critical theory. The emphasis that concepts of FCT place on society's ability to influence an individual's actions make it a logical addition to the theoretical crystallization strengthening TPB. Fay's (1987) critical theory revolves around society's sway on individual actions and the potential for social reform. If society inspires normative beliefs positively, then positive social change evolves. However, if those normative beliefs are negative, then the opposite occurs. Concepts of FCT indicate that the effects of social circumstance influence actions and support the notion that society, culture, and environment directly influence people's thoughts and actions (Porter, 2003). Through a lens of FCT, society's expectations directly influence the normative beliefs of hiring agents; much the same way as PAT. Concepts of FCT also support the idea that the past experiences of hiring agents, thus the effects of previous social circumstances, also influence their selection of qualified autistic candidates. Through FCT, Fay insists on society's influence and the possibility of reform (Oldenski, 2010). The expectations set by organizational leaders and the public policies mandated by society via governing bodies impose that reform. Critical theory adds an element of strength to both normative and control beliefs.

Control beliefs. Perceived and actual control make up an individual's control beliefs. Hiring agents' jobs require them to remain within the laws of the governing

bodies and the rules of the organizations for which they work. Thus, control beliefs are an integral influence upon their actions. I tested the relationship between hiring agents' control beliefs and their likelihood of selecting qualified autistic candidates using TPB triangulated and strengthened with EVT.

Expectancy value theory. Value correlates with the expectations and consequences of one's environment. The mandates of the job and the penalties of not adhering to such provide explicit expectations to hiring agents. The actual and perceived control that hiring agents have, and must to adhere to, comprise their control beliefs. Through the theoretical concepts of EVT, Fishbein (1963) and Fishbein and Ajzen (1974) hold that individuals will naturally orient themselves per their environments and given expectations. This theory is like PAT and FCT theories relative to the consequences of not adhering to expectations (perceived or actual). Thus, EVT added strength to TPB's concept that control beliefs influence intent and behavior.

Concepts of EVT infer that individuals naturally orient themselves to the world and according to the expectations, evaluations, and consequences of that world in which they live (Fishbein, 1963). Hiring agents 'live' in a world wherein their employers, the community, and the governing entities all impose control. These imposed controls can incur varying degrees of negative repercussions should hiring agents ignore those mandates. Concepts of EVT take into consideration personal motives and conscientiousness in determining the value given to decisions and subsequent actions (Magidson, Roberts, Collado-Rodriguez, & Lejuez, 2014). Three components comprise EVT: value (environmental mandates), content (beliefs), and expectancy (potential

consequences). These elements together equate to TPB's concept of control beliefs. Thus, EVT provides strength to that aspect of TPB and the inference that hiring agents' control beliefs influence their selection of qualified autistic candidates.

Theoretical application in answering the overarching research question: What beliefs influence hiring agents' selection of qualified autistic candidates?

Hiring agents' selection of a potential candidate relies on their behavioral, normative, and control beliefs as it is those three variables that predict their intent and behavior. Ajzen's (1985) TPB is a reliable framework supporting this assumption. Strengthened by the inclusion of AAT and ELM; PAT and FCT; and EVT, this multi-dimensional theoretical framework provided improved validity and reliability to this study. Hiring agents have many beliefs regarding the expectations of hiring employees. Thus, TPB was the ideal framework for exploring which of those beliefs might influence their selection of qualified autistic candidates. Government mandates expect autistics to receive equal employment opportunity and society expects them to become self-sufficient. Do hiring agents share those expectations? I sought to identify beliefs influencing hiring agents' selection of qualified autistic candidates. It followed that I devote a portion of the literature review to establishing the prevalence and functionality of autistics, their unemployment rate, and their desire and ability to work.

Statistics: ASD and Employment

A prodigious deal of speculation remains as to how many people in society are autistic. In a report released on March 28, 2014, reflecting data gathered in 2010 and 2012, 1 in 68 children, age eight years, living within 11 monitoring areas in the United

States were living with an ASD diagnosis (Baio, 2014; CDC, 2014; Christensen et al., 2016). Zablotsky et al. (2015) gathered data between the years of 2011 – 2014 via the NHIS, subsequently calculating 1 in 45 children, age 3 - 17 residing throughout the United States were living with ASD diagnoses (Autism Speaks, 2015;). The diagnoses were consistent with diagnosis per the *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, text revision (DSM-IV-TR; Baio, 2014; CDC, 2014; Christensen et al., 2016; Zablotsky et al., 2015). Autism and other developmental specturm disorders are typically diagnosed by age eight. All three studies included eight-year-old children. Thus, selecting age 8 to calculate population rates presented significant strength in the reliability of data.

The two differing prevalence estimates were results of studies conducted by the CDC (2014; Christensen et al., 2016) using different data collection tools. The CDC gathered the prevalence figures released in 2014 and 2016 via ADDM sites developed to track children diagnosed with ASDs in ongoing efforts to understand and predict this lifelong disorder. Whereas, the 2015 prevalence reports were based on the NHIS representative household study (Zablotsky et al., 2015). Many questions have arisen over the last few years regarding the increasing prevalence of ASDs. Progressively defined diagnoses continually report increased numbers of cases producing an increasingly accurate estimation of the total population diagnosed with an ASD (Autism Speaks, 2015; Baio, 2014; Christensen et al., 2016; Standifer, 2009, 2012; Zablotsky et al., 2015). Since more efficient and thorough methods of gathering information have evolved, the reliability of reporting has increased. The ADDM sites collected data through health and

educational facilities, then compiled and matched that data to provide an in-depth accounting and eliminate redundancies (Baio, 2014; Christensen et al., 2016). The ADDM sites drew data from both health and educational entities located across the United States thus deducing an increasingly accurate data sample. Zablotsky et al. interviewed a nationally representative household sample (n = 43,283) face-to-face using the NHIS to gather detailed health data about the respective families' noninstitutionalized children aged 3 - 17. Zablotsky et al. measured two-tailed significance tests at $p < .05$ with findings reflecting the prevalence of ASDs at 2.24% (1 in 45). Using these two most current prevalence estimates, I attempted to provide a reliable calculation of just how many members (both total and working-age 18 - 64) of the United States' population are autistic, as well as their level of functionality.

The 2015 NHIS employed a nationally representative sample of the entire United States noninstitutionalized population of children. Since this sample represented the United States population between 2011 – 2014, I used 2010 USCB data to provide conservative estimates reflecting slightly fewer than actual counts. The ADDM data collection occurred in the contiguous United States (CDC, 2014; Christensen et al., 2016). The 2014 and 2016 studies used carefully selected ADDM sites to gather data.

To confidently relate the 1 in 68 ratios reported by the CDC (2014) across the total contiguous United States' population, I also analyzed the contiguous United States. Using Woodard's (2011) map entitled *The American Nations Today*, I speculated generalizability to extend across most of the nation. Woodard won the 2012 investigative reporting George Polk Award (Speiser, 2015) and posited that North America comprises

11 distinctive cultures geographically identified due to inhabitants' natural self-sorting tendencies. Woodard (2017) pointed out that the last three United States elections (2008, 2012, and 2016) all voted consistent with the 1 of 11 various North American cultures wherein they reside. This data indicated that generalization to the United States associate via those 11 regions rather than by state.

Woodard's (2011, 2013, 2017) map shows the United States grouped by these regional cultures or groups of populations. This regional classification presented an opportunity to increase speculated generalizability based on ADDM sites located within those regions. The CDC selected ADDM sites due to their ability to conduct ongoing, records-based monitoring of ASDs (Baio, 2014; Christensen et al., 2016). In conjunction with Woodard's map, the geographic location of ADDM sites inferred a sizeable percentage of the United States' population (see Figure 2). When associating the ADDM sites to the American Nations map, the only contiguous United States' areas not included are tiny areas of the Left Coast, New France, and the Spanish Caribbean. Thus, consideration of these geographic distributions strengthened generalization assumptions.

Figure 2. Map of the American nations today with ADDM sites added. Adapted from "Prevalence of autism spectrum disorder among children aged 8 years - autism developmental disabilities monitoring network, 11 sites, United States, 2010" by Baio, J. (2014, March 28). Retrieved from http://www.cdc.gov; "*American nations: A history of the eleven rival regional cultures of North America*" by Woodard, C. (2011). New York, NY: Penguin Group; and "The American nations today" by Woodard, C. (2013, Fall). *Tufts Magazine*. Medford, MA. Retrieved from http://www.tufts.edu/. (Permission to reprint; Appendix F).

Given the generalizability to the entire population of the United States and the 2010 - 2014 data collection period of the most recent ASD prevalence counts (data released in 2014, 2015, and 2016), it naturally followed that I could employ the 2010 USCB data to estimate numbers of working age autistics. The population denominators for all three CDC reports were based on 2010 USCB Data (Baio, 2014; Christensen et al., 2016; Zablotsky, 2015); thus, there was an increasing percentage of base population count error the further from 2010 data was collected. Even so, the relationship between the timeline of the CDC reports and the 2010 USCB presented significant strength to

adult estimations of ASD. The 2010 USCB counted a population of just over 300 million (USCB, 2011). Subtracting those under age 18 and over age 64 reported by the 2010 USCB, I estimated the number of working-age adults at 200 million (rounded; see Figure 3). Since ASDs are a lifelong disability, it was possible to calculate the number of adults challenged with ASDs. Using the 1 in 68 figures reported by the CDC (2014; Christensen et al., 2016), and the total number of adults reported by the USCB, I conservatively estimated that 3 million (rounded) working-age United States' citizens had autism in 2010 (194,296,080 / 68 = 2,857,295). Going by the 1 in 45 figures reported by the NHIS, a liberal estimate of just over 4.3 million (rounded) working-age United States' citizens were autistic in 2010 (194,296,080 / 45 = 4,317,691). Thus, I used a mean of the two estimates as a reliable figure upon which to base further calculations (see Figure 3).

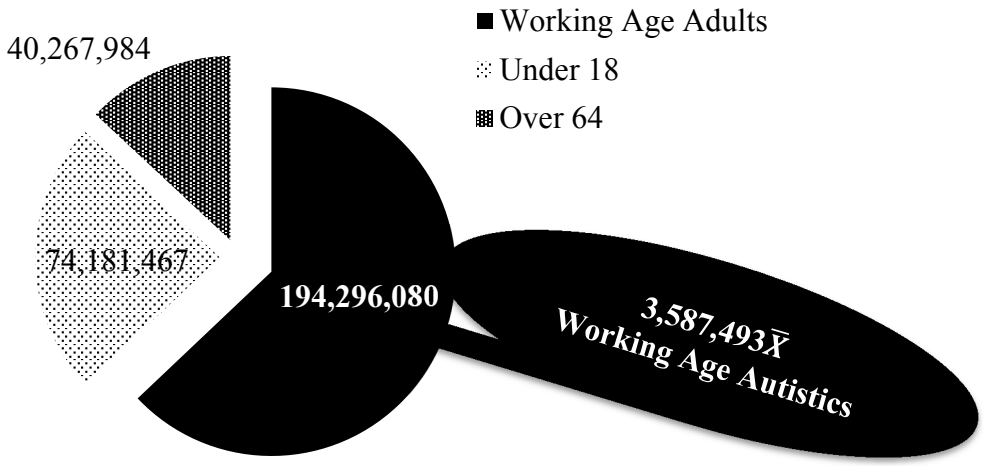

Figure 3. 2010 Total United States population, breaking out children, seniors, and adults. The number of working age autistics is the mean derivative of the two CDC estimated portion of autistic children in the U.S. (Baio, 2014; Christensen et al., 2016; Zablotsky et al., 2015). U.S. population adapted from "Census 2010: Interactive population map" by U.S. Census Bureau. (2011, August 17). Retrieved from http://www.census.gov

I did not aim my mixed methods study at the total autistic adult population; I sought to address unemployment relative to qualified working age autistic candidates. Therefore, I also determined that population. Since there are no exact accounts of qualified autistic candidates, I consulted existing literature to arrive at a reliable estimation (see Figure 4).

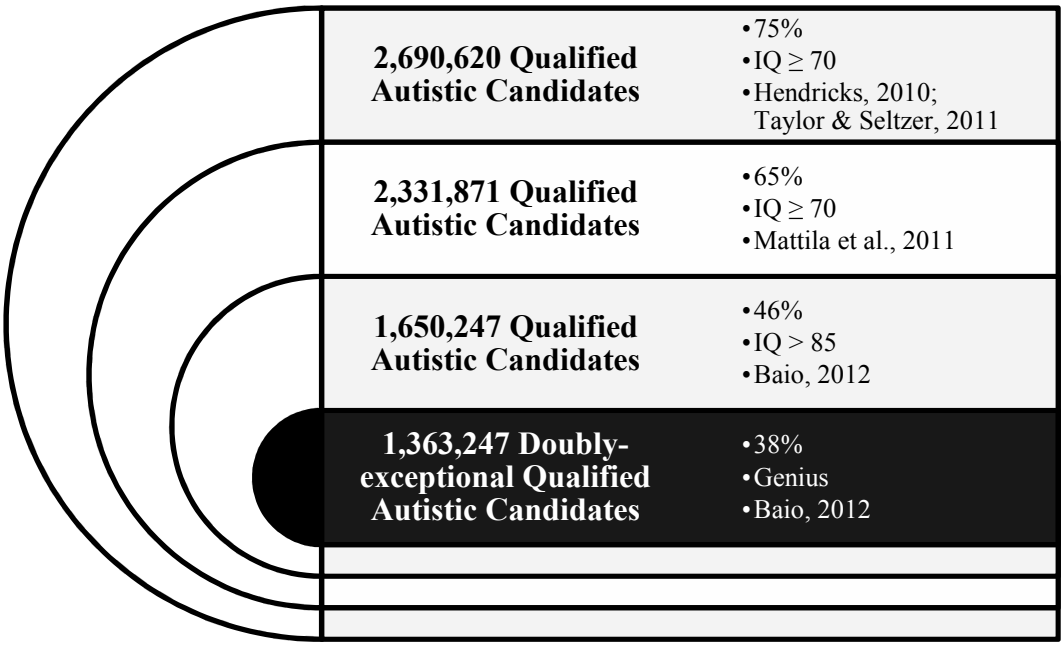

Figure 4. Estimated numbers of qualified autistic candidates in 2010 based on an $\bar{X}$ population of 3,587,493 adults challenged with ASDs. Adapted from "*Prevalence of Autism Spectrum Disorders - Autism and developmental disabilities monitoring network, 14 sites, United States, 2008*" by Baio, J. (2012). National Center on Birth Defects and Developmental Disabilities. Atlanta: CDC. Retrieved from http://www.cdc.gov; "Employment and adults with autism specturm disorders: challenges and strategies for success" by Hendricks, D. (2010). *Journal of Vocational Rehabilitation*, *32*, 125-134. doi:10.3233/JVR-2010-0502; "*Autism spectrum disorders according to DSM-IV-TR and comparison with DSM-5 draft criteria: an epidemiological study*" by Mattila, M.-L., Kielinen, M., Linna, S. L., Jussila, K., Ebeling, H., Bloiqu, R., . . . Moilanen, I. (2011). University and University Hospital of Oulu, Clinic of Child Psychiatry, Oulu, Finland. doi:10.1016/j.jaac.2011.04.001; and "Employment and post-secondary educational activities for young adults with autism spectrum disorders during the transition to adulthood" by Taylor, J., & Seltzer, M. (2011). *Journal of Autism & Developmental Disorders*, *41*, 566-574. doi:10.1007/s10803-010-1070-3

The conventional threshold indicating functionality capable of competitive employment is Full-Scale Intelligence Quotient, commonly referred to as merely IQ ≥ 70

(Balfe & Tantam, 2010). This threshold indicated that adults with IQs ≥ 70 are considered capable of competitive employment. Some scholars reported 75% of those diagnosed with an ASD to be autistic adults possessing career-level skill sets (Hendricks, 2010; Taylor & Seltzer, 2011). Using 75%, estimates of employable autistics numbered 2.7 million (rounded) in 2010 (see Figure 4). I broadened my search and found additional research on the topic.

Around the world, scholars have demonstrated that ASDs are considered a global concern and many sources demonstrated that its epidemiology presents equally worldwide (Fombonne, 2009; Malcolm-Smith, Hoogenhout, Ing, Thomas, & de Vries, 2013; Matson & LoVullo, 2009; Schendel et al., 2012). Thus, I considered scholarly peer-reviewed international sources as viable references for inclusion in this literature review. In a Finland study of 5,484 children aged eight diagnosed with an ASD, 65% were found to possess IQs > 70 (Mattila et al., 2011). Adjusting estimates to 65% would indicate 2.3 million qualified autistic candidates in 2010 (see Figure 4). In my study, I specifically addressed 'qualified' autistics with career-level skill sets; therefore, I estimated numbers of those candidates with considerably higher IQs. Forty-six percent of those challenged with ASDs have IQs ≥ 85, with 38% ranked in the genius levels (Baio, 2012). Dropping percentages to the lowest level, 38%, indicated that there were over 1.3 million doubly exceptional, genius level autistic adults in 2010 (see Figure 4). Overall, these data suggested nearly 2.7 million qualified autistic candidates (3,587,493 * .75 = 2,690,620) were quite capable of employment in 2010, with roughly half that number possessing genius level IQs. These individuals remain unemployed.

Unemployment and Underemployment

Determining the unemployment rate for qualified autistic candidates was not as simple as looking it up on the Internet. I found some population omissions when reviewing the data regarding unemployment for disabled adults on official United States' websites. The DOL (2017) reported employment of disabled adults at 18% in 2016 and that the unemployment rate for that same group was 9%. These figures seemed contradictory, so I dug deeper to understand better how the DOL arrived at its calculations. The DOL considered about 80% of disabled adults were "not in the labor force" (p. 3); therefore, they did not include them in the unemployment rates for disabled adults. These percentages seemed to present a somewhat skewed representation of the level of unemployment for disabled adults. Other sources relayed the unemployment rate for disabled adults between 70% and 90% (Autism Society of America [ASA], 2013; Autism Speaks, 2014; Balfe & Tantam, 2010; Beyer et al., 2010; Hendricks, 2010; Howlin et al., 2005; Standifer, 2012; Wehman, 2011). With so many reputable scholars reporting such different estimations, I decided to research the DOL's methodology for determining disability and labor force participation.

While the DOL tool is most likely highly reliable for general populace labor force participation and unemployment rates, the portion used to collect disability data did not include valid prompts for ASDs. The DOL collected data via the Current Population Survey (CPS) tool, jointly developed by the Bureau of Labor and Statistics (BLS) and the USCB (2012). The CPS sampled about 60,000 households each month during the data collection timeframe (DOL, 2014). The DOL's Office of Disability Employment Policy

(ODEP; DOL, 2014) sponsored the portion of the CPS used for data collection regarding disabled adults. With the ODEP sponsoring the disability portion of the CPS, the reliability of the instrument was a given.

The validity of the CPS tool presented a concern. The CPS had "about" a 90% confidence level (1 – α) that the estimates based on any one sample varied by no more than 1.6 *SE* (DOL, 2014, p. 5). Thus, statistical calculations and analyses were reliable. The DOL added disability inclusion questions to the CPS in 2008. Other validity and reliability data on the CPS dated back to 2006, before the 2008 inclusion of disability questions. Thus, I determined that the 2006 data were invalid and outdated for my research purposes. The DOL added five total questions about disabilities to the CPS in 2008. However, these questions did not seem to capture the entirety of potential disabilities; particularly those associated with ASDs. There was a question each about

- deafness;
- blindness;
- difficulty remembering, concentrating, or making decisions;
- walking or climbing stairs; and
- dressing, bathing, and doing mundane errands alone (DOL, 2014, p. 5).

None of these are issues typically faced by qualified autistic candidates. Thus, the DOL skipped over this group. Given this information, the validity of this tool and subsequent reports were highly questionable regarding reporting unemployment rates for qualified autistic candidates. Due to this questionable validity, I turned to other sources to establish unemployment rates for qualified autistic candidates. I found surprisingly few

current estimates of autistic unemployment rates amongst the literature. Thus, I included a compendium of the nine scholarly sources I did find to calculate a mean autistic unemployment rate (see Figure 5).

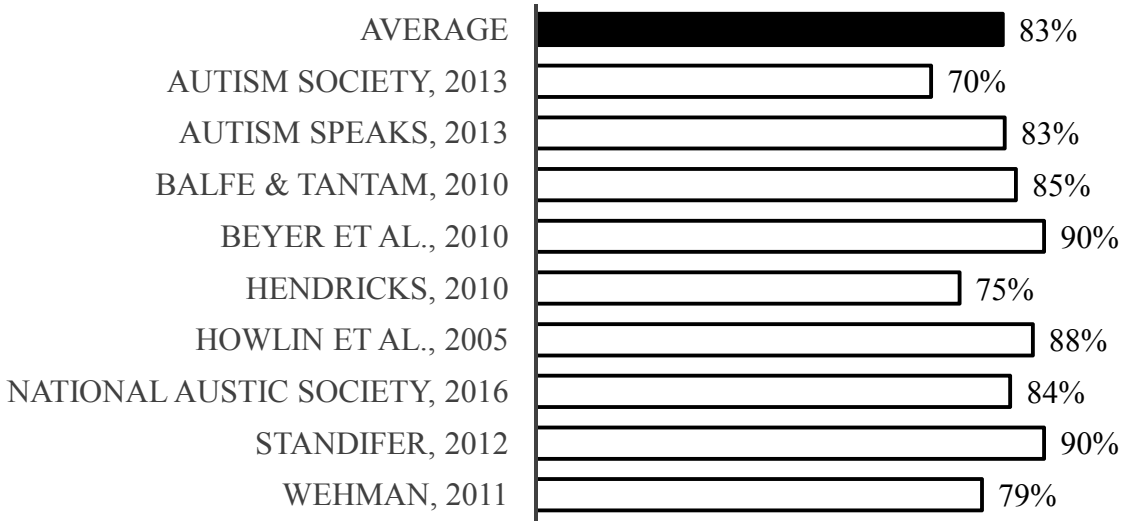

Figure 5. Estimated and averaged unemployment rates for disabled adults. Adapted from "The Autism Society's 2013 advocacy agenda" by Autism Society. (2013, February 7). Retrieved from http://www.autism-society.org; "What is autism?" by Autism Speaks. (2014, March 29). Retrieved from http://www.autismspeaks.org; "A descriptive social and health profile of a community sample of adults and adolescents with Asperger syndrome" by Balfe, M., & Tantam, D. (2010). *Bio Med Central Research Notes*, *3*, 300-306. doi:10.1186/1756-0500-3-; "Employment and adults with autism spectrum disorders: Challenges and strategies for success" by Hendricks, D. (2010). *Journal of Vocational Rehabilitation*, *32*, 125-134. doi:10.3233/JVR-2010-0502; "An 8 year follow-up of a specialist supported employment service for high-ability adults with autism or Asperger syndrome" by Howlin, P., Alcock, J., & Burkin, C. (2005). *Autism: The International Journal of Research & Practice*, *9*, 533-549. doi:10.1177/1362361305057871; "Autism facts and history" by the National Autistic Society (2016); "Fact sheet on autism employment" by Standifer, S. (2012). *National Conference on Autism & Employment.* St. Louis: Autism Works. Retrieved from http://dps.missouri.edu; and "Employment for persons with disabilities: Where are we now and where do we need to go?" by Wehman, P. H. (2011). *Journal of Vocational Rehabilitation*, *35*, 145-151. doi:10.3233/JVR-2011-0562

The ASA releases an annual agenda each year highlighting issues to address. Amongst the 2013 issues was the unemployment rate for individuals challenged with an ASD. Autism Speaks (2014, 2015) sponsors numerous studies and research on ASDs every year as does the National Autistic Society (2016), making them reliable sources of

data. Regardless of the nation, unemployment rates for qualified autistic candidates were significantly high and similar.

I assumed that both the United Kingdom's Health services and the United States' VR Departments provided reasonably accurate accountings. Balfe and Tantam's (2010) χ^2 study of 26 adults in the United Kingdom indicated statistical significance in their findings for unemployment relative to qualified autistic candidates ($p < .05$). Beyer et al. (2010) gleaned reliable data from the United Kingdom's 2009 Department of Health report. Howlin et al.'s (2005) comparative analysis gathered employment data via VR centers. Hendricks (2010) and Standifer (2012) presented findings within the 70% to 90% parameter. Wehman (2011), the Director of the Autism Center of Excellence dedicated to funding ASD research, reported the employment rate of those challenged with disabilities at 21%. Given that the average of all these findings is 83% (see Figure 5), I calculated that more than 2 million qualified working age autistic candidates (2,690,620 * .83 = 2,233,215), who are skilled, competent, and capable of working, remain unemployed.

It is not only issues of unemployment that plague qualified autistic candidates. It is also underemployment. Of disabled adults reported employed by the DOL, 34% only had part-time employment (DOL, 2014). Thus, ⅓ of the 17% (the employment rate of disabled adults reported by the BLS) of disabled adults had less than full-time employment. As demonstrated by the National Longitudinal Transition Study 2 (NLTS2), funded by the United States Department of Education, conducted in 2009; young adult autistics earned only 86% as much as young adults with other disabilities (Newman, Wagner, Cameto, & Knokey, 2009). Additionally, the NLTS2 findings showed that

autistic young adults worked less than 20 hours per week, an average of 36% lower than all young adults with disabilities. Autistic young adults employed full-time only comprised about ⅓ of all disabled young adults (Newman et al., 2009; Standifer, 2012).

Underemployment conditions for autistics were not only substantially below neurotypical individuals but also well below other disabled adults. Nord et al. (2016) reported that, of VR recipients recieving ID and DD services in 19 states, significantly fewer with ASDs (14%) obtained employment than those without ASDs (19%; χ^2 (1) = 13.93, N = 8969, p < .001). In another study, Newman et al. (2016) used the NLTS2 and reported lower pay and working hours for those with ASDs. The NLTS2 used telephone interviews, school surveys (completed by students, counselors, and teachers), youth assessments, and school transcripts to gather data from a random selection of approximately 12,000 students aged 13 – 16 (Newman et al., 2009). The NLTS2 employed a conceptual framework to review secondary data from national surveys. Those national surveys were pilot tested before United States' Office of Management and Budget approved their use (Newman, 2014). Such low pay and minimal working hours would not enable a qualified autistic candidate to be self-sufficient and not provide the opportunity to demonstrate that they are capable of successful careers. These issues of underemployment are not only present in the United States; like unemployment, they exist around the globe.

In North America, as well as Europe and other countries, researchers have found not only significantly high unemployment rates, but equally significant underemployment rates. "Underemployment of individuals with ASD is an international phenomenon"

(Taylor & Seltzer, 2011, p. 566). Policymakers all around the world are attempting to ascertain how to better assist disabled adults, and specifically autistics in some countries, to become more self-sufficient. In May 2012, Howlin and Moss (2012) reported that fewer than 20% of autistic adults in the United Kingdom can live at least semi-independently. In Australia, Scott et al. (2017) reported that employers pay autistic workers less than typical workers. The underemployment situation is just as discouraging in the United States. Competitively employed disabled young adults worked less than 30 hours per week and typically in menial labor positions even though their skill sets would easily qualify them for more challenging positions (Taylor & Seltzer, 2011). These low wages, menial jobs, and minimal hours do not generate enough income to sustain anyone. From 2002 to 2007, the average annual wage for disabled adults through supported employment was only $7,485.24 (Cimera, 2010). That annual wage was well below the 2007 United States' poverty line of $10,210 (Office of the Assistant Secretary for Planning and Evaluation, 2014). Cimera's findings were during a nationally stable economic period as the nation's employment rates, wages, hours worked, and cost efficiency were all commonly known to be relatively consistent.

With the unemployment rate of qualified autistic candidates established, I began researching factors attributing to that high unemployment rate. Calculation of the level of unemployment often includes labor participation rate. Labor participation infers actual involvement in the labor market. Thus, I considered the desire, ability, and well-being (benefits) of qualified autistic candidates as possible covariates (supply-side factors) in my study.

Desire, Ability, and Benefits of Employment

It is a collective understanding that, with gainful employment, an individual is healthier. He or she does not need as much assistance from the government. The overall economy improves due to the decreased government services provided and increased tax generation. Community economy experiences growth as individuals spend their earned money. Even so, if qualified autistic adults do not want to work, cannot identify appropriate job openings, and working is not beneficial for them; these potential covariates could affect hiring agents' selection of qualified autistic candidates. Thus, I reviewed the literature to ascertain qualified autistic candidates' desire, ability to find appropriate jobs, and potential benefits of employment.

Desire. Desire presents a prime motivator; therefore, I approached this potential covariate first. The first source consulted was the BLS. The BLS (DOL, 2014) published "the vast majority [of disabled adults] reported that they do not want a job" (p. 3). Many scholars posited otherwise. Anderson et al. (2015) found that 90% of the sample ($N = 31$) in their qualitative inquiry expected to pursue careers. Hendricks (2010) and Wehman (2011) argued that successful employment is the primary aspiration of autistic adults. Other scholars have reported such a desire as well. "I want a job" was the first goal listed on a disabled young adult's notepad at a presentation delivered by Wehmeyer (2011, p. 153). While Wehmeyer's report of disabled young adults came from personal experience, it was clear that both Hendricks and Wehman devoted many resources to exploring the desire of autistics to work. For example, Hendricks' extensive case study analysis used electronic and ancestral searches via the Education Resources Information Center and

PsycINFO from the years 2000 - 2009, along with a wide variety of manual searches. In a recent Norwegian logistic regression ($\alpha = .05$), using Kendal's tau to test for multicollinearity, ascertaining unemployed disabled persons' ($n = 536$) desire to work; Wik and Tøssebro (2014) reported only 3% (most of which were age 60 - 67) did not want to work (χ^2 (9) 172.7, $p < .001$, Cramer's $V = .243$). These diverse designs indicated an ardent desire within autistic candidates to work. I also wanted to check the strength of that desire to work compared to neurotypical individuals' desire to work. Should disabled individuals want to work less often than neurotypical individuals, then, despite reports of desire, it still presented a potential covariate.

Few studies seem to have compared disabled adults' desire to work to that of neurotypical individuals; however, I did find a couple of examples. An investigation using the 2006 General Social Survey, administered by the National Opinion Research Center at the University of Chicago, compared disabled adults to typical adults (Ali et al., 2011). Ali et al. explored whether disabled adults wanted to work. That study included an extensive sample and related surprising results. Ali et al. classified their sample of 2,273 disabled adults (from age 18 - 64; 19.2% weighted rate against typical adults) into one of four categories of impairment: visual, hearing, mobility, or mental. Ali et al. found 80% of the disabled adults wanted to work compared to 78% of typical adults. These findings presented strong indication that disabled adults desired to work more so than did typical adults. Ali et al.'s study did not categorize ASDs or DDs; thus, ASDs most likely fell in the ID category.

Since some older sources considered ASDs an IDs, I decided to look more closely at that category of disability in Ali et al.'s (2011) study. Of those with IDs, 90% desired work and ranked helping others and society as more important than other aspects of a job (Ali et al., 2011). The desire to work is very ardent. I also researched where that desire to work might rank on an autistic candidate's' priority list? Wehmeyer (2011) suggested that society often forgets to ask what is important to disabled individuals. Wehmeyer related that employment, spouse, children, owning a home, friends, and learning to drive, typically in that order of preference, were all considered essential to disabled persons. This order of importance raised questions as to whether other factors may inhibit that desire to work. Thus, I reviewed literature relative to environmental possibilities to further evaluate the potential covariate of desire as a factor inhibiting autistic candidates from applying.

I found some literature regarding various environmental factors about the employment of disabled adults. In a cluster analysis of 32 Mexican federal states, Agovino et al. (2014) collected data from the 2000 Mexican Census. Agovino et al. investigated the influence of education, wages, and societal and community growth on disabled adults' desire to work. In their correlation analysis, Agovino et al. indicated that environmental variables did not impact the decision of disabled adults to participate actively in the labor market. Agovino et al. reported that labor market participation was statistically significant regardless of whether related to

- Education ($p < .05$),
- not being paid to work ($p < .05$),

- being paid less than minimum wage ($p < .05$),
- community growth ($p < .05$), or
- growth of gross national product ($p < .05$).

In other words, disabled adults' desire to participate in the labor market did not change regardless of any of those factors. Agovino et al. (2014) also reported a negative correlation associated with being paid more than minimum wage ($p > .05$). Thus, when disabled adults received above minimum wage, they were more eager to participate in the labor market. Cimera (Burgess & Cimera, 2014; Cimera, 2000 – 2014b; Cimera & Burgess, 2011; Cimera, Burgess, & Bedesem, 2014; Cimera, Burgess, & Wiley, 2013; Cimera, Gonda, & Vaschak, 2015; Cimera & Oswald, 2009; Cimera & Rumrill, 2008; Kregal, Wehman, Revell, Hill, & Cimera, 2000; Inge, Cimera, Revell, Wehman, & Seward, 2015; Inge, Cimera, Rumrill, & Revell, 2016; Rusch & Cimera, 1996) conducted extensive research into economic and selected environmental factors related to employment for disabled individuals. Cimera's exhaustive research demonstrated a trend dating from 1996 to 2016 that showed, regardless of economic and environmental factors, disabled individuals still possessed strong desires to work. Therefore, the desire to work certainly exists. Thus, there was no need to control for the covariate of desire in this study. Next, I turned to the question of qualified autistic candidates' ability to seek work matching their qualifications to evaluate that potential covariate.

Ability. In my experience, if an application or resume does not reflect the skill sets necessary to perform a job, hiring agents will not consider that applicant. I conducted a literature review to determine if qualified autistic candidates were seeking appropriate

career opportunities and reflecting such on their applications and resumes. I found a hermeneutic, narrative study into factors influencing successful participation of qualified autistic candidates in the labor market (Krieger et al., 2012). Using the theory of interpretation, Krieger et al. found that qualified autistic candidates were fully capable of analyzing various workplaces and seeking those positions that matched their abilities. Krieger et al.'s three men and three women convenience sample included qualified autistic candidates who had participated in the labor market a minimum of 12 hours per week for a minimum of 18 previous consecutive months. Krieger et al. interviewed participants twice each and validated results using a four-step process and checked reliability with an eight-step process. Krieger et al.'s study contained some inherent weaknesses including a multi-language translation (from Swiss to German to English) presenting possible loss of participants' implied meaning. Other scholars reported similar findings. Hendricks (2010) and Taylor and Seltzer (2011) reported the substantial education, talent, and skill sets of qualified autistic candidates. Cimera found the same throughout two decades of research (Burgess & Cimera, 2014; Cimera, 2000 – 2014b; Cimera & Burgess, 2011; Cimera et al., 2014; Cimera et al., 2013; Cimera et al, 2015; Cimera & Oswald, 2009; Cimera & Rumrill, 2008; Kregal et al., 2000; Inge et al., 2015; Inge et al., 2016; Rusch & Cimera, 1996). Qualified autistic candidates want to work, have the skill sets to qualify them for competitive employment, and are capable of identifying jobs for which they are qualified. Thus, I eliminated the ability to find appropriate job openings as a potential covariate. The last supply-side covariate to investigage was beneficence to the autistic.

Beneficence. I found multiple examples of the benefits of employment to autistics. A plethora of literature enabled the evaluation of beneficence as a potential covariate. Several scholars pointed out numerous reasons for autistics to be employed (Ali et al., 2011; Beyer, 2016; Chan & Rumrill, 2016; Chiu et al., 2015; Hendricks, 2010; Katz et al., 2015; Krieger et al., 2012; Parsons, 2015; Stankova & Trajkovski, 2010; Taylor & Seltzer, 2011; Wehman, 2011; Wehman et al., 2016)

- Autistics should have the same rights and entitlements as the rest of society.
- Employment enables the ability to earn wages and support themselves.
- Employment enables the ability to afford to be able to pursue interests.
- Employment promotes personal dignity and improves the QOL.
- Employment improves overall health.
- Employment improves cognitive performance.
- Employment results in less reliance on government support.
- Employment increases tax contribution, rather than decreasing it.
- Employment productivity supports society and keeps it moving.
- Employment improves societal resource utilization.
- Costs of health care would go down as comorbid disorders decrease due to improved QOL.

Health benefits. The physical, social, emotional, and mental health benefits are countless. Employment is an important part of developing one's identity (Chiu et al., 2015; Krieger et al., 2012). In their MANOVA computations (Wilk's $\Lambda = .61$, $F(4.306) = 21.24$, $p < .001$, $\eta^2 = .28$), Chiu et al. reported that employment is significantly related to

an individual's overall health. In a repeated measures analysis, Katz et al. (2015) found that participants' (n = 26) overall QOL increased greater than 50% with competitive employment and their feeling of independence improved accordingly. Common acceptance is that, as an individual's self-efficacy increases, so does his or her QOL. Beyer et al. (2010) investigated the QOL for a purposeful sample of adults with IDs. Beyer et al. collected data via interviews conducted using the Adaptive Behavior Scale and applying comprehensive QOL-A (adult) and comprehensive QOL-I (ID) scales to measure QOL. A between-groups comparison of results allowed Beyer et al. to measure QOL in both typical adults and adults with IDs (Beyer et al. did not define inclusion of autistics). Findings reflected statistically significant correlations between participants' health and emotional well-being and their employment ($p < .05$), demonstrating that supported employment was superior to day services or shelters (Beyer et al., 2010). Beyer et al.'s study was limited to comparisons between supported employment, day services, and shelters. In 2016, Beyer continued research through exploring the impact of supported work experience on young adults with IDs (N = 262). Beyer conducted interviews with participants (n = 24) and their families (n = 25). Beyer found that participants' skills and outlook on life were both positively affected. These studies demonstrated enhanced QOL of ID adults through employment.

While I determined that employment increased QOL over day services and shelters; what about transitioning directly from school into employment? Parsons (2015) reported that autistics age 35 and over (n = 25) felt they were not prepared to transition from education to employment (χ^2 (1) = 12.43, $p < .001$) and that they (n = 21) did not

have many options to choose from (χ^2 (1) = 9.86, $p < .01$). Taylor and Seltzer (2011) found the severely limited transitioning of qualified young autistic adults from education into employment increased ASD symptoms and maladaptive behaviors. Taylor and Seltzer also demonstrated that extended transitioning to employment decreased maladaptive behaviors and increased both functional and social behaviors in autistics. Taylor and Seltzer's study presented significant strength in design. Taylor and Seltzer used a sample of 66 youths, average age 23 (*SD* = 1.51), having exited high school an average of 2.2 years' prior (*SD* = 1.19), with a formal diagnosis of an ASD. Taylor and Seltzer used a one-way *ANOVA* and χ^2 to analyze results. Taylor and Seltzer found that autistic young adults who were in a degree-seeking program or competitively employed had significantly fewer ASD ($p < .01$) and maladaptive symptoms ($p < .05$) than those without such. Taylor and Seltzer found that employment significantly improved the overall health of adults challenged with ASDs. Volunteer sample, unbalanced racial mix, and subsequent lack of generalizability limited Taylor and Seltzer's study. However, Claes et al.'s (2012) study included a more reliable sample with comparable results about QOL.

Improved QOL because of employment was abundant. Claes et al. (2012) used a one-way ANOVA to analyze data gathered from 186 participants (55% male, 45% female) with IDs at the Arduin [community-based] Foundation in the Netherlands. Claes et al. demonstrated that being employed had a significant impact on the QOL of individuals challenged with mild or borderline ID ($F(3, 52) = 7.160$, $p < .01$). Though ID is not the same as ASD, Claes et al. demonstrated that employment improved QOL. Claes

et al.'s study was similar to Agovino et al.'s (2014), Beyer et al.'s (2010), and Taylor and Seltzer's (2011) studies. All of these scholars compared economic, external employment to unpaid, internal, or sheltered work conditions. All three found similar results. Using Tukey *HSD* for posthoc comparison, Claes et al. found that the QOL, when employed in paid positions ($\overline{X}$ = 117.27, *SD* = 2.47) or volunteer positions outside Arduin ($\overline{X}$ = 122.71, *SD* = 4.71), was significantly superior to the QOL of those individuals only participating in day activities ($\overline{X}$ = 104.45, *SD* = 9.85) or unpaid employment within Arduin ($\overline{X}$ = 109.44, *SD* = 10.43). Thus, paid employment or fulfilling volunteer work significantly improved the QOL of disabled persons. I determined there was no need to include health benefits as a potential covariate in this study. However, these studies highlighted another possible covariate pertaining to autistics' well-being in relation to employment: the socioeconomic benefits to the autistic.

Socioeconomic benefits. Socioeconomic benefits are a critical component of an individual's well-being thus I evaluated them as a potential covariate aspect of this study. As established, employment is superior to an autistic's well-being over a day center or sheltered environment. Cimera (1996 – 2016) has devoted decades to researching supported versus sheltered employment for disabled adults, mostly those challenged with IDs and DDs. In 2007, for every $1.00 of support services lost due to obtaining employment, autistics earned $5.28 (see Figure 6; Cimera, 2010). Such an increase indicated an equally increased ability toward self-sufficiency; thus, would significantly improve their QOL and overall well-being. Cimera's extensive studies used secondary data from United States' VR databases, Department of Revenue tax calculations, United

States' Social Security Administration (SSA) and Medicare tables, and other governmental support services scales. Cimera's findings presented strength in reliability due to the wide variety of reputable data sources and significant triangulation.

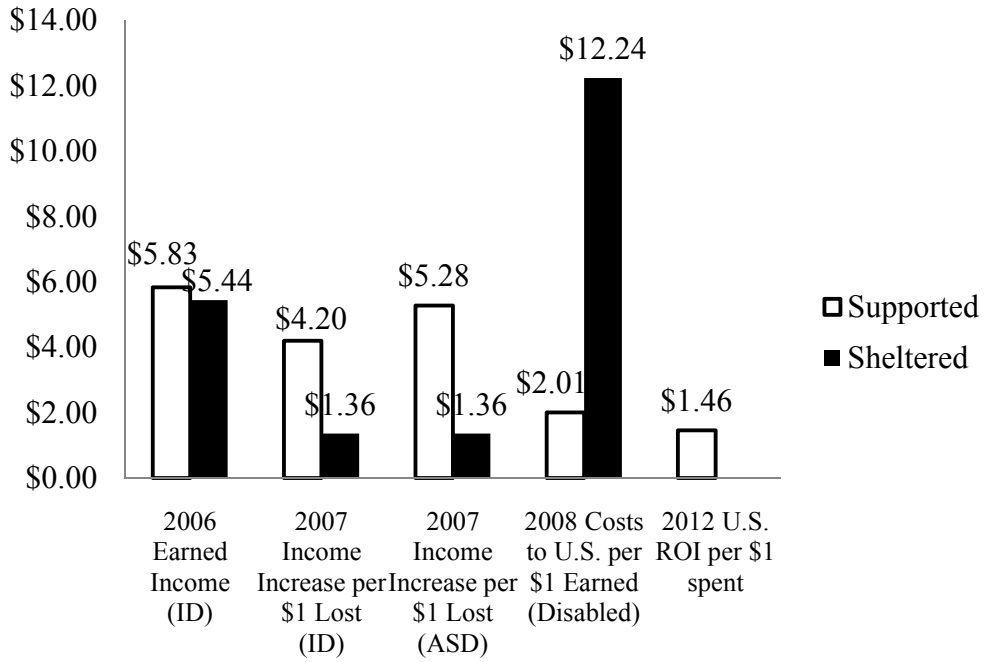

Figure 6. Hourly supported vs. sheltered income and ROI in U.S. dollars. Adapted from "The national cost-efficiency of supported employees with intellectual disabilities: The worker's perspective" by Cimera, R. E. (2010). *Journal of Vocational Rehabilitation, 33*(2), 123-131. Retrieved from http://www.iospress.nl/journal/journal-of-vocational-rehabilitation; "Does being in sheltered workshops improve the employment outcomes of supported employees with intellectual disabilities?" by Cimera, R. E. (2011a). *Journal of Vocational Rehabilitation, 35*(1), 21-27. Retrieved from http://www.iospress.nl/journal/journal-of-vocational-rehabilitation; "Supported versus sheltered employment: Cumulative costs, hours worked, and wages earned" by Cimera, R. E. (2011b). *Journal of Vocational Rehabilitation, 35*, 85-92. doi:10.3233/JVR-2011-0556; "The economics of supported employment: What new data tell us" by Cimera, R. E. (2012a). *Journal of Vocational Rehabilitation, 37*(2), 109-117. Retrieved from http://www.iospress.nl/journal/journal-of-vocational-rehabilitation; "Do adults with autism benefit monetarily from working in their communities?" by Cimera, R. E., & Burgess, S. (2011). *Journal of Vocational Rehabilitation, 34*, 173-180. doi:10.3233/JVR-2011-0545

Burgess and Cimera (2014) found that a sample of 34,314 disabled young adults (age 18 - 22 [$\overline{X}$ = 20.32]) only averaged $2,437 annually (see Figure 7). Burgess and Cimera attributed such low wages to participants only being able to find part-time work

(24 hours average per week) or menial labor positions. Burgess and Cimera's study did break down the population into categories, so I found some data pertaining to only autistics. Autistics using VR services found lower paying jobs for fewer hours than did disabled adults in general (Burgess & Cimera, 2014). However, a larger percentage of autistics had employment outcomes ($\overline{X}$ = 35.70, *SD* = 2.31) than did the broader category of disabled adults ($\overline{X}$ = 29.30, *SD* = 1.34; Burgess & Cimera, 2014). Burgess and Cimera also reported that autistics only cost VR half that of other categories of disabled adults (see Figures 6 and 7).

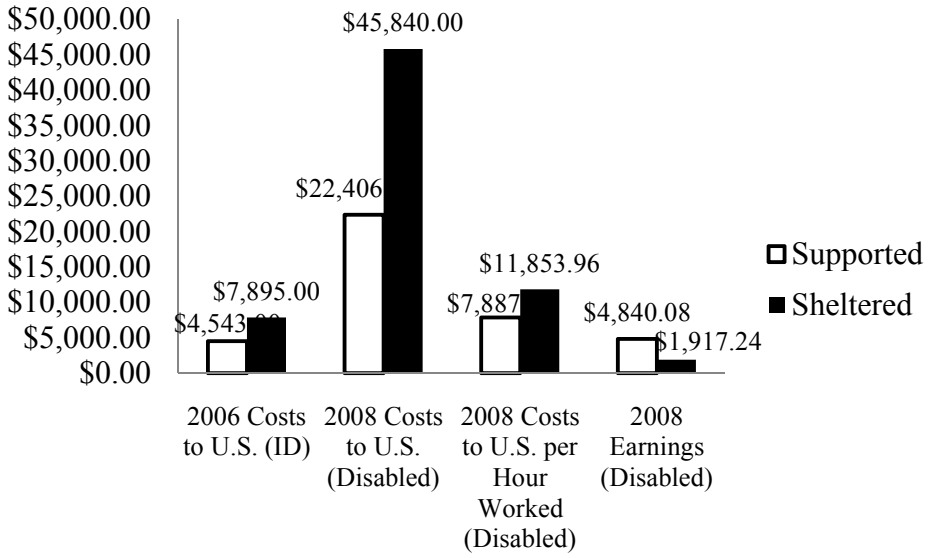

Figure 7. Annual supported vs. sheltered U.S. costs and earnings. Adapted from "Does being in sheltered workshops improve the employment outcomes of supported employees with intellectual disabilities?" by Cimera, R. E. (2011a). *Journal of Vocational Rehabilitation, 35*(1), 21-27. Retrieved from http://www.iospress.nl/journal/journal-of-vocational-rehabilitation; "Supported versus sheltered employment: Cumulative costs, hours worked, and wages earned" by Cimera, R. E. (2011b). *Journal of Vocational Rehabilitation, 35*, 85-92. doi:10.3233/JVR-2011-0556

Employment for autistic adults does increase their socioeconomic well-being, thereby eliminating the need to control for that potential covariate. With known rising costs related to care and social services, coupled with the ROI (see Figure 6) of

associated rehabilitation costs (see Figure 8), employment of autistics could significantly improve the overall societal economy. Thus, I also explored community socioeconomic factors as potential covariates.

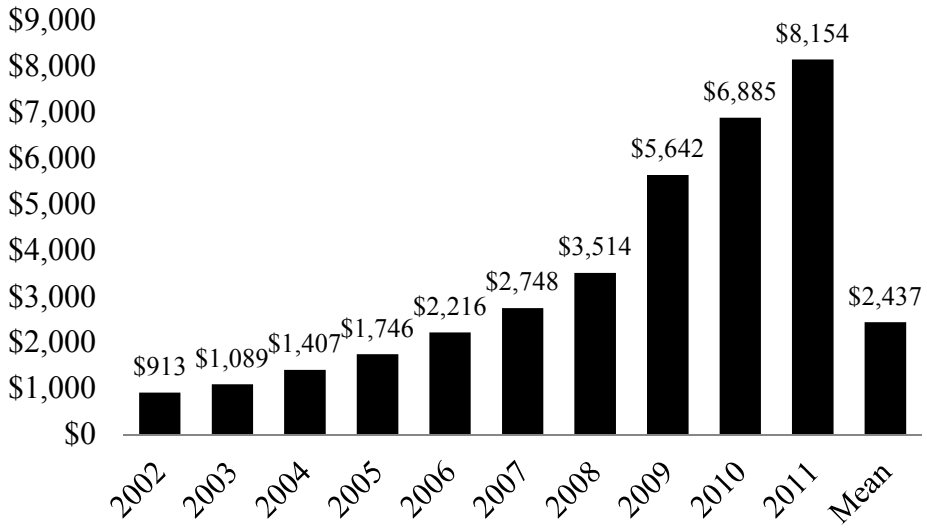

Figure 8. Annual U.S. ASD-related rehabilitation costs. Adapted from "Employment outcomes of transition-aged adults with autism spectrum disorders: A state of the states report" by Burgess, S., & Cimera, R. E. (2014). *American Journal on Intellectual and Developmental Disabilities, 119*, 64-83. doi:10.1352/1944-7558-119.1.64

Common belief is that, as an individual contributes more to their community, their sense of self-efficacy improves; which, in turn, improves their overall health and QOL. As the autistic's economic well-being improves through competitive employment, so does society's. Whereas sheltered workshops, the most usual form of employment for autistics, provide disheartening returns for both the individual and society. Cimera (2012a) conducted an applicable literature review spanning three decades (1970 to 2000). Cimera revealed that disabled adults in supported employment experienced a significant increase in income, compared to an alarming decrease for those in sheltered workshops (see Figure 9).

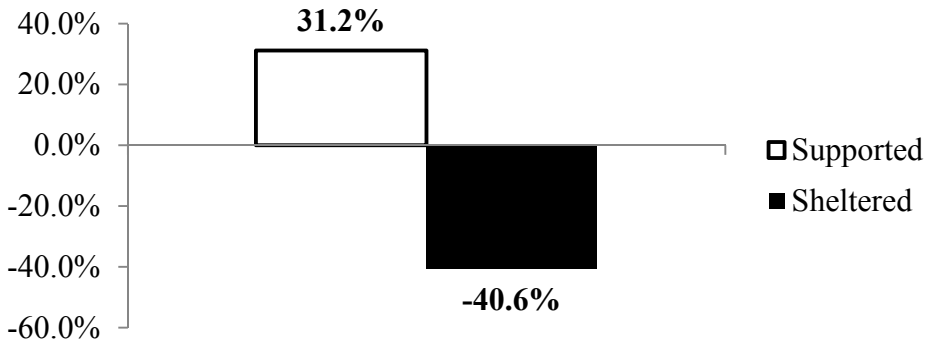

Figure 9. 1970 – 2000 supported and sheltered income change. Adapted from "The economics of supported employment: What new data tell us" by Cimera, R. E. (2012a). *Journal of Vocational Rehabilitation, 37*(2), 109-117. Retrieved from http://www.iospress.nl/journal/journal-of-vocational-rehabilitation

By 2006, disabled adults earned an average of $137.20 per week vs. average earnings of $118.55 per week for those in a shelter (see Figures 6 and 7; Cimera, 2011a). Supported competitive employment provided improved opportunities. Cimera's exhaustive studies included significantly large random samples (e.g., 34,314 ASDs [Burgess & Cimera, 2014]; 104,213 IDs [Cimera, 2010]; 9,808 IDs [Cimera, 2011a]). Cimera (2000 – 2016) and Cimera and Burgess paid careful attention to the demographic balance between participants and supported vs. sheltered relationships. Both scholars extensively used reputable sources of secondary data (e.g., Consumer Price Index and standard pay rate calculations, Medicare, SSA, and VR). Other scholars reported similar findings with equally reliable results. In an eight-year study of primarily qualified autistic candidates in London, Howlin et al. (2005) found that supported employment significantly increased salaries (range from £0 to £24,980; Wilcoxon $Z = 9.10$; $p < .001$). In their retrospective review, Wehman et al. (2016) reported significantly increased salaries ($\bar{X}$ = $228 per week/$11,869 annual by year 2014). Howlin et al. also reported that increased salaries decreased government subsidies received by participants (χ^2 =

26.16; $p < .001$). This reduction in subsidies was significant, as it demonstrated the ability of an autistic to contribute to their community and society. By exploring literature regarding positive societal outcomes, I confidently excluded employment as a threat to the socioeconomic well-being of autistics and their communities.

I also reviewed the literature to ascertain if the employment of autistics positively affects society and, therefore, positively affects the well-being of autistics. Supported employment services for IDs cost half that of services for sheltered employment (see Figure 7). Disabled adults in general typically needed 46 months of service at $496 per month vs. 70 months at $602 for those in shelters (Cimera, 2011b). Employment for a disabled adult in a shelter costs more than double per individual than that of supported competitive employment (see Figure 7). Cimera (2010) reported that, in 2007, disabled adults cost the United States an average of $193 per hour per individual not employed. Cimera (2010) also demonstrated that the 2012 ROI related to supported employment services was $1.46 for every $1.00 spent (see Figure 6).

While significant, those figures do only compare ROI for supported vs. sheltered employment services. Using VR services' secondary data, Standifer (2012) reported the ROI associated with disabled adults ranging from $5.00 to $10.00 for every $1.00 spent on supported employment. This finding was significantly higher than Cimera's results and showed that supported employment services are more cost-effective for society than unemployment of qualified autistic candidates. The SSA calculated the ROI at $7.00 for every $1.00 spent (CSAVR, 2011). These findings demonstrated that employment for qualified autistic candidates presented a substantial benefit to society; thus, further

improving autistics' sense of well-being through societal contributions. I reviewed the literature on a local and national level relating to the advantages of employment of qualified autistic candidates, but in today's global society I felt I needed to take into consideration the international community.

If being able to contribute to their local and national communities improves the autistic's well-being and QOL; the ability to contribute to the global society would further increase their QOL. Research has consistently demonstrated that all around the globe the costs of not employing qualified autistic candidates are hurting the economy. In a report commissioned by World Bank, Metts (2000) found the estimated annual loss of global gross domestic product in 2000 due to not employing disabled adults was between $1.37 trillion and $1.94 trillion. The report encompassed 175 countries through applying the United Nations' Development Program estimates (Metts, 2000). Metts overcame unbalanced economic biases via sensitivity analysis. Compound these results with the estimated costs related to caring for autistics and those losses soar even higher. Järbrink and Knapp (2001) conducted an in-depth quantitative study, using a combination of literature review and the reanalysis of secondary data from the Centre for the Economics of Mental Health, Institute of Psychiatry. Järbrink and Knapp (2001) demonstrated that the economic cost of autism per individual in Britain was £2.4 million, which converts to $3.24 million (at an exchange rate of £0.74 / $1 as of December 31, 2017). Reported two decades ago, cost calculations today would be higher. Even the slightest improvement in QOL, employment conditions, or overall life outcome could significantly reduce that lifetime cost (Järbrink & Knapp, 2001). Employment would increase the QOL for

autistics in a variety of ways worldwide. Disabled adults are "believed to be among the poorest of the poor in all societies" (Ang et al., 2013, p. 52). A sad statement considering that the employment inclusion of autistics could aid in boosting global, national, and local economies. Competitive employment of autistics would also allow them to enhance their self-efficacy, well-being, and QOL through their contributions to society and themselves. Thus, employment is a significant benefit to autistics and society. Therefore, I did not include this category of potential covariate.

I demonstrated through the literature review that qualified autistic candidates want to work, can identify and apply for appropriate openings, and competitive employment would improve their well-being in an assortment of ways. Thus, I did not control for any of the potential covariates associated with these supply-side factors in my study. Conditions of unemployment and underemployment are significant. I found abundant literature showing that supported employment services are in place to help autistics prepare for, and succeed, in gainful employment; and that such employment is beneficial to the autistic and society. This review still offered no insight into what factors (beliefs) influence hiring agents' selection of qualified autistic candidates.

What is Influencing Hiring Agents' Selection?

Much speculation exists as to the answer to that question; however, first I want to address how many employers hire autistics to ascertain if this phenomenon is widespread or not. Data concerning numbers of autistics employed was not available. I expanded my search to include disabled adults in general. I repeatedly included the broader category of disabled adults (in addition to autistics) throughout my literature review due to the lack of

scientific knowledge of the phenomena relating to autism and unemployment. In a report prepared under contract for the ODEP less than 20% of the total population surveyed reported employing a disabled adult (Domzal, Houtenville, & Sharma, 2008). Domzal et al.'s report used a statistical sample representative of 2,469,000 companies. Relating this to the common population would indicate that less than 20% of the United States' population believes that autistics are employable. Using the Survey of Employment of Americans with Disabilities, Harris Interactive (2010) demonstrated that 56% of the participant sample reported hiring at least one disabled person within the past three years. The Harris Interactive sample ($N = 411$) included managers ($n = 202$ senior executives; $n = 209$ HR managers; interviewed via telephone) mostly from organizations employing more than 1,000 employees (66% > 1,000). The percentage employed spanned three years and included large organizations in the study (Harris Interactive, 2010). Some scholars have noted the tendency of large organizations to more frequently employ disabled adults (Harris Interactive, 2010; Rimmerman, 1998). However, statistical analysis indicated that most large organizations do not believe autistics are capable of working. In the ODEP report, 53% of large companies did report employing disabled adults, but 72% believed their available work would be too challenging for most disabled candidates (Domzal et al., 2008). That high percentage of disbelief, combined with poor hiring practices regarding disabled candidates, indicated underlying factors needing identification. What factors caused such an overwhelming disbelief in the abilities of disabled candidates; more specific to my study: qualified autistic candidates?

I discovered different reports and speculations throughout the literature, but one common factor was consistent amongst all reasons reported: belief. Whether perceived or actual; control, normative, and behavioral beliefs where issues implicated in the literature. Lorenz et al.'s (2016) Germany-based qualitative analysis of employed autistics showed participants' (n = 66) believed barriers to gaining employment related to communication challenges (15%), work environment (12%), and work routines (10%). Sarrett (2017) relayed that autistics believed acceptance, diversity initiatives, and sensitivity and awareness training must occur to counter employers' misconceptions of autistics. However, what beliefs influenced hiring agents' selection of qualified autistic candidates? Domzal et al. (2008) reported increased costs and fear of litigation in the ODEP study of disabled candidates as reasons for not hiring them. Both seem to represent mostly control beliefs. Fraser et al. (2011) found that small (employing 1 - 49) and medium-sized businesses feared litigation which lead to decisions not to hire disabled candidates ($p < .05$). Fraser et al. also indicated that employing disabled adults could help deter discrimination litigation ($p < .001$). Since deterring litigation was statistically significantly stronger, Fraser et al.'s findings seemed contradictory. Concepts of AAT indicate that such contradictions become amplified and often result in negative repercussions toward stigmatized groups. Per tenets of EVT, fear of litigation and increased costs could negatively influence hiring agents' selection of qualified autistic candidates. Thus, fear of litigation required further review.

I found gaps about fear of litigation in both those studies. Only 60% of the participants in Fraser et al.'s (2011) three-month study included those with hiring

authority. Fraser et al. restricted their participant base to Seattle and Portland Rotary Clubs and special interest groups. Less than half of Fraser et al.'s participants had any training on legislative mandates for hiring those with disabilities. Fraser et al.'s study presented significant gaps not addressed; as did Domzal et al.'s (2008) ODEP study

- Both studies addressed disabled candidates in general, not qualified autistic candidates;
- neither study targeted hiring agents specifically;
- Fraser et al.'s study did not include a balanced demographic of organization types;
- Fraser et al.'s study was limited to the Left Coast (see Figure 2); and
- the participants' level of understanding, their belief, in the legislation regarding disabilities was less than 50% in Fraser et al.'s study and unknown relative to autistics in both studies.

I conducted further literature review regarding legislation and employers' understanding of its mandates to ascertain if the beliefs of hiring agents in respect to legislation could present a variable needing investigation.

Legislation: Positive Reinforcement or Fear of Legal Repercussions?

Since legislation presents legal mandates encompassing fines, criminal charges, and varying lengths of detainment, I considered beliefs regarding such as control beliefs in my study. To understand how those beliefs could influence hiring agents, I conducted a review of existing legislation. The intent of the Convention on the Rights of Persons with Disabilities (CRPD) was "to promote, protect, and ensure the full and equal enjoyment of

all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity" (U.N. CRPD, U.N.T.S. No. 67(b), Art. 1, 2009). This statement presented a global mandate. On January 4, 2009, the United Nations reaffirmed that the inclusion of disabled adults in full employment, without discrimination, is a fundamental human right and exclusion a matter of social justice (U.N.T.S. No. 67(b), Art. 27). The CRPD went on to specifically address hiring practices. Amongst the seven disabling barriers listed by the CRPD was the lack of access to employment (United Nations, 2009). All members of the United Nations must adhere to the CRPD; therefore, its global influence is widespread. As of December 15, 2017, 187 countries have signed or ratified the CRPD (United Nations, 2014). Many other mandates also address these issues. Some of these legislations include

- Australia's Statutory Rules 1996, No.27, Disability Discrimination Regulations 1996;
- Canada's Ontarians with Disabilities Act (OWDA), 2002;
- Hong Kong's Disability Discrimination Ordinance of 1995;
- Malaysia's Persons with Disabilities Act (PWD) 2008;
- Pakistan's National Policy for Persons with Disabilities 2002;
- The Republic of Ireland's Employment Equality Act, 1998;
- South Africa's Promotion of Equality and Prevention of Unfair Discrimination Act, 2000;
- The United Kingdom's Equality Act 2010 (Disability) Regulations 2010;

- Moreover, several in the United States including the Rehabilitation Act of 1973 (P.L. 93-112).

My focus in this study was on addressing beliefs influencing hiring agents' selection of qualified autistic candidates in the United States. Thus, it was vital that I reviewed the most relevant pieces of legislation.

The ADA and ADAAA.

> Title I of the Americans with Disabilities Act of 1990 prohibits private employers, state and local governments, employment agencies and labor unions from discriminating against qualified individuals with disabilities in job application procedures, hiring, firing, advancement, compensation, job training, and other terms, conditions, and privileges of employment. (EEOC, 2008, para. 1)

The ADA is supposed to ensure that disabled adults receive the same fair treatment as typical adults, not just in general, but in the workplace as well. The ADA requires employers to provide reasonable accommodations for applicants and employees that do not constitute 'undue hardship' upon the employer in light of its size, financial resources, nature, or structure (EEOC, 2008). The employer only has to make such accommodations if the employee requests them (EEOC, 2008). While the ADA does mandate employers to provide accommodations, it is also very employer-friendly in that disabled employees must request such, and those accommodations must not present an undue hardship to that employer. Employers that provide accommodations gain significant tax credits (EEOC, 2008). The perception of prohibitive costs remains a

significant deterrent to hiring disabled candidates (Copeland et al., 2010). It is only a belief of excessive costs, and not the actuality of such, as the ADA provides that costs do not present an undue hardship. Thus, prohibitive costs presented a potential perceived control belief.

Per concepts of EVT, it is the perceived repercussions or consequences that cause actions, regardless of actuality. This concept mirrors TPB's tenets in that control beliefs include both actual and perceived control. Even an unfounded belief could be a factor inhibiting hiring agents from selecting qualified autistic candidates. Concern arises should this perceived belief correlate to hiring agents' selection of qualified autistic candidates, as the ADA also contains provisions against such negative consequences. The ADA prohibits any form of retaliation by the employer (EEOC, 2008). Regardless of actual or believed costs, fears of such presented a potential variable influencing hiring agents' selection of qualified autistic candidates. Some scholars reported that the ADA had trivial effect on hiring practices. Before implementation of the ADA larger employers had more positive attitudes toward hiring disabled candidates (Unger, 2002). After its implementation, findings were inconsistent (Unger, 2002). Copeland et al. (2010) found many employers had negative attitudes concerning the ADA and its employment provisions. These two examples presented a before and after glimpse of the possible adverse impact that the ADA had upon organizations' willingness to hire disabled candidates in general.

Literature was inconclusive regarding litigation as a potential influence in hiring agents' selection of candidates. Employers' negative perceptions, willingness to provide

accommodations, or belief in the equal treatment of disabled adults (R^2 = .05, F(3, 138) = 2.20, *ns*) did not predict their ADA knowledge (Copeland et al., 2010). Examples abound of legal suits brought about after implementation of the ADA that shed light on the subject; unfortunately, most settled on behalf of the employers. Court rulings typically ruled against disabled adults finding that their disabling challenges were not significant enough to warrant protection under the ADA (e.g., *Sutton v. United Air Lines, Inc*., 1999; *Toyota Motor Manufacturing, Kentucky, Inc. v. Williams*, 2002). The frequency of these cases highlighted the ineffectiveness of the legislation, however, and resulted in significant additions to the ADA to increase compliance and define the original intent of the public policy. Fear of litigation, it seemed, needed further literature review.

Additional legislation could significantly influence hiring agents' selection of qualified autistic candidates. Because of the futility of the ADA, on September 25, 2008, President G. W. Bush signed the ADA Amendments Act of 2008 (ADAAA). The ADAAA emphasized a broader definition of disability so that defining such should not require extensive debate (EEOC, 2009, secs. 2.a.8, 2.b.1-6, 4.3.A, 4.4, 7). The ADAAA made it easier for disabled adults to seek protection. No longer were disabled adults required to prove substantial disability. With the provisions of the ADAAA, an individual must simply demonstrate that an employer viewed them as having some form of impairment; that limitation no longer needed to be substantial (Bradbury & Jacobson, 2013; Hensel, 2017). The goal of the ADAAA was to provide support for court rulings to hold employers more accountable for equal employment for disabled adults. To ascertain the ADAAA's effectiveness, Bradbury and Jacobson analyzed the Amendment,

comparing Supreme Court cases before and after its introduction. The results were less than optimistic. Bradbury and Jacobson determined that, while some hope for increased protection under the ADAAA existed, evidence showed that there was still ample room for district judges to find differently. However, Hensel's review of the current and trending applications of the Act(s) reflected more positive potential. In *Glaser v. Gap Inc.* (2014), courts ruled in favor of an autistic employee. Hensel also posited that employment screening procedures such as personality tests and background checks will increasingly come under review and that employers can expect to see increasing numbers of autistics disclosing their disability. However, positive social change remains slow.

In fact, twenty years after the ADA passed [and three years after the ADAAA], there remained little progress in employment outcomes for disabled candidates (Wehman, 2011). Even with a perceived fear looming, rather than an actual consequence, concepts of EVT and TPB support the correlation between the fear of litigation and hiring agents' selection of qualified autistic candidates. Chan et al. (2010) found that employers' knowledge regarding the ADA correlated with their commitment to hiring disabled candidates ($r = .64$, $p < .01$). These findings indicated that the ADA did not influence employers who understand it. Albeit, the ADA might affect those who do not understand it. Wehman provided a detailed synopsis of actions needed to drive positive change relative to employment for disabled adults. Wehman explained that many potential employers were uninformed about the requirements of legislation regarding employing disabled candidates. It is this lack of knowledge that influences hiring agents' selection of qualified autistic candidates. Thus, I derived two questions: (a) Is fear of the ADAAA

related to knowledge of it and (b) is fear of the ADAAA related to hiring agents' selection of qualified autistic candidates? I needed more clarification.

The Combating Autism Act of 2006, 2011, and Autism Cares Act of 2014. The ADA and ADAAA address disabilities in general. The growing public awareness of the substantial portion of the population diagnosed with an ASD influenced legislation that specifically addressed autism. The Combating Autism Act of 2006 required the Secretary of Health and Human Services to educate the public on ASDs via culturally understandable information, development of continuing education programs, and making tools and resources for accommodations available. It did not specifically address employment opportunities or adult services. Extending the coverage period of the Act, President Obama enacted the Combating Autism Reauthorization Act of 2011; but, again, it did not address adult concerns.

Due to continued advocacy and public demand, the Act went through yet another alteration, this time adding an adult element to its parameters. The Act became the Autism CARES Act of 2014 and the President signed it into law on August 8, 2014, to extend through 2019. Amongst several additions to the Act was the requirement to address the concerns of young adult autistics and those transitioning from education-based services into adulthood. While this does not seem to address employment specifically, it does hold more connotations than the first impression provides. Sagnip (2014, para. 7) and Rabner (2014, para. 2) reported that these adult services would include support and encouragement for "independent living, equal opportunity, full participation, and economic self-sufficiency." All four of these elements infer

employment. House Representative Smith (NJ-04) stated, "We need to do a better job of preparing children with ASD for adulthood and provide the help and services they need to reach their full potential" (as cited in Sagnip, 2014, para. 8). Even if the Autism Cares Act of 2014 did not explicitly address employment, it certainly established ASDs as disabilities; thereby causing autistics to fall under the protection and provisions of the ADA and ADAAA. Thus, I further researched existing literature relating to fear of legal repercussions as a belief influencing hiring agents' selection of qualified autistic candidates.

Employer fear of legal repercussions. I found no clear answer in the related literature. Harris Interactive (2010) found that 80% of corporations felt disability mandates had minimal effect on their operations. That indicated that fear of legal repercussions does not influence hiring agents; however other scholars disagreed. O'Neill and Urquhart (2011) studied academic libraries in the Republic of Ireland about understanding and belief in mandates requiring the employment of disabled adults. O'Neill and Urquhart reported that 99% of their stratified random sample of participants (95% 1 - α, 4.85 *CI*) were aware of the legal obligations of providing accommodations. O'Neill and Urquhart also found that 56% of their participant sample believed legal sanctions for non-compliance were necessary. While some scholars suggested positive attitudes toward legislation, others pointed out the contradicting actions of employers. Copeland et al. (2010) found positive employer attitudes toward the equal treatment of disabled adults in the workplace. Harris Interactive found the opposite. Harris Interactive determined that only 12% of companies have a diversity program that includes disability.

Even more questionable was what those programs did not contain. Harris Interactive reported that 10% of that 12% of programs focus on the ADAAA reasonable accommodation process, 8% on disability awareness training, and only 6% include active recruitment initiatives. Very few organizations addressed accommodations, trained their personnel, or even attempted to recruit disabled candidates.

While I needed to test for legislation, I still did not know if I should test for fear of the legislative repercussions, hiring agent ignorance, or a lack of belief in legislative control over organizational actions. Chan et al. (2010) found that employers' understanding of ADA legislation correlated with managers' strong concern regarding supervising disabled employees ($r = .51$, $p < .01$). The less they understood the legislation, the more concerned they regarded disabled employees. Fraser et al. (2011) found contradictory data. Fraser et al. determined that many employers felt hiring disabled adults could reduce potential litigation. Fraser et al. also established that employers felt reaching out to disabled candidates for recruiting would increase costs and hiring them would result in loss of revenue ($p < .05$). Some literature alluded to the possibility that hiring qualified autistic candidates may be costlier than the value they could offer the organization. Domzal et al. (2008) found the fear of litigation and other increased costs to be significant to employers' decisions to hire disabled candidates. These studies presented gaps not addressed

- All the studies pertained to disabled candidates, not qualified autistic candidates;
- none of these studies targeted hiring agents specifically;

- findings relating to fear of litigation were contradictory; and
- participants' level of legislative understanding was questionable.

This literature also inferred costs other than legally oriented costs, thus, indicating further potential variables.

Employer Cost and Discommode

I found contradictory literature about potential costs and discommode. Harris Interactive (2010) demonstrated that 62% of employers perceived costs associated with hiring a disabled adult to be the same as hiring a typical adult and 35% felt it was more expensive to hire a disabled candidate. Scott et al. (2017) related that employers perceived costs related to autistic employees were like typical employees. These findings contradicted Fraser et al.'s (2011) findings. Harris Interactive also showed that 11% of organizations were concerned that insurance premiums would increase with the inclusion of disabled employees; while, Kaye et al. (2011) found that 70% of employers had those worries. With potential insurance premium costs presenting a belief influencing hiring agents' selection of qualified autistic candidates, I explored other studies revolving around this idea. Lysaght, Sparring, Ouellette-Kuntz, and Marshall (2011) conducted a Canadian study comparing work-related injuries of individuals challenged with IDs to typical workers performing the same job for the same wages. Lysaght et al. found that those challenged with IDs only experienced 3.5 injuries per100 work hours versus 10.3 injuries per 100 work hours for typical individuals ($z = 2.98$, 95% 1 - α). These data indicated that insurance premiums would be less for disabled employees, not more. Lysaght et al. also reported that workers challenged with IDs only lost 0.4% on-the-job

time due to their injuries, whereas typical employees lost 2.8%. If hiring agents were knowledgeable about reduced premiums and injuries, there would not be the fear of increased costs due to hiring autistics. I needed to explore if lack of education was the issue or an example of discommoding.

Discommode, or incommode, indicates an inconvenience, hassle, trouble, burden, annoyance, or other similar aggravation. I found one study that attempted to remove the hindrance of participants about their potential self-incrimination. Kaye et al. (2011) phrased their questions in a third person manner. Rather than asking why the participant does not hire disabled candidates, Kaye et al. inquired why participants thought other organizations did not employ disabled candidates. This tactic allowed the participants to freely relate potential annoyances rather than try to answer as mandates dictated. This technique effectively took into consideration Fishbein's EVT concept that individuals will act in expected ways (Fishbein, 1963; Fishbein & Ajzen, 1974; Magidson et al., 2014). This method circumvented that preconception of expectation that individuals should answer according to legal mandates.

Whether employer discommode occurs due to a lack of understanding or a perceived expectation, noncompliance with legislation is still the outcome. In their survey of 463 HR professionals and managers of ADA recalcitrant organizations, Kaye et al. (2011) found that 80% were afraid they would not be able to discipline or terminate a disabled employee. Not only did this indicate that participants saw disabled employees as a burden, but it spoke to an underlying lack of knowledge of basic employment expectations and ADAAA legislation. Fishbein's (1963) EVT concepts further supported

this idea. Management personnel employ progressive, iterative documentation to ensure that discrimination of any type does not result in disciplinary action. The same consideration applies relative to a disabled or typical individual. Not performing such coupled with citing an inability to discipline as a reason not to hire disabled individuals indicated that discommode is a factor influencing hiring agents' selection of qualified autistic candidates. Kaye et al. also reported that 73% of employers claimed it was hard to assess whether disabled candidates could perform a job since law prevents interviewers from asking about the applicant's disability. An interviewer can ask, however, if the candidate can perform the job; thus, not doing so indicated a feeling of incommode on the part of the hiring agent.

Considering potential discommode, I concluded that the application of a non-incriminating questioning tactic was in order. Kaye et al.'s (2011) survey question design presented a viable option for my study to more reliably identify factors that influence hiring agents' selection of qualified autistic candidates. I identified several gaps in this section

- Studies did not address qualified autistic candidates specifically
- studies did not target hiring agents specifically,
- gaps revealed questions regarding the relationship between belief in high costs of hiring and hiring agents' selection of qualified autistic candidates, and
- gaps revealed questions about knowledge of insurance and worker injury rates relative to hiring agents' selection of qualified autistic candidates.

Not only was the third person approach effective in identifying discommode, but it increased confidence levels regarding hiring agents' beliefs relative to reasonable accommodation provisions.

Employer-provided accommodations. Providing reasonable accommodations is a federal mandate of the ADAAA, yet courts ruled many organizations noncompliant to that provision. Standifer (2009) related that many employers felt inconvenienced by the need to adjust the workplace to support the needs of autistics. Standifer posited that employers considered training staff about the characteristics of qualified autistic candidates a hassle. Providing increased instructional clarity was an unneeded expense (Standifer, 2009). Employers viewed the need to provide an appropriate area for autistic employees to calm down and de-stimulate as costly (Standifer, 2009). Employers opposed workspace flexibility (Standifer, 2009). While these types of accommodations do seem inconvenient, they could prove beneficial for typical employees as well as autistics. Harris Interactive (2010) reported that 47% of employers claim disabled employees use flexible work arrangements the same as typical employees. Thus, I needed to research a lack of knowledge as well as potential frustration. Stankova and Trajkovski (2010) found that 39% of employers did not know what accommodations would support autistic employees and 36% did not know it was necessary to provide accommodations. These statistics spoke to more than just inconvenience; they indicated a lack of knowledge and understanding. It also suggested a need to address accommodations as a potential influence on hiring agents' selection of qualified autistic candidates.

Hiring agents were not aware of VR and supported employment as existing accommodations for autistic candidates. Supported employment programs assist in the employment of disabled candidates. “Research indicates more overall positive opinions of supported employment programs” than negative (Copeland et al., 2010, p. 428). I found literature showing that employers believe in providing accommodations and in equal employment for disabled adults; which raised questions related to mixed findings reporting that most employers do not provide such. Copeland et al. found that employers’ willingness to provide accommodations and their belief in the equal treatment of disabled adults correlated with their belief that accommodations were a reasonable request ($p <$ .01). Copeland et al. also determined that employers have an overall positive attitude toward providing accommodations ($p < .05$). I found indication that some employers do take advantage of the many regulatory incentives offered to hire disabled candidates. From 2007 to 2012, Walgreens collected more than $300,000 via the Ticket to Work program, not including other governmental credits and incentives provided to help offset accommodation provisions (Russel, 2012). I found other literature directly related to providing accommodations for disabled adults.

Two, potentially biased, but still insightful studies were of note. The ODEP, Job Accommodation Network (JAN) provides some of the most thorough information on workplace accommodations for the United States. Hartnett et al. (2011) explored employers’ feedback regarding JAN services and providing employee accommodations. Hartnett et al.’s study was highly limited and their potentially biased sample pool consisted solely of those employers who had interacted with JAN. Chan et al. (2010) used

hierarchical regression to conduct a quantitative 64-item survey of 138 HR and line managers (71% with hiring authority) of varying industries in the Midwest United States. Many (64%) of the companies in Chan et al.'s study were large. Chan et al. solicited their convenient participant sample through businesses associated with a job placement service specializing in employment for disabled candidates. Both studies, therefore, produced disability-friendly participant samples.

Even so, findings from these two studies did provide insight. Hartnett et al.'s (2011) mixed method design explored the satisfaction levels of employers (72% large, 26% medium, 2% small) working with JAN. Hartnett et al. used secondary data gathered and approved by the ODEP in conjunction with the United States Office of Management and Budget. Hartnett et al.'s design used Likert scales, forced-choice lists, and open-ended questions. Hartnett et al. coded data for themes and used the Statistical Package for the Social Sciences (SPSS) to analyze data regarding employer decisions to accommodate, explore solutions, costs incurred, and potential benefits of providing accommodations. Both Chan et al.'s (2010) and Hartnett et al.'s studies were potentially biased. The majority of both studies' participants were large organizations. Both studies bear some similarity to my study; thus, they offered some insight into employers who willingly provided accommodations for disabled employees. Since I investigated the relationship between providing reasonable accommodations and the influence of related beliefs on hiring agents' selection of qualified autistic candidates; it was essential to include both these studies.

Both scholars indicated that employers were, overall, happy with their decisions to supply accommodations to disabled employees. In Hartnett et al.'s (2011) study, 44% of employers providing accommodations reported being satisfied with results. A majority of Hartnett et al.'s participant sample said that providing accommodations resulted in no additional costs to the company and increased worker productivity by 80%. Hartnett et al.'s participant sample reported a 63% organizational increase in productivity as a result of providing accommodations. With only 44% of employers reporting satisfaction, especially in light of the potentially biased participant base, I questioned why the other 56% were dissatisfied. Chan et al.'s (2010) study provided some insight but did not address potential reasons for the dissatisfaction. In Chan et al.'s study, partial regression coefficients indicated that employer understanding of ADA accommodation provisions positively contributed to their commitment to hiring disabled candidates ($B = 0.25$, $t(137) = 2.69$, $p < .01$). Chan et al. demonstrated that employers' understanding of ADA accommodation provisions correlated with their efforts to include the diversity of disability in their workforce ($r = .67$, $p < .01$). These findings indicated that, as employers' understanding and the concept of accommodations increased, so did their appreciation for disabled employees in the workplace.

While that correlation did not explain the lack of satisfaction of participants in Hartnett et al.'s (2011) study, it did provide insight into a possible relationship between the understanding of ADA required accommodations and hiring disabled candidates. Chan et al. (2010) used a 5-point Likert scale survey (α between .61 - .80) to explore employer ADA and accommodation knowledge, disability management concerns,

negative attitudes, positive perceptions, diversity climates, disability inclusion efforts, and commitment to hiring disabled candidates. Chan et al. administered their survey through *SurveyMonkey.com* and analyzed it using multiple regression and correlation with no significant multicollinearity present. Except for the potential for a biased participant base, both studies showed strength in reliability. Chan et al. also demonstrated that employers' attitudes were significantly affected by their knowledge of the ADA and its accommodations provisions ($r = -.32$, $p < .01$). Other studies, with less potential for bias, reported mixed findings. From overwhelming acceptance to outright fear, employers' concept of the benefits of providing accommodations ranged drastically; thus, the literature created more questions than answers.

One of the most notably positive examples I found was Walgreens. Walgreens stated that providing special accommodation for disabled employees typically costs less than $25 a person (Russel, 2012). Walgreens felt that increased productivity, dependability, and overall performance of their disabled employees more than made up for the small investment in providing accommodations (Russel, 2012). While not all organizations take advantage of incentives, many scholars repeatedly pointed out that most employers are at least aware they exist. Fraser et al. (2011) demonstrated that many employers believed beneficial incentives were available to help offset the cost of accommodations ($p < .01$). Training in the provision of accommodations was readily available for hiring agents ($p < .05$; Fraser et al., 2011). Fraser et al. found some employers had positive attitudes, but very minimal were prepared to provide accommodations.

Some studies indicated costs, rather than discommode, as factors for not providing accommodations. In O'Neill and Urquhart's (2011) mixed methods survey study of academic libraries, 63% of participants held a socially positive attitude toward providing accommodations. Library heads (100%) were significantly more likely to attempt to find ways to accommodate disabled employees ($\chi^2 = 5.84$, $p = 0.02$, 1 *df*; O'Neill & Urquhart, 2011). Only 57% of the libraries, however, had any provisions for accommodations in place (O'Neill & Urquhart, 2011). While O'Neill and Urquhart did not report on why accommodations were not in place, other scholars posited cost as a significant factor. Harris Interactive (2010) demonstrated that 26% of HR managers felt they lacked the special equipment needed by disabled candidates. Harris Interactive also demonstrated that 22% of participants were concerned about the costs of acquiring special equipment (Harris Interactive, 2010). Kaye et al. (2011) reported that 81% of employers were concerned with the costs of providing accommodations. While literature reflected accommodation costs as a concern, it did not establish if that concern was relevant to those who are knowledgeable about ADAAA legislation or just those who lack such.

I also explored actual accommodation costs relevant to hiring qualified autistic candidates to gain insight into this potential belief. Johnson and Bleeker (2013) pointed out that, contrary to widespread belief, such accommodations help save costs overall. Johnson and Bleeker reported that providing accommodations minimizes the risk of litigation, provides tax incentives, and uses funding sources that often cover the entire financial burden. Concepts of EVT and TPB support the expectation of prohibitive cost

as an influencing factor; therefore, I decided to include accommodations as a variable in this study. I found several gaps in understanding in this portion of the literature review

- Studies did not address qualified autistic candidates specifically,
- studies did not target hiring agents specifically, and
- studies did not identify whether the belief in excessive costs correlated with knowledge and understanding of ADAAA.

Since most qualified autistic candidates do not require physical accommodations, as pointed out by Stankova and Trajkovski (2010), many employers may think that providing accommodations for them is not mandatory. This thought frame could not be further from reality. Supported employment presents a viable accommodation.

Supported employment services. Supported employment is one accommodation that some autistics utilize. Supported employment currently provides a way for disabled adults to perform in a competitive employment environment. Supported employment provides accommodations in the form of job coaches, assistance interacting with coworkers, on-the-job training, and aid to supervisors responsible for overseeing disabled employees. Supported employment, therefore, offers a reasonable accommodation to help qualified autistic candidates with their social and sometimes cognitive (often logically-based thinking) challenges. In their nine-month repeated measures analysis, Katz et al. (2015) found that supported employment increased assimilation by 40% and competency by over 70%. Most HR managers (59%) do not utilize services such as VR, nonprofit, and community-based service providers (Harris Interactive, 2010). Harris Interactive demonstrated that HR managers do not feel they need such services and 35% of senior

management has not heard of them. Ironically, many organizations (63%) stated that they need assistance finding qualified disabled candidates (Harris Interactive, 2010). Every manager has heard of VR, so perhaps it is that they are not aware that they can approach VR to request viable candidates for open positions. Kaye et al. (2011) found that 66% of employers claimed they rarely see disabled candidates applying for jobs. Kaye et al. also determined that 32% of employers feel that disabled individuals do not present themselves well during interviews. I further explored supported employment as a potential influencing factor in hiring agents' selection of qualified autistic candidates. VR could help by supplying training for hiring agents in diversity and disability interactions and supported employment services.

The provision of supported employment is an easily accessed option for employers. Supported employment enables employers to provide reasonable accommodations to qualified autistic candidates. Scholars reported that supported employment accommodations help employers overcome some of the social skill and communication barriers that often accompany employment situations (Schaller & Yang, 2005; Wehman et al., 2012; Wehman et al., 2016). Hendricks (2010) demonstrated 68% to 78% success rates of supported employment with income level increases up to 443%. Supported employment is an accommodation that often does not cost the employer anything as it is a provided service of VR. Most times supported employment tapers off to a not-needed state once the qualified autistic candidate becomes integrated with their working environment and understands employers' expectations. When work norms and cultures are clear and precise, autistic candidates have less difficulty integrating into the

workplace (Krieger et al., 2012). Too often, employers are unaware of or overlook supported employment as an accommodation option, particularly for autistics. I decided to explore the accommodation of supported employment as a potential variable.

Despite the potential for successful employment of qualified autistic candidates, VR services does not seem to be reaching out to employers. Fraser et al. (2011) discovered employers' reduced intentions to hire disabled adults ($p < .01$) correlated with their lack of knowing whom to contact at VR departments and feeling unsupported by VR services. Schaller and Yang (2005) used secondary data from the National Rehabilitation Services Administration database to investigate seasonal VR case closures. Schaller and Yang found that only about 4% - 5% of cases involving supported employment relative to ASDs closed annually compared to a 95% - 96% closure rate for severely disabled adults. Schaller and Yang inferred VR did not offer autistics supported employment. Too often, supported employment is an accommodation reserved for those challenged with IDs rather than DDs.

If hiring agents held this expectation, then concepts of EVT support the idea that such a belief presented an inhibiting factor. Taylor and Seltzer's (2011) study indicated that only 18% of young autistic adults without IDs were getting any VR assistance. Wehman et al. (2012) reported only a small number (exact statistics not reported) of programs utilized supported employment approaches to help autistics. VR seldom offered supported employment options to qualified autistic candidates in relation to IDs or other degrees of ASD functionality (Howlin et al., 2005; Taylor & Seltzer, 2011; Wehman et al., 2012). Howlin et al. noted that rarely have supported employment programs focused

on qualified autistic candidates. When used, supported employment significantly increased employment rates, job satisfaction, and employers' opinions of the experience (Howlin et al., 2005). These findings indicated that supported employment is a viable option for qualified autistic candidates. All but 1 of the 124 employer participants in Howlin et al.'s study reported their experiences with supported employment consultants to be very helpful and over half had never used a supported work environment previously. After such findings, I expected to find improvement in the situation; however, that was not the case. Howlin and Moss's (2012) follow-up research found that supported employment services remained inadequate to meet the needs of autistic adults at any degree of functionality. I found some literature relating to supported employment accommodations about ASDs in general.

Some literature provided a bit more insight into this public policy problem; however, it related to supported employment for autistics with lower functionality than the qualified autistic candidates referenced in my study. Schaller and Yang (2005) conducted a forward stepwise logistic regression correlational design ($p = .05$) to measure alternative explanations for successful VR closure resulting in employment for autistic adults. Schaller and Yang used a non-probability sample of 815 autistic adults (98% considered severely disabled) listed in the National Rehabilitation Services Administration 911, 2001 database. Schaller and Yang based their sample age (17 – 64, $SD = 7.69$) on the participants having received services for either competitive or supported employment. While not necessarily qualified candidates, at least their participant base was autistic adults. Schaller and Yang found that supported employment

participants had a much higher employment success rate than those in sheltered employment (75% to 85%). Schaller and Yang reported wages for those that were in supported employment versus sheltered employment were also significantly higher (*SD* = $133 per week vs. *SD* = $85 per week). While higher, Wehman et al. (2016) reported the average income of qualified autistic candidates was still only $228 per week. These findings were like Cimera's (2010, 2011a, 2011b, 2012a; Cimera & Burgess, 2011; see Figures 6 and 7). However, the scholars disagree on costs of supported employment.

Opposite of Cimera's (2011b) findings, Schaller and Yang (2005) reported the overall cost of supported employment services to have been near twice that of non-supported. Schaller and Yang also noted that supported services were more comprehensive and focused on long-term job retention and job fit. Wehman et al. (2016) also analyzed long-term results but in relation to support hours needed rather than cost-benefit ratios. Cimera took an all-encompassing longitudinal approach to calculating costs whereas Schaller and Yang's calculations did not include as much detail. These time-related and level of individual inclusion differences could explain the vast discrepancy between Cimera's and Schaller and Yang's findings. While Schaller and Yang's sample was demographically skewed (80% White and 84% male) and Wehman et al.'s were 83% male, all participants were employable, thereby strengthening the relationship between the two studies and my own. If base-ability autistics could experience employment success, it followed that qualified autistic candidates would also have success. Another important aspect of the literature revolving around supported

employment for qualified autistic candidates included potential success rates for obtaining employment associated with hire.

Very little literature exists about supported employment outcomes for autistics, little lone literature on the topic for qualified autistic candidates. Wehman et al. (2012) conducted an in-depth exploration of the work histories of 33 autistics that used supported employment programs. Wehman et al. (2016) reviewed supported employment of qualified autistic candidates using VR services to evaluate success rates. Wehman et al. (2012) used data collected by specialists at a Commission on Accreditation of Rehabilitation Facility supported employment program and Wehman et al. (2016) analyzed existing VR records. Wehman et al. (2012) demonstrated that 27 (82%) participants successfully obtained and maintained competitive employment in similar tasks and work pay as other coworkers Wehman et al (2016) reported that 98% were similarly successful. Contrary to Cimera's (2011b) findings regarding disabled adults, Wehman et al. (2012) and Wehman et al. (2016) demonstrated many fewer hours of support services needed to achieve successful employment results for autistics. Wehman et al. (2012) calculated that autistics required an average of 107 hours of support assistance from employment specialists before they could effectively handle their jobs independently. Wehman et al. (2016) reported that the support hours autistics needed dropped from 81% in week one to 21% by week six and continued dropping to below 2% by week 40. Wehman et al. (2012) noted that long-term supports averaged only an additional 27 hours; as compared to Cimera's findings that disabled adults in supported employment averaged 46 months of continuous service. While neither Cimera's nor

Wehman et al.'s (2012) studies addressed qualified autistic candidates, Wehman et al.'s (2012) did reflect that autistics needed support interventions for far shorter durations that did disabled adults in general. Wehman et al.'s (2012) study also only addressed entry-level positions for candidates with either high school level education or minimal college, not specifically the qualified autistic candidates that my study references. These gaps left me with more questions than answers

- Of the two studies referencing qualified autistic candidates, they minimally touched upon the use of supported employment the rest of the studies involved individuals of all functional degrees of ASD or disability in general;
- no study participants included hiring agents;
- no study addressed hiring agents' beliefs regarding supported employment accommodations; and
- no study addressed the question of hiring agents' awareness of supported employment or its viability for qualified autistic candidates.

Thus, I needed to test these variables.

Does fear of increased costs influence hiring agents' selection of qualified autistic candidates? This section presented literature review regarding potential costs and discommoded employers, including increased insurance premiums, costs of accommodations, and inconveniences related to VR and supported employment accommodations. I identified several specific gaps in the literature

- Of the two studies referencing qualified autistic candidates, they only minimally touched upon the use of supported employment the rest of the

studies involved individuals of all functional degrees of ASD or disability in general;

- none of these studies targeted hiring agents;
- questions remained regarding the relationship between belief in high costs of hiring and the selection of qualified autistic candidates;
- questions remained about knowledge of insurance and worker injury rates;
- questions regarding hiring agents' awareness of supported employment as a potential accommodation were exposed; and
- the studies did not address any correlations between VR services and supported employment or their possible influence on hiring agents selection of qualified autistic candidates.

Summary of control belief potential variables. I found very minimal reference to qualified autistic candidates relative to control beliefs, and no study addressed hiring agents' control beliefs specifically. I found support for phrasing the HASSQAC (Mai, 2015) questions like Kaye et al.'s (2011) survey about disabilities in general. Albeit, HASSQAC questions specifically address hiring agents' selection of qualified autistic candidates. I identified several potential control belief variables to test. IVs consisted of hiring agents'

- fear of litigation,
- level of legislative understanding,
- belief in the high cost of accommodations,
- awareness of supported employment as an accommodation,

- understandings of VR services,
- belief in high costs of hiring, and
- knowledge of insurance and worker injury rates.

The DV consisted of hiring agents' selection of qualified autistic candidates. Thus, I needed to test the relationship among these seven IVs and the DV. Albeit control beliefs, these beliefs also impacted normative and behavioral beliefs as framed by concepts of TPB and supported by concepts of EVT. Since society dictates public policy and policy dictates law, it follows that societal pressure influences intent and behavior accordingly; therefore, I next review literature applicable to normative beliefs.

Employer Understanding and Experience

Having a diversity policy that includes disabled persons should be indicative of an organization's willingness to hire them; however, the literature reflected the opposite. Harris Interactive (2010) showed that, while many large-sized organizations had diversity policies that included disability, most were not hiring disabled individuals. Only 34% of large organizations tracked the number of disabled candidates hired; 25% had a disability policy; 12% had a disability program; and only 8% had both (Harris Interactive, 2010). It seemed that employers responded to public demand to include disabled employees as concepts of FCT support but doubtful that these pressures were the only normative beliefs driving them. I found no correlation statistics demonstrating how those normative beliefs influenced hiring agents' selection of qualified autistic candidates. I took a closer look at the content of those policies and programs to shed some light. Chan et al. (2010) reported that participants in their study had last received ADA training more than five

years previous, and diversity training more than three years prior. Thus, the pressures of public mandates did not pose as much influence on positive social change as intended.

Following this thought process, I scoured literature to explore how much employers knew about ASDs and related subject matter. Kaye et al. (2011) reported that 81% of employers claimed they did not know how to handle the needs of disabled employees and Stuckey (2016) indicated that only 27% of employers were familiar with ASDs. Such a lack of understanding and knowledge could stem from a lack of training or an underestimation of the abilities of disabled candidates in general. When Walgreens began its aggressive initiatives toward inclusion of disabled adults, it discovered that it had significantly underestimated the abilities of disabled employees (Russel, 2012). Walgreens found that disabled workers could be very successful in competitive work environments, often exceeding the performance levels of typical coworkers (Russel, 2012). Those results indicated that a lack of understanding was more widespread than I thought. It also inferred that the label of 'disability' had negatively influenced Walgreens; an inference that concepts of PAT supported. Wehman (2011) posited that getting businesses and communities to understand the vocational capacity of disabled candidates was the only way to turn around disabled adults' dismal employment outcomes. This type of understanding correlated with concepts of FCT promoting positive social change. I had to review literature defining ASDs to explore potential beliefs of hiring agents related to their understanding of ASDs.

Stereotypes abound about autism. Autism is a label associated with such negative attributes as a lack of intelligence, maladaptive behaviors, violence, an inability to

function around ‘normal’ people, and much, much more. Those notions are rarely the case. ASDs are a group of lifelong neurologically-based DDs that include deficits in social communication and interaction abilities (APA, 2013; Autism Speaks, 2014; Baio, 2014; Balfe & Tantam, 2010; Hendricks, 2010; Krieger et al., 2012; NIMH, 2014; Roberston, 2014; Schaller & Yang, 2005; Standifer, 2009). As commonly described, ASDs can include restricted, repetitive behavior patterns, interests, or activities with functional limitations varying between individuals, many of which possess normal and above average IQs (APA, 2013; Autism Speaks, 2014; Baio, 2014; Balfe & Tantam, 2010; Hendricks, 2010; Krieger et al., 2012; NIMH, 2014; Schaller & Yang, 2005; Standifer, 2009). Often, negative societal labels dictate how people react to autistics. Concepts of PAT explained why hiring agents are unconsciously inclined to behave per those mistaken negative labels. While concepts of TPB supported this theory as a normative belief influencing intent and behavior, it was unknown if this belief was influencing hiring agents’ selection of qualified autistic candidates. Therefore, this variable needed testing.

I found some literature contradicting historically negative labeling due to individuals’ experience with disabled persons. A few studies sought to identify whether lived experiences influenced employers’ perceptions. Prior experience working with disabled individuals frequently had a positive impact on employers’ employment of disabled candidates facing the same challenges (Unger, 2002). Having disabled family members or friends ($p < .05$), as well as large company size ($p < .05$), positively impacted employers’ commitment to hiring disabled candidates (Chan et al., 2010). These

normative beliefs indicated that experience with disabled employees could influence hiring selection. Copeland et al. (2010) researched the relationship between employers' affective and cognitive reactions to disabled candidates, employers' knowledge of ADA classified disabilities, beliefs in the reasonableness of accommodations, and their prior experience employing disabled persons. Chan et al. and Copeland et al. explored the likelihood of past experiences to influence the hiring of disabled candidates. After testing for normality, linearity, outliers, and multicollinearity, Copeland et al. applied three separate multiple regression analyses. Copeland et al. found that all three predictors (employers' negative perceptions, their willingness to provide accommodations, and the belief in the equal treatment of disabled employees) correlated with their experience working with disabled individuals ($p < .05$). Copeland et al. also revealed that employers' negative perceptions had the most significant correlation ($p < .001$). However, I also found literature to the contrary.

Opposing findings indicated uncertainty whether personal experience has a negative, positive, or any influence on hiring selection. Chan et al. (2010) showed that experience with family and friends positively affected employers' hiring practices relative to disabled individuals. Copeland et al. (2010) also demonstrated that experience working with disabled candidates positively influenced hiring practices relative to such individuals. In contradiction, Sălăjeanu (2012) reported that having disabled family members or friends did not improve employers' attitudes as most employers differentiated between their professional and personal lives. Additionally, Stuckey (2016) found that female executives were 12% more likely to be familiar with ASDs than male

but that familiarity with ASDs did not make a difference in the number of desirable work qualities possessed by autistics. Varying cultural perspectives might explain the differences in these findings since Chan et al.'s and Copeland et al.'s studies were in the United States, whereas Sălăjeanu's was in Romania. All three of these studies were regarding hiring disabled workers, not qualified autistic candidates.

I also found literature inferring that senior managers' education and opinions influenced hiring practices about disabled candidates, as supported by FCT. In a case study design, Sălăjeanu (2012) interviewed 10 Romanian employers regarding their attitudes toward hiring disabled candidates. Sălăjeanu found that the higher a manager's educational level, the more deeply they held negative stereotypes regarding disabled individuals. Concepts of PAT supported the normative belief that these negative labels consequently negatively influenced hiring practices relative to disabled persons. Of the ten employers interviewed by Sălăjeanu, six reported they were open to hiring disabled candidates. Several employers reported to have hesitations, but only two employed a disabled worker (Sălăjeanu, 2012). Perhaps this contradiction between what senior managers reported and what they did stemmed from an underlying normative belief that others would see their uncertainty regarding disabled persons as a weakness. Harris Interactive (2010) revealed that 18% of HR managers were unsure how to address disability needs and 13% felt their existing staff was uncomfortable with disabled persons. Normative beliefs are associated with peer pressures and memes.

Should others view them as incompetent, then senior managers may 'lose face.' Fraser et al. (2011) found a correlation between employers' perceptions of how their

superiors, peers, and other professional associates felt about disabled individuals and their intentions to hire such ($p < .01$). Fraser et al. also reported a negative correlation when employers felt that senior management was not committed to hiring disabled candidates ($p < .05$). These findings further supported the influence of normative beliefs upon intention and behavior. Chan et al. (2010), Copeland et al. (2010), Fraser et al., Harris Interactive (2010) and Sălăjeanu's (2012) studies used samples of employers and senior managers' relative to hiring practices relating to disabled candidates. None of these studies addressed hiring agents and qualified autistic candidates specifically.

Other scholars also reported that a lack of knowledge of ASDs might present influencing factors to hiring practices. Ang et al. (2013) conducted a quantitative inquiry into factors in Malaysia influencing the employment of disabled individuals. Ang et al. found that employer attitudes were negative due to a lack of understanding disability. Howlin et al. (2005) researched employers' knowledge of ASDs. Howlin et al.'s study included 124 employers; 81% reported having no prior knowledge of ASDs. While neither study addressed employer knowledge of qualified autistic candidates, both studies demonstrated that employers lacked understanding of disabilities in general.

Other scholars found that a sizeable percentage of employers did not know what autism was. Stankova and Trajkovski (2010) studied employers' attitudes and opinions regarding the employment of autistics in Skopje, Republic of Macedonia. Stankova and Trajkovski sampled employers ($n = 33$) and analyzed data using Microsoft Office Excel 2003. Stankova and Trajkovski applied χ^2 and Fisher's exact test ($p <.05$) to analyze 19 quantitative and two qualitative survey questions both causally and descriptively. Like

Howlin et al.'s (2005) findings, Stankova and Trajkovski's findings reflected the consistency of results over time. Stankova and Trajkovski found that 85% of employers surveyed did not know what autism was. Stankova and Trajkovski determined that 52% of employers believe autistics could only partially complete their jobs, 6% did not believe they could perform their jobs at all, and 27% simply did not know. These negative perceptions indicated that employers' lack of knowledge negatively influenced their hiring practices relative to autistics in general. Stankova and Trajkovski also reported that 88% of employers felt that positions requiring physical abilities were more appropriate for autistics; thereby, completely missing the opportunity to capitalize on the heightened intellect of most qualified autistic candidates. Stankova and Trajkovski did not explore why employers held these beliefs. The implication, however, was that conventional labels applied to autistics negatively influenced employers. Concepts of PAT supported such an inference.

While several of these studies have similarity to my study in several ways, none addressed the specific question I explored. Stankova and Trajkovski's (2010) study targeted employers, rather than hiring specialists; their geographic region unrelated; sample size small; and they included autistics in general, not qualified autistic candidates. Ang et al. (2013), Chan et al. (2010), Copeland et al. (2010), Fraser et al. (2011), Harris Interactive (2010), Howlin et al. (2005) and Sălăjeanu (2012) addressed various levels and positions of management personnel and disabilities in general. Despite the gaps in knowledge, each of these studies indicated a need to further explore the influence. I found

some concern over potential disclosure; therefore, it was relevant to address such in the literature review.

Every employer, manager, and hiring agent understands that they cannot ask if an applicant or employee is disabled or any specifics about disabilities that may be noticeable or disclosed. That does not prevent an individual from voluntarily disclosing information, nor does it prevent organizational members from asking if an applicant can perform a job. Through numerous discussions over the years, I found that many qualified autistic candidates are fearful of discrimination should they choose to disclose their disability. Additionally, many are concerned that the applicant screening processes is leading to an incorrect assessment of disabilities; I found some literature to corroborate this fear. The United States Department of Education's National Institute on Disability and Rehabilitation funded Cornell University's research into potential barriers to the employment of disabled individuals from a supply-side perspective (von Schrader, Malzer, Erickson, & Bruyère, 2011). Von Schrader et al. surveyed 780 participants (disabled persons n = 599, 3% with an ASD) addressing potential issues to the employment of disabled candidates. Von Schrader et al. reported that the use of applicant screening (criminal background, credit history, and current employment) for new hires often disqualified disabled candidates. Though 97% of the participants comprised disabled adults in general and qualified autistic candidates were not categorized; results still offered potential insight. Von Schrader et al. demonstrated that often credit and employment checks screen out disabled candidates due to periods of unemployment (50% felt they did not obtain employment due to their employment history), low

incomes, high medical costs, and other factors associated with their disability. Von Schrader et al.'s was the only study I found that addressed these potential influencing factors. Thus, I needed to further test employment screening from the perspective of hiring agents (the demand-side).

Von Schrader et al. (2011) also found that a proactively disability-friendly environment was correlational to whether or not disabled candidates chose to disclose their disabilities ($p < .001$). According to concepts of PAT, if labels are positive then so is the environment; thus a disability-friendly culture presents a positive normative belief. Concepts of FCT also support the positive influence that such an environment could have. According to concepts of TPB, this could present an influencing belief on intent and behavior. Värlander (2012) addressed the issue from a perspective of how disability informs and affects management practices positively. Värlander's study provided further evidence of the influence that the work environment has upon normative beliefs. Värlander used a phenomenological approach to study members of management challenged with a disability ($n = 3$). Värlander found that disabled managers were more creative and innovative in problem-solving. Disabled managers were better able to cultivate employees' creativity and innovative tendencies (Värlander, 2012). Värlander reported that disabled managers exuded positive energy, remained humble and welcoming, and maintained a very holistic outlook on their HR as a whole. Disabled managers emphasized employee well-being and workforce empowerment. (Värlander, 2012). Due to both positive and negative associations, several questions remained.

Most of the studies in this section addressed disabled individuals, two addressed the entire spectrum of ASDs, and none addressed qualified autistic candidates. None of the studies targeted hiring agents. Additionally, how is hiring selection influenced by

- the label of autism;
- experience with autistics;
- fear of being seen as weak, uneducated, or incompetent;
- fear of negative labeling;
- knowledge of the disability of autism;
- employment and credit checks; and
- potential benefits of qualified autistic candidates to the organization.

Benefits to employers. Autistics present unique and advantageous opportunities for employers. I found several sources noting the potential benefits that qualified autistic candidates offer to prospective employers (AANE, 2013; Hendricks, 2010; Shore, 2013; Stankova & Trajkovski, 2010). Some of those benefits include

- employees that possess significant expertise in specific areas;
- employees with a keen attention to detail;
- highly ethical and honest employees that maintain the utmost integrity;
- employees that are incredibly skilled in problem-solving, persistent in research, and unswerving in their focus on the task at hand;
- employees that present an ideally independent worker demonstrating absolute loyalty and impeccable dependability; who are consistently non-judgmental and acutely sensitive;

- a highly logical employee practicing an advanced vocabulary and encyclopedic knowledge base with exceptional memory and recall who works well in a systematic, or routine, environment with a strong tendency to maintain order and accuracy;
- moreover, much more.

These are only examples of the attributes demonstrated by qualified autistic candidates; similar lists exist aimed at disabled candidates in general. Wehman (2011) posited that disabled candidates have become outstanding workers demonstrating high productivity and responsibility. Hartnett et al. (2011) reported benefits of disabled candidates included cost savings, improved safety, and increased organizational image. Thus, I reviewed literature relevant to the potential belief in these benefits influencing hiring agents' selection of qualified autistic candidates.

I found several sources that addressed the topic. Wehman (2011) reported that customers had a high propensity to patronize businesses that hired disabled workers. Concepts of PAT and FCT supported this idea due to the positive labeling that an organization receives when it demonstrates positive social change. Andreassen (2012) conducted a meta-analysis of multiple Norwegian labor surveys undertaken by Norway's Labor Force from 2002 to 2008 and the Norwegian Employer Survey on Disability carried out in 2007. Andreassen reported that employers in the health and public sectors felt their employment of disabled employees positively impacted their reputation. A positive reputation does correlate with the influence that normative beliefs have upon intent and behavior. Some literature reflected more than merely standing up for positive

social change; the concept of equality may also be an influencing belief. King et al. (2011) used regression correlation and exploratory factor analysis ($\alpha = .95$) against English national datasets to explore the relationship between community diversity, organizational performance, and customer satisfaction. King et al. found that organizational diversity matching community diversity positively affected organizational performance ($p < .01$) and customer satisfaction ($p < .01$). Consumers perceived organizations as fair and just in their hiring practices when employee diversity reflected community diversity. Since none of these studies addressed how the inclusion of qualified autistic candidates affected an organization's reputation or hiring agents' selection of them, I needed to test the influence of this belief as well.

In addition to reputation, I found supporting the benefits of diversity to organizational performance. One example is Gotteland and Haon's (2010) 142 sample correlational survey measuring the effects of team diversity on market success. Gotteland and Haon found significant benefits of diversity in education, functionality, experience, and expertise in the areas of customer ($p < .05$) and technological ($p < .01$) market performance. In addition to the accepted inclusions of diversity such as age, gender, race, ethnicity, and sexual orientation; diversity also included disability. Chan et al. (2010) demonstrated that companies with strong commitments to diversity had an increased tendency to include disability ($r = .67$, $p < .01$). Chan et al. reported that the heightened inclusion of diversity correlated to a stronger effort to recruit disabled candidates ($r = .67$, $p < .01$) and an increased commitment to the inclusion of disability throughout the organization ($B = 0.57$, $t(137) = 5.73$, $p < .01$). Thus, as belief in the inclusion of

disability in organizational diversity increased, so too did the influence those normative beliefs have upon intent and behavior.

Fraser et al. (2011) also found a correlation between employers' belief in including disabled workers in their diversity pool and their intentions to hire them ($p <$ .01). I have often heard it said that organizational environment influences organizational culture. An environment wherein the normative belief includes disabled candidates influences organizational culture accordingly. Stevens, Plaut, and Sanchez-Burks (2010) referred to this type of all-inclusive multiculturalism (diversity) as AIM. Stevens et al. presented convincing arguments supporting the substantial benefits of AIM such as improved organizational performance resulting from increased HR interaction, efficiency, innovation, and creativity. As related by Stephens et al., AIM supported high-quality relationships, decreased conflict and change resistance, and fostered organizational commitment and trust. Such multiculturalism also increased employee motivation, satisfaction, innovation, and creativity (Stevens et al., 2010). Thus, AIM influenced an overall feeling of employee value; attracted talent; and increased efficiency, effectiveness, and decision-making (Stevens et al., 2010). The advantages of such diversity programs should entice more organizations to include qualified autistic candidates or even disabled candidates in general; however, few organizations appear to be actively doing such.

One of the most publicized successes in including disabled candidates in the workforce has been Walgreens. In 2007, Walgreens Co. was the first organization to open a distribution center with the goal of one-third of its workforce comprising disabled

employees working alongside typical employees, earning the same pay, and held to the same productivity standards (Russel, 2012). Walgreens exceeded their goal, achieving 40% employment of disabled workers, and learning that their innovative design was more productive and applicable to all 17 of their distribution centers (Russel, 2012). Walgreens' success spread to other organizations as well. Russel reported that Walgreens was collaborating with entities such as Sears, Best Buy, and Lowe's to create positive social change relative to competitive employment opportunities for disabled candidates across the nation. Aimed at disabled candidates in general, these programs did not address hiring practices relating to qualified autistic candidates specifically. I found six organizations that specifically targeted those challenged with ASDs for employment. Aspiritech (2012), nonPareil Institute (n.d.), Passwerk (2013), Specialisterne (2012), Teachers' Insurance and Annuity Association and College Retirement Equities Fund (2012), and Walgreens (Russel, 2012) have recently begun exploring the vast capacity of autistics. Still, high unemployment rates indicated that most of the business world continued to dismiss qualified autistic candidates. Revealing this progress toward positive social change relative to hiring autistics was uplifting, but still did not provide insight into what influenced hiring agents' selection of qualified autistic candidates.

I found some literature indicating that employers do not believe in the benefits that qualified autistic candidates offer to the organization. Unger (2002) reported that employers had mixed beliefs about the reliability and productivity capabilities of disabled candidates. Employers questioned the social and communication skills of IDs and emotional disabilities (this category included ASDs) and felt that IDs were likely to

require extensive training (Unger, 2002). Unger also noted that employers might be more likely to accept increased training as a positive tradeoff for the increased reliability often associated with IDs. Such belief in unsupported negative attributes indicated that the societal and peer pressures of normative beliefs influenced perceptions as indicated by FCT. Kaye et al. (2011) found that 69% of employers felt that disabled candidates would not be able to work at the same levels as typical candidates. Kaye et al. also reported that 42% of employers did not believe that disabled individuals have the skill sets to perform the job at all. Kaye et al.'s and Unger's discussions related to employers' beliefs. Beliefs are elusive. Other scholars found differently.

When consulting the literature relative to employers' actual experiences with disabled workers, I found differing results. Hashim and Wok (2014) used a convenience sample of 195 Malaysian employers and 384 disabled candidates to explore employment perceptions regarding disabled workers. After testing for homogeneity ($\alpha = .072 - .93$), Hashim and Wok used SPSS to regress and correlate survey data. Hashim and Wok found that employers' positively perceived disabled employees to work well, contribute innovative ideas, and provide good customer service. Thus, employers deemed disabled workers valuable to the organization. Hashim and Wok's findings reflected benefits of disabled candidates to employers similarly to supply-side studies I already discussed. Hashim and Wok also found a direct correlation between employers' consciousness, responsiveness, and behavior toward disabled candidates. Employers perceived disabled persons to be loyal, committed, motivated, and satisfied with their employment opportunities (Hashim & Wok, 2014). Hashim and Wok's findings explained 52% of the

variation in the relationship. Throughout my literature review, I only found one source to support employers' negative beliefs about ASDs. Morgan and Schultz (2012) reported that autistics had difficulty engaging in decision-making, initiation of action and follow-through, maintaining communications, and general socialization typically needed in a working environment. Employers may not understand that autistics interact with their environments differently than typical individuals. Even with Morgan and Schultz's findings, considerable literature reflected the substantial benefits that qualified autistic candidates offer an organization. Normative beliefs could be based on societal and peer pressure memes in much the same manner as indicated by concepts of PAT. Labeling and related normative beliefs needed testing.

Does understanding of qualified autistic candidates increase hiring agents' selection of them? In this section of the literature review, I covered many potential normative beliefs about how qualified autistic candidates affected an organization. Most of the studies I reviewed addressed disabled candidates in general. The only studies addressing qualified autistic candidates specifically presented potential benefits that they could bring to an organization. A gap existed in the scientific understanding relative to hiring agents' understanding of qualified autistic candidates. None of the studies targeted only hiring agents; which also indicated a gap in the literature. Remaining questions included: (a) Does organizational reputation relative to positive social stewardship influence hiring selection, (b) does organizational reputation relative to equal hiring practices influence hiring selection, and (c) do societal and peer pressure memes influence hiring selection?

Summary of normative belief potential variables. I found limited literature related to qualified autistic candidates relative to normative beliefs and no study addressed hiring agents' normative beliefs specifically. I identified several potential normative belief variables to test. IVs consisting of

- the label of autism;
- past experiences with autistics;
- fear of being seen as weak, uneducated, or incompetent;
- fear of negative labeling in general;
- knowledge and understanding of qualified autistic candidates and their associated challenges;
- employment and credit screening;
- potential benefits that qualified autistic candidates offer the organization;
- organizational reputation relative to positive social stewardship;
- organizational reputation relative to equal hiring practices; and
- societal and peer pressure memes.

The DV consisting of hiring agents' selection of qualified autistic candidates. I needed to test the relationship among these ten IVs and the DV. Primarily normative beliefs, these beliefs also impacted control and behavioral beliefs as framed by concepts of TPB and supported by concepts of FCT and PAT. Since the influences of individuals' environments throughout their lives shape their VABEs, it follows that the environment also influences intent and behavior. Therefore, I next review literature applicable to behavioral beliefs.

Hiring Agents' VABEs

I explored literature relating to VABEs (behavioral beliefs) and their influence on hiring practices. I found a broad range of opinions. Unger (2002) undertook an extensive literature review dating from 1957 to 2000. Through in-depth meta-analysis, Unger identified characteristics that influenced employers' VABEs regarding disabled workers in the workplace. Unger found only 24 studies throughout that 43-year analysis. Those studies had little to no consistency in disability addressed, questions explored, variables examined, methodology, sample, or findings (Unger, 2002). Very few of those studies contained inferential statistical procedures (Unger, 2002). Despite the inconsistencies, two common themes emerged. Unger gathered that employers were (a) more comfortable employing individuals with PDs rather than IDs or emotional ones, and (b) were not typically positive about hiring those with learning disabilities. These findings aligned with Stuckey's (2016) report that 98.7% of employers felt education was a crucial employment skill and 99.3% reported socially acceptable behavior as a crucial employment skill. Concepts of ELM indicated that such attitudes naturally compounded to influence actions, thus, supporting concepts of TPB that behavioral beliefs affect intent and behavior.

Current literature also supported the inference that behavioral beliefs affect intent and behavior. For-profit hiring practices are typically driven by sales oriented goals (Hernandez et al., 2012). Non-profit hiring practices are usually motivated by serving society (Hernandez et al., 2012). Hernandez et al. determined that these driving factors directly influence VABEs and, therefore, hiring practices relative to disabled candidates.

Not only did this study demonstrate that attitudes affect behavior but it used TPB as a framework for doing so. Hernandez et al. interviewed two focus groups, one with seven non-profit (mostly employing > 1,500) and one with five for-profits (all employing > 1,500) organizations. Hernandez et al. recruited their participants using a convenience sample through a service that is directly related to disabled individuals, thereby, introducing potential bias into their study. Hernandez et al. used TPB to understand the relationship between employers' behaviors and hiring intentions concerning disabled individuals. While I did see some similarity to my study, Hernandez et al. did not look at ASDs and they interviewed mostly executive management personnel not hiring agents. Hernandez et al.'s findings demonstrated the link between normative beliefs (organizational goals) and behavioral beliefs (employers' attitudes); a concept of TPB. As evidenced in other studies, when organizations exhibit positive normative beliefs through disability-friendly practices, those beliefs influence intent and behavior.

Ajzen's (1985) concepts of TPB indicated that behavioral beliefs are inherently influenced beliefs, which in turn further influence intent and behavior. For example, Chan et al. (2010) demonstrated that employers' attitudes were negative about hiring and retaining disabled candidates. Chan et al. determined these attitudes were a result of four key factors

- an organizational lack of commitment to include disability amongst organizational diversity plans (control and normative),
- lack of allocated resources for recruiting and retaining disabled persons (control),

- management's beliefs that disabled workers are hard to supervise (normative and behavioral), and
- disabled employees are subject to absenteeism (behavioral).

Both control and normative beliefs permeating the environment influenced behavioral beliefs. The belief that disabled individuals are difficult to manage and suffer increased absenteeism when studies have demonstrated otherwise strongly inferred the influence that beliefs have on actions.

I found several studies wherein attitudes and opinions resulted in influencing intent and behavior. Houtenville and Kalagyrou (2012) found that employers tended to stereotype disabled candidates. Such stereotyping led to prejudice against hiring disabled individuals, a lack of belief in their skills and ability to perform the job, and concern over potential costs to hiring them (Houtenville & Kalagyrou, 2012). According to concepts of ELM and AAT, such severe reactions stemming from behavioral beliefs are not uncommon. Stereotyping is a form of labeling in which concepts of PAT indicate the influence of intent and behavior. The crystallization of all three theories supporting the concepts of TPB indicated that the impact of behavioral beliefs was significant. While Houtenville and Kalargyrou did not report inferential statistical significance, the data they collected did present some reliability as it was secondary data initially gathered by ODEP's 2008 (DOL, 2014) survey of employer perspectives on employment of disabled people. Houtenville and Kalargyrou compared company size, as well as businesses that do and do not actively recruit disabled candidates in the hospitality industry. Findings were also consistent with other research.

Kaye et al. (2011) reported that 71% of employers held negative perceptions about the extra time and attention that disabled employees needed. Kaye et al. determined that 53% of employers conveyed that they discriminated against disabled candidates, 47% were worried about the attitudes of their peers, and 41% believed that disabled workers would be 'problem employees.' Kaye et al.'s findings demonstrated both behavioral and normative beliefs, albeit mostly behavioral. Chan et al. (2010) also found that negative attitudes towards disabled candidates were related to negative perceptions of their productivity ($r = -.34$, $p < .01$). Negative perceptions led to a lack of commitment to hire disabled persons ($r = -.35$, $p < .01$; Chan, et al., 2010). These findings demonstrated a direct correlation between employers' VABEs and their intent to hire disabled candidates. Wehmeyer (2011) stated that society general believes it is preposterous to think that disabled people should work in 'real' jobs. Thus, societal memes presented a significant influencing factor. These studies only addressed disabled candidates and did not target hiring agents; however, I found two studies about ASDs specifically.

I found only two pieces of literature about employers' attitudes to ASDs. Stankova and Trajkovski (2010) conveyed that most employers characterize autistics with stereotypical movements, retardation, and unreachable (interpreted as an inability to communicate). Employers (52%) reported they would not employ autistic candidates even if they previously, professionally knew of autistics' capabilities (Stankova & Trajkovski, 2010). While this did infer that VABEs influenced employers' intent to hire autistics; it did not address hiring agents specifically, nor did it regard qualified autistic

candidates. The only piece of literature I found broaching the subject of employers' VABEs regarding qualified autistic candidates was not even a study; it was an article in a periodical reporting the treatment received by qualified autistic candidates. Wallis (2012) reported a significant lack of support and negative attitudes from supervisors and co-workers about working with qualified autistic candidates in a London medical institution. While there were no statistical inferences and no assertion of reliability, the validity of the qualitative stories presented connection to my study. This obvious lack of scientifically testable data relative to the influence that hiring agents' VABEs have on their selection of qualified autistic candidates indicated further study needed; particularly considering literature contrary to these negative findings.

Not all employers maintained negative attitudes and opinions regarding disabled candidates. Harris Interactive (2010) reflected that 81% of employers felt disabled candidates have the same potential to learn new skills as typical employees. Harris Interactive determined that 71% of employers felt absenteeism rates were equivalent in both disabled and typical employees. Survey results showed that 67% of employers thought disabled workers would be flexible and adaptive, 62% believed they would be equivalent to typical employees, and 58% claimed both groups' attrition rates to be equal (Harris Interactive, 2010). These findings indicated that many employers felt disabled employees were equivalent to typical employees. Some employers felt more positively about disabled candidates than typical employees. Harris Interactive found that 35% of employers felt disabled employees would be more dedicated than typical employees and 33% felt they would have lower attrition rates. These findings indicated some employers'

awareness of the benefits disabled candidates offer organizations. Fraser et al. (2011) determined that employers' belief that disabled employees are loyal and committed correlated with their intentions to hire them ($p < .01$). Copeland et al. (2010) and Stuckey (2016) indicated that prior experience employing disabled workers positively affected employers' VABEs related to such. These findings represent a wide variance in behavioral beliefs. Such a range of behavioral beliefs indicated a significant underlying belief might be influencing hiring agents' selection.

With AAT, Katz and Glass (1979) held that when personal opinion contradicts reason, then ambivalence is amplified. Such amplification often results in aggression against the stigmatized group. The wide range of behavioral beliefs appeared to influence hiring agents' selection of qualified autistic candidates. Concepts of ELM indicated that attitudes and opinions become exaggerated or embellished, frequently compounding already existing perceptions. Thus, behavioral beliefs were significantly influencing hiring agents' selection of qualified autistic candidates. According to concepts of TPB, behavioral beliefs, in conjunction with normative and control beliefs, influence intention and behavior. These models indicated a need to identify the specific VABEs of hiring agents influencing their selection of qualified autistic candidates.

Specific VABEs that may be influencing factors. I identified several potential behavioral beliefs in this section of the literature review. I separated these VABEs into three categories: organizational, stereotyping, and general beliefs (see Figure 10). Organizational and general beliefs may have either positive or negative influence on hiring agents; whereas stereotyping would have negative connotations.

Organizational	Stereotyping	Beliefs
• Goals • Environment • Committed resources • Diversity plan • Afinity plan • Commitment to hire • Peers	• Skills and ability • Productivity • Time and attention • Problem employees • Stereotypical movement • Retardation • Unreachable • Potential to learn	• Prefer physical disabilities • Hard to supervise • Absenteeism rates • Discrimination • Adaptibility • Dedication • Inconvenience • Prior experience

Figure 10. Potential behavioral beliefs influencing hiring agents' selection of qualified autistic candidates as related in this section of the literature review.

Most often considered control or normative beliefs, organizational beliefs also lead to behavioral beliefs. Organizational behaviors such as those listed in figure 10 directly influence hiring agents' selection of qualified autistic candidates as supported by concepts of TPB and the associated theories discussed. Stereotyping beliefs have normative and behavioral inferences and stem from preconceived, archaic, notions regarding ASDs. Many individuals believe stereotypical associations even though modern medical science demonstrates otherwise. Easily identified as behavioral beliefs, general beliefs included those of a more personal nature. They were just as likely to influence intent and behavior as the other behavioral beliefs listed (see Figure 10).

Do hiring agents' VABEs influence their selection of qualified autistic candidates? This section of the literature review went over potential behavioral beliefs that could influence hiring agents' selection of qualified autistic candidates. Only one study addressed ASDs, and no study targeted hiring agents specifically. Questions relative to this section of the literature review included

- How do behavioral beliefs arising from the organizational culture influence hiring selection,
- how do behavioral beliefs stemming from stereotypical beliefs influence hiring selection, and
- how do general behavioral beliefs influence hiring selection?

Summary of behavioral belief variables. I found extremely limited literature relative to qualified autistic candidates about behavioral beliefs and no study addressed hiring agents' behavioral beliefs specifically. Behavioral belief variables I needed to test in this study included IVs consisting of (a) organizational behavioral beliefs, (b) stereotyping behavioral beliefs, and (c) general behavioral beliefs (see Figure 10). The DV consisting of the influence of those behavioral beliefs on hiring agents' selection of qualified autistic candidates. I needed to test the relationship among these IVs and the DV. While classified as behavioral beliefs, these beliefs also impacted control and normative beliefs as framed by TPB and supported by concepts of AAT and ELM. Throughout this literature review, I presented several gaps in the existing knowledge base. In the next section, I discuss these deficiencies in scientific knowledge specifically.

Deficiencies in Scientific Knowledge: Gaps in the Literature

I identified several deficiencies in existing scientific knowledge. Sample sizes, restricted population ranges, and typically related to disabled persons in general limited peer-reviewed literature on this topic. ASD specific literature related to all autistics, rather than qualified autistic candidates who are more readily capable of entering competitive employment, most of which would be at a professional, career-level. I found

some literature relative to legislation and perceived costs associated with employing disabled candidates. I found a good deal of research regarding VR and supported employment services and the costs related to supported vs. sheltered employment. I also discovered some speculation on reasons for disabled candidates' unemployment rates and limited associated employers' beliefs. Most of the literature was from the supply-side of the employer-employee relationship, rather than the demand-side. The literature that I found from the demand-side targeted employers, in general, not hiring agents specifically. Through expanding search parameters to include any ASD and disabilities in general, I found literature indicating that many employers possess negative beliefs toward hiring disabled candidates. I also found literature demonstrating amplified negativity toward individuals with ASDs and similar disabilities. I only found one study addressing employers' beliefs toward autistics in general, and none relative to qualified autistic candidates specifically. Thus, several gaps remained.

In this literature review, I presented data providing evidence of over 2 million qualified autistic candidates facing unemployment rates calculated at 83%. Employment of qualified autistic candidates would benefit individuals and society. Literature review demonstrated that most scholars did not inquire why this disenfranchised group remains unemployed. I revealed several gaps related to IVs potentially influencing hiring agents' selection of qualified autistic candidates (DV). I classified these IVs into three variable types: control, normative, and behavioral (see Figure 11). While several of these variables have implications in multiple taxonomies, I classified them in the category that each variable most typifies. For example, an organization's affinity plan (control) directly

influences the degree of disability-friendliness projected by its culture. That culture influences peer pressures (normative); both of which influence individual attitudes (behavioral). The variable of organizational affinity is most applicable to control beliefs. Thus, I classified it as such. Principles of TPB factor these cross associations into the base concept that the combination of control, normative, and behavioral beliefs influence intent and behavior.

Control	Normative	Behavioral

• Litigation & mediation
• Legislative & legal understanding
• Cost of accommodations
• Supported employment
• VR services
• Hiring costs
• Insurance costs
• Organizational -
  • Goals
  • Environment
  • Committed resources
  • Diversity & afinity plans
  • Commitment to hire
	• Label of autism
	• Past experiences
	• Fear of seeming dumb & incompetent
	• Fear of embarrasment & negative labeling
	• Knowledge of condition of autism
	• Employment/credit screening
	• Knowledge of potential benefits
	• Postive social stewardship practices
	• Equal employment practices & disclosure
	• Societal & peer pressure
	• Poor presentation
		• Hard to supervise
		• Absenteeism rates
		• Adaptability
		• Dedication
		• Inconvenience
		• Prefer physical disabilities
		• Discrimination
		• Stereotyping -
		  • Skills and ability
		  • Productivity
		  • Time and attention
		  • Problem employees
		  • Stereotypical movement
		  • Retardation
		  • Unreachable
		  • Potential to learn

Figure 11. Independent (predictor) variables (control, normative, and behavioral beliefs) potentially influencing the dependent (criterion/outcome) variable (hiring agents' selection of qualified autistic candidates). Further study of these variables was needed to fill the gap in literature as related throughout the associated sections of this literature review.

In this study, I aimed to test the relationship between these potential IVs and the influence they exerted on hiring agents' selection of qualified autistic candidates (DV).

Results begin filling a portion of the revealed gaps in the literature. I hope that extending the scientific knowledge in this area extends public policy to further positive social change related to the significantly high unemployment rates of qualified autistic candidates. In this study, I sought to measure these relationships, building from the TPB framework, triangulated with AAT and ELM; PAT and FCT; and EVT (see Figure 1). Measurement occurred in an environment that questioned which of these beliefs, if any, and to what degree, they influenced hiring agents' selection of qualified autistic candidates.

In this Chapter, I presented a thorough literature review that analyzed my study's framework, provided an in-depth understanding of the problem, and uncovered pertinent variables. I went into detail regarding the combined theoretical and conceptual framework, as well as the primary theory and triangulating theories. I presented statistical data and calculations that demonstrated the societal and public policy needs associated with current unemployment trends for autistics. I provided review and discussion drawing attention to IVs (control, normative, and behavioral beliefs) that needed additional study due to deficiencies in current literature. I also presented discussion related to potential covariates, systematically ruling out the need for such in my study. I summed up the three behavioral taxonomies (see Figure 11) to provide a concise picture of the nuances that each IV contains and I recapped the gaps in the literature. In Chapter 3, I present my research methodology in detail. I define the study setting and relate its importance. I cover the design and rationale of my study. I present my role as researcher and detail the research questions. I carefully and specifically outline the methodology and discuss

potential threats to validity. I include trustworthiness, bias, and matters of ethics. Finally, I summarize the Chapter.

Chapter 3: Research Method

In my quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression study, my purpose was to predict the strength at which hiring agents' beliefs influence their likelihood of selecting qualified autistic candidates. In Chapter 3, I present the design, its instrumentation, isomorphic rationales, potential issues, and concerns related to my study. I review both quantitative and qualitative aspects as to their applicability, application, and usefulness. In Chapter 3, I further describe the IVs and DV, sample, and methods of analysis in sufficient detail to allow replication by other researchers. Since I aimed to identify beliefs influencing hiring agents' selection of qualified autistic candidates, it was essential to begin by gathering data in an environment conducive to obtaining the most reliable and relevant information.

Study Setting

I sought to identify beliefs which many hiring agents might be reluctant to share. Thus, it was crucial to create a setting wherein hiring agents felt comfortable responding to questions honestly and openly. Several factors might influence a hiring agent to answer as they believe they should answer or as they feel expected, rather than transparently. Therefore, I assured all participants of complete anonymity. Data collection location, frequency, duration, and method are common factors that influence participants' responses. I felt that fear of legal repercussions toward themselves or their employers was one of the beliefs inhibiting hiring agents' honest responses. Other social desirability issues could also lead to dishonest responses. Hence, I employed two distinct methods to create a setting that addressed those aspects while inspiring honest reflection and open

participation: (a) I ensured anonymity and (b) I phrased questions to be non-incriminating.

Anonymity: Location, Frequency, Duration

I considered several factors to establish complete anonymity

- I assured and ensured that the design included no way to trace participant location whether by physical address, email, or Internet Protocol (IP) address;
- I assured and ensured that there was no way to identify individual participants;
- I assured and ensured that there was no way to determine the respondent's employer; and
- those factors were established and conveyed to participants upon initial recruitment and at the initiation of data collection (see Appendices A and G).

I gathered both quantitative and qualitative data without knowing who or where the participant was. Participant location played a critical factor in maintaining anonymity. I collected all data online via the HASSQAC (Mai, 2015) tool; thus, participants completed the survey wherever they desired providing they had Internet access. I only collected data once from each participant and estimated that the time to complete the HASSQAC was from 15 to 30 minutes depending on Internet connectivity and the detail in which participants addressed qualitative questions. Qualtrics (2014) was an appropriate Internet-hosted survey provider that presented an optimal solution to meet those needs.

Qualtrics: Data collection. Qualtrics (2014) allowed me to keep my participant base completely anonymous. This tool presented an efficient and useful web-based survey forum for the study's HASSQAC (Mai, 2015). Neither the HASSQAC questions

nor the survey host (Qualtrics) collected names, phone numbers, emails, or IP addresses of participants. Qualtrics was one of the few survey hosts that I found that allowed the additional option not to collect IP addresses (Qualtrics, 2014). This ability was essential for ensuring complete anonymity to participants. Not only was anonymity essential in creating a feeling of safety that inspired honesty, so was question phrasing.

Non-Incriminating Questions

Phrasing questions in non-incriminating manners allowed participants to remain comfortable in sharing their honest opinions without potential adverse social desirability concerns. Kaye et al. (2011) found that participants responded much more eagerly with indirect study questions and in a structured, projective manner. Instead of asking about participants' own or their organizations' attitudes, Kaye et al. asked participants to speculate as to the attitudes of employers in general. This tactic of questioning proved quite effective in engaging participants to consider reasons for employers' reluctance regarding disabled employees. Research consistently demonstrated that such indirect questioning methods often obtained more accurate, less biased responses (Fisher, 1993; Fisher & Tellis, 1998; Supphellen, Kvitastein, & Johansen, 1997). Correlation between responses to direct and indirect questions demonstrated significantly stronger reliability for indirect lines of questioning (r = .33; Fisher & Tellis, 1998). I used similar question formatting (see Appendix A) regarding the beliefs (IVs) influencing hiring agents' selection of qualified autistic candidates (DV).

Research Design and Rationale

I aimed to analyze what beliefs influence hiring agents' selection of qualified autistic candidates. The combined theoretical and conceptual framework of my quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression study strengthened its predictive reliability. The combined framework also increased the confidence of its validity relative to identifying beliefs influencing hiring agents' selection of qualified autistic candidates. I combined taxonomies (the three belief groupings of TPB) and conceptual frameworks (the crystallization of TPB, AAT, ELM; PAT, FCT; and EVT) in a theoretical structure through relating descriptions, explanations, and predictions in an inter-related manner as recommended by Frankfort-Nachmias and Nachmias (2008). Frankfort-Nachmias and Nachmias related that this type of crystallization moved beyond mere triangulation and permitted deductive proposition derivation explaining and confidently predicting the phenomena under study. Per this theoretical framework, the beliefs of hiring agents dictate their behavior. Thus, this crystallized framework allowed prediction of that behavior based on those beliefs. In this study, I classified beliefs into three taxonomies that, per concepts of TPB, together confidently predicted behavior. I used this framework to support the structure of the study's combined design from which I deduced propositions.

Combined Design

To explore the relationship between the control, normative, and behavioral beliefs of hiring agents (IVs) and their selection of qualified autistic candidates (DV), I employed a concurrent, mixed method (QUAN > qual), multiple regression design.

Rudestam and Newton (2007) conveyed that mixed methodology combined the rigor of quantitative analysis with the depth of qualitative observation. Thus, the deductive nature of quantitative research increased the study confidence through statistical analysis. Predictive applications require quantitative deductive analysis. Therefore, quantitative analysis was critical in identifying the factors influencing hiring agents' selection of qualified autistic candidates. The inductive nature of qualitative research is essential in exploring under-explored phenomenon, like in this study, and identifying behaviors relative to variable relationships (Glaser & Strauss, 1967; Miles & Huberman, 1994; Taylor & Bogdan, 1998); thereby, the inductive approach increased study strength. The inclusion of qualitative research in my study allowed for insight into findings, rich explanation, and enhanced understandability. I collected both quantitative and qualitative data concurrently via the same HASSQAC (Mai, 2015) instrument.

Data collection implications. Concurrent data collection increased reliability through minimizing external and longitudinal variance influences. The use of both types of data increases credibility through the corroboration of recurring themes, patterns, behaviors, and commonalities (Creswell, 2013; Patton, 2002). I collected and statistically analyzed nominal (demographic), ordinal (IVs), and continuous (DV) quantitative data. I coded and analyzed qualitative data identifying factors (themes and patterns) common to data gathered quantitatively. Thus, I ascertained potential duplications, the degree of inclusion, and coded accordingly. I used qualitative data to provide insight, expand upon, or explain quantitative findings. The credibility of the qualitative research directly correlated with my credibility as the researcher.

Role of the Researcher

While I had no relationship of any type with the study's participants, I did possess some biases. Here, I convey those biases ensuring the transparency and credibility of the study. I have a 21-year-old autistic son. I worked in an HR and management capacity for over 35 years. I collaborated with various autism societies, groups, and other advocates for the past 17 years. I possess several VABEs that stemmed from these roles. Due to these three potential personal biases, I employed specific methods to manage such.

Managing Researcher Bias

Employing primarily quantitative methodology minimized the risk of personal bias. I reported all results including those contrary to my VABEs. Many researchers unwittingly influence the collection of data, particularly qualitative, through their interaction with the participants. I had no interaction with participants other than soliciting participation. I solicited participation through IRB approved electronic mediums that included email, social media, and website. I used the same participation email for all potential participants (see Appendix G). I phrased social media and website ads similarly. I did not include any inference to answer questions one way or the other in any solicitation. I phrased all HASSQAC (Mai, 2015) questions neutrally. Qualitative questions were open-ended, phrased neutrally, and allowed ample space for participants to type in whatever they wished. Thus, I had no opportunity to influence answers with my biases. I analyzed, coded, and reviewed qualitative responses for consistency and duplication; then, presented them alongside quantitative data for a holistic interpretation.

I used qualitative answers verbatim adding a rich description and increased understanding of quantitative findings. I made every effort to analyze and report findings neutrally.

Other ethical issues. No other ethical issues were present. Participants were professional hiring agents and not within a vulnerable population. Fatigue, stress, or frustration when filling out the online HASSQAC (Mai, 2015) was the only potential risk associated with this study. I informed participants of those risks before they commenced the questionnaire. I offered no incentives for participation in the study. By ensuring anonymity and using indirect questions, there were no actual or perceived conflicts of interest.

Methodology

This section refers to the sample, instrumentation, and data analysis plan of my study. Precise discussion of methodology is critical to ensure that future research is duplicatable, and strengthens credibility, validity, and reliability. Here, I present the methodology in detailed description beginning with sample specifics.

Participant Sample

I used a representative, simple, random probability sample. I aimed sample solicitation at hiring agents of medium-sized (employing 50 to 249) organizations; thus, I included a representative sample of such. In my 35+ years of personal, academic, and professional HR experience, hiring agents were typically the only persons responsible for hiring select candidates to fill open positions. Since I aimed this study at identifying beliefs influencing hiring selection, I wanted to target a participant pool consisting of those responsible for that selection. I defined hiring agents as recruiters, HR personnel,

staffing agents, and any other person in a professional position responsible for candidate solicitation, screening, and conducting interviews through making a final selection of candidates to fill open positions.

Throughout my experience, in conjunction with various inferences throughout the literature, researchers studied large organizations the most. Medium-sized businesses are less researched than large organizations (Harris Interactive, 2010). For this study, I defined medium-sized organizations as any organization type that employs from 50 to 249 employees at any level of responsibility. The United States does not have a uniform definition of a medium-sized organization; however, the European Commission (EC) does (Verheugen, 2005). Those standards set by the EC appeared to be the most commonly used across international basis as a definition of a medium-sized organization. The EC defined medium-sized organizations as employing from 50 to 250 employees (Verheugen, 2005). In 2010, only 46,441 businesses were employing 250 or more employees in the United States; whereas 325,436 businesses were employing from 50 to 249 employees (USCB, 2011). There were also 14,421,379 businesses employing less than 50 employees (USCB, 2011). In my experience, medium-sized organizations are large enough to warrant a professional dedicated to recruiting and selection. Harris Interactive and Rimmerman (1998) both reported medium-sized businesses likely to have adopted formal diversity initiatives. In addition to targeting hiring agents serving medium-sized organizations, I also targeted the geographical location of the population base.

I targeted participant inclusion to hiring agents within the contiguous United States. The contiguous United States includes all continental states adjacent to each other; thus, omitting Alaska and Hawaii. The justification for this target threshold was threefold

- Data collection of autism prevalence via ADDM was throughout the contiguous United States (see Figure 2),
- this geographical range expanded potential generalizability, and
- the costs of soliciting the participant pool were the same whether limited to one state or broadened to include the contiguous United States.

Targeting a participant sample of hiring agents serving medium-sized (50 to 249 employees) organizations located throughout the contiguous United States was a key component of my sampling strategy.

A representative, simple, random probability sample presented the strongest sample strategy due to the nature of the study's questions and potential generalizability. A representative sample indicates a specific population base, in this instance hiring agents serving organizations located within the United States. While participants were random, due to the random generation of the Dun and Bradstreet list, every organization within the population sample had an equal chance of participation; thus, a probability sample strategy. Dun and Bradstreet reported 443,000 (*N*) medium-sized (50 to 249 employees) businesses in the contiguous United States at the end of 2014 (DeJesus, 2015). In January 2016, I requested a non-stratified, single-stage, randomly generated list of 1,500 hiring agents serving medium-sized (50 to 249 employees) organizations in the contiguous United States from Dun and Bradstreet. That list gave every unit in that target

population a .34% chance of selection to participate ((1,500 / 443,000) * 100 = 0.0034). Dun and Bradstreet provided a list of 1,611 email addresses within those parameters.

There were no restrictions on the use of this email list since Dunn and Bradstreet already generated the list within the target parameters of the study. I sent the email solicitations twice from the Qualtrics (2014) survey hosting service email and once from my Walden University email. Additionally, I used social media and a dedicated website to promote and solicit participation. I obtained this list after I had Walden IRB approval to commence with this study (see Appendix H). The Qualtrics survey hosting service allowed me to upload the list obtained from Dunn and Bradstreet into a single email database. This service sent out the survey solicitation in bulk (all at once) to the full list in an anonymous fashion (in January and August 2016) so that no recipient saw the emails of other recipients. Due to poor participation results ($n = 0$), Walden IRB approved my additional use of social media and website in April 2016. Thus, I published the dedicated website and began social media posts in May 2016. I sent the emails from my Walden University email individually over the course of two months (May and June 2016) as each had to be individually composed. I posted to social media concurrently on average of twice per week from May 2016 through October 2016. I set a goal to obtain my desired sample size of 384 (n) from this solicitation regimen.

Size. The goal sample size was based on $1 - \alpha = .95$, $\pm 1.96z$, $\sigma^2 = .5$, $\alpha = .05$, $1 - \beta = .80$, and $ES = .20$. Assuming a normal distribution curve, $1 - \alpha = .95$ limited the chances that the population mean would be within 2 SD ($\pm 1.96z$). Thus, leaving only a 5% possibility that the sample population would not fall within the true population range.

Using $\sigma^2 = .5$ considered the largest range of heterogeneity of responses. Based on Cochran's (1963) equation for determining a representative sample, I needed a participant sample of $n = 384$ (see Equation 1).

I used $\alpha = .05$, $1 - \beta = .80$, and $ES = .20$ to ascertain an adequate goal sample population. To minimize the potential for Type I error, I considered $\alpha > .05$ to be significant enough to reject the null hypothesis. A Type I error occurs when a researcher rejects a true null hypothesis. A Type II error occurs when a researcher accepts a false null hypothesis. To minimize the chances of making a Type II error, I strove for $1 - \beta = .80$. *ES* correlates to *SD*. Cohen (1992) posited that $ES = .20$ is small, $ES = .50$ is medium, and $ES = .80$ is large. Cohen also explained that a small effect is real but requires careful study to observe. Whereas, Cohen related a large effect to one that is obvious. A test is statistically significant if a result is unlikely to have occurred by chance, thus rejecting the null hypothesis. To observe a small *ES*, I set my desired *ES* at .20 using Pearson's *r* to measure the magnitude of the correlation between variables. A standard correlation table indicated that to achieve $1 - \beta = .80$ and $ES = .20$ I needed a minimum sample size of $n = 193$. Alternatively, maintaining $1 - \beta = .80$, $ES = .25$ required a minimum sample size of $n = 122$ and $ES = .50$ required a minimum sample of 28. While my goal sample size was $n = 384$, I set my minimum acceptable sample at $n = 122$ responses for a minimum $ES = .25$; thus, maintaining a small *ES*.

Qualitative data collection is related more to saturation than to specific sample sizes and statistics. Most qualitative studies require from 1 to 30 samples depending upon the type of qualitative design (Creswell, 2014). In qualitative research, sampling

continues until saturation occurs; the point at which the researcher garners no additional information from participants. Scholars seldom seem to agree on specific numbers of units required in each of the various qualitative designs. Rudestam and Newton (2007) suggested whatever was "deem[ed] reasonable for a convincing argument" (p. 95). While my study was quantitatively weighted, I also established qualitative trustworthiness. Historically, sample requirements for case studies are highly varied. In my literature review, I found very small qualitative sample sizes (discussed in Chapter 2). Thus, even my minimum accepted sample of $n = 122$ achieved saturation.

Criterion. I employed two methods of establishing if participants met study criterion. My solicitations targeted participants from medium-sized (50 to 249 employees) organizations within the contiguous United States, and I included demographic questions in the HASSQAC (Mai, 2015). I requested a non-stratified, single-stage, randomly generated email list that included 1,500 medium-sized (50 to 249 employees) organizations located within the contiguous United States from Dun and Bradstreet. Dun and Bradstreet provided a list of 1,611 email addresses within that criteria. Using that list, I sent each organization a participation solicitation addressing hiring agents (see Appendix G). I invited hiring agents to participate in the online HASSQAC. Demographic questions on the HASSQAC included professional occupation, industry type, number of employees, and geographical location (see Appendix A). With this data, I analyzed responses from each demographic category.

I provided informed consent at two stages: upon initial solicitation and upon commencement of the HASSQAC (Mai, 2015; see Appendices A and G). Through

features of Qualtrics (2014) online survey host provider, I collected entirely anonymous data. Additionally, Qualtrics provided a compatible download of data directly into SPSS (the software instrument I used to aid analysis) and MS Excel. I informed participants of completion and thanked them for participation upon their completion of the HASSQAC (Mai, 2015; see Appendix I). There was no follow-up; however, I did provide participants with an email address should they wish to request study results (see Appendix I).

Instrumentation

I designed my concurrent, mixed methods (QUAN > qual), multiple regression study to collect both quantitative and qualitative data with the HASSQAC (Mai, 2015) tool. While I tailored the questions specifically for this study, I also based those questions on a combination of existing survey tools, current literature, and expert feedback (see Appendices A - E). I listed the sources for each HASSQAC question on the survey instrument in Appendix A. The participants could not view those sources. The two primary sources for the instrument's development were Copeland et al.'s (2010) Affective Reactions sub-scale of the Disability Questionnaire and Kaye et al.'s (2011) Employer Questionnaire (see Appendices B and C for authors' permissions).

The HASSQAC tool. I created the HASSQAC (Mai, 2015) tool for this study from a combination of previously established instruments, literature, and expert feedback. Existing instruments (the Affective Reactions sub-scale of the Disability Questionnaire and the Employer Questionnaire) tested and exhibited strength regarding variables or validity of a similar nature as my study. I tailored the HASSQAC to address hiring agents specifically rather than employers in general and relative to their beliefs about autistics

rather than other categories of disability. I researched several questionnaire formats including those employed by Copeland et al. (2010); Harris Interactive (2010); Hendricks (2010); Hernandez et al. (2012); Howlin (1997); Kaye et al. (2011); Popovich, Scherbaum, Scherbaum, and Polinko (2003); Stankova and Trajkovski (2010); and von Schrader et al. (2011). Each of those instruments had some influence on the creation of the HASSQAC (see Appendix A). However, I selected two existing instruments to primarily tailor the HASSQAC: (a) Copeland et al.'s version of the Affective Reactions subscale of Popovich et al.'s Disability Questionnaire and (b) Kaye et al.'s Employer Questionnaire parts I & II.

Affective Reactions (b) subscale of the Disability Questionnaire. The reliability and validity of this tool made it an integral component in the creation of the HASSQAC (Mai, 2015). The Disability Questionnaire originally included demographic measures as well as three separate subscales

- beliefs of cognitions about what constitutes a disability,
- affective reactions concerning working with persons who have disabilities, and
- beliefs or cognitions about the reasonableness of workplace accommodations for persons who have disabilities (Popovich et al., 2003, p. 165).

Subscale (b) contained a 22-item, 7-point Likert scale questionnaire regarding potential reactions to disabilities. Popovich et al. conducted two studies using this tool. Internal consistency of subscale (b) was $\alpha = .69$ in study 1 and $\alpha = .74$ in study 2. Popovich et al. used a multivariate analysis of variance to test for response order effect

with non-significant results, Pillai's Trace = .07, $F(10, 218) = 0.801$, $p < .70$, $\eta 2 = .035$. These results indicated that item order presentation did not substantially impact responses. Popovich et al. conducted their study with college students rather than employers; which limited validation to that participant pool. Copeland et al. (2010) remedied that limitation through a study aimed at validating and determining the dimensionality of the tool, as well as further testing the Affective Reactions subscale specifically.

Copeland et al.'s (2010) participant sample included 142 employers from Colorado Springs, Colorado and reported internal consistency ranging from $\alpha = .69$ to $\alpha = .85$. Copeland et al. used exploratory factor analysis to examine dimensionality. In a 21 x 21 correlation matrix subjected to a principal axis factor analysis, the Kaiser-Meyer-Olkin (*KMO*) sampled greater than .50 (*KMO* = .82) and the Bartlett's test of sphericity, χ^2 (210, $N = 142$) = 1,081.03, $p < .001$. Thus, Copeland et al. accepted the model and proceeded with exploratory factor analysis. The Kaiser-Guttman rule, followed by a Cattell's scree test, indicated a three-factor solution. Copeland et al. rotated to the simple structure using an oblique rotation. This solution accounted for 39% of the total variance, presenting a parsimonious and good fit. Copeland et al. found that the Affective Reactions subscale measured a multitude of components of attitude, rather than one unidimensional concept of attitude as Popovich et al. (2003) reported. Copeland et al. found the Affective Reactions subscale had a moderate to high internal consistency and provided a measure of three different variable types. Upon my review of these variable types, I determined that I could effectively categorize control, normative, and behavioral

beliefs as explained through concepts of TPB. Thus, Copeland et al.'s version of the Affective Reactions subscale of the Disability Questionnaire presented a useful instrument for creating the HASSQAC (Mai, 2015) tool due to its reliability and similar applicability (see Appendix A). I received consent to use and adapt Copeland et al.'s tool in my study (see Appendix B).

Employer Questionnaire, parts I & II. I chose this instrument due to its novel approach as well as its related line of questioning. The unique phrasing of questions in Kaye et al.'s (2011) Employer Questionnaire presented an optimal opportunity to create a safe and comfortable format for the HASSQAC (Mai, 2015) while also gathering useful data. A safe and comfortable environment were aspects of my study critical to its reliability. Kaye et al. phrased their questions in a third person manner. Rather than asking why the participant does not hire disabled candidates, they asked why participants thought other organizations did not employ disabled candidates. This tactic allowed the participants to freely relate potential annoyances rather than try to answer in perceived mandated ways. This technique effectively took into consideration the inference of EVT concepts that individuals act according to the expectations of their positions (Fishbein, 1963; Fishbein & Ajzen, 1974; Magidson et al., 2014). This technique circumvented the preconception of expectation that participants answer according to legal mandates. Kaye et al. did not provide significant detail related to their validity testing as did Copeland et al. (2010); however, several other scholars' questionnaires echoed the base content of Kaye et al.'s survey tool (see Appendix A). Thus, triangulation with those sources

validated Kaye et al.'s survey content. Kaye et al. provided consent to use and adapt their instrument in my study (see Appendix C).

Quantitative data collection. The HASSQAC (Mai, 2015; see Appendix A) tool consists of 54 quantitative questions. Nine nominal-based demographic questions provide general participant data. Fifteen ordinal-based questions in each of the three categories of TPB: Control, normative, and behavioral beliefs (45 in total) measure IVs. Each of those 45 questions addressed a unique variable within those three categories. Current literature and feedback from a panel of experts inspired the unique development of the questions (see Appendices A - E). I used a 7-point Likert scale measurement.

Likert scale. Likert scales apply measurements to ordinal variables. In this study, the order of ordinal variables was necessary, but the difference between them was unknown and unneeded. Thus, Likert scales provided a reliable method to quantitate the order of ordinal variables to ascertain their strength compared to each other. First introduced in Likert's (1932) doctoral dissertation at Columbia University, the technique effectively measures attitudes, opinions, and perceptions (Barnette, 2010). Likert scaling achieved high validity levels compared to previously established measures (Barnette, 2010). Likert's scaling used Sigma (σ) values as *z*-scores, weighted to ordered sets of responses, wherein both split-test and re-test demonstrated reliability (Barnette, 2010). Likert scaling ascertains the order of the variable using mean ($\bar{X}$) or sum scores to rank it amongst the other variables.

There are some limitations when using a Likert-scaled survey. Participants must read and understand the questions. Since I assumed all participants in this study were

professional-level hiring agents, their ability to read and understand the questions presented minimal weakness. Language could be an issue since I administered the HASSQAC (Mai, 2015) in English only. However, due to the targeted sample, I expected English to be a mastered language. Since participants' responses are not objectively correct or incorrect, Park and Glaser (2010) posited that error rates are relative to the accuracy of the measurement. Thus, I established and included the validity and reliability of the HASSQAC tool.

Empirical validity. Empirical validity equates to the degree in which empirical interpretation and theory of the instrument support inferences based on various methods of assessment. Validity refers to the legitimacy of testing, scoring, interpretation, and use of the instrument (Markus & Chia-ying, 2010). I based the validity of the HASSQAC (Mai, 2015) on degrees of validity deduced using multiple regression combined with scholarly insight. Validity is a combination of inference and interpretation of scores; not the tests themselves (Messick, 1989, 1996). To reduce the chances of underrepresentation frequently threatening validity, I explored a large enough scope of potential beliefs to capture essential construct aspects. I also minimized the threat of irrelevant variance by focusing the HASSQAC to potential control, normative, and behavioral beliefs of hiring agents regarding qualified autistic candidates. To test these threats, I investigated convergent and discriminant evidence as recommended by Moss (2010). The testing design included multiple regression along with various associated assumption tests establishing validity through the triangulation of tests, construct, and content inferences.

Content validity. Content validity of the HASSQAC (Mai, 2015) refers to the degree that the survey items related to the study questions. I established content validity of the HASSQAC through literature review, existing survey instruments, and feedback from a panel of experts (see Appendices A - E). I took the HASSQAC's initial design from Copeland et al.'s (2010) Affective Reactions of Employers towards People with Disabilities in the Workplace and Kaye et al.'s (2011) Employer Questionnaires. I then adjusted that construct using three criteria: (a) Current related literature, (b) aimed at hiring agents, and (c) addressing their potential beliefs regarding autistics. I then sent the HASSQAC to a panel of experts in the fields of autism and employment (see Appendix D). The solicitation included domain definition, relevance, and representation through an explanation of the study's intended purpose, sample, and central overarching question (see Appendix D). I fine-tuned the HASSQAC using feedback from this panel of experts (see Appendices A and E). Markus and Smith (2010) posited that documentation of each survey item's sources of development is essential to establishing validity. The grayed-out columns of the HASSQAC tool (not seen by participants) reflect the taxonomy of TPB addressed, the scholarly sources influencing each item, and the unique aspect of each related variable (see Appendix A). Content validity establishes that the construct validly applies to the nature and questions of the study.

Construct validity. Construct validity refers to the validity of design instruments, tests, and their interpretation. I discuss parameters of validity and reliability tests here; however, I present interpretation of findings in the data analysis section. I checked for

convergence and discriminant variations using multiple regression and tested the many assumptions of multiple regression using a variety of tests.

Multiple regression. I employed multiple regression to examine the degree of influence that the IVs (control, normative, and behavioral beliefs of hiring agents) had upon the DV (hiring agents' selection of qualified autistic candidates). Multiple regression is a flexible statistical model capable of analyzing multiple IVs upon a single DV (Segrin, 2010). Multiple regression predicts values of a variable relative to the other variables within a study (Segrin, 2010). I deemed multiple regression perfect for this study as I tested the relationship between each IV with the DV as well as the interactions among all of them. Segrin reported multiple regression useful for prediction and explanation, both of which I included in my study design (Equation 2). To use multiple regression, I addressed several assumptions: independence of cases; linearity; homoscedasticity; multicollinearity; outliers; and normality of residuals.

$$(Y' = b_1X_1 + b_2X_2 + b_3X_3 + a) \quad (2)$$

Data provided by participants were independent as none of the participants had any relationship with each other. I tested the independence of cases using the Durbin-Watson (*DW*) statistic checking for autocorrelation and looking for a score close to 2. Since a horizontal band pattern indicates a linear relationship, I analyzed the residuals against predicted values using a scatterplot to check for linear relationships between the IVs and DV. I checked for homoscedasticity using the same scatterplot by scanning for an equal spread of the IVs over the DV predicted values.

I used a Pearson Correlation (*r*) to check for multicollinearity. The Pearson Correlation test is one of the most frequently used validity and reliability tests in biological and social sciences (Walk & Rupp, 2010). Created by Karl Pearson in 1986, Pearson's correlation (*r*) measures the correlation among many different variables (Walk & Rupp, 2010). I checked for correlations greater than .7. I reviewed the collinearity statistics of the variance inflation factor (*VIF*) and Tolerance. I looked for $VIF > 0.1$ and tolerance values < 10. I looked for outliers in cases wherein the standardized residuals (residuals converted to *z*-scores), studentized residuals (an unstandardized residual divided by its *SD* varying point by point), or deleted residuals > ±3. I considered leverage values less than 0.2 safe, from 0.2 to 0.5 risky, and greater than 0.5 dangerous. I checked that the measure of influence reported by Cook's Distance values was below 1. I checked for normality using a histogram and a probability-probability (*P*-*P*) plot looking for a normal distribution. I conducted each of these tests, as well as the multiple regression, using SPSS. I also employed SPSS to analyze internal consistency.

Reliability-internal consistency. Cronbach's coefficient α is an internal reliability instrument which measures the homogeneity of observed score variance relative to the true score variance. Multon and Colman (2010) recommended minimizing error so that the true and observed scores are highly correlated. Cronbach (1951) determined reliability through a combination of true and observed scores and the measurement of error. Every item on the HASSQAC (Mai, 2015) measures participants' beliefs (categorized using TPB), are correlated with each other, and arranged on a Likert scale. Therefore, Cronbach's α was an optimal reliability instrument for my study. While

there are other methods for determining reliability (test-retest and split-half), those were impractical for this study's design. I felt that using a test-retest design would skew results due to participant response bias when participating a second time. I considered the split-half test an increased reliability error due to (a) the double questioning equally lengthening the time for survey completion and (b) the potential for both halves of the test to present unequal measurements.

As reliability increases, α results increase in range from 0 to 1. Thus, each HASSQAC (Mai, 2015) item was a subtest that allowed the degree of correlation between items (measured by α) to demonstrate the reliability of the entire tool. Cronbach's α takes into consideration more test data while minimizing statistical assumptions (Multon & Coleman, 2010). Using raw scores to calculate item variances, covariances, and correlations, Cronbach's α estimates the reliability of the whole. Trobia (2008) suggested setting Cronbach's alpha (α) > from .70 to .85 to achieve a minimum reliability. I used SPSS to determine Cronbach's α for this study. I set a minimum reliability standard of Cronbach's alpha (α) > .70. With the broad population pool of this study, heterogeneity of participant sample (randomly ranging in age, race, culture, professional tenure, geographical location, and political and social affiliations) significantly maximized true score variability as explained by Multon and Coleman. Large sample sizes (typically greater than 200) increase generalizable reliability (Multon & Coleman, 2010); thus, this study's desired sample size of $n = 384$ fit that parameter. Cronbach's α typically rises as the number of survey items increases; thus, I determined

that the HASSQAC's 54 quantitative questions yielded reliable results but were short enough not to over-burden participants.

Qualitative exploration. I weighted the qualitative portion of this much smaller than the quantitative; thus, I gathered fewer data. I used the HASSQAC (Mai, 2015) instrument to gather qualitative data (see Appendix A) concurrently with quantitative data. Each of the six quantitative sections within the HASSQAC ends with one qualitative question (two for each IV: control, normative, and behavioral). I aimed each qualitative question at probing for any additional insights that participants would like to share concerning their beliefs regarding the selection of qualified autistic candidates relevant to the corresponding HASSQAC section

- Organizational strategies – This section asks questions relating to organizational strategies that may influence hiring agents' selection of qualified autistic candidates.
- Public policies and programs - This section asks questions relating to public policies and programs that may influence hiring agents' selection of qualified autistic candidates.
- Autistic interview presentation - This section asks questions relating to autistics' interview presentation skills that may influence hiring agents' selection of qualified autistic candidates.
- Team integration - This section asks questions relating to aspects of autistics' integration and team dynamics that may influence hiring agents' selection of qualified autistic candidates.

- Operational benefits - This section asks questions relating to potential benefits that organizations may experience through the employment of autistics that may influence hiring agents' selection of qualified autistic candidates.
- Autistic abilities - This section asks questions relating to hiring agents' personal beliefs regarding autistics that may influence hiring agents' selection of qualified autistics candidates.

Data Analysis Plan

While I coded and themed qualitative data first; I concurrently analyzed quantitative and qualitative data. I used qualitative data to deepen understanding and further discussion of quantitative results. I conducted multiple regression using SPSS to examine the relationship between 3 subsets of belief, control, normative, and behavioral (IVs), upon hiring agents' selection of qualified autistic candidates (DV) per the concepts of TPB. I also used multiple regression and SPSS to examine the 15-unique quantitative IVs within each subset (control, normative, and behavioral; see Figure 11) upon the DV, each subset, and upon each other. Thus, I used a primarily quantitative design to analyze data.

Data screening and cleaning. Before analyzing data, I took several steps to screen and clean the data

1) I downloaded data from Qualtrics (2014) into International Business Machine's SPSS Statistics version 23.
2) I reviewed and analyzed demographic data of all files not within the targeted sample criterion of hiring agents serving medium-sized (50 to 249 employees)

organizations within the contiguous United States to note significant deviations.

   a. I reviewed statistics ($\bar{X}$, *SE*, *SD*, variance) using SPSS order analysis.
   b. I reported deviations in Chapter 4.

3) Coded and themed qualitative data
   a. I transferred all qualitative data into the NVivo 11 software tool to aid in coding, theming, and analysis.
   b. I coded all qualitative data and reviewed all coding from three different perspectives (similarity, thematic, and redundancy) to ensure consistency and eliminate duplicate coding of samples.
   c. I performed a final (fourth) review of all codes assigned to each complete statement to ensure coding aligned with each participant's intended response.
   d. Data codes fell within the six sections of the HASSQAC (Mai, 2015) and related to the three categories of TPB and each predictor variable identified in Figure 11.
   e. If I did not find a corresponding code within that list of variables: I created a new code using one of the six subsets listed under qualitative exploration. I flagged that code for additional, individual qualitative analysis as outlined in the qualitative components section.
   f. I analyzed coded qualitative data concurrently with quantitative data to deepen understanding of quantitative results; reported in Chapter 4.

4) I calculated the DV (hiring agents' selection of qualified autistic candidates [as described in the definitions section of Chapter 1] as measured on a percentage-based continuous level) predicted through the concepts of TPB and measured using multiple regression in SPSS (Equations 3 and 4).

$$DV = \frac{\sum IV\ weights}{\#\ of\ IV} * \frac{100}{IV\ scale} + \max \text{value of category} - X \qquad (3)$$

wherein:

a. According to TPB tenets, the strength of the combined control, normative, and behavioral beliefs infer the intention to act. Thus, I summed the Likert scale responses of the 45 quantitative questions in the HASSQAC ($\sum$ *IV weights*; Mai, 2015) based on actual responses.

b. I divided that sum ($\sum$ *IV weights*) by the total number of IVs (*# of IV = 45*) which included all IVs within each TPB taxonomy (15 IVs in each of 3 taxonomies = 45).

c. I calculated the weight of each unit of Likert scale by diving the Likert scale range (*IV* scale = *7*) by 100 ($\frac{100}{7}$ = 14.28571).

d. I converted that sum into a percentage ($\frac{\sum IV\ weights}{45} * 14.2857$).

e. One demographic question on the HASSQAC (X; Mai, 2015) inquired if the respondent's current organization employed autistics thus allowing respondents to enter a categorical response (1 = yes, 2 = no, 3 = unknown). To add weight based on actual hiring, I calculated this response into the formula (+ max value of category [2] – X).

i. A response of yes (1) indicated a positive likelihood to hire combined with an awareness of autistic employees (2 – 1 = 1).

ii. A response of no (2) indicated awareness of autistics but did not indicate likelihood to hire such (2 – 2 = 0).

iii. A response of unknown (3) indicated a lack of awareness of autism and no indication of likelihood to hire (2 – 3 = -1).

iv. Thus, I added weight for a yes answer, no weight for a no answer, and decreased weight for an answer of unknown.

v. I did not figure missing values in this category into the calculation.

$$DV = \frac{\text{varies per case}}{45} * \frac{100}{7} + 2 - X \qquad (4)$$

f. To triangulate the validity of the calculation, I analyzed frequency including $\bar{X}$, *SE*, variance, and range and compared findings to established unemployment rates for qualified autistic candidates (see Figure 5).

5) I conducted quantitative tests through SPSS in the following format

a. Analyze, regression, linear.

i. DV (hiring agents' selection of qualified autistic candidates) as calculated by Equation 4.

ii. IVs (vary according to the hypothesis tested).

iii. Forced entry (method: enter)

b. Statistics

i. Estimates produced beta values

ii. $1 - \alpha = .95$

iii. Covariance matrix generated to further review variances

iv. Model fit to produce *F*-statistic and *R* values to judge model fit

v. R^2 change to assess predictors and variance changes

vi. Descriptives to determine the $\overline{X}$, *SD*, and number of observations

vii. Part and partial correlations for the Pearson correlation (*r*) and to measure the correlations between all variables

viii. Collinearity diagnostics for *VIF*, tolerance, and variance proportions

ix. *DW* to test for independent errors

x. Casewise diagnostics (outliers outside 2 *SD*) to display observed, predicted, and variances of residuals.

c. Plots

i. Produced all partial plots to create scatterplots of the DV and each IV.

ii. Histogram for normality of errors

iii. Normal probability plot for normal distribution

d. Save

i. Saved the diagnostics as new columns in the data editor section, labeling each new regression consecutively. Note: If I determined the need to bootstrap to meet the assumption of normality, I deselected save options as Field (2013) explained that bootstrapping cannot occur with saved residuals.

ii. Unstandardized, standardized, adjusted predicted values

iii. Standardized, deleted, and studentized deleted residuals

iv. Mahalanobis, Cook's, and leverage distances

v. Standardized DfBetas, standardized DfFit, covariance ratio statistics

vi. Included covariance matrix

e. Options

i. Probability (significance) of the *F* value including variables with values less than entry = .05 and excluding variables with values greater than removal = .10

ii. Included constant in equation

iii. Excluded cases listwise ensured only cases with valid values in the regression analysis

6) Checked assumptions

a. Outliers

i. Casewise diagnostics to identify outlying cases.

ii. Histogram to identify outlying patterns.

iii. Reviewed standardized, studentized, deleted, and studentized deleted residuals.

iv. Reviewed leverage values

1. Values less than 0.2 safe.

2. Values from 0.2 to 0.5 risky.

3. Values above 0.5 dangerous.

v. Analyzed Cook's distance values. In the 1970s Cook was amongst the leaders in developing techniques for assessing influence (Martin &

Roberts, 2010). Cook's distance measures the effect of unusual observations upon the slope coefficient (Anderson, 2007). Reviewed Cook's values

1. Values below 1 safe; no further investigation needed.
2. *SD* values exceeding 1, review individual cases
    a. Investigate values between 1 and 2.
    b. Potential removal of cases with values above 3.

vi. Determination of true outliers (outliers reflected by at least 3 of these tests). Regarding true outliers

1. Part or the entire response removed.
2. A potential need to adjust my regression model to a multilevel model (see Figure 12) due to similarities of the variables within subsets.
3. Review true outliers for qualitative insight.

vii. All parametric tests rerun after any changes.

b. Linearity

i. I used a scatterplot to plot residuals against predicted values.

ii. I checked the relationship between the DV and each IV.

iii. As needed, I addressed violations

1. Variable transformation or
2. A multilevel model.

Level 3	Control	Normative	Behavioral
•**Level 2** •**Level 1**	•Litigation & mediation •Legislative & legal understanding •Cost of accommodations •Supported employment •VR services •Hiring costs •Insurance costs •Organizational - •Goals •Environment •Committed resources •Diversity & afinity plans •Commitment to hire	•Employment/credit screening •Equal employment practices & disclosure •Postive social stewardship practices •Poor presentation •Past experiences •Knowledge -autism •Knowledge -potential benefits •Fear -seeming dumb - incompetent •Fear -embarrasment - negative labeling •Label of autism •Societal & peer pressure	•Hard to supervise •Absenteeism rates •Adaptability •Dedication •Inconvenience •Prefer physical disabilities •Discrimination •Stereotyping - •Skills and ability •Productivity •Time and attention •Problem employees •Stereotypical movement •Retardation •Unreachable •Potential to learn

Figure 12. Potential multilevel model, if needed. This model would be directly related to parametric test findings to identify potential variables having close correlations to analyze potential relationships more fully.

c. Normality of residuals.

   i. Histogram and a *P-P* plot to check for normality.

   ii. Diagonal directionality desired.

   iii. Normal distribution ($\overline{X} = 0$) desired.

   iv. In the instance of kurtosis or skewness

      1. Bootstrap the *CI* and rerun parametric tests.

      2. When bootstrapping de-select save options.

d. Homoscedasticity

   i. Scatterplot to review the spread.

ii. Equal spread of the IVs over the predicted values of the DV.

iii. Violation of homoscedasticity (heterogeneity)

1. Use the method of weighted least squares (weight each item by the inverse of its variance) or
2. A multilevel model (see Figure 12) to allow analysis of variability in regression slopes.

e. Independence of cases

i. *DW* statistic to test for autocorrelation. De Boef (2007) recommended testing for first-order ratio or serial correlation with *DW* diagnostic statistics. Autocorrelation can affect inferential validity related to hypothesis tests and *CI* (Huitema & Laraway, 2007). Information related to autocorrelation improves prediction precision of regression equations and can aid in selecting statistical analysis. Checked for *DW* values

1. *DW* approximately 2, no autocorrelation ($p = 0$).
2. *DW* approximately 4, positive autocorrelation ($p = 1$).
3. *DW* approximately 0, negative autocorrelation ($p = -1$).

ii. $DW < 1$ or > 3 could invalidate hypothesis tests.

1. Investigate all items with values less than 1.5
2. Investigate all items with values greater than 2.5.
3. Lack of independence, use a multilevel model (see Figure 12) to allow analysis of relationships.

f. Multicollinearity

i. Pearson Correlation (*r*) and

ii. *VIF* and Tolerance values.

iii. In the occurrence of multicollinearity

1. A system of 'trial and error' to identify the cause.

2. Systematic removal and retest of correlating variables.

3. Correlating variables analyzed.

4. Problem variable(s) removed.

5. Parametric tests rerun after any changes.

7) Model fit.

a. R^2 and adjusted R^2.

b. Change statistics.

c. *F*-ratio to compare SS_M to the regression model and to predict if the fit was greater than model inaccuracy.

Qualitative components. I downloaded qualitative components with quantitative components into SPSS formatting. After which, I extracted qualitative components into Microsoft Excel and removed all identifying data from all databases (Qualtrics, 2014; SPSS; and Excel) before the expiration of IRB approval. I then formatted and imported qualitative data into NVivo. I used NVivo software as a tool to aid in coding, review, and analysis of qualitative data. I aligned qualitative coding with quantitative coding related to 1) a TPB category (control, normative, or behavioral) and 2) an IV within that category. I uniquely coded qualitative data not corresponding with quantitative IVs and

flagged for further analysis. I triple-checked qualitative coding to minimize potential drift, ensure consistency, and eliminate duplicate coded samples. Once I completed coding, I analyzed qualitative data concurrently with quantitative data to deepen understanding and discussion of quantitative findings. I set aside any qualitative data unrelated to quantitative variables (discrepant cases) for individual review in hopes of gaining further insight into the problem.

Case study. I aimed this study at exploring hiring agents' potential selection of qualified autistic candidates; thus, to determine the degree to which their beliefs may influence their selection. Scholars use case studies to examine an individual, a group, an organization, an event, a process, or social, political, and related phenomena (Rudestam & Newton, 2007; Yin, 2014). Case studies are a good fit to address questions of how or to what degree such as those I asked in this study. A case study is an in-depth empirical inquiry investigating contemporary phenomena within a real-world context when the boundaries between those phenomena and related context are not clear. The inquiry may include many more variables than data points thereby relying on triangulation of multiple sources of data for supporting evidence and benefiting from established theoretical propositions to guide collection and analysis (Yin, 2014). Case studies analyze complex phenomena. For example, Neustadt and Fineberg's (1978, 1983) case studies of mass immunization, still used today, generalize lessons toward understanding health crisis and public action. Whyte's (1943, 1993) Street Corner Society still generalizes to current issues such as individual performance and group and social structure. Allison's (1971; republished by Allison and Zeklow, 1999) in-depth case study of the 1962 Cuban missile

crisis was a political science best-seller for more than 40 years and still informs current political inquiry. Used in a plethora of manners, the case study investigates a variety of phenomena.

Not only qualitative study, a case study is often mixed methods. It can incorporate qualitative, quantitative, and mixed methods evidence to explain links in real-world data that are too complex for experimental or survey methods alone (Yin, 2014). Case study lends itself well to theoretical frameworks such as my study's incorporation of TPB. A case study is not limited to 'realist' research; it is also an excellent forum in "accommodating a relativist perspective" (Yin, 2014, p. 17). Theory plays an integral part in such a multiple reality, multiple meaning study (Yin, 2014). Case studies offer designs leading to insights not found in typical random controlled trials and other experimental designs. Case studies use a multitude of data sources, thereby expanding opportunity leading to an explanation for how or why an intervention occurred (Creswell, 2014; Yin, 2014). Case study designs provide a foundation explaining why a complex social phenomenon occurs. Social researchers, management scientists, and public administrators frequently use case study research to evaluate programs, events, activities, or processes through focusing on emerging themes and interpreting data (Creswell, 2014; Rudestam & Newton, 2007; Yin, 2014). For example, George and Bennett (2004) demonstrated how correlations between peaceful democratic negotiations required case study research to test and understand the correlations. Case study offered an excellent design element to explore an activity: hiring agents' selection processes regarding what beliefs influence their selection of qualified autistic candidates.

I triangulated data from both quantitative and qualitative responses analyzed through the concepts of TPB to expand scientific understanding of an activity: hiring agents' inclusion of beliefs to influence their selection of qualified autistic candidates. The case study design supported this process. It allowed for the incorporation of mixed methods as well as a theoretical and conceptual framework. I compensated for validity and reliability concerns related to case studies by strengthening my research design.

Validity and reliability of case study design. Potential weaknesses of case study research include sloppy research, potentially lax systematic procedures, and equivocal influence of findings and conclusions. Some methods to mitigate these threats are to use multiple data sources, pattern analysis, supportable rationalizations, address rival explanations, and develop a case study protocol (Yin, 2014). I incorporated these methods into my design. Using multiple techniques increases understanding and provides validation via detailed representation and clear depictions (Lincoln, Lynham, & Guba, 2011). I used both quantitative and qualitative data. I performed in-depth analysis looking for patterns. I supported rationalizations for interpretation. I searched for rival explanations. I used the protocols laid out herein. Generalizability is a weakness often associated with case study designs; however, using established theory increases generalizability (Yin, 2014). I used the TPB framework to add strength and triangulation to my study's design and data analysis.

Data analysis. I used primarily quantitative data analyses. The minimal qualitative analyses provided insight and rich detail into quantitative findings and interpretation. I based quantitative analysis on multiple regression reports generated

through SPSS following specific statistical tests. I tested each hypothesis; thus, restate each here along with the specific conditions used for interpretation.

Central Overarching Question

Quantitative Research Question: What is the nature of the relationship among the IVs (the potential control, normative, and behavioral beliefs of hiring agents as assessed on a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concept of TPB and measured using multiple regression)?

Null Hypothesis H_0: There is no statistically significant correlation among the IVs (hiring agents' control, normative, and behavioral beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates; as assessed through the HASSQAC on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and all *B* coefficient values are not statistically significantly different from zero.

Alternate Hypothesis H_A: There is a statistically significant correlation among the IVs (hiring agents' control, normative, and behavioral beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as assessed through the HASSQAC on a percentage-based continuous level predicted through the concepts of TPB and measured

using multiple regression) when selecting qualified employees to fill competitive positions; and at least one *B* coefficient value is statistically significantly different from zero.

1. Pearson correlation indicated the size of the effect that variables have with one another.
2. Significance correlation results (2-tailed) indicated whether an effect was statistically significant ($p < .05$).
3. I analyzed coefficients to identify if a relationship existed between each of the three IVs (control, normative, and behavioral beliefs) and the DV with all other variables held constant; and, if so, what that significance and direction were.
4. IVs making a significant contribution were $p < .05$.
5. More substantial reports of *B* reflected the depth of the slope and, thus, the degree of influence of an IV on the DV.
6. If $p < .05$ between any of the three IVs and the DV, I rejected the null hypothesis (H_0).
7. I accepted the alternate hypothesis (H_A) if 1) I rejected the null hypothesis and 2) there was a negative directionality in the relationship between any of the three IVs and the DV.

Quantitative Analysis and Sub-questions

I identified a plethora of potential beliefs through the literature review (discussed in detail in Chapter 2) as potential beliefs influencing hiring agents' selection of qualified

autistic candidates. I developed quantitative research questions and hypothesis from the combined focus of TPB concepts and existing literature. I classified potential beliefs identified through literature review into one of the three base taxonomies: control, normative, and behavioral beliefs. The theoretical structure of my study allowed examination of contributing factors individually and within those taxonomies.

> Quantitative Research Sub-Question 1: What is the nature of the relationship among the IVs (control beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

Null Hypothesis 1 H_01: There is no statistically significant relationship among the IVs (hiring agents' control beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and all *B* coefficient values are not statistically significantly different from zero.

Alternate Hypothesis 1 H_A1: There is a statistically significant relationship among the IVs (hiring agents' control beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through

the concept of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and at least one *B* coefficient value is statistically significantly different from zero.

1. Pearson correlation indicated the size of the effect that variables have with one another.
2. Significance correlation results (2-tailed) indicated whether an effect was statistically significant ($p < .05$).
3. I analyzed coefficients to identify if a relationship existed between each of the IVs (the subset of hiring agents' control beliefs) and the DV with all other variables held constant; and, if so, what that significance was and what direction it was.
4. IVs making a significant contribution were $p < .05$.
5. More substantial reports of *B* reflected the degree of importance of an IV on the DV.
6. If $p < .05$ between any of the IVs (control belief subset) and the DV, I rejected the null hypothesis ($H_0 1$).
7. I accepted the alternate hypothesis ($H_A 1$) if 1) I rejected the null hypothesis and 2) there was a negative directionality in the relationship between any of the IVs (control belief subset) and the DV.

Quantitative Research Sub-Question 2: What is the nature of the relationship among the IVs (normative beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents'

selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

Null Hypothesis 2 H_02: There is no statistically significant relationship among the IVs (hiring agents' normative beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and all *B* coefficient values are not statistically significantly different from zero.

Alternate Hypothesis 2 H_A2: There is a statistically significant relationship between the IVs (hiring agents' normative beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agent's selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions and at least one *B* coefficient value is statistically significantly different from zero.

1. Pearson correlation indicated the size of the effect that variables have with one another.
2. Significance correlation results (2-tailed) indicated whether an effect was statistically significant ($p < .05$).

3. I analyzed coefficients to identify if a relationship existed between each of the IVs (the subset of hiring agents' control beliefs) and the DV with all other variables held constant; and, if so, what that significance was and what direction it was.
4. IVs making a significant contribution were $p < .05$.
5. More substantial reports of *B* reflected the degree of importance of an IV on the DV.
6. If $p < .05$ between any of the IVs (normative belief subset) and the DV, I rejected the null hypothesis (H_02).
7. I accepted the alternate hypothesis (H_A2) if 1) I rejected the null hypothesis and 2) there was a negative directionality in the relationship between any of the IVs (normative belief subset) and the DV.

Quantitative Research Sub-Question 3: What is the nature of the relationship among the IVs (the behavioral beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

Null Hypothesis 3 H_03: There is no statistically significant relationship among the IVs (hiring agents' behavioral beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through

the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and all *B* coefficient values are not statistically significantly different from zero.

Alternate Hypothesis 3 H_A3: There is a statistically significant relationship between the IVs (hiring agents' behavioral beliefs assessed through the HASSQAC using a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agent's selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression) when selecting qualified employees to fill competitive positions; and at least one *B* coefficient value is statistically significantly different from zero.

1. Pearson correlation indicated the size of the effect that variables have with one another.
2. Significance correlation results (2-tailed) indicated whether an effect was statistically significant ($p < .05$).
3. I analyzed coefficients to identify if a relationship existed between each of the IVs (the subset of hiring agents' control beliefs) and the DV with all other variables held constant; and, if so, what that significance was and what direction it was.
4. IVs making a significant contribution were $p < .05$.
5. More substantial reports of *B* reflected the degree of importance of an IV on the DV.

6. If $p < .05$ between any of the IVs (behavioral belief subset) and the DV, I rejected the null hypothesis (H_03).
7. I accepted the alternate hypothesis (H_A3) if 1) I rejected the null hypothesis and 2) there was a negative directionality in the relationship between any of the IVs (behavioral belief subset) and the DV.

Qualitative Analysis and Sub-Questions

The qualitative analysis took three forms: I coded data, evaluated data for validity and reliability, and analyzed data for themes and patterns. As part of the data screening and cleaning process, I set aside any qualitative statements not related to quantitative IVs in this study for further qualitative analysis. I used this analysis to recommend further exploration into factors influencing hiring agents' selection of qualified autistic candidates. I selected various hiring agents' qualitative statements that helped increase understanding, presented viewpoints contrary to quantitative findings, or added rich detail and enhanced insight into this study's questions. I discuss these qualitative findings concurrently with quantitative findings in the results section. Through this combined method of analysis, I aimed to increase the scientific understanding of what beliefs influence hiring agents' selection of qualified autistic candidates for open positions across the United States.

I further explored the quantitative central overarching- and three sub-research questions through minimally weighted (+/-10%) qualitative inquiry. I designed the qualitative portion of my quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression study to address potential influencing control, normative, or

behavioral beliefs of hiring agents not covered in the quantitative measures of the HASSQAC (Mai, 2015) or confusing or misunderstood by participants. I designed all qualitative questions to aid in exploring the quantitative research questions. Six of the questions on the HASSQAC tool were qualitatively open-ended. Open-ended questions allowed respondent hiring agents to add additional information that they wanted to share. I phrased qualitative questions encouraging elaboration of the Likert scale HASSQAC content of the associated quantitative section. These qualitative questions increased insight into possible influencing beliefs, added understanding, and provided rich descriptive detail to quantitative findings. I presented each qualitative question at the end of the associated HASSQAC section encouraging expanded understanding of that section (see Appendix A).

Qualitative Research Sub-Question 1: "Please share here any other organizational strategies you believe could help the situation." This section focused on potential organizational strategies that hiring agents believe may increase qualified autistic candidates' chances of hire and addressed associated control beliefs.

Qualitative Research Sub-Question 2: "Please share here any other laws, regulations, or public program possibilities you believe could help the situation." This section focused on public policy strategies that hiring agents believe may increase the chances that employers will be more likely to hire qualified autistic candidates and addressed primarily associated control beliefs.

Qualitative Research Sub-Question 3: "Please share here any other ways in which you feel that qualified autistic candidates could increase their chances of being hired."

This section focused on potential self-advocacy-related skills that hiring agents believe would increase qualified autistic candidates' chances of hire if they possessed such and addressed a balance of normative and behavioral beliefs. Since self-advocacy skill beliefs could inform normative or behavioral beliefs, depending on the hiring agent's qualitative responses; answers to this question were relative to either belief type.

Qualitative Research Sub-Question 4: "Please share here any other reasons related to co-worker dynamics that you feel influence hiring agents not to consider qualified autistic candidates." This section focused on potential normative beliefs related to team interactions that could sway hiring agents' selection of qualified autistic candidates.

Qualitative Research Sub-Question 5: "Please share here any other operational reasons that you feel would prevent hiring agents from selecting qualified autistic candidates." This section focused on social expectations, from an operational standpoint, of hiring agents that could influence their selection of qualified autistic candidates and addressed a mix of normative, control, and behavioral beliefs with an emphasis on behavioral beliefs.

Qualitative Research Sub-Question 6: "Please share here any other reasons you believe qualified autistic candidates are not being hired to fill open positions." This section addressed stereotypical, and other personal VABEs, that hiring agents may possess that could influence their selection of qualified autistic candidates.

Generalizability. Several aspects of my study's design significantly affected potential generalizability: its quantitative weight; its framework, its targeted sample population; and the targeted geographical regions from which I drew the sample. While I

chose each of these specifically to answer the research questions; I also considered their impact on the generalizability of the study. For example: With my professional background in business, I know that quantitative findings will convey a more unequivocal message more than will qualitative.

Quantitative weight. I chose the quantitative component as the primary component to increase reliability and generalizability due to its common acceptance amongst the business world. I possess more than 35 years personal and professional experience and academic study in a managerial capacity. It is my experience that statistical numbers, not colorful descriptions, drive final decisions. Such decision-making practices do not only pertain to a business environment. The inferential statistical findings from the quantitative weight of this study could also help establish adequate public policy and potential interventions to the problem. I opted to include the qualitative aspect to help explain results and identify potentially missed influences; thereby, increasing understanding.

Framework. While the addition of the qualitative methodology may weaken the study, I designed its framework to compensate for this potential problem. A lack of generalizability is a weakness often associated with case study designs; however, using established theory increases generalizability (Yin, 2014). The theoretical framework for this study uses TPB conceptually supported through triangulation using AAT and ELM, PAT and FCT, and EVT (see Figure 1). I tested the theoretical-conceptual framework in an environment inquiring what beliefs influence hiring agents' selection of qualified autistic candidates.

Sample population. Since hiring agents are responsible for filling open positions, I selected hiring agents as my target sample population. In my experience and through literature review, I found medium-sized businesses represented the most generalizable organizational size to their population across the nation. Thus, that generalizability and potential national diversity provided the broadest range of insight to the study. Use of a representative, simple, random probability sample presented the most robust possible generalizable sample. Sample sizes greater than 200 increase generalizable reliability (Multon & Coleman, 2010). This study's desired sample size of $n = 384$ strengthened generalizability. I selected the geographic location of the population pool to increase the study's validity and generalizability.

Woodard's American Nations Today. Using Woodard's (2011) map entitled The American Nations Today, I speculated generalizability extended across most of the contiguous United States (see Figure 2). Woodard's map shows the United States grouped by similar populations (Wilson, 2013; Woodard, 2011, 2013, 2017) from which I speculated increased generalizability based on ADDM sites located within those regions. The CDC selected ADDM sites due to their ability to conduct ongoing, records-based monitoring of ASDs (Baio, 2012, 2014; CDC, 2014, 2016). When overlaid on Woodard's (2011, 2013, 2017) map, the location of those sites infers a higher percentage of the United States' population than expected (see Figure 2). The only United States' areas not included are the tiny areas of the Left Coast, New France, and the Spanish Caribbean. Given these geographic distributions, generalization was considerable.

Threats to Validity

Internal, external, and construct weaknesses can threaten study validity. Deficiencies in design validity could extend from the framework, theory, methodology, data collection, instrumentation, analysis techniques, and more. I considered such potential threats in the study's design.

External

External threats are those which extend beyond the process of the study such as uninvestigated populations, theories, framework, testing reactivity, interaction effects of selection and experimental variables, specificity of variables, reactive effects of experimental arrangements, multiple treatment interferences, and other potential influencing factors. I took steps to help increase external validity. This section provides measures addressing such threats.

Uninvestigated populations. Many scholars researched the issue from the supply-side, and those researching the demand-side inquired from a different participant pool than I did. I felt that targeting hiring agents relative to their selection of qualified autistic candidates increased the external validity of this research. There may still be some hiring agents within the study's criterion that I overlooked in the sample population. Two significant sectors of the hiring agent population overlooked might include (a) non-English-speaking hiring agents and (b) those without Internet access. However, I believe this threat was minimal. The primary language spoken in the United States is English. I targeted hiring agents serving medium-sized organizations in the participation solicitation. I believe the targeted organization size increased the likelihood

that hiring agents within that population could read and respond in English; thus, minimizing that potential threat. I also believe that organization size significantly increased hiring agents' Internet access; thus, I minimized that potential threat. I also increased external validity by extending the study to the contiguous United States.

Generalizability. Generalizability (sample, setting, and time-bound characteristics) present an external threat when a researcher infers beyond the elements found in the sample. I addressed sample characteristics with the random representative sample targeting hiring agents across the United States. I addressed setting by giving hiring agents' ease of access via the Internet at a location of their convenience. I included both population and setting characteristics throughout the United States in the random, probability sample. Thus, I increased generalizability and minimized the potential for inaccurate inference.

Time-bound characteristics. All studies are time-bound, meaning they take place within a given time. Thus, inference from the past or into the future without replication throughout time is not possible. My study was time-bound. While possible to repeat in the future, I currently have no concrete plans to do such. This time-bound characteristic presented a threat to external validity that scholars can only overcome by conducting the same study at multiple future times. To offset this external threat, I provided a clear, concise study design easily duplicated by future scholars.

Framework and theories. I took exhaustive steps to design what I believed to be the best framework using the most applicable theories and instruments for this study. There remained a few aspects of the design that presented external threat: its static nature,

its means of participant solicitation, and the potentially confounding nature of the variables tested. The static nature of this study presented a significant external threat. I measured responses at a single point in time. Therefore, transferability was weak. Beliefs are subject to change which is why measurement on a static basis presents a significant weakness. Presentation of the design in sufficient detail to allow future replication was the best way to offset this threat.

Another consideration was that I solicited HASSQAC (Mai, 2015) participation via email and social media; which presented both strengths and weaknesses. This type of data collection was optimal for delivery to a participant pool across the contiguous United States. I controlled the line of questioning, thus limiting potential topic deviation. Participants responded at their convenience, which provided the most comfortable setting for them. Indirect communication, however, increased the likelihood of participants' misunderstanding the questions leading to incomplete or inarticulate answers. I designed this study to identify beliefs, which are elusive by nature; thus, understanding was a critical component. I intended my inclusion of an open-ended qualitative question at the end of each section of the HASSQAC to help offset that threat.

The nature of TPB belief categories posed some external threat due to interpretation. Some people may see control mechanisms, like law and organizational policy, as confounding variables. I viewed those as control beliefs according to concepts of TPB. Some individuals may see past experiences as confounding variables. I saw them as normative beliefs according to concepts of TPB. There could be a plethora of confounding variables; however, I classified such potential variables as control,

normative, or behavioral beliefs according to concepts of TPB. Therefore, I included them as IVs in my research.

Reactivity, selection interaction, and experimental considerations. The process of testing presents the potential for external threat due to the possibility of the questions potentially influencing participants' responses. I significantly lessened this threat by omitting any pre- or post-testing. When participants can affect each other, that interaction influences their responses. I attempted to eliminate this potential threat through random selection from a large (N = 443,000; DeJesus, 2015) population spread across a significantly broad geographic area (the contiguous United States.) There were no experimental variables or arrangements in this study, so experimental considerations were not a threat.

Variable specificity and potential multiple-treatment. While concepts of TPB categorize beliefs (IVs in this study) as control, normative, and behavioral; some beliefs may cross-categorize. Cross-categorization presented a significant threat to this study. I attempted to minimize this threat through identifying which questions pertain to each variable. While this did not account for participant deviations in understanding or expression of their beliefs; it did explicitly layout the variable criterion for interpretation and future duplication purposes. Specifying variables in this manner minimized the potential threat due to cross-categorization. Specifying variables also reduced the risk of multiple treatments of variables; however, due to the intrinsically related nature of beliefs, some degree of variable multi-treatment likely occurred. While this appears to present an inherent weakness due to the variations of human VABES, I designed this

study to work with that variance. The covariance of two variables provides the possibility to predict one from the other (Frankfort-Nachmias & Nachmias, 2008). Additionally, the concepts of TPB include such covariance. Thus, that potential covariance did not weaken this multiple regression design.

Internal

Internal threats pose a question of reliability in results. I countered internal threats by increasing internal validity (procedures, analysis, and participant experience during the study time frame) of the research design. History, maturation, testing, instrumentation, statistical regression, experimental mortality, and selection-maturation interaction all pose internal threats to a study. Triangulation is one method used to increase internal validity that I applied to quantitative and qualitative aspects of my study. My study design included triangulation of framework, theory, and methodology; thus, triangulating each aspect (dual framework, multiple theories, and mixed methods), as well as all three aspects together. Rich description from the qualitative aspect enhanced statistical findings of the quantitative aspect. I reported any negative or discrepant findings. I triple-checked qualitative coding minimizing potential drift and ensuring consistency. I archived all data on an external hard drive and will keep it for at least five years, after which I will destroy it. Three categories of internal validity bear elaboration: participant threats, analysis, and procedures.

Participant threats (including history, maturation, and selection maturation). Since my study was concurrent with no separation between groups of participants, time-related (history) events presented a limited threat to validity. Once participants began the

HASSQAC (Mai, 2015), most finished it in one sitting due to its short completion time-expectancy. Some participants saved the HASSQAC using a randomly generated access number and finished it within one week of beginning. Once a participant chose to generate an access number the associated survey remained accessible for one week. After one week, that survey closed and locked-out the access number to preserve anonymity. A Qualtrics (2014) survey hosting feature enabled me to set that limit. Upon my conclusion of the data collection time frame, I deleted any data stored by Qualtrics for the purpose restricting participation. Thus, each participant could only begin the HASSQAC once and I deleted any potentially identifying data. With these safeguards in place, I minimized the potential for maturation (change) in participants during the data collection process. Since this study was not experimental, there was no threat of unreliable regression toward an overall mean. Since sample selection was random and clustered using business size and geographical location, there was minimal chance of predisposition toward an outcome.

Procedures (including testing and instrumentation). Since participants only took the HASSQAC (Mai, 2015) once, there was no opportunity for tainted data due to prior knowledge of the survey questions. Since there was no pre- or post-test, there was no possibility for such to impact data. The HASSQAC's (Mai, 2015) reliability presented a threat to this study; however, I took steps (as outlined under Instrumentation) to establish reliability. I used a Likert scale of 1 to 7 to measure degrees, or depth, of beliefs. Limitation of responses to a measurement range of 1 to 7 presented a potential internal weakness. While I felt that increasing that scale to 9 or more might strengthen the depth of the findings, I also believed it offered increased frustration for participants and

increased discontinuation of the HASSQAC. Thus, I felt the 7-point scale best for this study. Attitudes of participants at the time of taking the HASSQAC affected their responses; however, I used a large enough sample size to offset those occurrences. The customized HASSQAC instrument presented measurement limitations or confusing research indicators and concepts. I asked a panel of experts to provide enlightenment to the HASSQAC's development.

Analysis (including testing regression and experimental mortality). Since I spread the participant pool across the contiguous United States, there was a minimal likelihood of participants communicating with one another; thus, a minimal diffusion of data collection. By investigating outliers (with potential removal), I minimized the threat of erroneously analyzing data that was extreme. Additionally, since this design did not measure change, there was no threat of regression artifact. Since I made no differences between participants and provided no compensation, there was no potential for skewed results due to resentfulness or rivalry. Some participants did not finish the study (experimental mortality). I solicited a large enough participant pool to account for such instances.

Construct - Statistical Conclusion

Through analyzing the influence of multiple IVs upon a single DV, using a large sample size, I increased reliability and decreased threat. The systematic analysis of multiple variables upon a single variable leads to the reliability of *ES* findings (Frankfort-Nachmias & Nachmias, 2008). The conceptual aspect (multiple theories strengthening TPB) of my study, along with the customized HASSQAC (Mai, 2015) instrument, may

prevent findings from acceptance by some scholars. The study's design aggressively addressed validity and reliability to overcome such challenge. I hope that these design aspects may present new techniques and tools to the scientific community. The unique design in conjunction with the multiple regression posed a challenge to conducting my study due to complexity; however, I was up to that challenge. While the confidential and anonymous nature of this study prevented any follow-up to participant responses, these aspects of the study were a necessary part of establishing trustworthiness.

Trustworthiness

I included several steps to establish credibility, transferability, dependability, and confirmability. I built a significant amount of triangulation into this study to increase credibility. The strength in saturation represented by its large desired sample size (n = 384) added credibility. The panel of experts (see Appendix D) solicited to review the HASSQAC (Mai, 2015) provided additional credibility. I strengthened transferability through the large random sample selection across the contiguous United States. Usage of direct quotes and rich, thick description taken from qualitative data enhanced that transferability. Triangulation of data types and findings added dependability. Meticulous recording of qualitative interpretation and reasoning added further dependability. First, I coded data. Next, I reviewed each code group to ensure consistency of data within that code. After which, I ran another report by code group to remove possible duplicate coding. Finally, I analyzed each code applied to each qualitative statement to ensure coding aligned with participants' responses to associated categories. At every junction, I took several steps to increase study neutrality and increase confirmability. Triangulation

throughout the process, expert review of the survey tool, detailed audit trails, and exploration of potential bias all helped increase study confirmability.

Bias Weaknesses

Bias weaknesses can come from both researcher and participants. Personal experience, belief in socially accepted answers, legal requirements, and discriminatory factors could also influence bias. I hoped to inspire honest answers from participants through the establishment of anonymity and a comfortable, secure setting. I believe remaining participant bias resulted from participants' beliefs and are variables measured in this study.

Researcher bias. The web-based nature of this study helped to avoid potential researcher influence upon participants. I did not allow my active autism advocacy endeavors, 21-year-old autistic son, and experience in the field of autism to influence participants' responses or my interpretation of such. I phrased the questions on the HASSQAC (Mai, 2015) neutrally, after which a panel of experts reviewed them. I believe that these steps increased trustworthiness in the neutrality of the instrument. I laid out specific parameters for quantitative interpretation herein and, thus, I eliminated the bias of interpretation. I triangulated and directly quoted qualitative responses, thus, reducing potential researcher bias and increasing trustworthiness. I did not posit a pre-determined answer. To best help autistics, I did my utmost identifying the most reliable answers to the devastating autistic unemployment phenomenon. I hope that such scientific knowledge leads to enhanced public policy relative to autistics and employment. In these ways, I significantly minimized researcher bias.

Ethical Procedures

Establishing ethical procedures is critical to any study. In this study, I considered the ethical treatment of participants, ethics of design, and ethical dissemination. Since participants in this study are human beings, it was paramount that I treat them ethically. Throughout my study, I considered the ethical principles identified in the Belmont Report (Department of Health and Human Services [HHS], 1979): beneficence, justice, and respect for persons always.

Beneficence. I designed this study to maximize benefits while minimizing potential harms. I took steps to ensure that I always treat participants ethically. I presented participants with honest accounts of expectations in this study, and I reported all findings honestly and ethically. I designed the HASSQAC (Mai, 2015) to allow participants opportunity to convey their honest opinions without fear of judgment from any source. I conveyed respect for their decisions to participate or not. I took steps to protect participants from harm of any form or repercussion through complete anonymity. I made efforts to secure participants' well-being through allowing participation at their convenience concerning time and location. I sought to go beyond kindness or charity by viewing such beneficence as an obligation to society.

Justice. I strove to distribute the benefits and burdens of research fairly. Participants trusted me to approach this study fairly and equitably. I carefully weighed the potential risks against possible benefits of this study and determined that benefits outweigh risks. I explicitly conveyed requirements for consent that included potential risks and benefits. I took steps to ensure fair selection of the participant pool. I designed

the study to be as widely generalizable as possible and provide the maximum potential for equitable and fair distribution of benefit and burden.

Respect for persons. I took careful steps that I acknowledge participants' autonomy and that I protected those with diminished autonomy. I ensured that I did not influence participants' responses and that interpretation was from a neutral perspective; thus, giving participants' opinions weight. I carefully considered potential harms and the potential benefits to participants of this study; weighing and explaining them accordingly.

Treatment of human participants. I took specific steps to ensure the ethical treatment of participants: solicitation, participation agreement, and researcher certification through the National Institute of Health (NIH; see Appendix J). I obtained publicly listed participant emails through Dun and Bradstreet as approved by Walden IRB (approval # 12-22-15-0387193; see Appendix H). I thoroughly ensured participant anonymity (see Appendices A and G). The targeted participant pool consisted of professional hiring agents serving medium-sized organizations within the contiguous United States and, therefore, I did not consider them to be a vulnerable population. I considered participant comfort, safety, and well-being and I conveyed any potential risks (see Appendices A and G). I informed participants of the possible minor discomforts of this study, such as the fatigue, stress, or frustration when filling out an online application. Participation posed no risk to their safety or well-being. I advised participants of data collection methods, that data collection occurs only once, and that they could save their survey and finish it anytime within one week of starting it.

I asked participants to complete an entirely anonymous, survey-style questionnaire taking approximately 15 - 30 minutes. I advised participants of complete anonymity and zero identifying data collection. Data collected did not include any participant identifiers; therefore, there was no need for certificates of confidentiality. I informed participants of the total potential participant pool of approximately 400 professionals responsible for filling open positions. I advised participants I would not ask for their name, the name of their organization, or any other identifying information. I advised participants that I would not collect IP addresses or any form of electronic identifiers and that I had no way to identify them. I informed participants that I would combine all responses and use them to conclude attitudes and potential solutions. I informed participants that there are no right or wrong answers.

I asked participants only to provide their honest opinions. I advised participants that participation was voluntary. I informed participants that everyone would respect their decision to participate or not. I ensured participants that anyone one at Walden University or any other organizations or individuals would not treat them differently if they decided not to take part. I advised participants that if they choose to participate and later change their mind, they were free to do so at any time. I informed participants that I would store data on an external hard drive under lock and key and keep it for at least five years before destroying it as required by the university. I advised participants that there was no payment or gift associated with participation in this study. The only benefits participants would gain from participation was the knowledge that they were helping society and those with autism by furthering social understanding of this issue. I informed participants

that potential public and organizational benefits related to study findings are substantial. The study has the potential to drive positive social change relative to individual, organizational, community, and even global diversity, productivity, economy, health, and many other QOL factors. I provided participants with Dr. Endicott's and my contact information, as well as informed them of the Dissertation chair's name, Dr. Fetter, and email address. Since Dr. Fetter died in April 2017, that email address is no longer valid. However, participants can still reach Dr. Endicott or I at the email addresses provided at the time of their consent. I supplied participants with two methods of removal from the email solicitation distribution list.

Ethical design concerns. If participants took exception to receiving the solicitation or to the content of the survey, I advised them to contact either Dr. Endicott or me. At that time, either Dr. Endicott or I would address their questions or concerns. Throughout the study, I password protected all data files to ensure safety. I alone had the passwords; however, raw data was available to Walden University Office of Research Integrity and Compliance upon request of such. Qualtrics (2014), the survey host, also password protected their systems and data and ensured the safety and protection of the data collected and transferred while on their system. I password protected my access to Qualtrics. Data collection was straightforward and anonymous, therefore, posed no ethical concerns. I presented data collection, analysis procedures, and justification to ensure consistency and ethical practices. I described specific steps expected of participants and explicitly conveyed such to them at two separate times (upon solicitation [see Appendix G] and commencement of the survey [see Appendix A]). If participants

refused to take part or opted to withdraw, they could do so at any time simply by not completing the survey. There were no community partners; therefore, there was no need for any letters of cooperation from such. I did not use secondary data; therefore, there was no need for any data use agreements. While I suggest potential interventions in Chapter 5, I had no pre-existing ideology of those interventions before data analysis. There was no existing conflict of interest between participants and myself as I did not know participants' identities.

Ethical dissemination and institutional permissions. Many potential stakeholders may be interested in these findings. Potential dissemination of the study (in whole, part, or summarized) includes

- applicable faculty at Walden University,
- HASSQAC (Mai, 2015) test panelists who have requested such (see Appendices D and E),
- participants who have requested such (see Appendix G),
- public policy administrators
- relevant journals to which the study would be pertinent, and
- members of the public requesting such.

In most instances, I will summarize dissemination (length depending upon dissemination audience); however, in some instances (and upon request), I will disseminate the entire completed dissertation study (without the raw data). The United States Federal Communications Commission (2014) requires consent to send out mass commercial email solicitations. I carefully reviewed all legal requirements for research

and dissemination throughout each of the contiguous United States. Some states have statutes regarding mass email communication and content (see Appendix K). I met the requirements for each contiguous state within the initial email solicitation (see Appendix G). The anonymous nature of this study excluded it from state or federally mandated discrimination reporting. There were no minor or vulnerable populations solicited, so no legal requirements about such were relevant. I met all aspects required by Walden's IRB. See Appendix H for IRB approvals. I stored data on an external hard drive under lock and key and will keep it at least five years before destroying it as required by the university. Since I collected no identifying data, all data remains anonymous. I will keep inquiries or concerns confidential unless ordered by a United States legal institution to produce such. I did not associate any inquiring identifiers to any items, files, or cases within the data and I removed any that participants wrote into the qualitative sections. Thus, I possess unquestionably no means of identifying who contributed individual responses.

Summary

In Chapter 3, I described and defined the study setting, research design, and rationale. I related my role as the researcher, methodology, threats to validity, and trustworthiness of the quantitatively weighted (QUAN > qual), concurrent, multiple regression study. As conveyed, it was crucial that I create an ontology of anonymity and non-incrimination to encourage honest responses. I presented the sound rationale for the weighted, mixed method design relative to disseminating findings to organizations and public policy administrators. In Chapter 3, I discussed and minimized my potential for researcher bias. I provided a sound rationale for the target participant sample consisting

of hiring agents for medium-sized (50 to 249 employees) organizations across the contiguous United States. I discussed in detail the creation and modification of the HASSQAC (Mai, 2015), and I provided steps to test reliability and assumptions. In my data analysis plan, I focused on quantitative data, with the inclusion of qualitative data to increase insight and add rich detail. In Chapter 3, I also presented external, internal, and construct threats in conjunction with methods to minimize or control for such. I also considered potential biases and ethical considerations.

In Chapter 4, I introduce the results section of this study. I include the setting, demographics, data collection, data analysis, results (quantitative and qualitative), and evidence of trustworthiness. In Chapter 4, I also present a summary of results before transitioning to Chapter 5, wherein I present the study discussion, and conclusions.

Chapter 4: Results

The primary purpose of this regression analysis was to predict the degree to which each IV (control, normative, and behavioral beliefs) influenced the DV (hiring agents' selection of qualified autistic candidates). I employed a multiple regression model to analyze quantitative data gathered via a 7-point Likert scale survey tool (HASSQAC, Mai, 2015**)** that also included limited open-ended qualitative questions. I coded qualitative data (themed and patterned) and then evaluated and triangulated with quantitative data to provide insight and rich description of findings. I analyzed research questions through the lens of TPB.

Central Overarching Research Question: What is the nature of the relationship among the IVs (the potential control, normative, and behavioral beliefs of hiring agents as assessed on a 7-point Likert scale [1 = *never* to 7 = *always*]) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concept of TPB and measured using multiple regression)?

Quantitative Research Sub-Question 1: What is the nature of the relationship among the IVs (control beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

Quantitative Research Sub-Question 2: What is the nature of the relationship among the IVs (normative beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

Quantitative Research Sub-Question 3: What is the nature of the relationship among the IVs (the behavioral beliefs; assessed on a 7-point Likert scale [1 = *never* to 7 = *always*] influencing hiring agents) and the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level predicted through the concepts of TPB and measured using multiple regression)?

I further explored the central overarching- and three sub-research questions through minimally weighted (± 10%) qualitative inquiry. I designed the qualitative portion of my study to address potential influencing control, normative, or behavioral beliefs of hiring agents that not covered in the quantitative measures of the HASSQAC (Mai, 2015) or confusing or misunderstood by the participants. Thus, all six qualitative sub-questions were merely extensions of corresponding quantitative inquiry.

I present findings of this scientific inquiry throughout Chapter 4. First, I review the study setting, demographics, data collection, and any collection variations. Then, I provide data analysis procedures and review parametric test findings and discrepant cases. Next, I address each study question by presenting a detailed analysis of study

results organized by study question and hypothesis. I explore quantitative and qualitative components concurrently and include descriptive statistics, statistical analysis findings, exact statistics, associated probability values, confidence intervals, and effect sizes. I include transcript quotes to support and add depth, insight, and understanding to findings as well as highlight opposing findings. After which, I discuss credibility, transferability, dependability, confirmability, and coder reliability of results. Finally, I summarize Chapter 4 and transition to Chapter 5.

Study Setting

The environment inherently affects participant responses and corresponding researcher interpretation. Leighton (2010) related this maturation process to variances between pre- and post-test studies. However, when data collection occurs over time, developmental change occur. Such change influences the environment inhabited by participants. Events, media, memes, and various interactivity and interrelations can all influence maturation in participants. Since I solicited participants for this study via multiple electronic venues over the course of nine months in 2016, several factors could have influenced participants' responses.

Election Year

An election year can affect the way individuals think and 2016 was a United States Presidential election year (Jeffrey, 2016). Normative pressures can sway beliefs to the point of misrepresentation. Brenner (2012) equated the normative behavior of misrepresenting one's vote to commitment bias as the participant relives the pressure of social desirability in much the same manner. However, Brenner also pointed out that

when communication modes are not face-to-face, that pressure significantly decreases. Brenner advocated increasing distance and privacy to decrease this type of normative behavior influence. Thus, the anonymous online nature of my study was conducive to creating the remote and private environment Brenner recommended. Albeit, the distorted character of this election year likely still provoked biased normative influences on the environment of the study. The Grand Old Party candidate's negativity toward the benefits of diversity and disability was just one of the environment-influencing topics during the year.

Update of Autism Prevalence Estimates

In 2012, the CDC released reports indicating 1 in 68 children in 2010 were living with a current ASD diagnosis (Baio, 2012). The CDC updated estimates of ASD prevalence for 2012 (Baio, 2014; CDC, 2014; Christensen et al., 2016) and again in 2015 (Zablotsky et al., 2015). The most current CDC estimates of the prevalence of ASD is 1 in 45 (Zablotsky et al., 2015). Christensen et al.'s and Zablotsky et al.'s findings were promoted at the end of 2015 (ASA, 2015; Autism Speaks, 2015; Cha, 2015; Fox, 2015) and throughout 2016 (Autism Science Foundation, 2016; CDC, 2016; Diament, 2016; John Hopkins University, 2016; Moisse, 2016). Therefore, the increasing estimates were likely on participants' minds; thus, influencing their beliefs. Albeit, none of these articles made major national headlines. Nonetheless, enough media attention was present during data collection that may have influenced participants' environments resulting in hiring professionals altered beliefs and actions related to employing qualified autistic candidates.

Increase in Autism-related Employment Initiatives

Several well-known companies launched autism-related initiatives during the data collection timeframe which gained significant media attention. Ford Motor Company (FMC) announced their FordInclusiveWorks program on May 25th (FMC, 2016) aimed at incorporating the beneficial skill sets of autistics into their diverse employee makeup. Stout (2016) reported that FMC expected the program to benefit both autistics and the organization. The accounting firm, Ernst and Young piloted a similar program in 2016 (Lam, 2016). Lam also reported on Hewlett Packard's Dandelion program and Microsoft's Autism at Work initiative, as well as J.P, Morgan's, AT&T's, and SAP Software Solutions.' Bernick (2016) explained that Microsoft's Autism at Work was the highest profile corporate effort in 2016, but that SAP's, Salesforce's, Google's, Cable Labs', Hewlett Packard's, and CollabNet's similar programs all saw significant growth in 2016. Bernick conveyed that non-technical oriented conglomerates such as Best Buy, Deloitte, Willis Towers Watson, and Ford all announced similar programs in 2016. Rising Tide Car Wash, Ultra Testing, Spectrum Designs, Platinum Bay Software, Chocolate Spectrum, and SMILE Biscotti are just a few of the 50+ small businesses that also made the news in 2016 with their endeavors to hire autistics. This shifting environment undoubtedly influenced the beliefs of study participants.

Sensational Media Coverage

With both positive and negative associations from late 2015 regarding autism-related shootings still fresh in participants' minds, the 2016 period for the study's data collection maintained that sensational environment. Furthermore, in January 2016, an

autistic suffering from a stress-induced meltdown pushed a woman down causing injury (Carlson, 2016; Mercury News, 2016). In April, an altercation with police led to the death of an unarmed middle-aged autistic adult (Simmons, 2016). In July, national headlines reported an incident wherein police shot a caregiver in front the caregivers' autistic charge (Karimi, 2016; Rabin, 2016). In August, police officers fatally shot a speech impaired autistic young adult over a traffic violation (Agorist, 2016). September saw headlines about the fatal shooting of a 6-year-old autistic child by police officers (CBS, 2016; Ware, 2016). In October, a group of children set a developmentally disabled child on fire (Bever, 2016) and December headlines told of an autistic child's abduction (Gounley, 2016). Ongoing commentaries such as O'Hara's (2016) compilation publicized numerous examples of the failure of the system as the cause of the continuing autism-related tragedies. Police wrongfully charged a brutally battered autistic young adult (the victim) with assault; police wrongfully arrested another young autistic who was seeking police protection from a bully; and authorities similarly wrongfully detained a neurologically disabled 11-year-old (O'Hara, 2016). Each of these sensational media publications potentially influenced the environment of participants; all of them together most certainly traumatically influenced that environment and the associated beliefs of participants. Even though the autistics were the victims in many of these occurrences, the terrible shock likely affected the study's environment.

Demographics

Given the anonymous and voluntary nature of this study, I collected limited demographic data. While most of the participants did answer pertinent survey questions

($\bar{X}$ = 141), fewer answered basic demographic questions ($\bar{X}$ = 120). I solicited participants from all industry types; however, the largest percentage of responses came from the medical - healthcare (15%), education (13%), and technical - technological (13%) categories (see Table 2). The frequency that these professions participated might infer an increased desire to facilitate understanding of the unemployment issues faced by autistics.

Table 2

Industry Type

		Frequency	Percent	Valid Percent
Valid	Agriculture, Forestry, & Fishing	1	.5	1.0
	Construction	2	.9	2.0
	Education	13	6.1	**13**.0
	Finance, Insurance, & Real Estate	5	2.4	5.0
	Government	10	4.7	10.0
	Manufacturing	3	1.4	3.0
	Medical - health care	15	7.1	**15**.0
	Professional	6	2.8	6.0
	Retail	10	4.7	10.0
	Service	6	2.8	6.0
	Technical - Technological	13	6.1	**13**.0
	Transportation	1	.5	1.0
	Other	15	7.1	15.0
	Total	100	47.2	100.0
Missing	System	112	52.8	
Total		212	100.0	

Note. I bolded the highest percentage of industry participation for ease of identification.

The high participation of these fields was not surprising. I found a plethora of supply-side literature driven by medical inquiry with intent to educate. Additionally, much of the literature also indicated that many autistics have natural talents toward science, technology, engineering, and math professions which would explain the high participation of technical industry hiring agents. While 42% of respondents did not identify their gender, of the 58% that did, 64% were female (n = 80) and 34% male (n = 43; see Appendix L). The DOL (2017) reported that 73% of HR managers in the United States in 2015 were female. The disparity between the percentage of HR females (73%) to female participants (64%) could indicate that more male than female hiring professionals may be interested in facilitating understanding of the unemployment issues faced by autistics. However, since 42% of the respondents did not indicate their gender, the inference of increased male participation my not be a reliable conclusion.

Most participants were between the ages of 26 to 65 (91%; see Table 3). The largest age bracket was from age 46 to 55 (26%). Hartshorne and Germine (2015) found that human emotion-recognition ability appears to hold steady from age 40 to 60 ($p <$ .05). Thus, the high percentage of participants in the 46 to 55 age-bracket may be due to increased interest in understanding emotions and driving factors.

Table 3

Participant Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25 or less	5	2.4	4.0	4.0
	26-35	29	13.7	23.2	27.2
	36-45	26	12.3	20.8	48.0
	46-55	32	15.1	**25.6**	73.6
	56-65	27	12.7	21.6	95.2
	66 or over	6	2.8	4.8	100.0
	Total	125	59.0	100.0	
Missing	System	87	41.0		
Total		212	100.0		

Note. I bolded the highest percentage of participation for ease of identification.

Many participants opted not to answer varying demographic questions. However, over half ($\bar{X}$ = 58%) did answer; thus, making it possible to infer some potential association influence (see Figure 13). Only 12% of participants reported they did not know anyone with autism. Whereas, 54% of participants reported they knew 3 or more autistics (see Appendix L). With 88% of participants having some degree of familiarity with autism, there is a distinct likelihood those associations resulted in influencing participants' beliefs regarding autistics. Of that 88%, less than 3% reported the entirety of their autistic associates as non-functional. Thus, indicating a potentially positive overall influence of existing associations with autistics upon participants' beliefs. A sizeable percentage of participants reported having worked with autistics (47%) and another 17% indicated that they might have but were uncertain. About their current employer, 20% knew of autistic co-workers, 45% reported they were uncertain if their employer

currently employed autistics, and 35% reported their current employers did not employ autistics.

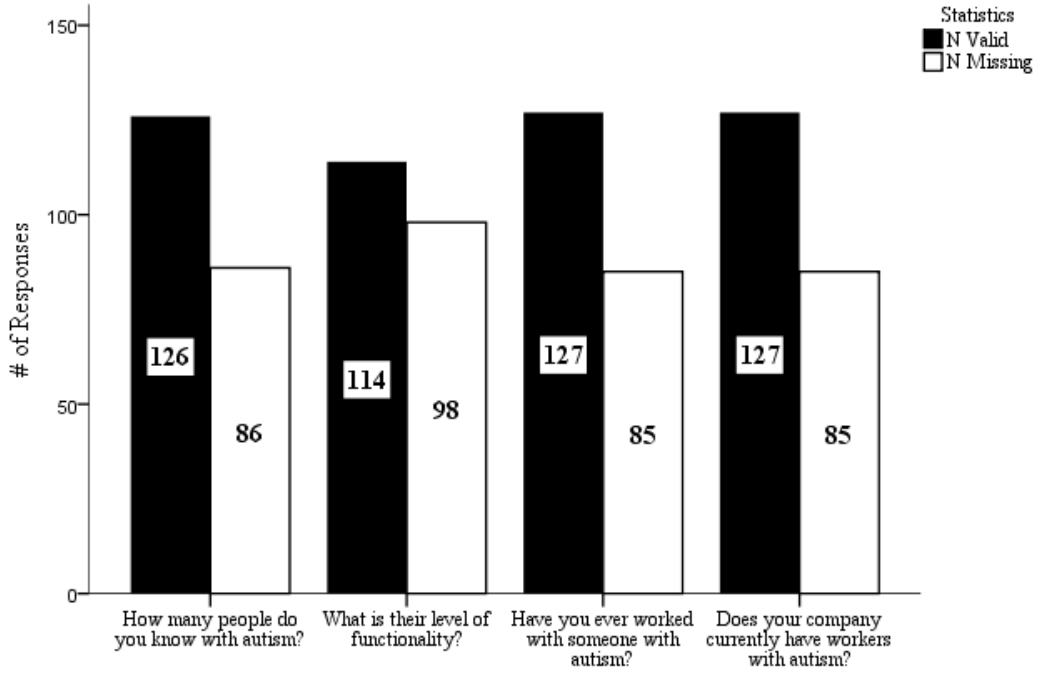

Figure 13. Autistic familiarity response statistics. Bar chart depicting the number of responses and number of missing responses.

Data Collection

I collected data over a nine-month period in 2016 from March 23 to November 15. I collected data via the HASSQAC (Mai, 2015) over the internet so that participants could respond at their discretion. I collected data from each participant only once. I used Qualtrics (2014) survey host to store gathered data until I downloaded it on December 1, 2016, allowing two-weeks from the November survey closing date, so participants had the additional time to finish saved surveys. A total of 212 participants began the

HASSQAC. Each Section of the HASSQAC had seven or eight Likert scale questions based on TPB's control, normative, and behavioral categories. I estimated each section to take three minutes to complete (based on immediate reaction to the prompt) although increased thought given to each response would extend completion time accordingly. Figure 14 demonstrates that participants responded to fewer questions as they progressed through the HASSQAC.

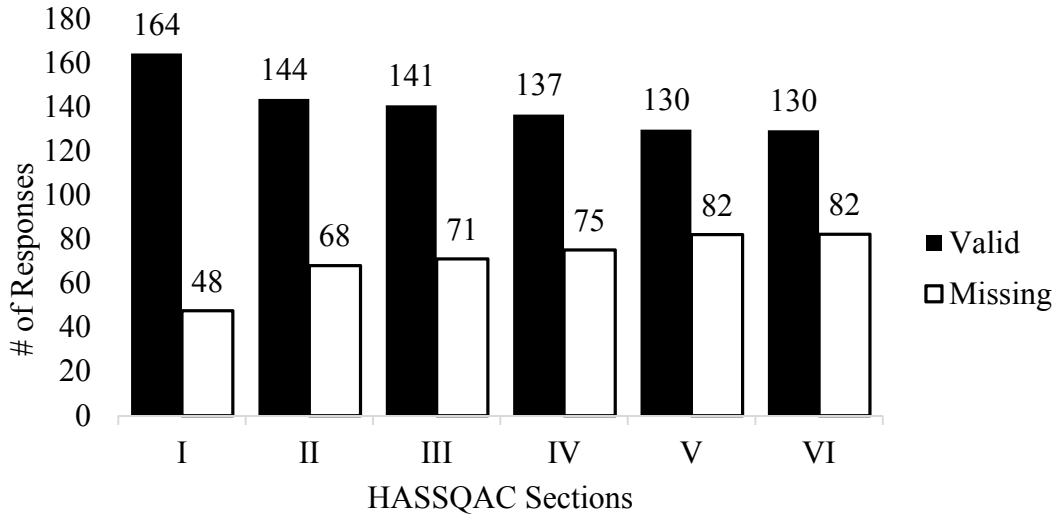

Figure 14. HASSQAC response statistics. Bar chart depicting the mean number of responses and missing responses per HASSQAC (Mai, 2015) Section.

Collection Variations

I aimed participation solicitations at professional hiring agents in medium-sized organizations (50 – 249 employees) in the contiguous United States. However, participation was open to anyone with any degree of recruiting or hiring experience regardless of location or organization size. The declining response rate in each subsequent section of the HASSQAC (Mai, 2015) could reflect random attention span; however, it may also indicate the type of participants responding. Even though I sought

participation from medium-sized organizations, only 28% of responses came from that sector (see Table 4). Most responses came from large organizations (250+ employees) which, in my experience, control beliefs typically influence. Since Section I of the HASSQAC pertained solely to control beliefs, that may have been a factor influencing the increased response rate of that section.

Table 4

Organization Size

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-49	40	18.9	**32.0**	32.0
	50-99	10	4.7	8.0	40.0
	100-149	11	5.2	8.8	48.8
	150-199	7	3.3	5.6	54.4
	200-249	7	3.3	5.6	60.0
	250+	50	23.6	**40.0**	100.0
	Total	125	59.0	100.0	
Missing	System	87	41.0		
Total		212	100.0		

Note. I bolded the highest percentage of participation for ease of identification.

I targeted hiring agents throughout the contiguous United States for participation in the study. However, participants were not entirely from the contiguous United States. There was one participant from Alaska and one from Hawaii. Regions outside the United States contributed five participants. Those seven participants only represent 3.4% of the total study participation. A total of 91 participants (42.9%) chose not to share their geographical data. There was no participation from several states (see Appendix L for full

Table). However, 12 states have population bases fewer than 0.50 % of the United States population. Of those 12, 4 had 1 participant and 8 no participation. Participation frequency appears to loosely correlate in association with each state's population percentage of the United States population.

I observed some geographical participation anomalies. As seen in Table 5, the states of Washington, South Carolina, Kansas, and Utah hosted a significantly larger participant sample than that state's population ratio to the country. This variation may be a result of the social media portion of the participant solicitation; the liberal, disability conscious, and socialistic nature of those states; or any combination of unknown ontological factors. At first, I assumed that these four states' participants were somehow associated with or potentially influenced by my association with participants in those states. Upon researching how such association may have influenced participants' responses, I found that my association with persons in those states likely did not directly affect individual participation. Per Groeger and Buttle (2014), strong social media relationships are often overestimated. Rather, social media is more likely spread via a combination of homophily (similarity of individuals) and transitivity (partial order relations connecting "a" to "c" via the association of "b" to both "a" and "c"). In other words, it is more likely that acquaintances of my acquaintances promoted the study and not any personal influence by me.

Table 5

Geographical Distribution Anomalies

		Frequency	%	valid %	% of Population	Years Associated
Valid	**California**	**15**	**7.1**	**12.4**	**12.1**	**current***
	Texas	6	2.8	5	8.6	
	Florida	3	1.4	2.5	6.4	
	New York	5	2.4	4.1	6.1	
	Pennsylvania	2	0.9	1.7	4	
	Illinois	1	0.5	0.8	4	
	Ohio	4	1.9	3.3	3.6	
	Georgia	4	1.9	3.3	3.2	
	Michigan	2	0.9	1.7	3.1	
	North Carolina	2	0.9	1.7	3.1	
	New Jersey	2	0.9	1.7	2.8	
	Virginia	2	0.9	1.7	2.6	
	Washington	**13**	**6.1**	**10.7**	**2.3**	**2000-2005**
	Massachusetts	3	1.4	2.5	2.1	
	Tennessee	3	1.4	2.5	2.1	
	Indiana	2	0.9	1.7	2.1	
	Missouri	2	0.9	1.7	1.9	
	Colorado	1	0.5	0.8	1.7	
	Minnesota	1	0.5	0.8	1.7	
	South Carolina	**9**	**4.2**	**7.4**	**1.5**	**2012-current***
	Alabama	2	0.9	1.7	1.5	
	Oregon	1	0.5	0.8	1.3	
	Oklahoma	1	0.5	0.8	1.2	
	Connecticut	1	0.5	0.8	1.1	
	Iowa	1	0.5	0.8	1	
	Kansas	**14**	**6.6**	**11.6**	**0.9**	**2000-2005**
	Utah	**6**	**2.8**	**5**	**0.9**	**2007-current***
	West Virginia	1	0.5	0.8	0.6	
	Idaho	2	0.9	1.7	0.5	
	Hawaii	**1**	**0.5**	**0.8**	**0.4**	
	North Dakota	2	0.9	1.7	0.2	
	Alaska	**1**	**0.5**	**0.8**	**0.2**	
	District of Columbia	1	0.5	0.8	0.2	
	Outside the U.S.	**5**	**2.4**	**4.1**	**0.0**	
	Missing	**91**	**42.9**		**0.0**	
Total		212			0.0	

Note. Sorted by percent of U.S. population, then the valid percent of participation. I bolded anomalies discussed for ease of identification. Estimated % of U.S. population taken from USCB (2017).
* Family relationships exist.

To further validate the unlikelihood of potential researcher influence upon participation in the study, I reviewed my potential associations with individuals residing in those states. I have contacts in every state of the United States, as well as many regions outside the country. Thus, when I post on social media those posts appeared around the world but concentrated in the United States. I did not begin to focus my expertise on the topic of employment relative to disability until 2009. Thus, any associations before 2009 would not be immediately familiar with my work in the field of employment and disability. That would eliminate Washington and Kansas. I also noted that Kansas and Washington hosted the 2nd and 3rd most participants even though I have no family living in or near those states. While I do have limited family in the states of California, Utah, and South Carolina, the majority are unaware of my specific professional interests outside of general academia. I also have family in Arizona, Florida, Georgia, Nevada, Idaho, Illinois, New York, Oregon, Wisconsin, and West Virginia to name a few; all states with no significant variance from study participation frequency to national population ratio. Additionally, I neutrally phrased my participation solicitation to invite participation from hiring professionals with experience in the United States to minimize any potential researcher influence.

I also researched states recognized as the most liberal, disability conscious, and socially minded. Driscoll (2016) used a series of metrics, scaled, and weighted to analyze data subsequently ranking Washington state 3rd, Utah 10th, Kansas 21st, California 22nd, and South Carolina 42nd. However, Bernardo (2016) compared the 150 most populated United States cities in a similar data analysis design. Bernardo found that Overland Park,

Kansas ranked number 1 and Wichita 6th. Bernardo ranked Huntington Beach and Irvine, California in the top 10 with a total of 9 major California cities in the top 25, 23 in the top 100, and 28 in the top 150. Bernardo ranked Salt Lake City, Utah 17th and four cities in Washington in the top 150. Whereas, Petronzio (2015) reported that the United Cerebral Palsy (UCP) ranked South Carolina the 9th best state due to its inclusion policies. Thus, whether by state, city, or public policy, each of those states (California, Washington, South Carolina, Kansas, and Utah) possess quality factors which might naturally cause residents to take part in this study more so than other states.

At the onset of the study, I anticipated a viable sample of 384 hiring professionals serving medium-sized (employing 50 - 249 employees) organizations within the contiguous United States. At ±1.96*z*, 443,000 (*N*), .50 (*p*), and .05 (*E)* using Cochran's (1963) equation for a representative sample size (Equation 1) would have yielded 95% 1 - *a* on a normal distribution. After nine months of participant solicitation, I had 212 responses out of which only 130 were complete data sets. Thus, my confidence level varied depending on the number of responses to each question and ended up being between 80.28% to 74.54% (see Figure 15).

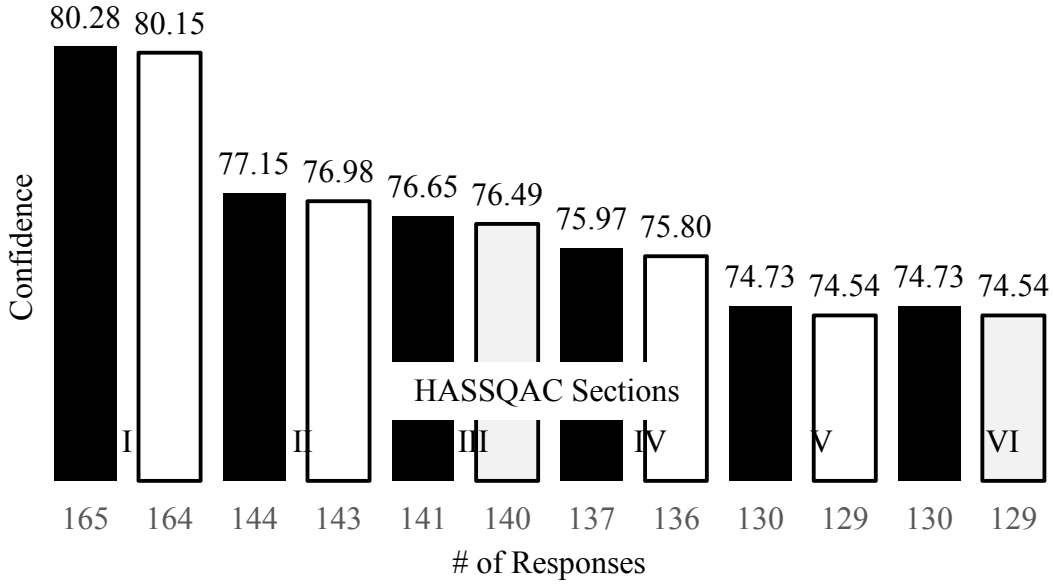

Figure 15. Confidence per number of responses. Calculated using Rao and Rao's (2009) sample size calculator, based on Equation 5 wherein .05 *E*, .5 *r*, and *Z*(*c*/100) is the critical value for *c*.

$$
\begin{aligned}
x &= Z\left(c/100\right)^2 r(100-r) \\
n &= N_x \Big/ ((N-1)E^2 + x) \\
E &= Sqrt[(N-n)x \Big/ n(N-1)]
\end{aligned}
\tag{5}
$$

Dependent Variable Data Collection and Calculation

I calculated the DV (hiring agents' selection of qualified autistic candidates as measured on a percentage-based continuous level) according to the concepts of TPB and measured it using multiple regression. Thus, I triangulated the validity of the calculation formula. I analyzed frequency including $\bar{X}$, *SE*, variance, and range (see Table 6). I found an average of 18% of respondents were likely to hire qualified autistic candidates ($\bar{X}$ = 17.94). Thus, the inverse of that figure indicated that 82% would not be likely to hire

them. These findings closely mirrored the current 83% unemployment rate of qualified autistic candidates; thus, validating the calculation of the DV in this study.

Table 6

DV Statistics

N	Valid	127
	Missing	85
Mean		**17.9386**
Std. Error of Mean		.25125
Variance		8.017
Range		16.14

Note. Mean bolded for quick reference.

Data Analysis

I transferred all qualitative data into Microsoft Excel 2016 on December 1, 2016. I combed through data and removed any identifying data. There was only one respondent who had listed contact information and asked for study results. I set aside that email address in a list of email addresses of colleagues and peers who have also requested study results. I have no way of knowing what responses belonged to that individual. I only know that they participated in the survey and asked for study results.

I then transferred the clean data into NVivo 11 to aid in coding, theming, and analysis. I used data codes correlating to the six sections of the HASSQAC (Mai, 2015) and related to the three categories of TPB and each predictor variable identified in Figure 11. If I did not find a corresponding code within that list of variables, I created a new control, normative, or behavioral code based on one of the six subsets listed under

qualitative exploration. I flagged new codes for additional, individual qualitative analysis as outlined in the qualitative components section.

After I initially coded all qualitative data, I reviewed all coding from three different perspectives (similarity, thematic, and redundancy) to ensure consistency and eliminate duplicate coding of samples. I then performed a final (fourth) review of all codes assigned to each complete respondent statement to ensure coding aligned with each participant's intended response. I analyzed coded qualitative data concurrently with quantitative data to deepen understanding of quantitative results; thus, I reported emergent themes and quotations concurrently with quantitative results.

Parametric Tests and Discrepant Cases

I accounted for demographic discrepancies in the collection variations section of this Chapter. I report qualitative and quantitative discrepancies here. However, I include discussion of instances where qualitative analysis conflicts with quantitative analysis in the results section since I did not determine those as discrepant cases.

Outliers. I ran parametric tests against the DV to test assumptions and model fit. I found one outlying case using Casewise diagnostics (see Table 7) set to *SD* ±2. *SD* ±3 is the common criterion cut-off. Typically, cases with *SD* between ±2.5 and ±3 bear investigation. I deemed this case (*SD* = 2.453; see Table 7) to be of minimal concern. That single outlying case represented less than 1% of the total number of cases given 212 total participants started the HASSQAC (Mai, 2015), 165 provided valid responses to at least one complete section, and 129 provided valid responses to all sections of the survey

tool (0.0047, 0.0061, and 0.0078 respectively). Thus, that case did not present any indication of poor or unacceptable design.

Table 7

Casewise Diagnostics of Dependent Variable

Case Number	Std. Residual	Likelihood	Predicted Value	Residual
37	2.453	19.41	17.7078	1.70489

Note. Of 212 respondents, only a solitary case presented a significant outlier of > 2 *SD*.

The histogram was normal (see Figure 16) reflecting no extreme outliers. *SD* of residuals was below ±1.96 (see Table 8) as well. More than 5% of standardized residuals greater than ±2 would have indicated a poor design and more than 1% of standardized residuals greater than ±2.5 would have indicated an unacceptable design. Since the SD of this design was below ±1.96, I determined there were no extreme outliers.

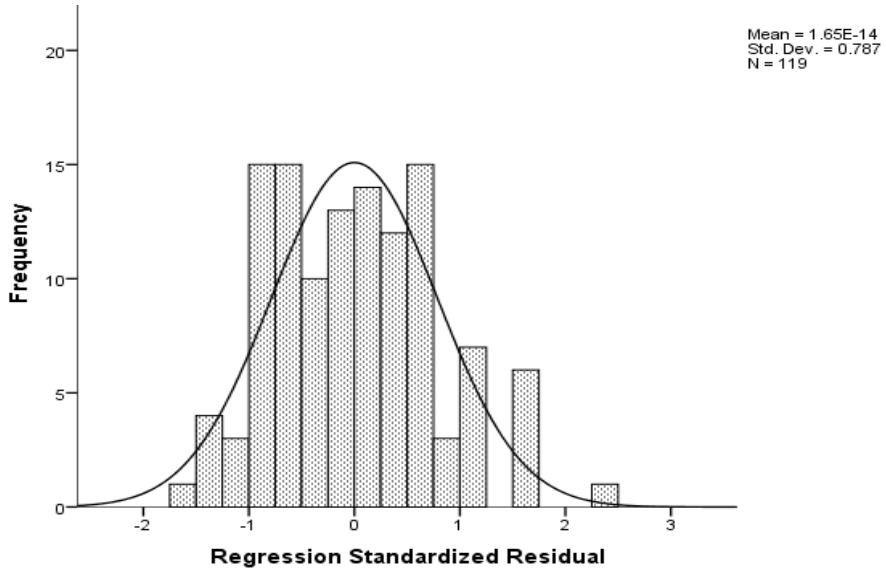

Figure 16. 2010 Histogram of dependent variable with distribution curve.

Table 8

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.2850	25.5508	18.0904	2.57806	119
Std. Predicted Value	-3.028	2.894	.000	1.000	119
SE of Predicted Value	.200	.626	.423	.087	119
Adj. Predicted Value	10.4547	25.6049	18.0939	2.57232	119
Residual	-1.09306	1.70489	.00000	.54675	119
Std. Residual	-1.572	2.453	.000	**.787**	119
Stud. Residual	-2.124	2.999	.001	**1.013**	119
Deleted Residual	-1.99462	2.54852	-.00349	**.93666**	119
Stud. Deleted Residual	-2.178	3.180	.004	**1.025**	119
Mahal. Distance	8.753	94.719	44.622	**17.980**	119
Cook's Distance	.000	.135	.017	**.025**	119
Centered Leverage	.074	.803	.378	**.152**	119

Note. Standard, studentized, deleted, and studentized deleted residuals; I bolded Mahalanobis and Cook's Distance; and Centered Leverage SD values for quick identification.

Given the large sample size (n = 212) and number of IVs (n = 45), I used the *SD* of the residual statistics to ascertain the need to identify individual outlying cases. Considering Hoaglin and Welsch (1978) recommended leverage (*hat*) values less than 2 and Stevens (2002) less than 3, I felt that leverage values under 1 were acceptable. Cook and Weisberg (1982) recommended distance values less than 1. Additionally, Tabachnick and Fidell (2012) used p and number of IVs as df to identify the critical value of χ^2 as the highest acceptable value of Mahalanobis Distance value. Given an p = .05 and df = 45, the critical value of χ^2 was 61.66. Table 8 shows the *SD* of leverage value was safely under 0.2, Cook's distance value below 1, and Mahalanobis less than 61.66.

To further access this assumption, I used four simple sorts of cases by studentized deleted residuals, leverage values, Cook's distance values, and Mahalanobis distance values. Three or more of these tests for outliers would indicate the existence of a true outlier. Thus, I verified that all cases passed at least two of four tests (*SD* of studentized deleted residuals ≤ ±3, leverage values ≥ 0.5, Cook's distance value ≤ 1, and Mahalanobis distance value ≥ 61.66). As all cases passed this test for true outliers, I determined the single outlying case revealed by Casewise diagnostics was also within acceptable parameters and did not remove it. Therefore, there was no need to rerun parametric tests nor isolate that case for qualitative evaluation.

Linearity. I used scatterplots to check for linearity. The horizontal band pattern indicated a linear relationship between the DV and each IV (see Figures 17 – 20, and Appendix M). Since there was no violation of linearity, I accepted the multiple regression design without adjustments. Thus, I performed no variable transformation and determined there was no need to switch to a multilevel model.

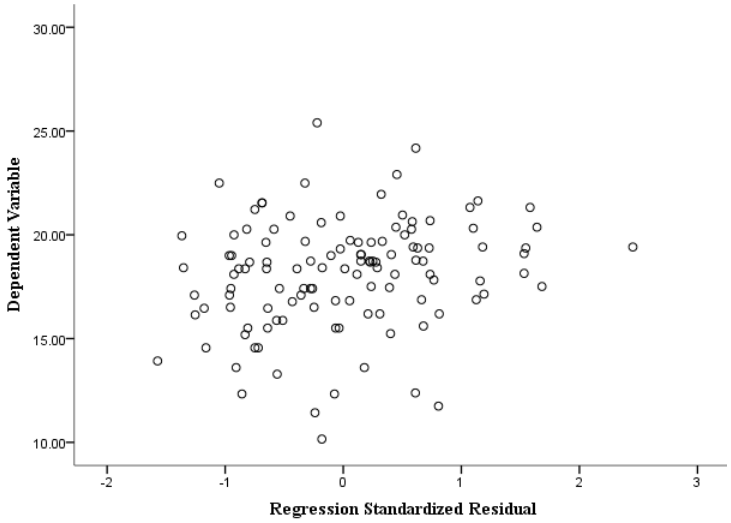

Figure 17. Scatterplot: Standardized residuals of dependent variable.

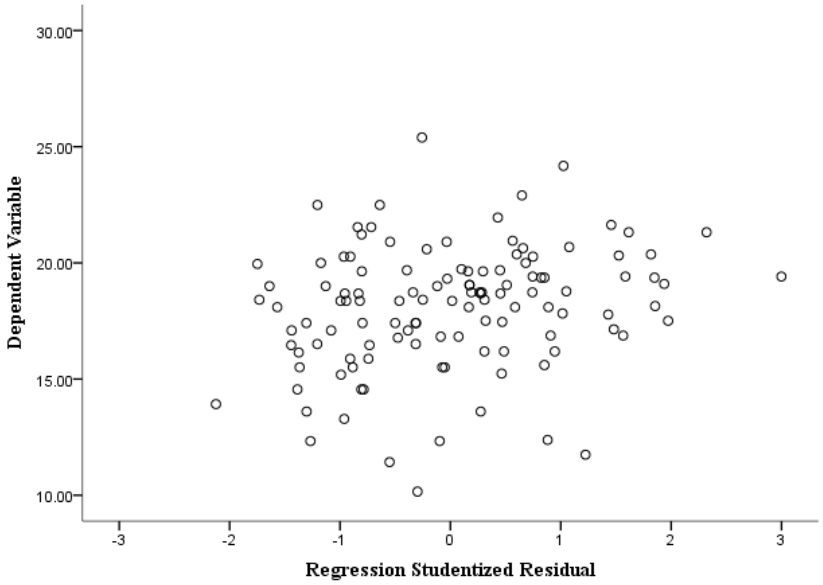

Figure 18. Scatterplot: Studentized residuals of dependent variable.

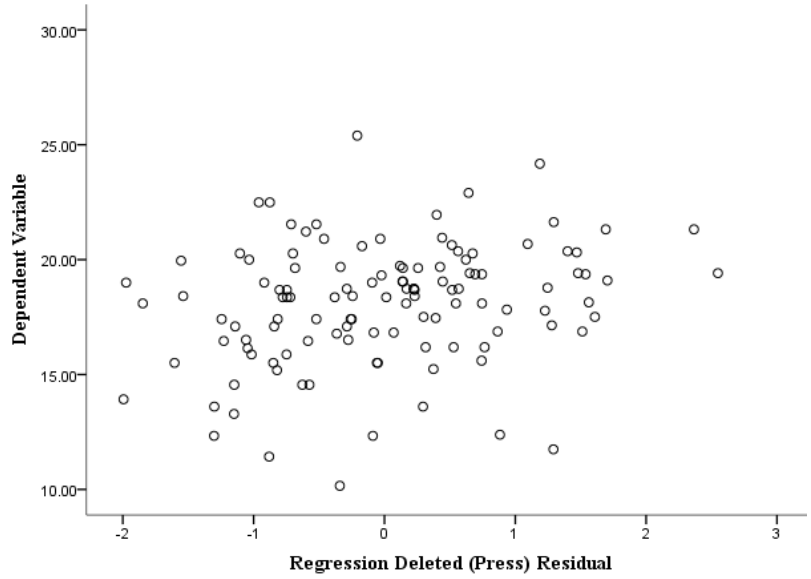

Figure 19. Scatterplot: Deleted residuals of dependent variable.

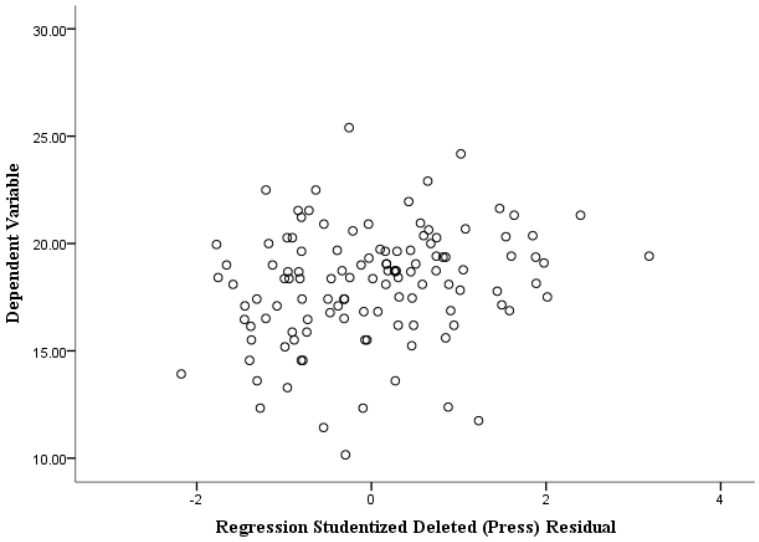

Figure 20. Scatterplot: Studentized deleted residuals of dependent variable.

Normality of residuals. The histogram curve reflected normality (see Figure 16). I observed diagonal directionality and normal distribution ($\overline{X} = 0$) on the probability-probability plot (P-P plot; see Figure 21). I observed no kurtosis or skewness; thus, there was no need to bootstrap and no need to rerun parametric tests.

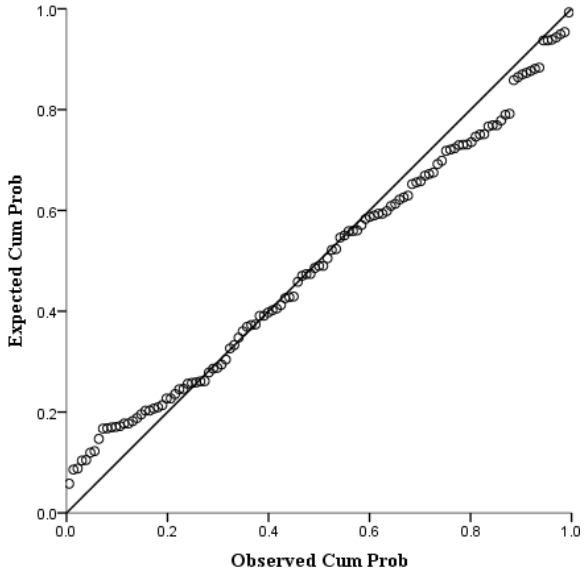

Figure 21. Normal P-P Plot of Regression Standardized Residual: Dependent variable.

Homoscedasticity. The scatterplots I used to determine linearity also reflected homoscedasticity. All scatterplots reflected normal spread; thus, indicating homoscedasticity (see Figures 17 – 20, and Appendix M). Heteroscedasticity would have appeared as a cone shape. Since I observed no heterogeneity, there was no need to use the method of weighted least squares to determine significant deviations in variance and no need for a multilevel model.

Independence of cases. *DW* was approximately 2 (see Table 9) reflecting no autocorrelation ($p = 0$). Since *DW* was not less than 1.5 or greater than 2.5, I determined there was no need for further investigation of autocorrelation; thus, no need for a multilevel model.

Table 9

Model Summary[a]

				Std. Error	Change Statistics					
Model	R	R^2	Adjusted R^2	of the Estimate	R^2 Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.978[b]	.957	.930	.69514	.957	36.067	45	73	.000	1.756

[a]DV: Likelihood. [b]Predictors: (Constant), All predictors ($N = 45$), control, normative, and behavioral.

Multicollinearity. All Pearson correlation (*r*) values were less than .9. However, some were between .5 and .8; thus, I reviewed the relationships between those variables for potential multicollinearity (see Appendix L). Using a standard criterion of .05, I determined that none of those variables were significantly related. Additionally, the *VIF* value of every coefficient was less than 10 (see Appendix L); thus, indicating no

multicollinearity. However, I calculated the average *VIF* of all coefficients at 4.33; therefore, I also reviewed tolerance to double-check for multicollinearity. I found 13 coefficients with tolerance values between .1 and .2. However, all but 2 of those 13 coefficients were significantly close to .2. Considering Menard (2002) posited that only tolerance values below .1 presented issues of multicollinearity and Myers (1990) advised only *VIF* values over 10 indicated a multicollinearity concern, this model met the assumption of multicollinearity. Thus, there was no need to remove any variables and no need to retest.

Model fit. The Pearson correlation (R = .978) indicated a strong linear relationship between the DV and IVs. The introduction of the IVs explained a significant percentage of the variation in the model (R^2 = .957). With an adjusted R^2 = .930, I found the *ES* of this model to be 93%. R^2 and adjusted R^2 had minimal variance (see Table 9) indicating strength in generalization. At $p < .001$, the change statistics were more significant than the standard criterion of $p < .05$. As demonstrated by the F-ratio exceeding 1 (F = 36.067), I found the SS_M of the regression model predicted that the model fit was greater than the model inaccuracy. Thus, I found the model to be a good fit.

This model met and passed all tests of multiple linear regression assumptions. The DV was continuous and I had two or more interval measured IVs. Variables were independent, as assessed by *DW* statistic of 1.756. I observed linearity between the DV and IVs (cumulatively and individually), as assessed by visual inspection of scatterplots of studentized residuals versus unstandardized predicted values of each IV against the DV. I observed homoscedasticity, as assessed by visual inspection of scatterplots of

studentized residuals versus unstandardized predicted values. I detected no significant multicollinearity, as assessed by correlation significance (*r* w.r.t. *p*), *VIF* ≱ 10, and tolerance ≰ .1. I observed no true outliers, as assessed by Casewise diagnostics (*SD* ≰ ±3) and descending/ascending data sorts of studentized deleted residuals, leverage values, Cook's distance values, and Mahalanobis distance values. All cases passed at least two of four tests (*SD* of studentized deleted residuals ≰ ±3, leverage values ≰ 0.5, Cook's distance value ≮ 1, & Mahalanobis distance value ≯ 61.66). I observed normality of residuals, as visually assessed by a normal distribution on a standard regression histogram of DV frequency versus DV regression standardized residuals. I confirmed this normality by a diagonal distribution on a P-P plot of standardized regression residual of the expected cumulative probability of DV versus the observed cumulative probability of DV. Thus, I did not need to factor in any quantitatively discrepant cases. This model was a good and parsimonious fit. I present and discuss qualitative anomalies as part of the study results and discussion sections.

Study Results

I based this multiple regression on the solid theoretical foundation of TPB crystalized with AAT, ELM; PAT, FCT; and EVT. I evaluated 45 IVs each categorized within the three TPB taxonomies of control, normative, and behavioral beliefs. I conducted separate regressions to analyze each of the four questions in this study: The primary regression (identified as ^{TPB}) addressed the central overarching questions. The control regression (identified as ^{C}) addressed the first sub-question related to control beliefs. The normative regression (identified as ^{N}) addressed the second sub-question

related to normative beliefs. The behavioral regression (identified as ^{B}) addressed the third sub-question related to behavioral beliefs. In each of the four regressions (^{TPB}, ^{C}, ^{N}, ^{B}), I measured and predicted the degree to which each predictor variable (IV) was likely to influence hiring agents' selection of qualified autistics candidates (DV).

Central Overarching Question

I ran a multiple regression model (^{TPB}) to predict hiring agents' likelihood to select qualified autistic candidates based on their beliefs (combination of control, normative, and behavioral). The ^{TPB} regression statistically significantly identified hiring agents' beliefs influencing their selection of qualified autistic candidates to fill open positions ($F(45, 73) = 36.067$, $p < .001$, adj. $R^2 = .930$). All three TPB taxonomies added statistically significantly to the prediction ($p < .05$). Table 10 reflects the results relative to the incorporation of all three taxonomies of TBP. Based on the combination of all three TPB taxonomies (IVs), I rejected the null hypothesis (H_0) and accepted the alternate hypothesis (H_A). Thus, there is a statistically significant correlation among hiring agents' control, normative, and behavioral beliefs and hiring agents' selection of qualified autistic candidates.

Table 10

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
TPB	Regression	784.275	45	17.428	36.067	.000[b]
	Residual	35.275	73	.483		
	Total	819.550	118			

[a]DV: Likelihood. [b]Predictors: (Constant), All predictors ($N = 45$), control, normative, and behavioral.
**** $p < .001$

Upon reviewing the coefficients table for all 45 IVs, I found 10 to be statistically significant ($p < .05$; complete coefficients table in Appendix L). A review of the IV taxonomies according to TPB appeared balanced between control, normative, and behavioral. This result was not surprising given the validity and reliability of the theoretical model used (TPB crystallized with AAT, ELM, EVT, FCT, and PAT; see Figure 1). Thus, I reran the TPB regression using only those 10 IVs (see Table 11).

Table 11

TPB Model Statistically Significant Coefficients

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B Lower Bound	95.0% Confidence Interval for B Upper Bound
TPB	Constant	.967	.540		1.791	.076	-.103	2.036
	Q1[C]	.323	.082	.153	3.938	.000****	.161	.486
	Q7[C]	.496	.072	.266	6.876	.000****	.353	.639
	Q8[C]	.247	.077	.115	3.200	.002***	.094	.400
	Q14[N]	.300	.084	.151	3.585	.001***	.134	.465
	Q15[N]	.364	.064	.172	5.705	.000****	.237	.490
	Q22[N]	.372	.075	.167	4.987	.000****	.224	.520
	Q29[B]	.344	.070	.158	4.917	.000****	.206	.483
	Q30[N]	.412	.072	.187	5.691	.000****	.269	.555
	Q38[B]	.432	.074	.195	5.850	.000****	.286	.579
	Q45[B]	.308	.068	.141	4.524	.000****	.173	.444

Note. [TPB] model run with only the 10 statistically significant IVs ($F(10, 112) = 119.692$, $p < .001$, adj. $R^2 = .907$). All other IVs removed from regression.
[a]DV: Likelihood. [C]Control. [N]Normative. [B]Behavioral.
*$p < .05$. **$p < .01$. ***$p < .005$. ****$p < .001$

Each question pertained to a different IV: (Q1) organizational commitment to hire autistics, (Q7) inclusion of autistics in organizational diversity, (Q8) availability of external mediation services, (Q14) automatic denials based on employment and credit screening policies which frequently disqualify autistics due to lapses related to their medical condition, (Q15) candidates' ability to identify themselves as autistic, (Q22) employee flexibility of job redesigns to accommodate autistic co-workers. (Q29) Stereotyping related to autistic productivity, (Q30) autistics will embarrass the

organization (Q38) understanding of potential absenteeism and dependability rates of autistics, and (Q45) preference for PD types.

While all 10 IVs statistically significantly predicted the likelihood that hiring agents will select qualified autistic candidates, two IVs (Q8 and Q14) were statistically significant at $p < .005$ and eight at $p < .001$. The slope of the coefficients correlated to the rate and strength that each IV predicted change in the DV. There is no standard raw unit of measure applicable to beliefs. Thus, the standardized coefficients (*B*) rather than unstandardized (*SE B*) represented the most reliable measure of the slope to compare the strength of IVs. The inclusion of autistics in organizational diversity policies and practices (Q7) most significantly predicted the likelihood of hiring agents' selection of qualified autistic candidates ($B = 0.266$, $p < .001$). While least impactful, the availability of external mediation services (Q8) also statistically significantly predicted the likelihood of hiring agents' selection of qualified autistic candidates ($B = 0.115$, $p = .002$).

Additionally, many of the qualitative responses reflected a similar balance of belief taxonomies. The following is a single, albeit more extensive than most, response to the HASSQAC (Mai, 2015) prompt, "Please share with us any other operational reasons that you feel would prevent hiring agents from selecting qualified autistic candidates." Note that I denoted my general TPB taxonomy observations within [ ] to briefly identify the variety of beliefs referred to in this single response. The HASSQAC yielded 145 individual qualitative responses in addition to the quantitative data gathered.

> Hiring agents are usually tasked [control] with finding employees who work efficiently and effectively with minimal supervision/training/accommodations

> [control, normative, and behavioral]. If they believe (and I suspect they do [behavioral]) that autistic candidates will require additional scheduling, training, supervision, and benefits [control, normative, and behavioral], they are less likely to hire them (not specifically because they are autistic, but because they believe the candidate will not meet their hiring specifications). Whether they can/will or not is a different matter, and one which requires training of hiring agents [control]. If/when a company's mandate [control] changes to include autistic candidates (even if a cost or drop in productivity/efficiency is required) hiring will increase. I say all this unaware [behavioral] of if/what changes would be required or even if there would be a drop in organizational efficiency or productivity. I will admit that I assume [behavioral] there would be, but I have no evidence or information on that matter [control and normative]. However, these questions all relate to the beliefs of the hiring agents, not the actual statistics or facts of the matter. So - if hiring agents believe all these metrics will be hurt by having autistic candidates added to the employee base [control, normative, and behavioral] - they are less likely to hire them (unless specifically instructed otherwise [control]). HASSQAC Respondent ID # R_22Wzd5dGhbdGZiv

Sub-question One: Control Beliefs

I ran a multiple regression model (^{C}) to predict hiring agents' likelihood to select qualified autistic candidates based on only their control beliefs (15 IVs, Tables 12 and 13). The ^{C} regression statistically significantly predicted hiring agents' likelihood to

select qualified autistic candidates to fill open positions ($F(15, 107) = 20.688$, $p < .001$, adj. $R^2 = .708$). The inclusion of all 15 of the control IVs added to the statistical significance of the model summary and ANOVA calculations ($p < .05$). Given that I found at least one statistically significant IV ($p < .05$), I rejected the null hypothesis (H_01) and accepted the alternate hypothesis (H_A1). Thus, there is a statistically significant correlation among hiring agents' control beliefs and hiring agents' selection of qualified autistic candidates.

Table 12

Model Summary[b] – Control Beliefs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
C	.862[a]	.744	.708	1.47970	1.938

[a]DV: Likelihood. [b]Predictors: (Constant), 15 Control IVs: Q1 – 13, 31, 32.

Table 13

ANOVA[a] – Control Beliefs

Model		Sum of Squares	df	Mean Square	F	Sig.
C	Regression	679.442	15	45.296	20.688	.000[b]
	Residual	234.276	107	2.189		
	Total	913.718	122			

[a]DV: Likelihood. [b]Predictors: (Constant), 15 Control IVs: Q1 – 13, 31, 32.
**** $p < .001$

Upon reviewing the coefficients table for all 15 IVs in the C regression, I found three IVs (Q7, Q31, and Q32) to be statistically significant ($p < .05$). Interestingly, those

three control IVs (Q7, Q31, and Q32) were not all the same control IVs identified (Q1, Q7, and Q8) in the ^{TPB} regression (see Table 11). These findings added support to Ajzen and Fishbein's (Ajzen, 1985, 2004, 2011, 2015; Fishbein, 1963; Fishbein & Ajzen, 1974, 2010) assumptions that it is the combination of all three belief taxonomies (control, normative, and behavioral) that reliably predict intention to act. Thus, I reran the ^{C} regression using only the five statistically significant IVs reported in the ^{TPB} and ^{C} regressions (see Table 14).

Table 14

C Model Statistically Significant Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
C	(Constant)	5.849	.767		7.624	.000****	4.330	7.368
	Q1	.292	.141	.135	2.068	.041*	.012	.572
	Q7	.651	.131	.341	4.985	.000****	.392	.909
	Q8	.277	.130	.126	2.124	.036*	.019	.535
	Q31	.483	.161	.196	2.994	.003***	.164	.803
	Q32	.764	.138	.358	5.518	.000****	.490	1.038

Note. ^{C} model run with only the 5 statistically significant IVs ($F(5, 119) = 58.246$, $p < .001$, adj. $R^2 = .698$). All other IVs removed from regression.
[a]DV: Likelihood. ^{C}Control.
*$p < .05$. **$p < .01$. ***$p < .005$. ****$p < .001$

Each question pertained to a different control IV: (Q1) organizational commitment to hire autistics, (Q7) inclusion of autistics in organizational diversity, (Q8) availability of external mediation services, (Q31) work processes redesign, and (Q32) increased organizational costs related to benefit plans, hiring, and employing autistics.

All five IVs ranged in statistical significance from $p < .05$ to $p < .001$; thus, each statistically significantly predicted the likelihood of hiring agents' selection of qualified autistic candidates.

Questions 1 and 7 centered on organizational strategies. These two questions followed the same instructional prompt: "Here are some strategies that organizations might use to make it easier for qualified autistic candidates to get a hired. Thinking of employers in general, and not necessarily the organization you work for, please tell us how likely you think employers would be to use the following strategies to increase hiring of such candidates. Qualified autistic candidates would be more likely to get hired if …" (HASSQAC, Section I, see Appendix A).

Q1: There was a written company policy specifically addressing recruitment of minorities that includes autism. In the ^{TPB} regression (see Table 11), formal organizational commitment to hire autistics statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.153$, $p < .001$) and ^{C} regression (see Table 14) statistically significantly predicted the same ($B = 0.135$, $p = .041$). Thus, I concluded that organizational commitment to hire autistics would further increase hiring agents' selection of qualified autistic candidates if normative and behavioral beliefs also supported such. I found qualitative insights supported this rationale:

> Having a "written company policy specifically addressing" is not enough. Unless it is an actively pro-hire policy with metrics and follow-up, it will likely have little effect. Just writing "we can and do hire candidates with

> autism" in a handbook will not have a marked impact. HASSQAC Respondent ID # R_22Wzd5dGhbdGZiv

Q7: They [the organization] had a diversity specialist who deals with autism issues. In the ^{TPB} regression (see Table 11), the inclusion of diversity personnel equipped to address autistic issues statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.266$, $p < .001$). The ^{C} regression (see Table 14) also statistically significantly predicted the same ($B = 0.341$, $p < .001$). While both slopes were significant, the depth of the ^{C} regression slope reflected the most capacity to drive change. Thus, the formal inclusion of autistics in an organizations' diversity plan predicted the greatest increase in hiring agents' selection of qualified autistic candidates and should evolve from control related mandates extending to dedicated personnel. I found a wide range of qualitative insights addressing this rationale:

> I think the biggest barrier is lack of knowledge about autism and the potential benefits a person with autism could bring to the workplace. Training of hiring managers and a specialist on staff would be the most beneficial elements for success. HASSQAC Respondent ID # R_31h00dKjr7txFGK
>
> [Contrarily] You should not have a disciplinary system that differentiates between groups of people. I would think that was a way of guaranteeing a lawsuit. Diversity specialists tend to do nothing but earn a paycheck. HASSQAC Respondent ID # R_2ur20AcQsylxwzs

Questions 8 centered on external controls. This question followed the instructional prompt: "Suppose you wanted to make it easier for organizations to hire and

retain qualified autistic individuals, and you could make changes to laws or regulations, or create new public programs, or change existing ones. Here is a list of possibilities. Thinking of employers in general, and not necessarily the organization you work for, please relate how likely you think the following would be to increase hiring of qualified autistic candidates. Qualified autistic candidates would be more likely to be hired if there were…" (HASSQAC, Section II, see Appendix A).

Q8: An external mediation service to help resolve autism and accommodation issues without having to resort to lawsuits. In the ^{TPB} regression (see Table 11), the availability of external mediation services statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.115$, $p = .002$) and ^{C} regression (see Table 14) statistically significantly predicted the same ($B = 0.126$, $p = .036$). Both slopes were significant, but the depth of the ^{C} regression slope reflected slightly increased capacity to drive change. Thus, the greatest increase in hiring agents' selection of qualified autistic candidates was their belief in the need for an external mediation service but that control belief must also include normative and behavioral expectations. One respondent qualitatively related this finding very well:

> The company should foster a relationship with a community organization that works with individuals who have autism. Determine what positions are suitable and how to deal with obstacles. Also, consider Job Coaches.
>
> HASSQAC Respondent ID # R_3JlOIzm0amJxLcQ

Questions 31 and 32 centered on organizational operations. These two questions followed the same instructional prompt: "Some hiring agents may not select

qualified autistic candidates due to the possibility of having to re-organize routine operations. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding the validity of the following statements. Some routine operations that may inhibit a hiring agent from selecting a qualified autistic candidate include…" (HASSQAC, Section V, see Appendix A).

Q31: A belief that work processes will need to be redesigned. In the ^{TPB} regression, an aversion to redesigning work processes did not statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates. However, in the ^{C} regression (see Table 14) that same belief did statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.196$, $p = .003$). This finding indicated that hiring agents' normative and behavioral beliefs may be overshadowing their control beliefs regarding work processes redesign. One participant illuminated this reasoning quite well:

> I feel that a hiring manager would be more concerned about NOT changing things. I think they would be more likely to hire if the candidate proves that not much would change in hiring them... ...but companies do not like change. Any suggestion that something may have to change in the process would probably invalidate the candidate. And yes, that is as sad as it sounds - but people do not like changing processes, even when they are proven inefficient or poor. HASSQAC Respondent ID #R_1P6oZqzH4HubEDG

Q32: A belief that they [organizations] will be burdened by costly changes to employee benefit plans and other increased costs related to hiring and employing autistics. In the ^{TPB} regression, increased organizational costs related to benefit plans, hiring, and employing autistics did not statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates. However, in the ^{C} regression (see Table 14) that same belief did statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.358$, $p < .001$). Based on the depth of this slope, this finding strongly inferred that hiring agents' control belief in costly burdens related to hiring autistics is substantial. However, their socially driven VABEs and personal memes appear strong enough to counter the significant weight of their mandated considerations. A variety of qualitative references supported this logic; one summed them up well:

> To this question - Hiring agents may believe that the organization will be burdened by costly changes to employee benefit plans and/or other increased costs related to hiring and employing autistics - this really depends if accommodations funding is centralized for the company, or if an individual team must pay for it. HASSQAC Respondent ID #R_1rCRHg3XDjkaQWv

Sub-question Two: Normative Beliefs

I ran a multiple regression model (^{N}) to predict hiring agents' likelihood to select qualified autistic candidates based on only their normative beliefs (15 IVs, see Tables 15 and 16). The (^{N}) regression statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates to fill open positions ($F(15, 106) = 34.686$, $p < .001$, adj. $R^2 = .807$). The inclusion of all 15 of the normative IVs added to the statistical

significance of the model summary and ANOVA calculations ($p < .05$). Given that I found at least one statistically significant IV ($p < .05$), I rejected the null hypothesis (H_02) and accepted the alternate hypothesis (H_A2). Thus, there is a statistically significant correlation among hiring agents' normative beliefs and hiring agents' selection of qualified autistic candidates.

Table 15

Model Summary – Normative Beliefs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
N	.911[a]	.831	.807	1.16784	2.243

[a]DV: Likelihood. [b]Predictors: (Constant), 15 Normative IVs: Q14 – 17, 20 – 28, 30, 41.

Table 16

ANOVA[a] – Normative Beliefs

Model		Sum of Squares	df	Mean Square	F	Sig.
N	Regression	709.593	15	47.306	34.686	.000[b]
	Residual	144.567	106	1.364		
	Total	854.160	121			

[a]DV: Likelihood. [b]Predictors: (Constant), 15 Normative IVs: Q14 – 17, 20 – 28, 30, 41.
**** $p < .001$

The N regression model reflected eight (Q14, Q15, Q17, Q22, Q25, Q28, Q30, and Q41) statistically significant IVs ($p < .05$). The four statistically significant IVs (Q14, Q15, Q22, and Q30) found in the TPB regression (see Table 11) were amongst those the

eight statistically significant IVs in the [N] regression. Thus, I reran the [N] regression using only those eight statistically significant IVs (see Table 17).

Table 17

N Model Statistically Significant Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
[N]	(Constant)	.276	.970		.285	.776	-1.646	2.199
	Q14	.885	.091	.445	9.766	.000****	.706	1.065
	Q15	.256	.092	.122	2.784	.006**	.074	.438
	Q17	.479	.139	.146	3.456	.001***	.204	.753
	Q22	.539	.106	.242	5.074	.000****	.329	.750
	Q25	.287	.126	.123	2.288	.024*	.039	.536
	Q28	.299	.115	.132	2.609	.010**	.072	.526
	Q30	.311	.113	.141	2.747	.007**	.087	.536
	Q41	.574	.123	.221	4.658	.000****	.330	.818

Note. [N] model run with only the 8 statistically significant IVs ($F(8, 115) = 64.805$, $p < .001$, adj. $R^2 = .806$). All other IVs removed from regression.
[a]DV: Likelihood. [N]Normative.
*$p < .05$. **$p < .01$. ***$p < .005$. ****$p < .001$

Each question pertained to a different normative IV: (Q14) elimination of automatic denials based on employment and credit screening policies which frequently disqualify autistics due to lapses related to their medical condition, (Q15) candidates' ability to identify themselves as autistic, (Q17) candidates' ability to relate their positive contributions to the organization considering their autism, (Q22) increased employee flexibility of job redesigns to accommodate autistic co-workers, (Q25) equal employment expectations related to the dependability of workers, (Q28) employees required to accept

instruction from an autistic supervisor would feel dumb,. (Q30) autistics will embarrass the organization, and (Q41) employing autistics is not important to society. All eight IVs ranged in statistical significance from $p < .05$ to $p < .001$; thus, each statistically significantly predicted the likelihood of hiring agents' selection of qualified autistic candidates.

Question 14 centered on external controls. This question followed the instructional prompt: "Suppose you wanted to make it easier for organizations to hire and retain qualified autistic individuals, and you could make changes to laws or regulations, or create new public programs, or change existing ones. Here is a list of possibilities. Thinking of employers in general, and not necessarily the organization you work for, please relate how likely you think the following would be to increase hiring of qualified autistic candidates. Qualified autistic candidates would be more likely to be hired if there were…" (HASSQAC, Section II, see Appendix A).

Q14: There was a system for identifying such individuals so that routine job-application screenings reflecting poor credit or issues of unemployment would not result in the elimination of those individuals from the candidate pool. In the ^{TPB} regression (see Table 11), automatic denials based on employment and credit screening policies which frequently disqualify autistics due to lapses related to their medical condition statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.151$, $p = .001$). The ^{N} regression (see Table 17) also statistically significantly predicted the same ($B = 0.445$, $p < .001$). While both slopes were significant, the depth of the ^{N} regression slope reflected increased weight on the

prediction. Since employment and credit screening processes are a given, it was no surprise that the control aspect of this IV predicted the greatest increase in hiring agents' selection of qualified autistic candidates. Despite the statistical significance of this coefficient, I found no qualitative contributions addressing such.

Questions 15 and 17 centered on hiring agents' candidate screening procedures. These two questions followed the same instructional prompt: "Qualified autistic candidates often report they find it very difficult to get hired. Here are some possible self-advocacy skills that may help autistic candidates obtain employment. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding how likely you feel the following would increase the chances of qualified autistics obtain employment. Qualified autistic candidates would be more likely to be hired if they could…" (HASSQAC, Section III, see Appendix A).

Q15: Identify themselves as autistic. In the ^{TPB} regression (see Table 11), a candidates' ability to identify themselves as autistic statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.172$, $p < .001$) and ^{N} regression (see Table 17) statistically significantly predicted the same ($B = 0.122$, $p = .006$). Again, both slopes were significant, but the depth of the ^{TPB} regression slope reflected just slightly more influence. From a balance of all TPB taxonomies, the ability of candidates to identify themselves as autistic statistically significantly predicted hiring agents' selection of qualified autistic candidates. I found mixed qualitative responses ranging from, "candidates definitely should be very open about their autism and what it means for them as an employee" (HASSQAC Respondent ID #R_31h00dKjr7txFGK) to

"by not disclosing the persons disability, but practice proper interviewing skills with a job coach" (HASSQAC Respondent ID #R_28VegfdNfAsOMrS). One respondent summed up the dilemma quite well:

> I think if a candidate can help mitigate a company's common fears/stereotypes- that would greatly help them. I find it awful that such a burden falls on the Autistic candidate- but - it would help. Any candidate that can address what they are not good at as well as what they have enthusiasm for is a stronger candidate. "Sometimes I have difficulty communicating what I have done, but, I am capable of getting a lot done." HASSQAC Respondent ID #R_1P6oZqzH4HubEDG

Q17: Explain how they can positively contribute to the workplace. In the ^{TPB} regression, a candidates' ability to relate their positive contributions to the organization considering their autism did not statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates. However, in the ^{N} regression (see Table 17) that same belief did statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.146$, $p = .001$). This finding inferred that hiring agents' may believe that social norms might hold weight correlating to this increase, but control and behavioral beliefs outweigh that contribution. I found many qualitative responses regarding interview presentation demonstrating why the introduction of control and behavioral beliefs would reduce the likelihood of candidate selection.

> Lack of system in place to provide adequate emotional support when bullied, ostracized, left out, feeling 'friendless" lack of NT understanding of autism

> and stereotypical outlook of individuals. HASSQAC respondent ID #R_QmL803sNfXUJ90R
>
> It seems difficult enough for managers/employees/coworkers to interact in appropriate and considerate ways at times. Individuals with Autism can be even more likely to misunderstand or to miscommunication at times. Some employers may find it too difficult to interact and clearly communicate in considerate ways with employees with Autism. HASSQAC respondent ID #R_1DMUlP4PVPH1Y9W

Questions 22, 25, and 28 centered on team dynamics. These three questions followed the same instructional prompt: Given a key responsibility of a hiring agent is to find the best organizational fit for optimal employee interaction; here are some potential reasons hiring agents might not consider qualified autistic candidates. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding how likely the following causes may be preventing selection of qualified autistic candidates. Hiring agents may not select qualified autistic candidates due to… (HASSQAC, Section IV, see Appendix A).

Q22: The belief that others would mind having their jobs redesigned to accommodate an autistic co-worker. In the ^{TPB} regression (see Table 11), employee flexibility of job redesigns to accommodate autistic co-workers statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.167$, $p < .001$). The ^{N} regression (see Table 17) also statistically significantly predicted the same ($B = 0.242$, $p < .001$). Again, both slopes were significant, but the depth of the ^{N}

regression slope reflected slightly increased capacity to drive change. While this team dynamic has clear control and behavioral connotations, its normative dominance is reflected in the depth of the regression slope. One respondent even suggested a type of segregation:

> If there were specific positions with tasks that were do-able by autistics of various levels that could be filled by autistics relatively doubt free, it would help them to be hired. HASSQAC Respondent ID #R_DRVZb9tmBgSKNXj

Q25: The belief that other employees would be resentful of having to cover for autistics that require more time off than typical employees. In the ^{TPB} regression, equal employment expectations related to the dependability of workers did not statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates. In the ^{N} regression (see Table 17), equal employment expectations did statistically significantly predict hiring agents' likelihood to select qualified autistic candidates (B = 0.123, p = .024). Like co-worker flexibility in job redesign, hiring agents' normative beliefs indicated their belief in the working community's VABEs regarding equal dependability expectations. However, unlike flexibility in job redesign, hiring agents' control and behavioral beliefs regarding unequal dependability expectations added no significant depth to the regression slope. One HASSQAC respondent demonstrated the influence of this underlying belief when referring to reliability in 3 out of 4 listed traits (steady, adaptable, and dependable) in the first sentence of his/her response. However, the same respondent also showed that control and behavioral beliefs could offset that perception:

> In my experience, companies require steady, trainable, adaptable, and dependable employees who can communicate well and can work effectively and competently within the company. The more any recruit can show these qualities, the more likely it is that a company will hire him/her. HASSQAC respondent ID #R_3phxoAV5TE2nfQG

Q28: The feeling that it would be difficult for others to take directions from an autistic person. In the ^{TPB} regression, the notion that employees required to accept instruction from an autistic supervisor would feel dumb did not statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates. However, in the ^{N} regression (see Table 17) that same belief did statistically significantly predict hiring agents' likelihood to select qualified autistic candidates ($B = 0.132$, $p = .010$). While the ^{N} regression slope did reflect hiring agents' VABEs regarding potential coworker feelings of inadequacy, like equal dependability expectations hiring agents' control and behavioral beliefs were not strong enough to reflect statistical significance in the robust ^{TPB} model. I found no qualitative data shedding any light on this coefficient.

Question 30 centered on organizational operations. Some hiring agents may not select qualified autistic candidates due to the possibility of having to re-organize routine operations. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding the validity of the following statements. Some routine operations that may inhibit a hiring agent from selecting a qualified autistic candidate include… (HASSQAC, Section V, see Appendix A).

Q30: A belief that autistic workers should remain behind the scenes and not deal with customers, thereby eliminating such candidates due to the customer-oriented responsibilities of all employees. In the ^{TPB} regression (see Table 11), autistics potential to embarrass the organization when dealing with customers statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.187$, $p < .001$). The ^{N} regression (see Table 17) also statistically significantly predicted the same ($B = 0.141$, $p = .007$). The depth of both slopes was significant, but the ^{TPB} regression slope reflected a strengthened capacity to drive change. While "this depends on the type of work being performed & obviously stereotypes" (HASSQAC respondent ID #R_bI16MXX0rjUwvRv", clearly hiring agents may view their customer base from a wide variety of perspectives:

> That they cannot be presented in client meetings, not as engaging, etc. HASSQAC respondent ID #R_3DtPFNv4hQNabMZ
>
> They may think that customers would cause complain about the hiring of an autistic person and claim that the company is using them unfairly. In addition, they might also have to have sensitivity training for the employees. HASSQAC respondent ID #R_xmyFTksF9NwRTz3
>
> These are difficult to answer as it depends on the nature of the work. For example, retail work in a flower shop where the individual can spend time with the customer is much different than retail work in Walmart with long lines of impatient customers. HASSQAC respondent ID #R_1cZBjfLgprS5w2X

Question 41 centered on potential discrimination. Here are some other reasons that hiring agents might not select a qualified autistic candidate. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding the validity of the following statements. Some employers do not hire qualified autistic candidates because… (HASSQAC, Section VI, see Appendix A).

Q41: They do not believe it is important to have autistics in the workforce. In the ^{TPB} regression, the belief that employing autistics is not important to society did not significantly predicted hiring agents' likelihood to select qualified autistic candidates. However, in the ^{N} regression (see Table 17), that same belief did significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.221$, $p < .001$). Based on the depth of this slope, this finding strongly inferred that hiring agents believe society does not feel that employment for autistics is important. However, their control and behavioral beliefs may be strong enough to counter the significant weight of such societal VABEs. One respondent related details he/she thought were relevant to placing less importance on hiring autistic and other disabled individuals:

> There are no organizational strategies that would work. Mandating seldom works and only adds resentment for the people that really must deal with this issue, the workers. What I am seeing from these questions is that the people who developed this survey are either academics or parents who do not fully understand the current work world. [The respondent is only partially correct. The survey developer is a parent, academic, and has 30+ years of staff management and development in the current work world. The survey

developer also considered input from all three of these areas of expertise.] Work is very dynamic with daily changes. You must be able to learn multiple new things every single day. On top of that, employers have cut headcount, so you have one person now doing the work of 2-3 jobs. They are exhausted, stressed and burned out. Now, consider the major problem that exists in companies - communication - then add in people who already struggle with communicating due to autism, Asperger, ADHD, homeschooled, etc. and you have additional miscommunication added into the workplace. An industry that is slower moving such as government might be a better workplace for this idea. My concept would be to start a company just for people who have these issues and then have extroverted, highly communicative people market their work. Basically, an autism consulting firm. I know people who are brilliant coders, but cannot work with people to gather the requirements or struggle to get the final product done due to their perfection issues; people who are math wizards and do great in finance, but not in an industry that is stressful. This way people would be aware of who they are hiring, would pay to fund it, and the funds would go to support additional headcount to cover staff who would understand the issues and could be good at helping everyone get to their goals. HASSQAC respondent ID #R_9HRtqytFqEeeyqd

Sub-question Three: Behavioral Beliefs

I ran a multiple regression model (^{B}) to predict hiring agents' likelihood to select qualified autistic candidates based on only their behavioral beliefs (15 IVs, see Tables 18

and 19). The [B] regression model statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates to fill open positions ($F(15, 109) = 11.066$, $p < .001$, adj. $R^2 = .549$). The *ES* of the [B] regression was lower than the [C] ($R^2 = .708$) or [N] ($R^2 = .807$) models. However, the *ES* of the [B] regression model ($R^2 = .549$) was still relatively large according to an updated analysis of Cohen's 1988 *ES* calculations (Cohen, 1992) provided by Gignac and Szodorai (2016). The inclusion of all 15 of the behavioral IVs added to the statistical significance of the model summary and ANOVA calculations ($p < .05$). Given that I found at least one statistically significant IV ($p < .05$), I rejected the null hypothesis ($H_0 3$) and accepted the alternate hypothesis ($H_A 3$). Thus, there is a statistically significant correlation among hiring agents' behavioral beliefs and hiring agents' selection of qualified autistic candidates.

Table 18

Model Summary – Behavioral Beliefs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
[B]	.777[a]	.604	.549	1.81130	1.708

[a]DV: Likelihood. [b]Predictors: (Constant), 15 Behavioral IVs: Q18, 19, 29, 33 – 40, 42 - 45.

Table 19

ANOVA – Behavioral Beliefs[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
[B]	Regression	544.603	15	36.307	11.066	.000[b]
	Residual	357.608	109	3.281		
	Total	902.211	124			

[a]DV: Likelihood. [b]Predictors: (Constant), 15 Behavioral IVs: Q18, 19, 29, 33 – 40, 42 - 45.
**** $p < .001$

The [B] regression reflected three statistically significant ($p < .05$) behavioral IVs (Q19, Q38, and Q40). Only one of those IVs was the same as those reflected in the [TPB] regression (Q29, Q38, and Q45; see Table 11). Thus, I reran the [B] regression using only the five statistically significant IVs reported in the [TPB] and [N] regressions (see Table 20).

Table 20

B Model Statistically Significant Coefficients

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B Lower Bound	95.0% Confidence Interval for B Upper Bound
[B]	(Constant)	2.848	1.363		2.089	.039*	.149	5.546
	Q19	.974	.194	.310	5.022	.000****	.590	1.358
	Q29	.484	.146	.217	3.316	.001***	.195	.773
	Q38	.742	.162	.330	4.571	.000****	.421	1.064
	Q40	.419	.157	.181	2.663	.009**	.107	.730
	Q45	.404	.148	.180	2.723	.007**	.110	.698

Note. [B] model run with only the 5 statistically significant IVs ($F(5, 120) = 30.934$, $p < .001$, adj. $R^2 = .545$). All other IVs removed from regression.
[a]DV: Likelihood. [B]Behavioral.
*$p < .05$. **$p < .01$. ***$p < .005$. ****$p < .001$

Each question pertained to a different control IV: (Q19) doubt in autistics' skills and ability, (Q29) stereotyping related to autistic productivity, (Q38) understanding of potential absenteeism and dependability rates of autistics, (Q40) discrimination, and (Q45) preference PD types. All five IVs ranged in statistical significance from $p < .05$ to $p < .001$; thus, each statistically significantly predicted the likelihood of hiring agents' selection of qualified autistic candidates.

Question 19 centered on hiring agents' candidate screening procedures. This question followed the instructional prompt: "Qualified autistic candidates often report they find it very difficult to get hired. Here are some possible self-advocacy skills that may help autistic candidates to obtain employment. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding how likely you feel the following would increase the chances of qualified autistics in obtain employment. Qualified autistic candidates would be more likely to be hired if they could…" (HASSQAC, Section III, see Appendix A).

Q19: Communicate their qualifying skills and experience. In the ^{TPB} regression, doubt in autistics' skills and ability did not statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates. In the ^{B} regression (see Table 20), that doubt did statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.310$, $p < .001$). Based on the depth of this slope, this finding strongly inferred that hiring agents doubt the skills and abilities of autistic candidates. However, strong control and normative beliefs outweighed that personal doubt. Hiring agents may also believe that control mandates and societal norms prevent

such autistic candidates from communicating their unique attributes. The following respondent statements convey both these inhibiting beliefs:

> Biggest issue is knowledge/education of both HR and managers. Most companies allow for the direct supervisor/manager to have a degree (large) in the hiring process. Just because an autistic individual is in the pool does not mean a high probability of hire. One must look at the team dynamics and how the team will respond, along with discipline, absenteeism, training time, and customer service skills. I personally have hired and worked with autistic older employees and found that some perfectly understandable peculiar habits upset other employees who did not know this employee was autistic, and due to legal and privacy concerns I could not tell them.... creating a catch 22. HASSQAC Respondent ID #R_3IZ5CQW31vfOVci
>
> I think the stereotype of 'Autistics are slow' or 'Autistics involved creates a new hurdle' is a major issue to be addressed. Also, there is likely a lot of well-meaning sympathy that gets in the way of progress "I would hire this person, but Jim who works here is kind of a jerk, and I wouldn't want to expose an Autistic person to that - it wouldn't be fair and they wouldn't understand that Jim is just rough around the edges." That sort of thing is, I believe, a huge hurdle. HASSQAC Respondent ID #R_1P6oZqzH4HubEDG

Question 29 centered on team dynamics. This question followed the instructional prompt: Given a key responsibility of a hiring agent is to find the best organizational fit for optimal employee interaction; here are some potential reasons that

hiring agents might not consider qualified autistic candidates. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding how likely the following causes may be preventing selection of qualified autistic candidates. Hiring agents may not select qualified autistic candidates due to… (HASSQAC, Section IV, see Appendix A).

Q29: The feeling that an autistic person would slow down the productivity or increase the workload of other employees. In the ^{TPB} regression (see Table 11), stereotyping related to autistic productivity statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.158$, $p < .001$) and ^{B} regression (see Table 20) statistically significantly predicted the same ($B = 0.217$, $p = .001$). Thus, I concluded that stereotyping related to autistic productivity is present in all three behavior types but presents more weight related to hiring agents' VABEs. Qualitative responses seemed to place more weight on control and normative factors. "It is almost always about the business bottom-line, so the more positive the changes can be on that with no cost in time, education, or money to the business, the more likely change will be" (HASSQAC Respondent ID # R_3phxoAV5TE2nfQG). HASSQAC respondent ID # R_3phxoAV5TE2nfQG added, "businesses do a lot of change management, in my experience. This [change management] increases the desire for employees who are readily adaptable to change. Unfortunately, this description is not generally associated with autism."

Questions 38, 40, and 45 centered on potential discrimination. Here are some other reasons that hiring agents might not select a qualified autistic candidate. Thinking

about employers in general, and not necessarily the organization you work for, please give us your opinions regarding the validity of the following statements. Some employers do not hire qualified autistic candidates because… (HASSQAC, Section VI, see Appendix A).

Q38: The belief that autistics are less dependable. In the ^{TPB} regression (see Table 11), hiring agents' understanding potential absenteeism and dependability rates of autistics statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.195$, $p < .001$). The ^{B} regression (see Table 20) also statistically significantly predicted the same ($B = 0.330$, $p < .001$). While a belief that autistics are not dependable presented significant influence in all TPB taxonomies, the depth of the ^{B} regression slope indicated that hiring agents' behavioral beliefs are stronger than their control or normative beliefs. As mentioned by several respondents, dependability can pertain to a plethora of objectives such as attendance, productivity, ability to follow the rules, and various other job performance areas. One respondent put it quite indelicately:

> Unless it is repetitive work, how do I keep an autistic person focused. We used to say you spend 99% of a manager's time dealing with that 1% *shitbird*. HASSQAC respondent ID #R_1IFRR8cqIaDORtf

Q40: They simply have no intention to hire autistics. In the ^{TPB} regression, blatant discrimination against autistics did not statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates. In the ^{B} regression (see Table 20), blatant discrimination did statistically significantly predict hiring agents' likelihood to select qualified autistic candidates ($B = 0.181$, $p = .009$). The depth of this slope

inferred that hiring agents do blatantly discriminate against autistic candidates on a personal level. However, with the inclusion of control and normative beliefs that discrimination appeared to lose its significance. For example:

> Hiring agents usually assume that workers are clueless! Forgetting that many may have children on the spectrum or siblings! And assuming hostility towards an HR department would generalize to individuals. HASSQAC respondent ID #R_1itbvYrp12wkqBh
>
> Within my agency, a large state organization, hiring and selection is often heavily dependent on interview scores and whether the individual meets the "benchmark" answer for the question. Qualifications, education, and experience only get the individual to the interview. Poor interview skills would be detrimental for applicants. In fact, the interview is rarely objective - it is dependent on interview committee members personal preferences. HASSQAC respondent ID #R_pu6eE7CVOj8GscF

Q45: They believe people with PDs are more capable than those with autism. In the ^{TPB} regression (see Table 11), the preference for PD types statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates ($B = 0.141$, $p < .001$) and ^{B} regression (see Table 20) statistically significantly predicted the same ($B = 0.180$, $p = .007$). Thus, hiring agents' preference for PD types was present in all three behavior taxonomies but presented slightly more weight related to hiring agents' memes. Considering one participant's response, it may have more to do with discrimination and resentment of invisible disabilities and socialism:

> I don't like the idea of giving tax breaks and incentives ($) for hiring autism candidates. What's next? Breaks and incentives for depression? Bipolar disorder? African Americans? Cubans? Nearsightedness? There are a host of "disabilities" that could better succeed in the workplace with special compensation ... such as spaces for depressives to de-stimulate. The best person for the job should be hired. But there's nothing wrong with reviewing a job description before it is disseminated to be sure it's open to a (dare I say) a lower range of skill levels. Or to create training facilities where autistic and other challenged workers can learn the skills they will need. And their resume or application letter should highlight the things they are especially good at AND the things they especially like to do. HASSQAC respondent ID #R_2fJ8sKEWRAvEuN5

Qualitative Anomalies

Most qualitative statements fit reflected quantitative coefficients I tested for. However, I needed to create new nodes to some. I added nodes for needed legislation, required autism training, and required autism benefits training.

> Employers need a much better understanding of the autism spectrum and the value of employees who are on that spectrum. There does need to be a way to resolve issues with between other employees and the autistic individual, particularly some of the more annoying" characteristics!! HASSQAC respondent ID #R_1itbvYrp12wkqBh

Needed legislation. Hiring agents qualitatively indicated that increased legislative mandates would help. Respondent ID #R_31sWs6olda3UDkS desired "a law to treat Autistic individuals with respect and understanding." Other responses relayed similar memes ranging from subtle inference to the need for specific statistically-based laws:

> State rehabilitation offices should handle the processing of paperwork for the employing party, as well as any help or additional training needed. Large employers should be required by law to hire a certain number of disabled people, if they can do the job. And paying for their training program and tax incentives should encourage them to maintain their employment. HASSQAC respondent ID #R_1eE4M4z7hd64zXh

Analysis of these comments indicated that those respondents did not understand current mandates since such policy already exists. VR services have systems in place to provide services such as training, supported employment, and administrative assistance (Cimera, 2010, 2011a, 2011b, 2012a; Cimera & Burgess, 2011; Schaller & Yang, 2005; Wehman et al., 2012; Wehman et al., 2016; see Figures 6 and 7). Notwithstanding these respondent statements, the qualitative coefficient of needed legislation did not weigh heavily (0.11%) upon qualitative trending analysis (see Figure 22). I found the only qualitative factor with a lower weight was hiring agents' preference for PDs over invisible disabilities. Current legislation may need amendment; however, this finding more likely indicates that hiring agents need additional training.

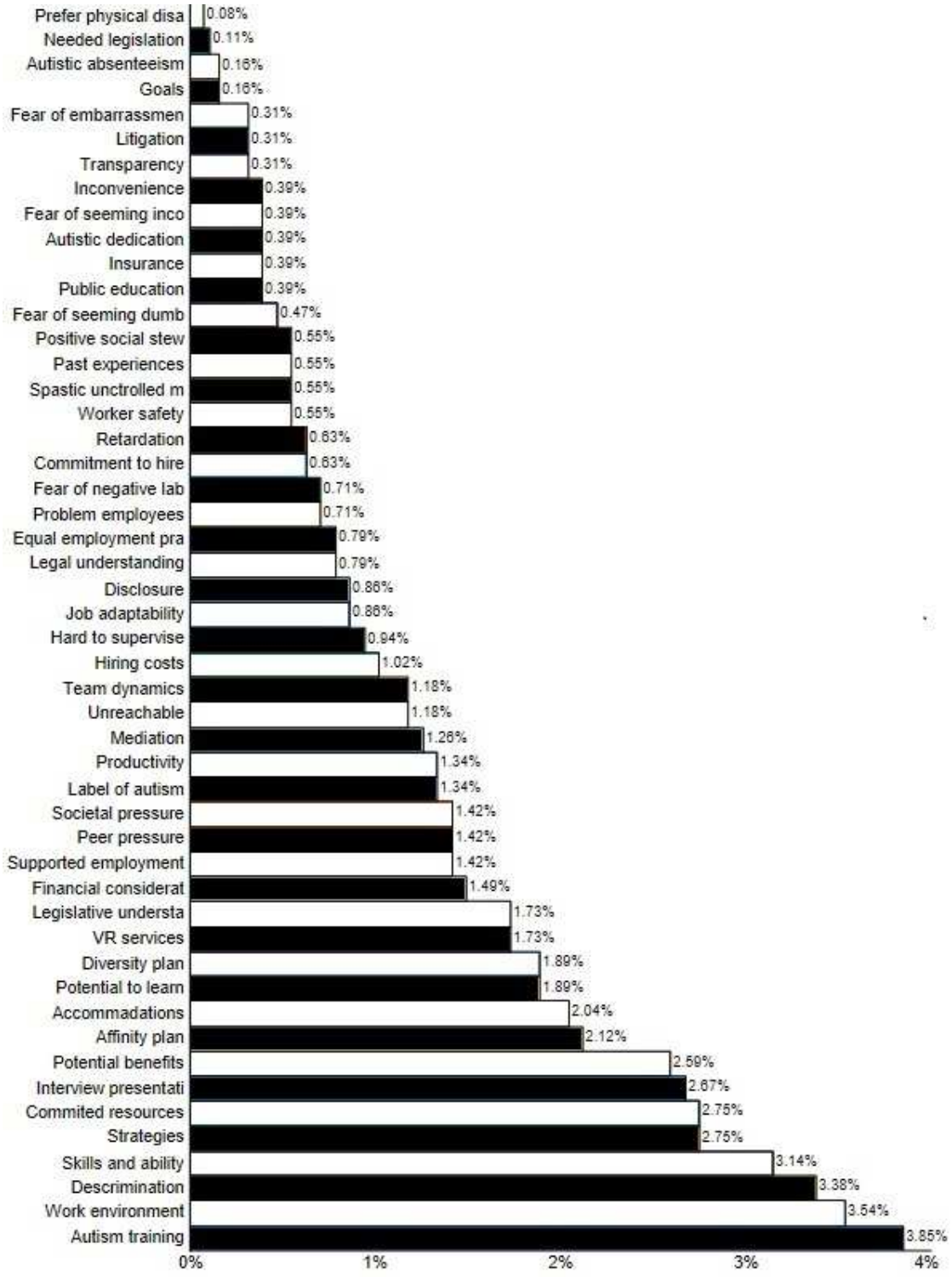

Figure 22. Qualitative responses percent of coverage. Bar chart depicting weight of each qualitative coefficient relative to all qualitative coefficients.

Required autism training. In addition to additional training in legislative mandates, accommodations, and VR services; 30% (*n* = 49) of respondents relayed a need for additional training on autism specifically. Respondents' qualitative statements strongly indicated (3.85%, see Figure 22) that hiring agents need training on autism specifically. Out of all qualitative statements, required autism training was the most coded qualitative coefficient. Several (*n* = 8) of those respondents emphasized the need for training of all employees. "It would improve the situation if all employees were required to complete annual training on diversity and autistic issues so that awareness does not fade" (HASSQAC respondent ID #R_1mw5ZFaUdoHxymo). Four of that 30% also emphasized the need for upper management to receive such training.

> There are many stereotypes about people with autism despite the many differences people with autism exhibit. Until people/society are more educated and aware, those stereotypes will persist (so far it has not necessarily worked with racism or sexism but we can only hope more knowledge can change some people's perception). HASSQAC respondent ID #R_cLX0NhkOEIIUJxv
>
> Education is needed for everyone in the organization. All the issues listed above are stereotypical beliefs about autistic individuals in the workplace. It will take LEADERS in hiring to step up and take a chance -- then, when other people in the organization have good experiences with the autistic individual, people's minds will change. HASSQAC respondent ID #R_WfgXzq5sILwH3XP

Required training – potential benefits. With 18% (n = 30) of respondents specifically relaying the need for hiring agent training on the potential benefits that autistic workers may provide an organization, I also added that coefficient. I found that a need for training on the potential benefits that autistics presented 2.59% of the weight of qualitative responses. With 33 different respondents qualitatively relaying a need for training on the potential benefits of autistics, this coefficient was the 8th largest qualitative contributor (see Figure 22).

> Ignorance of the potential contribution to the group effort if accommodated. Ignorance of the minimal accommodation needed to take advantage of this contribution. Ignorance of the high work ethic and commitment to excellence of the candidate. HASSQAC respondent ID #R_d3XSWPfIiiDzFp7
>
> I would suggest continuing to educate employers about the potential of employees with autism and highlight success stories. People are always more likely to follow examples of successes. HASSQAC respondent ID #R_0JuTE3aH0MwwHWp
>
> If the hiring agents are super ignorant of the strengths many people with autism have. HASSQAC respondent ID #R_33kyjqC4GbSh7IM

Evidence of Trustworthiness

With each of the four different regression models (full TPB, control, normative, and behavioral) producing varying statistical significance, I am confident in the validity of Ajzen's (1985) TPB (see Figure 1) as the base theoretical foundation for this study. Welbourne (2007) posited that $\alpha = .60$ is the highest expected reliability in measures such

as this one. Ajzen (2011) noted that well-designed scales rarely exceed .80. Thus, I considered $\alpha = .70$ reliable. The internal consistency of my findings far exceeded my hopes (see Table 21) and I considered it well-designed by Ajzen's (2011) standards. Thus, the HASSQAC (Mai, 2015) employed to measure the 45 different, underlying constructs (15 in each of 3 taxonomies) had a high level of internal consistency, as determined by Cronbach's alpha of 0.943.

Table 21

Reliability Statistics

Scale	Cronbach's Alpha	N of Items
TPB	.943	45
Control	.923	15
Normative	.846	15
Behavioral	.901	15

Note. Reliability statistics for full TPB scale and each taxonomy therein.

Credibility of Results

I increased credibility using a significant amount of triangulation. I analyzed both quantitative and qualitative data, reporting similarities, discrepancies, and insights. I statistically supported quantitative findings and qualitative interpretations directly correlated to my transparency as the researcher (discussed in detail in Chapters 1 and 3). I provided a precise discussion of methodology, parametric tests, findings, discrepancies, and analysis throughout Chapters 1, 3, and 4. A panel of experts (see Appendices D and E) reviewed and provided input in the creation and finalization of the HASSQAC (Mai, 2015); thus, providing substantial credibility. The only adjustment to planned credibility

strategies was my decision to accept fewer than 384 participants. However, I still achieved strength in saturation with my large actual sample size (n = 212).

Transferability of Results

Despite the amount of data gathered, participants' beliefs were only measured at a single point in time. Thus, the static nature of this study limited transferability of results beyond that timeframe. Albeit, large random sample selection across the contiguous United States strengthened transferability. Concurrent quantitative and qualitative analyses including direct quotes and rich, thick description expanded that transferability.

Dependability of Results

I gathered all data using one tool (the HASSQAC; Mai, 2015), at a single point in time, during similar conditions (see Study Setting section in this Chapter). Triangulation of data types and findings also added dependability. I ran tests multiple times to verify that I was using the same data source and methodology. I meticulously recorded qualitative interpretations and reasoning; thus, adding further dependability. I used a repetitive form of coding, checks, and cross-checks to ensure dependability.

Confirmability of Results and Intracoder Reliability

I was the only data coder. Thus, confirmability was entirely subject to my environment, well-being, and state-of-mind at the time of coding. Therefore, I used a complex system of coding, checking, re-coding, cross-checking, and review to assess codes, themes, and patterns to increase confirmability (see Data Analysis section in this Chapter). First, I coded data according to Figure 11 and created new codes as needed. Next, I reviewed all codes and code groups to ensure consistency of data from three

different perspectives: similarity, thematic, and elimination of redundancy. Finally, I carefully examined a report by qualitative statement to eliminate duplicate coding and ensure alignment with participant's intended response to the associated prompt. I reported qualitative themes and quotes with associated quantitative analyses. I reviewed new qualitative data codes under the Study Results section in this Chapter. Thus, I took numerous steps to increase study neutrality and confirmability.

Chapter 4 Summary

I conducted this study to predict the likelihood that hiring agents' beliefs influenced their selection of qualified autistic candidates. This multiple regression model based on Ajzen's (1985) TPB, statistically significantly ($p < .05$) predicted hiring agents' likelihood to select qualified autistic candidates to fill open positions ($F(45, 73) = 36.067$, $p < .001$, adj. $R^2 = .930$). Thus, I rejected the null hypothesis (H_0) and accepted the alternate hypothesis (H_A). There is a statistically significant correlation among hiring agents' control, normative, and behavioral beliefs and hiring agents' selection of qualified autistic candidates.

Using the same multiple regression design for each TPB taxonomy individually, I further assessed the statistical significance of control, normative, and behavioral beliefs upon hiring agents' likelihood to select qualified autistic candidates. All three regressions (^{C}, ^{N}, and ^{B}) were statistically significant ($p < .05$). The control- ($F(15, 107) = 20.688$, $p < .001$, adj. $R^2 = .708$), normative- ($F(15, 106) = 34.686$, $p < .001$, adj. $R^2 = .807$), and behavioral- ($F(15, 109) = 11.066$, $p < .001$, adj. $R^2 = .549$) based models statistically significantly predicted hiring agents' likelihood to select qualified autistic candidates to

fill open positions. Thus, I rejected the null hypotheses (H_01, H_02, & H_03) and accepted the alternative hypotheses (H_A1, H_A2, & H_A3). There is a statistically significant correlation among hiring agents' control, normative, and behavioral beliefs individually and hiring agents' selection of qualified autistic candidates.

Through this quantitatively weighted, concurrent, mixed methods (QUAN > qual), multiple regression study, I confidently predicted the strength at which hiring agents' beliefs influence their likelihood of selecting qualified autistic candidates. Based on the concepts of TPB, the combination of hiring agents' control, normative, and behavioral beliefs statistically significantly ($p < .05$) predicted their likelihood to hire autistics. Additionally, each of the three taxonomies of TPB (control, normative, and behavioral beliefs) individually also statistically significantly ($p < .05$) predicted hiring agents' likelihood to select autistics.

In Chapter 4, I presented the study setting, demographics, and data collection ontologies. I detailed results of parametric testing and analysis. Then I reviewed the statistical significance of each research question and qualitative insights. I concluded the Chapter with a review of study trustworthiness. In Chapter 5, I present my interpretations and further analysis. I review study limitations and make recommendations in consideration of findings, interpretations, and limitations. I conclude Chapter 5 with implications for positive social change and further public policy practices.

Chapter 5: Discussion, Conclusions, and Recommendations

I conducted this linear multiple regression analysis to predict the degree to which each IV (control, normative, and behavioral beliefs) influenced the DV (hiring agents' selection of qualified autistic candidates). I gathered quantitative and qualitative data via a 7-point Likert scale survey tool (HASSQAC, Mai, 2015**)**. I evaluated and triangulated quantitative and qualitative data through the lens of TPB. Results predicted what beliefs influence hiring agents' selection of qualified autistic candidates. Findings illuminated areas needing positive social change to begin rectifying the 83% unemployment rate of qualified autistic candidates.

Findings reflected an even distribution of control, normative, and behavioral beliefs with 10 of the 45 testing statistically significant (see Table 11). Of those ten, the three most influential were a balance of control, behavioral, and normative beliefs. (1^{C}) The inclusion of autistics in organizational diversity. (2^{B}) Hiring agents' understanding of potential absenteeism and dependability rates of autistics. (3^{N}) Hiring agents' fear that autistics would embarrass the organization. Analysis of control beliefs revealed that the organization's diversity plan must address organizational costs related to benefit plans, hiring, and employing autistics (see Table 14). Behavioral belief analysis demonstrated that hiring agents' doubt of autistics' skills and ability (see Table 20) is nearly as strong as their uncertainty of autistics' dependability. Analysis of normative beliefs (see Table 19) indicated three key factors pertinent to hiring agents' fear that autistic employees would embarrass the organization: 1) The prescreening processes often reflects gaps in employment or deficiencies in credit due to their autism; 2) a need for job

accommodation affects how hiring agents weigh potential candidates to team dynamics; and 3) the importance of autistic inclusion within the community (organizational and public) affects hiring agents' preferences. Not only are these findings interrelated but they also reflect speculation put forth by other scholars discussed in Chapter 2.

Interpretation of Findings

Many scholars speculated about what beliefs influence hiring agents' selection of qualified autistic candidates, but I found no literature conveying scientific research addressing the question. However, Chapter 2 relates a plethora of scholarly speculation. When asked what beliefs influence hiring agents' selection of qualified autistic candidates, participants ($n = 212$) indicated that organizational diversity initiatives ($B = 0.266$, $p < .001$), concerns related to autistic dependability ($B = 0.195$, $p < .001$), and fear that autistics will embarrass the organization ($B = 0.187$, $p < .001$) were the strongest statistically significant influences.

Organizational Diversity

Organizational diversity initiatives, which include personnel trained in autism-related issues, presented the strongest belief influencing hiring agents' selection of qualified autistic candidates. This finding supported Chan et al.'s (2010), Fraser et al.'s (2011), and Sarrett's (2017) determinations that formal initiatives accompanied by an active commitment to those initiatives significantly increased recruitment, hiring, and retainment practices. Stevens et al. (2010) explained that AIM significantly increases organizational performance. Gotteland and Haon's (2010) findings supported AIM as a significant means to increase organizational performance. Throughout the various study

types and research focuses, I found many inferences that organizational diversity was a key influencer of hiring agents. Thus, this quantitative result was more confirmation than revelation. Albeit, the inclusion of qualitative data revealed fundamental insight influencing the effectiveness of such diversity initiatives.

From comments like "diversity specialists tend to do nothing but earn a paycheck" to "it will take LEADERS in hiring to step up and take a chance," participants indicated a distinct lack of organizationally enforced action. A plan or strategy will not succeed unless associated action occurs to fuel that goal. Many participants indicated that "educating your hiring managers … and addressing these concerns/issues with your diversity team" was necessary. Some respondents felt that "all employees [should be] required to complete annual training on diversity and autistic issues." Autism training followed by the genuine work environment were the most frequently commented influences (see Figure 22). Various diversity and affinity influences presented as 5 of the top 10 qualitative findings. Thus, while many scholars discussed the need for organizational diversity, hiring agent participants reported that such initiatives were either not present or not enforced within organizations significantly enough to influence their selection practices. Such initiatives and associated training could balance hiring agents' autistic dependability beliefs.

Dependability of Qualified Autistic Candidates

Hiring agents' beliefs in the dependability of qualified autistic candidates presented the second strongest influence on their selection of such. Existing literature holds conflicting reports related to dependability. Chan et al. (2010) reported negative

attitudes towards disabled candidates extended from negative perceptions of their productivity and Wehmeyer (2011) related that society believes disabled people cannot hold down 'real' jobs. However, Harris Interactive (2010) demonstrated that employers felt disabled candidates have the same potential and absenteeism rates were equivalent in both disabled and typical employees. Harris Interactive also showed that employers believe disabled workers are flexible, adaptive, and just as dedicated as typical employees. Fraser et al. (2011) determined that employers' belief in the dependability of disabled employees correlated with their intentions to hire them. By Fraser et al.'s analyses, the 83% unemployment rate of qualified autistic candidates indicates hiring agents' disbelief in their dependability. Qualitative data provided a deeper understanding of this issue.

Qualitative responses indicated an overwhelming pattern in numerous participants' statements. Many respondents reported that they believe qualified autistic candidates do possess the skills and ability to perform the job dependably and consistently. However, responses also demonstrated they would not hire qualified autistics for that job due to opposing underlying beliefs. In example

- "Most employers can only afford to hire the very best and brightest. Many autistics are very high functioning and would be a good fit."
- "[Hiring agents'] belief that [qualified] autistics are only good for menial/manual labor jobs. … [Qualified autistics] should be in the workforce but aren't appropriate for our work at our workplace."
- "I would hire this person [qualified autistic candidate] but …"

- "[qualified] autistics do not have the necessary educational background and/or experience needed to do the job."

A lens of AAT provides better understanding into such opposing inner conflict. Concurrent feelings of qualified autistics' competence coupled with the belief in the qualified autistics' inferiority amplify behavioral conflict. Additionally, ambivalent beliefs toward stigmatized groups are frequently amplified relative to interactions between non-stigmatized and stigmatized individuals (Katz, Hass, et al., 1986; Katz, Wackenhut, et al., 1986). "Jim is a jerk… and it is not fair to expose an autistic to that." "Team dynamics must be considered." "What am I getting my team into?"

"It is almost always about the business bottom-line … companies require steady, trainable, adaptable, and dependable employees who can communicate well and can work effectively and competently within the company." Numerous responses included reference to the ignorance of hiring agents and the need for education and training. "I think the biggest barrier is lack of knowledge about autism and the potential benefits a person with autism could bring to the workplace." Many respondents conveyed that alleviating ignorance could help overcome embarrassing fears.

Organizational Embarrassment

The third most influential influencing belief of hiring agents was their fear that qualified autistics will embarrass the organization due to communication and capability insufficiencies. Scholars did not specifically refer to organizational embarrassment; instead, some inferred such. However, when following a logical thought progression, the finding does correlate with several such inferences by previous scholars.

Overall, society strongly feels it is outrageous to expect disabled persons to work normal jobs (Wehmeyer, 2011). The clear majority of HR managers believe socially acceptable behavior is crucial to employment (Stuckey, 2016). The team dynamics of an organization reflects the need for socially acceptable behavior. Per Harris Interactive (2010), many HR managers believe their existing staff are uncomfortable with disabled people. Thus, aggravating existing stereotypes of the disabled reported by Houtenville and Kalagyrou (2012) that many employers hold. Per Sălăjeanu (2012), the more educated a manager is, the more profound they hold negative stereotypes of disabled people. Pertaining to autistics, these negative perceptions include stereotypical movements, retardation, and an inability to communicate (Stankova & Trajkovski, 2010). Per PAT, such negative altercasting consequently negatively influences behaviors related to those labeled as such. Houtenville and Kalagyrou explained that stereotyping caused disbelief in the skills and abilities of disabled individuals. When Stankova and Trajkovski inquired if employers would hire autistic candidates when assured those candidates could do the job, the majority replied "no." With the correlation reported by Fraser et al. (2011) between employers' perceptions of how their colleagues felt about disabled individuals and employers' intentions to hire such, organizational embarrassment could readily occur due to this spiraling pattern of negative labeling.

The idea that qualified autistics would embarrass an organization is contrary to other scholars' findings. Hartnett et al. (2011) reported that hiring disabled employees resulted in an increased organizational image. Wehman (2011) conveyed that customers were more likely to patronize businesses that hired disabled workers. Andreassen (2012)

opined that employers in the health and public sectors believed employment of disabled employees positively affected their reputation. King et al. (2011) posited that organizational diversity matching community diversity improved customer satisfaction.

None of these scholars tested the inference against hiring agents specifically relative to qualified autistic candidates. I did. My findings reflected strong statistical significance indicating that hiring agents' selection is influenced by their belief that qualified autistics will embarrass the organization. Additionally, a plethora of qualitative responses similarly inferred organizational, management, and HR embarrassment. Some responses included

- Autistics will embarrass the company in front of the customer
- Most people are not comfortable around autistics
- Autistics cannot engage in normal social interaction
- Autistics cannot be present in client meetings
- Autistics are not as engaging
- Autistics cannot deal with the social aspect of the workplace
- Autistics are slow and cannot focus
- You do not know what you are getting your team into
- You do not know what you are going to get
- Autistics need doubt-free special positions and tasks

Interpretations of other statistically significant findings. While organizational diversity, dependability of autistics, and organizational embarrassment were the three most persuasive statistically significant influencing beliefs, seven others were also

statistically significant. My findings supported Harris Interactive (2010) and Kaye et al. (2011)'s conjecture that employers felt they needed a means of identifying disabled candidates. Albeit, such identification must meet the criteria of the Health Insurance Portability and Accountability Act of 1996. Participants in my study indicated that applicants could influence selection if they could convey their disability in the form of strengths and weaknesses due to alleviating the hiring agent's concerns. Should a qualified autistic candidate be able to convey such in a timely fashion, it could offset von Schrader et al.'s (2011) assumption that the use of applicant screening (criminal background, credit, and employment history) often disqualifies disabled candidates. My findings statistically significantly confirmed that assumption. Several participants in my study echoed previous literature by Harris Interactive, Hernandez et al. (2012), and Kaye et al. in their recommendations for the availability of external mediation services which I also found statistically significant. Such services could provide valuable resources in applying and interviewing for a position as well as aid in job understanding and potential accommodation needs.

Job redesign and coworker flexibility are two accommodations for autistic workers that I found statistically significant. Copeland et al. (2010) also posited that accommodations, as well as employer preference for PD types and autistic productivity stereotyping, were common influences. I also found a statistically significant preference for PD types and negative productivity stereotyping influences hiring agents' selection of qualified autistic candidates. Harris Interactive (2010), Hernandez et al. (2012), and Kaye et al. (2011) reported that organizational commitment to hire disabled individuals

correlated with the actual hire. I found that the stronger the organizational commitment to hire qualified autistic candidates, the more likely hiring agents would select them.

Not statistically significant, yet significantly relevant. Of the 45 hiring agent beliefs tested, 35 were not statistically significant (see Appendix L). However, two did reflect significant *B* slopes indicating significant strength in their relevance. Despite the lack of statistical significance, significant *B* slopes (*B* = -0.113) indicated that hiring agents' belief in stereotyped movements of autistics may be influencing the selection of qualified autistic candidates. With an even more significant *B* slope (*B* = 0.121), hiring agents' may be passing up qualified autistic candidates due to convenience. Albeit, I also did not find a statistically significant correlation to the IV of inconvenience. However, the *B* slope presented stronger than that of external mediation services.

To support the significance of these two IVs despite their non-significant *p*-values, I refer to the American Statistical Association and Wasserstein and Lazar (2016). Per Wasserstein and Lazar, social science conclusions and organizational decisions should never rest on statistical significance alone. Preferably, a combination of transparency and full reporting should lead to a determination of effect, strength, and importance of results. Additionally, Gelman (2013), Greenland (2011), Hubbard (2011, 2015), and Kline (2009) consistently reported past fallacies relating to the use of *p*-values alone to support hypothesis or significance of findings. Thus, inconvenience and the belief in stereotypical manners presented as two additional IVs influencing hiring agents' selection of qualified autistic candidates.

Control Belief Findings

Hiring agents' belief in the need for increased organizational diversity is primarily a control belief. Other statistically significant control beliefs also correlate with increased organizational diversity. Organizational commitment to hire autistics which include dedicated resources toward hiring and retaining them and organizational flexibility for job redesign as an accommodation were also statistically significant. Harris Interactive (2010), Hartnett et al. (2011), Johnson and Bleeker (2013), Lysaght et al. (2011), and Russel (2012) indicated that employers believe that job redesign would be cumbersome and that benefit plan costs would increase due to employing disabled workers. However, my findings showed that belief was unfounded relative to qualified autistic candidates. Like, hiring agents' beliefs regarding increased resource needs, their desire for external mediation services demonstrated a lack of awareness relevant to these concerns. Supported employment and mediation are offered through VR services at no cost to the employer (Fraser et al., 2011; Hendricks, 2010; Katz et al., 2015; Schaller & Yang, 2005; Wehman et al., 2012, Wehman et al., 2016). Albeit, Howlin et al. (2005) and Howlin and Moss (2012) demonstrated that supported employment services remain inadequate to meet the needs of autistics. Thus, these control beliefs may require a combination of education and public policy administration scrutiny to alleviate the problem.

Not statistically significant. Contrary to existing studies, I found several control beliefs were not statistically significant. Organizational goals and strategies such as those posited by Harris Interactive (2010), Hernandez et al. (2012), and Kaye et al. (2011) were

not statistically significant from organizational diversity commitments and supported employment resources

- a mandated system for handling accommodation requests,
- a separate organizational affinity group, and
- external services for recruitment.

Nor did participants quantitatively indicate they needed guidance on autism and accommodation issues, support, and training. However, qualitative statements strongly indicated otherwise. Many participants' qualitative statements conveyed a significant need for training like that indicated by Copeland et al. (2010), Harris Interactive (2010), Hernandez et al. (2012), Kaye et al. (2011), and von Schrader et al. (2011) in their general disability research. Participants in my study related a need for training on autism benefits, accommodations, communication, and interview techniques. Several participants indicated similar training needs for all employees, including upper management, inferring a clear need for organization-wide control mandates to drive behavioral changes.

Behavioral Belief Findings

The most statistically significant behavioral beliefs were the need to understand the potential absenteeism and dependability rates of autistics as well as their skills and ability. I found statistically significant stereotyping of autistics related to their productivity, absenteeism, dependability, skills, and ability. These findings correlated with various disability-related inferences by Chan et al. (2010), Houtenville and Kalagyrou (2012), Howlin et al. (2005), Kaye et al. (2011), Russel (2012), Stankova and

Trajkovski (2010), and Stuckey (2016). Conversely, my findings did not align with Harris Interactives' (2010) report that employers believe disabled employees are just as competent and dependable as typical employees. However, my findings did corroborate Copland et al.'s (2010) and Unger's (2002) determinations that employers prefer workers with PDs over those with ASDs. Like Hernandez et al.'s (2012) and Kaye et al.'s conclusions, I found simple discrimination a behavioral belief statistically significantly influencing hiring agents' selection of qualified autistic candidates.

Not statistically significant. Dissimilar to existing studies, I found several behavioral beliefs were not statistically significant. In their study of employers' beliefs relating to all categories of disabled employees, Copeland et al. (2010) posited that employers felt disabled workers could not operate equipment, could not keep a set schedule, required too much supervision, risked the safety of other employees, and could not handle the stress of employment. I did not find these specific stereotypes statistically significant in my study of hiring agents' beliefs relating to qualified autistic candidates. Some scholars also indicated that employers believed disabled employees required extra assistance by coworkers to accomplish tasks, inconvenienced operations, and presented inadequate communication skills (Copeland et al., 2010; Harris Interactive, 2010; Hernandez et al., 2012; Kaye et al., 2011). I did not find these beliefs statistically significant relative to hiring agents' selection of qualified autistic candidates. I also did not find the dedication or problem employee concerns relative to qualified autistic candidates that other researchers did relative to disabled employees in general (Harris

Interactive, 2010; Hernandez et al., 2012; Kaye et al., 2011). Qualitative themes again revolved around a belief for needed organizational training relative to autistic workers.

Normative Belief Findings

Normative beliefs presented the most extensive variation in statistical significance since this belief type revolves around societal memes. Disparagement to place qualified autistic candidates in customer-oriented service positions was statistically significant but I found that condescension statistically significantly compounded hiring agents' belief that society does not view employment of autistics important. This finding correlated to Copeland et al.'s (2010) inference of the same regarding disabled candidates. I found a statistically significant fear of hiring agents' that autistic employees will embarrass the organization in society's and coworkers' eyes. The statistically significant belief that coworkers' jobs would need redesigned to accommodate autistic worker could be aggravating that perception. I also found that routine employment and credit checks of job applicants often disqualify qualified autistic candidates because of lapses relating to their disability. Hiring agents statistically and qualitatively indicated that it could help if qualified autistic candidates could identify themselves as autistic and discuss positive attributes they can provide the organization including dependability issues and how their autism would affect their performance. Copeland et al. also presented this idea in conjunction with employer concern that disabled workers could not be equally dependable as typical workers nor could typical workers accept instruction from a disabled coworker. I also found these concerns to be statistically significantly influencing hiring agents' selection of qualified autistic candidates.

Not statistically significant. There were several hiring agent beliefs that were not statistically significant and seemed to contradict other findings. Hendricks (2010), Kaye et al. (2011), and Stankova and Trajkovski (2010) inferred that employers did not believe disabled candidates could present themselves well in interviews. Copeland et al. (2010) and Kaye et al. posited that disabled candidates should convey their special needs and how the organization could meet those needs. Howlin (2005), Kaye et al., and von Schrader et al. (2011) speculated disabled candidates need to explain how their challenges may affect the job and steps they will take to overcome such. My findings indicated that hiring agents did not believe discussing such potentially harmful topics would influence their selection of qualified autistic candidates. Copeland et al. and Kaye et al. suggested employers were concerned about coworker attitudes toward disabled workers. Copeland et al. added that employers might fear that inclusion of disabled workers would negatively affect team dynamics, that coworkers were uncomfortable working with the disabled, and that other employees would ostracize the disabled. I found hiring agents were not as concerned about team dynamics, attitudes, and potential coworker hostility toward qualified autistics as they were that the autistics would be an embarrassment.

Transferability of Results

I did not limit my sample size to the number of respondents, rather, I significantly enhanced transferability with the large geographic area from which I drew participants. The large random sample selection across the contiguous United States included a wide range of hiring agent demographics (see Tables 2 - 5, and Appendix L); thus,

significantly increasing transferability. The inclusion of qualitative analysis in conjunction with quantitative and the usage of respondents' direct quotes also enhanced transferability.

There were weaknesses in transferability as well. Self-imposed study limitations targeting only medium-sized (50 – 249 employees) organizations within the contiguous United States limited potential transferability to the same. Albeit, I did not exclude participants reporting demographics outside those target parameters from study analysis. Additionally, the study's static nature reduced transferability. I measured responses at a single point in time thereby significantly limiting any potential for future transferability. I attempted to offset this threat to transferability by presenting the design in sufficient detail to allow future replication (see Chapter 3).

Theoretical Analysis of Findings

TPB holds that the combination of control, normative, and behavioral beliefs infer the intention to act (Ajzen, 1985). While my findings did indicate all three belief types, the application of a TPB lens to my interpretation of those findings provided a structure from which I analyzed the interrelated belief patterns. For example, the control belief in a mandated organizational diversity initiative needs to drive behavior changes in hiring agents. Behavior beliefs of hiring agents dictate how they view potential candidates and spread to the organizational community norms. Normative beliefs of hiring agents influence what they perceive as acceptable or expected by their organizational community. Perceived expectations are control beliefs. Thus, the combination of all three belief types interact and predict intent to act.

I found the validity of TPB as a valid theoretical model for predicting intent to behave was sound. I began by comprehensively using TPB to test for all (45) potential hiring agent beliefs; my findings explained 93% (see Table 9) of the variance in hiring agents' beliefs influencing their selection of qualified autistic candidates. Further analysis of only the 10 statistically significant beliefs (see Table 11) explained 91% of the variance in hiring agents' beliefs influencing their selection of qualified autistic candidates. I began with a balance of 15 control, 15, normative, and 15 behavioral beliefs. When I analyzed the 10 statistically significant beliefs, the balance of control, normative, and behavioral beliefs remained consistent (three control, four normative, and three behavioral). While there was one more normative belief than control or behavioral, I found aspects of all three belief types interacted with each other. Conceptual analysis of these 10 beliefs triangulated with AAT, ELM, EVT, FCT, and PAT through TPB (see Figure 1) presented further insight into hiring agents' beliefs influencing their selection of qualified autistic candidates.

Organizational commitment to hire autistics. While primarily a control related belief, normative and behavioral aspects of their beliefs also influence how the hiring agent perceives that control mandate. A hiring agents' job is to select the most appropriate candidate to fill the organization's needs (control). Thus, hiring agents engage in issue-relevant thinking. This type of thinking requires elaboration in consideration of multiple data. Per tenets of ELM, such elaboration is likely to persuade outcomes. Distractions, disruptions, suggestions, and the hiring agents' community (behavioral and normative) can all affect a hiring agents' decision to hire. Following with

FCT, the hiring agent's society (their organizational community, normative) holds expectations that influence hiring agents' beliefs and actions. These expectations become perceived control beliefs to the hiring agent. Expectations have consequences; thus, they have value. That value can be rewards or penalties. Tenets of EVT hold such expectations as mandates (control). The very nature of a hiring agent's position requires them to adhere to organizational mandates. Thus, organizational commitment must be present in organizational tenets as well as the actions of all its members.

Inclusion of autistics in organizational diversity. Hiring agents strongly indicated a need for organizations to specifically include autistics in their diversity plans (control) and initiatives. Viewing this desire through FCT and EVT indicated that hiring agents believe they need organizational mandates (EVT) explicitly requiring the inclusion of autistics in the organizational ontology (FCT). This specificity infers that hiring agents believe the control-related mandates can lead to normative and behavioral organizational changes relative to hiring qualified autistic candidates.

Availability of external mediation services. Participating hiring agents also indicated a need for external mediation services to assist with communication needs between autistics and co-workers. Following EVT, such an external service would infer a mandate for consistent, regulated mediation. This belief indicates an underlying VABE of hiring agents that they are unable or not qualified to communicate with qualified autistic candidates. Several qualitative responses suggested such mediation could extend to assistance during the interview as well.

Automatic denials based on employment and credit screening policies.

Participating hiring agents believe that employment and credit screening (control) frequently disqualifies autistic applicants due to lapses related to their medical condition. Through PAT, labels influence actions. An employment screening that reveals gaps in employment infers a label of 'problem employee' regardless of the reason. A poor credit score infers a lack of responsibility to meet obligations regardless of the reason. Employment problems and irresponsibility are unacceptable labels by societal standards (normative); thus, applicants with those screening issues are altercasted accordingly. Once altercasted, one is labeled accordingly and that label dictates societal expectations. Applying EVT, those expectations carry value and, in this instance, that value is negative penalization for the applicant. Through AAT, should such negative penalization be contrary to any positive attributes related to the applicant, ambivalence (behavioral) occurs. Amplification of that ambivalence occurs through increased association thus negatively influencing hiring agents' selection of qualified autistic candidates.

Candidates' ability to identify themselves as autistic. Many participants believe qualified autistic candidates could alleviate some of the problem by identifying themselves as autistic and conveying their strengths relative to their condition. In line with PAT, such altercasting would set expectations accordingly. Whether those expectations were positive or negative would correlate to how the hiring agent interpreted that label. While participants conveyed the belief that the label of autism could aid in their selection of qualified autistic candidates, tenets of FCT indicate the issue could be more complex than participants perceived. Fay (1987) posited that society, not just

individuals, sway actions. Thus, the organizational memes and mandates must be positively conducive to the label of autism for that label to positively influence hiring agents' selection of qualified autistic candidates.

Employee flexibility of job redesigns to accommodate autistic co-workers. Conflicting VABEs and memes often create amplified ambivalence as theorized through AAT. Thus, regardless of how a hiring agent personally feels, perceived opposing community memes will escalate negative VABEs in hiring agents. Participating hiring agents indicated a belief that co-workers will resent their jobs changing in any way due to an autistic co-worker. Such change holds negative value in co-worker's eyes. Thus, according to tenets of EVT, that expectation becomes a reality. Tenets of FCT reinforce that reality due to the existing organizational society memes.

Autistics will embarrass the organization. Autism is a label and society views those altercasted with this label according to associated memes. Additionally, through PAT, Pratkanis and Uriel (2011) demonstrated that experts are more likely to succumb to societal memes. Thus, if the organizational environment views the label of autism negatively, then hiring agents (experts) will succumb to those views. I found that the belief that qualified autistic candidates would embarrass the organization influenced participants accordingly. In line with AAT, these fears often become amplified. While a hiring agent may want (behavioral) to hire a qualified autistic candidate, if they perceive the organization (control and normative) or society (normative) expects the opposite that amplified ambivalence results in a no-hire situation. Thus, as with FCT, the

organizational society dictates the beliefs that influence hiring agents' selection of qualified autistic candidates.

Stereotyping related to autistic productivity. All five theories crystalized with TPB (AAT, ELM, FCT, and PAT) support the influence of stereotyping on beliefs. Belief associated with an altercasted label is a stereotype. Some stereotypes are substantiated, and some are not. Stereotypes stem from societal memes. Memes that develop from impressions, misconceptions, or ignorance often influence intent and behavior. Societal memes influence individual actions (FCT). Societal altercasting dictates expectations (PAT). Expectations hinder further elaboration (ELM). When those expectations are contrary to VABEs or other mandates ambivalence occurs resulting in contradictory or confusing behavior (AAT). Thus, many participants quantitatively reported stereotypical productivity beliefs influence their selection. Yet, participants qualitatively conveyed a desire for education to overcome such ignorant stereotypes.

Understanding of potential absenteeism and dependability rates of autistics. Participants reported a lack of understanding relative to potential absenteeism and dependability of autistics. Since a hiring agents' capability for issue-relevant thinking is directly relational to their degree of understanding, it follows that their lack of understanding significantly influences their hiring decisions. Thus, applying ELM helped explain why hiring agents' ignorance (behavioral) hinders their decision to hire qualified autistic candidates. Ignorance, disruption, a weak argument, or negative meme (normative) could halt a hiring agent from further considering a qualified autistic candidate for selection. Many participants conveyed a desire for increased training and

education. Improved knowledge and understanding could result in hiring agents' increased concept of the value of qualified autistic candidates. Conversely following EVT, should hiring agents' value of qualified autistic candidates change, their environment would shift accordingly.

Preference for PD types. Participants reported a preference for PDs over autism. This belief indicated that the label of a physical limitation is preferable to the label of autism. In line with PAT, if their organizational society is more tolerant of PDs, then the hiring agent must meet the same expectation. This logic also follows FCT's tenet that society influences the individual's actions.

Limitations that Arose from Study Execution

I limited my study to testing beliefs of hiring agents influencing their selection of qualified autistic candidates. I tested control, normative, and behavioral beliefs through a lens of TPB. I targeted hiring agents serving medium-sized (50 - 249 employees) organizations throughout the contiguous United States; albeit, I did not exclude participants outside those parameters. Participant solicitation and study participation was entirely over the Internet and remained 100% anonymous thus preventing any follow-up. I limited participation to English-speaking responders. Thus, these limitations affected generalizability and trustworthiness.

Generalizability

While the Internet presented an optimal means for maintaining anonymity and reaching the entire contiguous United States, I encountered three significant limitations to generalizability

- Internet participant solicitation limited the potential geographic representation,
- the size of the organization reached, and
- resulted in fewer participants than I anticipated.

While I strove for 384 participants, 212 participated of which 165 completed at least one full section of the HASSQAC (Mai, 2015) and 129 completed all six sections. Thus, while I did not achieve my desired 95% 1 - *a*, my confidence level did range from 80.28% to 74.54% depending on the number of participants completing each question (see Figure 15). A minimum confidence level of 75% is a more than adequate representative generalizability of hiring agents' beliefs across the contiguous United States.

I worded my solicitations toward hiring agents serving medium-sized organizations; however, I received more responses from organizations with fewer than 50 and more than 249 employees (see Table 4). Business size variation reflected a fairly even spread (32%, $n < 50$; 28%, $50 \leq n \leq 249$; 40%, $n \geq 250$). Thus, generalizability pertains more to hiring agents serving all organization sizes rather than only medium-sized organizations.

My participant sample did not correlate with each state's population. Some states demonstrated to be more liberal, disability conscious, and socially minded (Bernardo, 2016; Driscoll, 2016; Petronzio, 2015) had higher participation rates. Per Groeger and Buttle (2014), the combination of homophily and transitivity related to acquaintances of my acquaintances likely affected the reach of social media participation solicitation. While I do have family and friends in 3 states with high response rates, I also have family

and friends in more than 10 states with little or no participation. Thus, geographic transferability may not be consistent throughout the contiguous United States; however, that likely does not relate to a lack of trustworthiness related to researcher influence.

Trustworthiness

Only two limitations of trustworthiness arose from the execution of this study: (a) my possible misinterpretation of qualitative responses, and (b) participants' potential misunderstanding of survey prompts. I based the HASSQAC (Mai, 2015) off current literature discussed in Chapter 2, two existing instruments with high reliability, and feedback from a panel of 13 experts in the associated fields. While I took careful steps in developing the HASSQAC questions, there was evidence that some participants still misconstrued study prompts. In developing the HASSQAC, I posed half the prompts positively and half negatively. Even so, after completing the first two sections of the survey and before continuing to any negative prompts, HASSQAC respondent ID #R_22Wzd5dGhbdGZiv expressed confusion:

> I realized on this page that when I'm thinking "I doubt that'll make much difference" - I'm responding "neutral" but perhaps a better answer would be highly unlikely. I'm thinking a positive/negative scale, but your entire survey assumes the only possible response is positive. What if some of these changes have a negative effect? I'm not saying they do - but the scale is offset to my thinking, and I now think all my answers are skewed.

Furthermore, I might have misinterpreted some qualitative statements which would have resulted in untrustworthy qualitative conclusions. However, I incorporated a

4-point system of cross-checking coding, patterns, themes, and prompt association to decrease bias and misinterpretation. Additionally, this study was quantitatively weighted, thus, placing significantly less emphasis on qualitative interpretations. Instead, qualitative data added depth to quantitative findings.

Recommendations

I recommend further research to overcome the weaknesses of this study and to expand its strengths to help conquer the current high unemployment rate for qualified autistic candidates. In addition to utilizing data gathered in this and subsequent similar studies, I recommend gathering new data to maintain current research and to compare changes over time. I recommend researching demand-side differences in hiring practices amongst

- organization size and type
- hiring agent age, gender, and employment tenure
- geographical regions including local, state, regional, and country
- candidate type (e.g.: type/extent of disability and needed accommodations)

Comparison of data to Woodard's (2011, 2013, 2017) map of the American Nations Today might further understanding of how various United States cultures view autistic employment. An analysis of ADDM site locations and data collected against geographical region could reveal gaps in CDC knowledge and understanding of Autism relative to United States demographics. Cross-tabulation of organization size and type might provide insight into industries where positive social change is most needed. Identification of age, gender, and employment tenure differences could lead to a

deepened understanding of how hiring agents view and select candidates. Analysis of disabled hiring practices relative to specific disabilities could provide an understanding of mannerisms and attributes that most influence hiring selection.

My most significant research recommendation involves in-depth mixed method case study over a duration of time. I recommend identifying two or three sets of organizations with correlational organizational make-up, industry, and performance. I recommend placing qualified autistic employees in one of the organizations in each set. I recommend recording organizational performance in both groups (with and without qualified autistic employees) before and at the start of the study. After which, data regarding organizational performance for both groups (with and without qualified autistic employees) should be gathered at regular intervals throughout the study. At the culmination of the study, analyze all data. This study could provide knowledge and understanding of how qualified autistic employees affect

- organizational performance
- organizational image
- team dynamics

Implications

My findings demonstrated that hiring agents' beliefs do influence their selection of qualified autistic candidates. Through crystallization with AAT, ELM, EVT, FCT, and PAT, my analysis supported and strengthened the applicability of TPB as an effective theoretical tool for predicting hiring agents' beliefs influencing their intent to select qualified autistic candidates. My quantitatively weighted mixed methods study satisfied

the statistically driven need of organizations and policymakers while allowing for qualitative depth and insight into findings. I found significant empirical implications relative to positive social change and public policy.

Positive Social Change Implications

Findings relative to normative and behavioral beliefs negatively influencing hiring agents' selection of qualified autistic candidates indicated a need for positive social change. If society (organizational and public) alters their perceptions of autistics, hiring agents could overcome their preference for PD types and fear that autistics will embarrass the organization. Hiring agents' beliefs that other employees will resent having to alter their current responsibilities to accommodate autistic co-workers provided an elaboration of the fear of autistic employees. Each of these beliefs correlates to stereotyping and discrimination.

While society holds a plethora of stereotypes about autistics, participants indicated a few significant stereotypes could drive positive social change. Stereotyping related to autistic productivity, absenteeism, and dependability are highly misunderstood and, thus, stereotyped altercasting continues to occur. Hiring agents indicated that candidates could help overcome such if the candidates identified themselves as autistic and related the benefits of their autism to the open position. However, participants also reported that organizational change must occur for positive social change to happen.

Organizations must drive positive social change throughout the organizational culture. Organizations must exhibit their commitment to hiring autistics through policy and action reinforced by all management levels and organizational initiatives.

Participants indicated that organizational diversity plans must specifically include autistics and reinforced mandates. Hiring agents attributed the achievement of such reinforcement to needed training.

Training. Throughout this study, hiring agents repeatedly called for training. Needed training was the most frequent qualitative theme from participants. Most hiring agents conveyed that autism training should be mandatory for all levels of management. Many participants also requested training for all employees on an ongoing basis to maintain awareness and drive positive social change. For such training to be consistent, public policy must address this need as well.

Public Policy Implications and Practice

Current public policy regarding autism does not address employment. The current public policy does not sufficiently address stereotyping and proactive organizational initiatives. Many participants expressed a need for mandatory education and training. Such training should address stereotyping, organizational commitment, routine screening policies, and mediation.

- Stereotyping – Participants overwhelmingly requested training related to autistic productivity, understanding of potential absenteeism, and education of autistic dependability. Many requested training regarding functionality levels of autistics.
- Organizational commitment – Participants indicated a need for policy mandating organizations to enact initiatives to hire autistics. Hiring agents also indicated a need for mandates requiring the inclusion of autistics in

organizational diversity and all managers trained accordingly. Some felt organizations need mandates to train all employees.

- Routine screening policies – Participants indicated that employment and credit screening policies automatically eliminated qualified autistic candidates due to irregularities resulting from their autism. Hiring agents indicated that policy regulations address this issue to prevent it from occurring.
- Mediation – Participants requested external mediation services supplied by the government at no cost to the organization to facilitate communication with autistic employees. Most were unaware of similar services provided by VR facilities. This ignorance of VR supported employment indicates that public policy needs to educate hiring agents and employers.

Policy addendums. Public policy could address all these issues through policy addendum to the ADAAA or Autism Cares Act. An addendum requiring education would begin to counter negative stereotyping and enlighten hiring agents and managers to VR services. Mandating such education in organizational diversity initiatives would drive organizational commitment. A separate addendum requiring employers to allow applicants to explain irregularities found in routine applicant screening could prevent discrimination based on the applicant's medical condition.

Conclusion

The beliefs of hiring agents significantly influence their selection of qualified autistic candidates; thus, contributing to the current 83% unemployment rate of this disenfranchised group. Hiring agents indicated stereotyping, potential embarrassment,

ignorance, fear of autism, and co-worker concern were fundamental negative beliefs influencing their selection of qualified autistic candidates. Conversely, participants indicated that organizational commitment, inclusion, and identification of benefits the candidate offered could help alleviate those negative beliefs. Furthermore, hiring agents felt that applicant screening policies and a lack of external mediation services often resulted in their eliminating a qualified autistic candidate from the candidate pool. Proactive public policy addendums and mandated practices might help solve the problem and begin decreasing the 83% unemployment rate of qualified autistic candidates.

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Appendix A: The HASSQAC Survey

Please participate in this important research study. I am studying why autistic individuals are not hired for jobs for which they are fully qualified from the perspectives of those responsible for filling open positions. This pertains to individuals who possess the right training, degree, or skills for the open position and happen to be autistic. I am exploring what kinds of things might make hiring agents nervous about hiring a qualified autistic candidate. Findings could potentially improve training methods and develop strategies to solve issues related to such applicants.

As a recruiter, hiring agents, or other hiring and placement professional, your completion of this short questionnaire could provide valuable insight into the problem. Your participation will help me understand the kinds of employer attitudes that might be involved. I will NOT be asking you to discuss or report about your own hiring decisions or those of your company. I would just like you to give your opinions about why other companies might not be hiring people with autism. Your position as someone who makes these kinds of hiring decisions gives you great insight into what might be happening in the minds of others who make similar decisions.

The following informed consent information and process includes the details of the research to allow you to understand the study before agreeing to take part. Should you decide to proceed with the survey after reading this information, you are consenting to participate. Angela Mai, a Public Policy and Administration doctoral candidate in Walden University's School of Social and Behavioral Sciences is conducting this study.

Procedures

If you agree to participate in this study, you will:

Complete an entirely anonymous, survey-style questionnaire.

The questionnaire should take approximately 15 -30 minutes to complete.

I will collect data only once, though you may save your survey and finish it anytime within one week of starting it.

I will gather absolutely NO identifying information!

There are no right or wrong answers; please provide your honest opinions.

Completely Voluntary

This research study is voluntary. Everyone will respect your decision to participate or not. No one at Walden University, or any other organizations or individuals, will treat you differently if you decide not to take part. If you decide to participate and later change your mind, you are free to do so at any time simply by discontinuing completion of the survey.

Anonymous and Confidential

If you choose to participate, you will be one of approximately 400 professionals responsible for filling open positions who will take part. I will not ask you to provide your name, the name of your organization, or any other identifying information. We will not collect IP addresses or any form of electronic identifiers. Not even the researcher will be able to identify you. I will combine all responses and use them to analyze attitudes and potential solutions. I will store all on an external hard drive under lock and key and kept for at least five years before I erase it, as required by the university.

Risks and Benefits

Being in this type of study involves some risk of the minor discomforts that can occur in daily life, such as the fatigue, stress, or frustration when filling out an online application. Participation will pose NO risk to your safety or well-being.

Public and organizational benefits related to study findings are substantial. This study has the potential to drive positive social change relative to individual, organizational, community, and even global diversity, productivity, economy, health, and many other quality of life factors.

Payment

There is no payment or gift associated with participation in this study. The only value you might gain from participation is the knowledge that you are helping society overall and those with autism specifically by furthering social understanding of this issue.

Questions

If you have questions about this study, you may email angela.mai@waldenu.edu to contact the researcher conducting this study. The dissertation committee chair is Dr. Anne Fetter of Walden University. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number to gather data for this study is 12-22-15-0387193. Approval to gather data expires on December 21, 2016; however, analysis of data may continue after that date. Please keep this consent form for your records.

Statement of Consent

By proceeding with the survey, you agree that you have read the above information and feel you understand the study well enough to decide about your involvement. By clicking on the link to go to the survey, you understand that you agree to the terms described above. <***Click next to continue with survey; after which the following survey will begin***>

Hiring Agent Survey regarding Selection of Qualified Autistic Candidates			
Please share your honest opinion. There are no right or wrong answers.	**The participants will not see these sections.**		
Here are some strategies that organizations might use to make it easier for qualified autistic candidates to get a hired. Thinking of employers in general, and not necessarily the organization you work for, please tell us how likely you think employers would be to use the following strategies to increase hiring of such candidates. **Qualified autistic candidates would be more likely to obtain employment if…**	**TPB C/N/B**	**Adapted from:**	**IV tested**
	Part I		
1 There was a written company policy specifically addressing recruitment of minorities that includes autism. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Hernandez et al.; Kaye et al.	Organizational - Commitment to hire
2 The organization maintained aggressive goals and strategies to hire and retain autistic workers. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Hernandez et al.; Kaye et al.	Organizational - Goals

3	There was an organization-wide system for handling requests for reasonable accommodations. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Kaye et al.	Organizational - Committed resources
4	There was formal training on autism, ADA, and EEOC issues, including how to work with autistics, probationary periods, autism-related leave as a reasonable accommodation, etc… Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Copeland et al.; Harris Interactive; Hernandez et al.; Kaye et al.; von Schrader et al.	Legislative understanding
5	There was an organizational affinity group. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive	Organizational - Affinity plan
6	There was a formal system for disciplining or firing an autistic worker for poor-performance, without potential ADA or EEOC lawsuits. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Hernandez et al.; Kaye et al.	Litigation
7	They had a diversity specialist who deals with autism issues. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Kaye et al.	Organizational - Diversity plan
	Please share with us any other organizational strategies you believe could help the situation.			

Suppose you wanted to make it easier for organizations to hire and retain qualified autistic individuals, and you could make changes to laws or regulations, or create new public programs, or change existing ones. Here is a list of possibilities. Thinking of employers in general, and not necessarily the organization you work for, please relate how likely you think the following would be to increase hiring of qualified autistic candidates. **Qualified autistic candidates would be more likely to obtain employment if there were…**	**Part II**		
8 An external mediation service to help resolve autism and accommodation issues without having to resort to lawsuits. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Hernandez et al.; Kaye et al.	Mediation
9 They could ask about a job applicant's disability, making it easier to assess whether the person can do the job. (Note: They do not realize that they can ask if a potential employee can perform the job.) Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Hernandez et al.; Kaye et al.; von Schrader et al.	Legal understanding
10 More awareness of the typically reduced injury rates and less costly insurance premiums associated with autistic individuals. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Kaye et al.	Insurance costs
11 There were external resources for recruitment and guidance on	C	Harris Interactive; Kaye et al.	VR Services

autism and accommodation issues. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
12 Someone to come in and help solve autism-related accommodations and training issues, without cost to the employer. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Kaye	Supported employment
13 Tax breaks and incentives for hiring and accommodating autistics, including space for autistics to de-stimulate. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	C	Harris Interactive; Hernandez et al.; Kaye et al.	Cost of accommodations
14 There was a system for identifying such individuals so that routine job-application screenings reflecting poor credit or issues of unemployment would not result in the elimination of those individuals from the candidate pool. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	N	von Schrader et al.	Employment and credit screening
Please share with us any other laws, regulations, or public program possibilities you believe could help the situation.			

Qualified autistic candidates often report they find it very difficult to obtain employment. Here are some possible self-advocacy skills that may help autistic candidates to obtain employment. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding how likely you feel the following would increase the chances of qualified autistics in obtain employment. **Qualified autistic candidates would be more likely to obtain employment if they could…**	**Part III**		
15 Identify themselves as autistic. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	N	Harris Interactive; Kaye et al.	Knowledge of condition of autistics
16 Present themselves well in interviews. (e.g.: Communication, correct social reactions, make eye contact, dress appropriately, demonstrate confidence, etc…). Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	N	Hendricks; Kaye et al.; Stankova & Trajkovski	Poor presentation
17 Explain how they can positively contribute to the workplace. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	N	Copeland et al.	Knowledge of potential benefits
18 Explain/convey their capability of operating machinery. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	B	Copeland et al.	Stereotyping - Retardation

19 Communicate their qualifying skills and experience. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	B	Harris Interactive; Kaye	Stereotyping - skills and ability
20 Convey any special needs they might have and how the organization could meet those needs. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	N	Copeland et al.; Kaye et al.	Fear of seeming incompetent
21 Could confidently explain how their challenges may affect the job and what active steps they will take to overcome such. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	N	Howlin; Kaye et al.; von Schrader et al.	Disclosure
Please share any other ways in which you feel that qualified autistic candidates could increase their chances of obtaining employment.			
Given a key responsibility of a hiring agent is to find the best organizational fit for optimal employee interaction; here are some possible reasons hiring agents might not consider qualified autistic candidates. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding how likely the following causes may be preventing selection of qualified autistic candidates. **Hiring agents may not select qualified autistic candidates due to…**	**Part IV**		

22	The belief that others would mind having their jobs redesigned to accommodate an autistic co-worker.	N	Copeland et al.	Societal pressure
	Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
23	The fear that inclusion of autistics in team dynamics may negatively affect potential performance rewards of other employees.	N	Copeland et al.	Fear of negative labeling
	Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
24	A concern about the attitudes of coworkers toward autistics.	N	Copeland et al.; Kaye et al.	Peer pressure
	Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
25	The belief that other employees would be resentful of having to cover for autistics that require more time off than typical employees.	N	Copeland et al.	Equal employment practices
	Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
26	The belief that others are uncomfortable with the idea of working with an autistic person.	N	Copeland et al.	Label of autism
	Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
27	The belief that an autistic worker would be ostracized by other employees due to their past experiences and assumptions.	N	Copeland et al.	Past experiences
	Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			

28 The feeling that it would be difficult for others to take directions from an autistic person. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	N	Copeland et al.	Fear of seeming dumb
29 The feeling that an autistic person would slow down the productivity or increase the workload of other employees. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	B	Copeland et al.	Stereotyping - Productivity
Please share with us any other reasons related to co-worker dynamics that you feel influence hiring agents not to consider qualified autistic candidates.			
Some hiring agents may not select qualified autistic candidates due to the possibility of having to re-organize routine operations. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding the validity of the following statements. **Some routine operations that may inhibit a hiring agent from selecting a qualified autistic candidate include…**	**Part V**		
30 A belief that autistic workers should remain behind the scenes and not deal with customers, thereby eliminating such candidates due to the customer-oriented responsibilities of all employees.	N	Copeland et al.	Fear of embarrassment

Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
31 A belief that work processes will need to be redesigned.	C	Copeland et al.	Environment
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
32 A belief that they will be burdened by costly changes to employee benefit plans and other increased costs related to hiring and employing autistics.	C	Copeland et al.	Hiring costs
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
33 A belief in the need to allow flexibility in scheduling of autistic workers.	B	Copeland et al.	Adaptability
Never, Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely			
34 A belief that autistic workers would require high-levels of supervision.	B	Copeland et al.	Hard to supervise
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
35 A belief that jobs would have need reorganization to reduce the dangers presented by the abnormal movements of an autistic worker.	B	Copeland et al.	Stereotypical movement
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
36 A belief that coworkers will spend extra time assisting autistic workers.	B	Copeland et al.; Kaye et al.	Stereotyping - time and attention
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			

37 A belief that operations will be inconvenienced by the needs of an autistic employee. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	B	Copeland et al; Hernandez et al.; Kaye et al..	Inconvenience
Please share with us any other operational reasons that you feel would prevent hiring agents from selecting qualified autistic candidates.			
Here are some other reasons that hiring agents might not select a qualified autistic candidate. Thinking about employers in general, and not necessarily the organization you work for, please give us your opinions regarding the validity of the following statements **Some employers do not hire qualified autistic candidates because…**	**Part VI**		
38 The belief that autistics are less dependable. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	B	Harris Interactive; Kaye	Absenteeism rates
39 The belief that autistics are less dedicated to their jobs. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	B	Harris Interactive; Kaye et al.	Dedication
40 They simply have no intention to hire autistics. Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always	B	Hernandez et al.; Kaye et al.	Discrimination
41 They do not believe it is important to have autistics in the workforce.	N	Copeland et al.	Positive social stewardship practices

Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
42 They do not feel that autistic people can handle the stresses of daily work life.	B	Copeland et al.	Stereotyping - Potential to learn
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
43 They think of autistic workers as problem employees.	B	Hernandez et al.; Kaye et al.	Stereotyping - Problem employees
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
44 They are afraid autistic workers will be difficult to communicate with.	B	Copeland et al.; Harris Interactive; Kaye	Stereotyping - unreachable
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
45 They believe people with physical disabilities are more capable than those with autism.	B	Copeland et al.	Prefer physical disabilities
Never; Highly Unlikely; Unlikely; Neutral; Likely; Highly Likely; Always			
Please share with us any other reasons you believe qualified autistic candidates do obtain employment in open positions.			
Please share some routine demographic data.			
What industry type is your organization?			**Part VII**
Agriculture, Forestry, & Fishing			
Construction			
Education			

Finance, Insurance, & Real Estate Government Manufacturing Medical/healthcare Professional Retail Service Technical/Technological Transportation Other	[redacted]
How many employees does your organization employ? 1-49 50-99 100-149 150-199 200-249 250+	
What state are you in? A choice of each of the 48 contiguous U.S. states will be available.	
What is your gender? Male Female	
What is your age bracket? 25 or less 26-35 36-45 46-55 56-65 Over 66	
How many people do you know with autism? 0 1	Standifer, 12/9, email

2 3 or more	
What was their level of functionality? Independently functional (skilled, trained, and/or otherwise capable of employment) Non-functionally dependent (incapable of employment) Both	
Have you ever worked with someone with autism? Yes No Maybe	Standifer, 12/9, email
Does your company currently have workers with autism? Yes No Do not know	Standifer, 12/9, email

Appendix B: Copeland et al. (Chan, 2014) Permission to Use Survey Tool

Subject: The Affective Reactions sub-scale of the Disability Questionnaire

Angela Mai <[email address omitted for privacy]> Apr 8

To: Chan; Anne

Dr. Chan,

I am a Public Policy and Administration graduate student at Walden University preparing to undertake my Ph.D. dissertation directed at discerning why hiring specialists do not hire qualified high-functioning adults challenged with autism spectrum disorders for professional, career-level positions. Your 2010 article, "Assessing Cognitive and Affective Reactions of Employers Toward People with Disabilities in the Workplace," co-authored with Copeland, Bezyak, and Fraser is one of the more prominent that I will be featuring in my literature review. In that article, you and your colleagues assess the construct validity of the Affective Reactions sub-scale of the Disability Questionnaire relative to its 21 items measuring emotional reactions related to working with people with disabilities and employer attitudes. I wish to use that same tool, with some modifications, in my study.

I am directing my study specifically at hiring specialists and will be attempting to assess their prior experience, preconceived notions, attitudes, opinions, and behaviors with respect specifically to high-functioning adults challenged with autism spectrum disorders. Any modifications that I would make would be to tailor the questionnaire in that respect; and would be, of course, approved by my university's internal review board (IRB). May I please have your permission to use the Affective Reactions sub-scale of the

Disability Questionnaire? If you grant permission, will you please provide the questionnaire for my use?

I have carbon copied in my dissertation committee chair, Dr. Anne Fetter, as is proper in keeping her apprised of my dissertation endeavors.

Respectfully,

Angela M. Mai

Fhchannew <[email address omitted for privacy]**>** Apr 14

To: me; Anne

Dear Angela:

Sorry for not replying quicker. I have a federally funded Rehabilitation Research and Training Center on Evidence-Based Vocational Rehabilitation Practices. We were doing our state-of-the-science conference in DC.

I am attaching a copy of the attitude measure you requested. In addition, I am attaching our recent lit review paper on employer attitudes and a couple of employer survey papers that you may find relevant for your research.

Fong

4 Attachments

Preview attachment 2010 Chan- Demand-side factors related.pdf

Preview attachment 2011 understanding hiring intention JVR.pdf

Preview attachment 2013 employer attitudes towards people with disabilities.pdf

Preview attachment dbtac 10 employer questionnaire.doc

Appendix C: Kaye et al. (Kaye, 2014) Permission to Use Survey Tool

Subject: Question relating to the survey used in your 2011 article

Angela Mai <[email address omitted for privacy]> Oct 17

To: Steve Kaye; Anne

Dr. Kaye,

I found your article, *"Why don't employers hire and retain workers with disabilities?*" very intriguing. My dissertation asks the question, "Why doesn't hiring staff select qualified high-functioning adults challenged with autism spectrum disorders for career-level placement? As you can see, there are definitive similarities. I am writing to ask if you would do me the honor of allowing me to use, and further test, your survey instrument. I would make a few changes so that it addressed autism spectrum disorders and my dissertation specifically; with your permission, of course.

If you would be so gracious, please send me the survey questions; along with any instructions and limitations you would like me to follow. I have carbon copied my chair in on this email.

Respectfully,

Angela M. Mai

Kaye, Steve <[email address omitted for privacy]> Oct 17

To: me; Anne

Hi Angela. Yes, you are most welcome to use the questionnaires. I am attaching them in Word & PDF formats. Best of success with your dissertation, which sounds like a very intriguing study.

Best regards,

--Steve

H. Stephen Kaye, Ph.D.
Professor
Institute for Health & Aging
University of California, San Francisco
[address, phone, and email omitted for privacy]

4 Attachments

Preview attachment Employer Questionnaire Part I 9-26-07.doc

Preview attachment Employer Questionnaire Part II 9-26-07.doc

Preview attachment Employer Questionnaire Part I 9-26-07.pdf

Preview attachment Employer Questionnaire Part II 9-26-07.pdf

Appendix D: HASSQAC Survey Test Panelists

<Salutations and introductions>

I am working on my doctoral dissertation which explores beliefs of hiring agents that may be influencing their selection of qualified autistic candidates for employment. I have selected you due to the respect I have for you in the field <define specific to each solicited participant>; I believe that you represent a qualified expert on at least one aspect of this topic.

Would you do me the honor of reviewing my survey tool and providing feedback? I am looking for your opinion on its potential effectiveness; clarity; thoroughness; and any other insights you may have, to assist in building its validity. The attached document represents the survey in conjunction with what behavior according to the theory of planned behavior I am testing, what specific variable I am exploring, and other survey sources that have employed similar questioning. Participants will not see the greyed-out elements. However, I felt it was beneficial to leave them in your copy to help you better evaluate this instrument. Please do not hesitate to provide suggestions and question content. <Thanks and closing>

List of Test Panelists [email addresses omitted]

Carley, M. J.; Autism/Asperger Executive, Advocate, Author, and Consultant

Chan, F. (of Copeland et al.); Co-Director, Rehabilitation Research and Training Center, University of Wisconsin-Madison; Professor and Director of Clinical Training (Ph.D. Program), University of Wisconsin-Madison

Goldman, F.; Faculty, School of Public Policy and Administration, Walden University

Grossman, L.; CEO, Vascular Access; President and CEO, ADVANCE Enterprises, LLC; Community Advisory Panel Chair, Integragen; Data and Safety Monitoring Board, National Institutes of Health; Advisory Board Member, Boston Higashi School; Washington D.C. Metro Area

Gwynette, M. F.; Director, Resident Training Clinic; Director Project Rex; Institute of Psychiatry, MUSC Health

Kaye, H. S.; Professor, Institute for Health & Aging, University of California, San Francisco

Kaye-Beall, K.; Executive Director, Foundation for Autism Support, and Training; 801 Norwood Road, Silver Spring, MD 20905

Ne'eman, A.; President and co-founder, Autistic Self Advocacy Network (ASAN); Entitlements Committee Chair, President's Council on Disabilities

Paradiz, V.; Director, Autistic Global Initiative on behalf of the AGI Executive Leadership & the Autism Research Institute

Robertson, S. M.; Policy Strategist; Policy Advisor, Youth Policy Team, Office of Disability Employment Policy, U.S. Department of Labor; Policy and Practice Consultant

Robison, J. E.; Interagency Autism Coordinating Committee and author

Standifer, S. W.; Instructional Designer, Writer, Presenter, Managerial Accountant; Disability Policy and Studies, School of Health Professions, University of Missouri

Trulove, J.; Instructor, Therapist, Directory of Parent Programming, College of Medicine, Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina

Volkmar, F.; Irving B. Harris Professor, Child Study Center, Yale University School of Medicine; Editor in Chief, Journal of Autism and Developmental Disorders

Appendix E: Panelists' Feedback

Carley, M. J. (2014)

Setup is great. No stone seems left unturned in terms of participant concerns (at least I couldn't think of anything).

My notes on the questions sections were minor. In the preamble to Part II you make a great point—"Thinking of employers in general, and not necessarily the organization you work for"—that I think you might want to re-emphasize once or twice later on in the study. It just seems a good point that could get forgotten by participants because thinking along personal lines is always where people's mindsets go back to.

Grammatical: At the end of Part III you write "Please share with us any reasons..." and maybe the word "other" deserves to follow the word "any"? They've already been through a plethora of reasons so maybe distinguishing that which they can think of as separate from the myriad they've waded through (even if prior questions were not of their own imagining)?

My basic larger question has to do with the study's understanding of itself, more specifically what is hoped to be accomplished. I can't imagine many "highly unlikely" answers but the question of "Do you see any of this study in motivating you to implement this inside your company?" I think might still get more than enough "no" answers. Is there a way you could perhaps prep participants for this reality, and thus get them thinking in a more proactive manner?

I too try never to use "high-functioning" and especially not "Low-functioning" (separatist, AND too many "low" folks can read what's being written about them, or can hear what's being said about them. Very harmful to self-esteem). However, no good substitute has yet been created. What I use as an alternative is a dreadful mouthful..."better able to mirror greater society."

[Is terminology people challenged with ASDs is less acceptable than autistics?]

That's correct. I don't love "autistics," but yes, the preference is pretty solid.

Go easy on yourself. Yes, there are areas where the vast populace has made clear choices, but in other areas you'll just never win because someone will be offended by anything.

Grossman, L. (2014)

The survey looks good. I question who it will be going to and what sample size you hope to garner? Because of its length, you will probably have to be very selective in who you furnish this to as many may not want to spend the time to go through it….this may affect your sample size

Kaye, H. S. (2014)

I think this is good. I have two general suggestions:

There are a great many items for people to rate in the "some employers don't hire" section, many of which are similar to one another (perhaps not conceptually, but the respondents might think they are answering the same question repeatedly using different language). Can you consolidate some of

them? Or separate the section into multiple sub-sections, grouping similar items together?

Language issues: Your use of the words "challenged" and "challenges" bothers me. It's regarded as particularly euphemistic. I'd change "people challenged with" to "people with" and "their challenges" with "their disabilities" or "their disability." There are some more subtle issues too, involving how people with autism refer to themselves. My colleagues who are founders of the Autistic Self-Advocacy Network don't actually use so-called people-first language ("people with autism") but instead label themselves as "autistic people." They also tend not to like "high-functioning" as a label or concept. I don't know how they feel about "ASD" versus just "autism." For your purposes, my inclination would be to stick with people-first language and refer to "people with autism" throughout, and maybe somewhere in the intro mention that you mean "high-functioning" individuals or something like that. You might consider running the survey by a somebody with autism, such as my mentee/friend Scott Robertson ([email omitted for privacy]), who is a researcher himself and gets how to do surveys

Paradiz, V. (2014)

First of all, kudos to you for developing this extremely thoughtful and useful survey! I just finished reading it through, and I honestly have no additional input to provide other than that I think it's fantastic. I truly wish you the very best with your research and cannot wait to hear about the results

Robertson, S. (2014)

* Disability use: The neurodiversity view of autism sees it as a neurological-developmental disability, but through a social model of disability. This view rejects the notion of autism as disordered, broken, and in need of "fixing". It is fine to refer to autism as a neurological-developmental disability.

Just make sure to use respectful ways to do so in all documents and publications. For instance, one would not characterize autistic people as "suffering from autism" but rather simply state that people are autistic. The autistic self-advocacy community overall prefers identity-first language (autistic person) to "person with autism". If one cannot use identity-first language, "person on the autism spectrum" represents a working alternative to "person with autism".

* Functioning labels: The autistic self-advocacy community and its non-autistic allies reject the use of the terms "high-functioning" and "low-functioning". Many autistic people find both terms highly offensive in the manner of the r-word because the terms globally grade autism; the terms also do not specify anything meaningful about specifics regarding real-world functioning. For reference, watch the video Grading People made by an autistic person four years ago (http://vimeo.com/12901883).

For the purpose of a study, one can simply state objective and concrete eligibility criteria for the specific sample. This criteria might involve language and communication abilities, scores on certain tests, etc. For instance, a

certain imagine study might require autistic individuals to communicate via spoken language because of the nature of the study.

With that said, your survey seems to ask singularly about professionals at companies hiring autistic people. I see no need to ask about anything other than hiring autistic people or hiring autistic people qualified for jobs in competitive, integrated employment. I do not see a need for any additional qualifier before autism in any sentences on the survey.

For reference, replace autism with something else in the phrase "qualified candidates challenged with high-functioning autism spectrum disorders". One would not ever say "qualified candidates challenged with high-functioning neuro-muscular disabilities". One would also not use this construction for other diversity groups for race/ethnicity, nationality, etc.

So, it should have no more acceptability for autism to do so. Autism has the same protected status under the Americans with Disabilities Act (ADA) as all other disabilities. Like any other people with disabilities, autistic people must be qualified to perform the specific responsibilities and tasks of the job under the ADA. One need not use any additional qualifier to convey this idea across to employers.

Many of the professionals completing the survey will likely already have hired an autistic person, be autistic themselves, or have autistic friends and family members. (Some might even fall into all of these categories.) I state this recognizing that autism has an estimated prevalence of 1 to 2 percent. It is

more prevalent in the U.S. than a large number of other disabilities, including other neurological and developmental disabilities.

Robison, J. E. (2014)

I've read your survey and it reads fine, as far as it goes. But it looks to me like there is a structural problem in it - you make the assumption that recruiters know they are interviewing autistic people when they decline to hire them. I suspect that is incorrect most of the time. If most autistics who apply for work do not self-identify at the outset, your survey is rendered meaningless.

My guess is that most autistics are turned down in the job application process either through the initial screening processes, or after an interview in which autism was not even mentioned. In other words, I believe the applicant's behavior and responses kept them from being chosen. You ask that in your questionnaire but most applicants won't say they are autistic in the interview, and even if they did, the behavioral bar would probably not be lowered.

Another weakness of your study is that you claim to be studying reasons why "qualified autistics" are not hired. But clearly, if they were not hired after many interviews that would suggest some aspect of them was "not qualified." Maybe autism is the disqualified but this test is not likely to result in revelation of institutional prejudices.

In my opinion, the only way to get what you want would be to find autistic people who are applying for work and who succeed. Then interview the HR people and see why they decided to offer or not offer that person jobs.

I think this is a start but more is needed to have the study mean anything

Standifer, S. W. (2014)

I have looked over the survey briefly and overall I think it looks good. There are a few points where I would suggest changes, but don't take these as me rejecting the survey. I can tell you have put a lot of work into it already!

The first major issue I have is the language in the introductory section of the survey. It struck me as very dense and academic. I would strongly suggest revising it, simplifying the language and sentence structure, etc. to make it more conversational. For example, I found the following couple of sentences really hard to parse:

[This research study is being conducted to help understand reasons why qualified candidates challenged with high-functioning autism spectrum disorders (ASDs) are not being selected for employment from the perspectives of those responsible for filling open positions.]

[Recruiters, hiring agents, and other professionals responsible for recruiting, hiring, and placement are being asked to participate by filling out a brief questionnaire so that data can be collected regarding your opinions about employer attitudes in general, and not the organization you are affiliated with.]

I would suggest something like:

I am studying why people with autism often are not hired for jobs for which they are fully qualified – they have the right training or degree, but also

happen to have autism. I want to know what kinds of things might make potential employers nervous about hiring a qualified person with autism.

I am contacting recruiters, hiring agents, and other hiring and placement personnel, and asking them to fill out a short questionnaire. This will help me understand the kinds of employer attitudes that might be involved. I will NOT be asking you to talk about your hiring decisions or those of your company. I would just like you to give your opinions about why other companies might not be hiring people with autism. Your position as someone who makes these kinds of hiring decisions gives you great insight into what might be happening in the minds of others making similar decisions.

I hope that makes sense!

Also, a few of the questions were kind of confusing to me. Most of them were fine and made perfect sense, but I did flag the following ones:

[They do not want the performance rewards of others to depend on the performance of workers challenged with ASDs.]

I am just not sure what this means. How would “performance rewards” (wages? Raises? What is that?) of other workers depend on workers with ASD? Is this a team situation?

They do not believe that others would be willing to cover work for such a co-worker who had to miss work because of their challenges.

This seems to imply that potential employers believe a person with ASD or another disability would miss more work than other workers, and the other

workers would resent it. Is that what you are trying to say? Or are you saying that employers believe other workers would be less willing to cover for a co-worker with ASD than they would for a "normal" co-worker, given that both miss the same amount of work and need covering?

They are afraid such workers will be unreachable and will not work up to the same standards as other employees.

I don't know what "unreachable" means here. Does it mean difficult to talk to? Unwilling to accept orders/direction? Impossible for supervisors to understand? Catatonic?

The second half of the statement, about not working to the same standards, seems like a completely different construct. I don't understand why "unreachable" would be equivalent to not meeting standards.

They believe that those challenged with physical disabilities are more able to perform the necessary tasks of the job than those challenged with ASDs.

I understand this one, but the wording is very awkward. Perhaps something like "They believe people with physical disabilities will do the job better than a person with ASD"? I understand that "necessary tasks of the job" is coming out of the ADA, but it really does not flow well. And "those challenged with physical disabilities" seems kind of self-conscious and awkward.

My other suggestion would be to insert some questions about how familiar the person taking the survey is with autism. How many people do they know who have autism? Have they ever worked with someone with autism? Does their

company currently have workers with autism? Do THEY think people with autism would be disruptive the workplace? I think these will color strongly the answers people give. If they do not know much about autism, or have had bad experiences around it, I suspect they are more likely to project stronger negative assumptions on other hiring personnel. So I would suggest you try to capture some data around that.

I hope that helps! Again, overall I think you have done a good job, so please don't take this as harsh criticism. I can tell you have put a lot of work into it.

I look forward to hearing about your results

Volkmar, F. (2014)

This looks good to me.

Appendix F: Woodard, C. (2015). Permission to Use Map

Subject: The Affective Reactions sub-scale of the Disability Questionnaire

Angela Mai <[email address omitted for privacy]> Apr 8

To: Woodard; Anne

Mr. Woodard,

I am a Public Policy and Administration Ph.D. candidate focusing on Public Leadership and Management at Walden University. While researching my dissertation, I came across your wonderful map. I would very much like your permission to cite it and print an adaption of it in my dissertation.

My focus is on identifying hiring agents' beliefs that influence their selection of qualified autistic candidates. In establishing the prevalence of autism throughout the contiguous United States, I make note of the CDC's autism and developmental disorders monitoring sites located throughout the U.S. I would like to use your map to mark those locations and, thereby, increase generalizability based on the structure of your map.

Would you do me the honor of allowing me to cite, include, and so adapt your map of the American Nations Today in my dissertation? I have attached a copy of how it will look in my dissertation.

Thank you very much,

Angela Mai

cc: Dr. Fetter, Dissertation Committee Chair

Collin Woodard <[email address omitted for privacy]> June 2

To: me; Anne

Hi Angela -

Yes, that would be fine; just credit it to me and the book.

Did you find any correlations between regional cultures and the hiring behaviors of employers?

Thanks much and

All Best,

Colin

Appendix G: Participation Solicitation and Conveyance of Anonymity

Please participate in an important research study. I am studying why autistic individuals are not hired for jobs for which they are fully qualified from the perspectives of those responsible for filling open positions. This pertains to individuals who possess the right training, degree, and/or skills for the open position, and happen to be autistic. I am exploring what kinds of things might make hiring agents nervous about hiring a qualified autistic candidate. Findings could potentially improve training methods and develop strategies to solve issues related to such applicants.

I am contacting recruiters, hiring agents, and other hiring and placement personnel, and asking them to fill out a short questionnaire. This will help me understand the kinds of employer attitudes that might be involved. I will NOT be asking you to talk about your own hiring decisions or those of your company. I would just like you to give your opinions about why other companies might not be hiring people with autism. Your position as someone who makes these kinds of hiring decisions gives you great insight into what might be happening in the minds of others who make similar decisions.

The following includes the details of the research and allows you to understand the study before deciding whether to take part. This process is referred to as informed consent. Should you decide to proceed with the survey after reading this information, you are granting your consent. This study is being conducted by Angela Mai, who is a Public Policy doctoral student at Walden University.

Procedures

If you agree to participate in this study, you will be asked to:

Complete an entirely anonymous, online, survey-style questionnaire.

- The survey hosting site is Qualtrics.
- Qualtrics will collect no identifying data of any kind.
- An entirely anonymous link is provided at the end of this email.
- Qualtrics will not retrain any data. Once I have downloaded the data, it will be removed from Qualtrics' database.
- All transfer of data is electronic and initiated by the researcher. No one else will view the data; there will be no identifiers, transcribers, or translators of any kind.
- Qualtrics will not retain the right to the survey, the data, or any part of the research study information or process.

The questionnaire should take approximately 15 – 30 minutes to complete.

I will only collect data once, though you may save your survey and finish it anytime within one week of starting it.

I will gather absolutely NO identifying information!

There are no right or wrong answers; please provide your honest opinions.

Completely Voluntary

This research study is voluntary. Everyone will respect your decision to participate or not. No one at Walden University, or any other organizations or individuals, will treat you differently if you decide not to take part. If you decide to participate and later change your mind, you are free to do so at any time simply by discontinuing completion of the survey.

Anonymous and Confidential

If you choose to participate, you will be one of approximately 400 professionals responsible for filling open positions who will take part. I will not ask you for your name, the name of your organization, or any other identifying information. We will not collect IP addresses or any form of electronic identifiers. Not even the researcher will be able to identify you. I will combine all responses and use them to draw conclusions about attitudes and potential solutions. I will store all data on an external hard drive under lock and key and keep it for a period of at least five years before I erase it, as required by the university.

Risks and Benefits

Being in this type of study involves some risk of the minor discomforts that can occur in daily life, such as the fatigue, stress, or frustration when filling out an online application. Participation will pose NO risk to your safety or wellbeing.

Public and organizational benefits related to study findings are substantial. This study has the potential to drive positive social change in relation to individual, organizational, community, and even global diversity, productivity, economy, health, and many other quality of life factors.

Payment

There is no payment or gift associated with participation in this study. The only value you will gain from participation is the knowledge that you are helping society overall and those with autism specifically by furthering social understanding of this issue.

Questions

If you have questions about this study, you may email angela.mai@waldenu.edu to contact the researcher conducting this study. The dissertation committee chair is Dr. Anne Fetter of Walden University. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. If you would like to be removed from this distribution list, you may contact either Angela Mai by replying to this email or call Dr. Endicott. Walden University's approval number for this study is 12-22-15-0387193 and it expires on December 21, 2016. Please keep this consent form for your records. <web-link to survey>

Appendix H: Walden IRB Approval

Subject: IRB Materials Approved - Angela Mai

IRB <[email address omitted for privacy]> Dec 22, 2015 at 6:03 PM

To: Angela Ma<[email address omitted for privacy]>; Anne Fetter<[email address omitted for privacy]>

Dear Ms. Mai,
This email is to notify you that the Institutional Review Board (IRB) has approved your application for the study entitled, "Beliefs Influencing Hiring Agents' Selection of Qualified Autistic Candidates."
Your approval # is 12-22-15-0387193. You will need to reference this number in your dissertation and in any future funding or publication submissions. Also attached to this email is the IRB approved consent form. Please note, if this is already in an on-line format, you will need to update that consent document to include the IRB approval number and expiration date.
Your IRB approval expires on December 21, 2016. One month before this expiration date, you will be sent a Continuing Review Form, which must be submitted if you wish to collect data beyond the approval expiration date.
Your IRB approval is contingent upon your adherence to the exact procedures described in the final version of the IRB application document that has been submitted as of this date. This includes maintaining your current status with the university. Your IRB approval is only valid while you are an actively enrolled student at Walden University. If you need to take a leave of absence or are otherwise unable to remain actively enrolled, your IRB approval is suspended. Absolutely NO participant recruitment or data collection may occur while a student is not actively enrolled.
If you need to make any changes to your research staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 1 week of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.
When you submitted your IRB application, you made a commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher. Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden website: http://academicguides.waldenu.edu/researchcenter/orec

Welcome from the IRB - Research Ethics & Compliance ...

academicguides.waldenu.edu

The Institutional Review Board (IRB) is responsible for ensuring that all Walden University research complies with the university's ethical standards as well as U.S ... Researchers are expected to keep detailed records of their research activities (i.e., participant log sheets, completed consent forms, etc.) for the same period of time they retain the original data. If, in the future, you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.
Both students and faculty are invited to provide feedback on this IRB experience at the link below:
[link omitted for privacy]
Sincerely,
Libby Munson
Research Ethics Support Specialist
Office of Research Ethics and Compliance
[email address and phone numbers omitted for privacy]

Office address for Walden University:
100 Washington Avenue South, Suite 900
Minneapolis, MN 55401
Information about the Walden University Institutional Review Board, including instructions for application, may be found at this link:
http://academicguides.waldenu.edu/researchcenter/orec

Attachments area
Preview attachment Mai Consent Form.pdf

Appendix I: HASSQAC Survey Completion Acknowledgement

Thank you for your participation. The survey is now complete. Should you wish to contact the researcher, or request study results, feel free to email [email address omitted for privacy]. If you request the researcher to contact you or send you information, you must provide your contact information as the researcher will not have any other way to identify you due to the anonymity of the study. Thank you again for your valuable participation.

Appendix J: NIH Certification

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Angela Mai** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 12/13/2017.

Certification Number: 2580522.

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Angela Mai** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 12/18/2012

Certification Number: 1064980

Appendix K: States with Mass Communication Statutes

Table K1

States with Mass Communication Statutes

State	Statute ID	Applicability to Study	Details
Alabama	None	NA	
Alaska	Alaska Stat. § 45.50.479	NA	Non-contiguous
Arizona	Ariz. Rev. Stat. §§ 44-1372 et seq., 44-7201, -7202, -7203, -7204	Complies	Must provide a means to be removed from distribution list
Arkansas	Ark. Code §§ 5-41-205, 4-88-60 et seq.	Complies	Must not include threat
California	Cal. Business & Professions Code §§ 17529-17529.9, 17538.41, 17538.45, 22948, et seq.	NA	Must not be misleading Commercial
Colorado	Colo. Rev. Stat. §§ 6-1-702.5, 18-5-308	Complies	Must provide a means to be removed from distribution list
Connecticut	Conn. Gen. Stat. § 53-451, 52-570c	NA	No advertisements
Delaware	Del. Code tit. 11 § 937 - 941	NA	Commercial
District of Columbia	None	NA	
Florida	Fla. Stat. § 668.60 et seq.	NA	Commercial
Georgia	Ga. Code §§ 16-9-92, 16-9-100 to 109	NA	Commercial
Hawaii	None	NA	Non-contiguous

(*table continues*)

State	Statute ID	Applicability to Study	Details
Idaho	Idaho Code § 48-603E	NA	No bulk advertisement
Illinois	815 ILCS 511/1 et seq.	NA	No unsolicited advertisement
Indiana	Ind. Code § 24-5-22	NA	Commercial
Iowa	Iowa Code §§ 716A.1 to -.7	Complies	Must not be misleading No commercial advertisements
Kansas	Kan. Stat. § 50-6,107	NA	Commercial
Kentucky	None	NA	
Louisiana	La. Rev. Stat. §§ 14:73.1, 14:73.6, 51:2001, 51:2002, 51:2003, 51:2004	Complies	Must not be misleading Commercial advertisements Must provide a means to be removed from distribution list
Maine	Me. Rev. Stat. tit. 10 § 1497	Na	Commercial
Maryland	Md. Crim. Code § 3-805.1	NA	Commercial
Massachusetts	None	NA	
Michigan	Mich. Comp. Laws § 445.2501 et seq., § 752.1061 to .1068 (*Child protection registry*)	NA	Commercial
Minnesota	Minn. Stat. § 325F.694	Na	Commercial
Mississippi	None	NA	
Missouri	Mo. Rev. Stat. §§ 407.1123, .1126, .1129, .1132	Complies	No commercial Must contain a return email or phone

(*table continues*)

State	Statute ID	Applicability to Study	Details
Montana	None	NA	
Nebraska	None	NA	
Nevada	Nev. Rev. Stat. §§ 205.492, 205.511 to .513, 41.705 to .735	Complies	No falsification Sender identified Intent clearly identified
New Hampshire	None	NA	
New Jersey	None	NA	
New Mexico	N.M. Stat. §§ 57-12-23, -24	NA	Commercial
New York	None	NA	
North Carolina	N.C. Gen. Stat. §§ 14-453 – 458, 1-539.2A	NA	Commercial
North Dakota	N.D. Cent. Code § 51-27-01	NA	Commercial
Ohio	Ohio Rev. Code § 2307.64	NA	Commercial
Oklahoma	Okla. Stat. tit. 15 § 776.1 -776.7	Complies	No falsification Commercial
Oregon	None	NA	
Pennsylvania	73 Pa. Stat. 2250.1 to .8 (2002 Act 222, Unconsolidated Statutes)	NA	Commercial
Rhode Island	R.I. Gen. Laws §§ 6-47-2, 11-52-1, 11-52-2, 11-52-4.1, 11-52-6	NA	Commercial
South Carolina	None	NA	

(*table continues*)

State	Statute ID	Applicability to Study	Details
South Dakota	S.D. Codified Laws § 37-24-42, 37-24-43, 37-24-44, 37-24-45, 37-24-46, 37-24-47, 37-24-48	NA	Commercial
Tennessee	Tenn. Code §§ 47-18-2501, -2502, §§ 39-14-603 to -605	Complies	No falsification Commercial
Texas	Texas Bus. & Com. Code Ann. § 321.001 et seq.	NA	Commercial
Utah	Utah Code §§ 13-39-101, -102, -201, -202 (*Child protection registry*)	NA	No solicitation of minors, etc.…
Vermont	None	NA	
Virginia	Va. Code §§ 18.2-152.3C1, 18.2-152.4, -152.12	NA	Commercial
Washington	Wash. Rev. Code §§ 19.190.010 to .110	NA	Commercial
West Virginia	W. Va. Code §§ 46A-6G1 to -6G5	Complies	No falsification
Wisconsin	Wis. Stat. § 944.25	NA	No sexually complicit
Wyoming	Wyo. Stat. §§ 40-12-401 to -404	NA	Commercial

Note. Adapted from the National Conference of State Legislators (NCSL). (2015, January 9). State laws relating to unsolicited commercial or bulk email (SPAM). Retrieved from http://www.ncsl.org

Appendix L: Supplemental Tables

Table L1

Participants' Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	43	20.3	34.4	34.4
	Female	80	37.7	**64.0**	98.4
	Prefer not to say	2	.9	1.6	100.0
	Total	125	59.0	100.0	
Missing	System	87	41.0		
Total		212	100.0		

Table L2

Participants' Familiarity with Autism

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	15	7.1	11.9	11.9
	1	21	9.9	16.7	28.6
	2	22	10.4	17.5	46.0
	3 or more	68	32.1	**54.0**	100.0
	Total	126	59.4	100.0	
Missing	System	86	40.6		
Total		212	100.0		

Table L3

Participants' Understanding of Autism

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Independently functional (skilled, trained, and/or otherwise capable of employment)	52	24.5	45.6	45.6
	Non-functionally dependent (incapable of employment)	3	1.4	**2.6**	48.2
	Both	59	27.8	51.8	100.0
	Total	114	53.8	100.0	
Missing	System	98	46.2		
Total		212	100.0		

Table L4

Participants' Experience with Autistic Coworkers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	60	28.3	47.2	47.2
	No	45	21.2	35.4	82.7
	Maybe	22	10.4	17.3	100.0
	Total	127	59.9	100.0	
Missing	System	85	40.1		
Total		212	100.0		

Table L5

Participants' Knowledge of Coworkers in the Workplace

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	12.3	20.5	20.5
	No	44	20.8	34.6	55.1
	Do not know	57	26.9	44.9	100.0
	Total	127	59.9	100.0	
Missing	System	85	40.1		
Total		212	100.0		

Table L6

Participants' Geographical Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent	Estimated % of U.S.
Valid	Alabama	2	.9	1.7	1.7	1.50
	Alaska	1	.5	.8	2.5	0.20
	Arizona	0	0	0	2.5	2.10
	Arkansas	0	0	0	2.5	0.90
	California	15	7.1	**12.4**	14.9	12.10
	Colorado	1	.5	.8	15.7	1.70
	Connecticut	1	.5	.8	16.5	1.10
	Delaware	0	0	0	16.5	0.30
	District of Columbia	1	.5	.8	17.4	0.20
	Florida	3	1.4	2.5	19.8	6.40
	Georgia	4	1.9	3.3	23.1	3.20
	Hawaii	1	.5	.8	24.0	0.40
	Idaho	2	.9	1.7	25.6	0.50
	Illinois	1	.5	.8	26.4	4.00
	Indiana	2	.9	1.7	28.1	2.10
	Iowa	1	.5	.8	28.9	1.00
	Kansas	14	6.6	**11.6**	40.5	0.90
	Kentucky	0	0	0	40.5	1.40
	Louisiana	0	0	0	40.5	1.40
	Maine	0	0	0	40.5	0.40
	Maryland	0	0	0	40.5	1.90
	Massachusetts	3	1.4	2.5	43.0	2.10
	Michigan	2	.9	1.7	44.6	3.10
	Minnesota	1	.5	.8	45.5	1.70
	Mississippi	0	0	0	45.5	0.90
	Missouri	2	.9	1.7	47.1	1.90
	Montana	0	0	0	47.1	0.30
	Nebraska	0	0	0	47.10	0.60
	Nevada	0	0	0	47.10	0.90

(*table continues*)

		Frequency	Percent	Valid Percent	Cumulative Percent	Estimated % of U.S.
	New Hampshire	0	0	0	47.10	0.40
	New Jersey	2	.9	1.7	48.8	2.80
	New Mexico	0	0	0	48.8	0.60
	New York	5	2.4	4.1	52.9	6.10
	North Carolina	2	.9	1.7	54.5	3.10
	North Dakota	2	.9	1.7	56.2	0.20
	Ohio	4	1.9	3.3	59.5	3.60
	Oklahoma	1	.5	.8	60.3	1.20
	Oregon	1	.5	.8	61.2	1.30
	Pennsylvania	2	.9	1.7	62.8	4.00
	Rhode Island	0	0	0	62.8	0.30
	South Carolina	9	4.2	7.4	70.2	1.50
	South Dakota	0	0	0	70.2	0.30
	Tennessee	3	1.4	2.5	72.7	2.10
	Texas	6	2.8	5.0	77.7	8.60
	Utah	6	2.8	5.0	82.6	0.90
	Vermont	0	0	0	82.6	0.20
	Virginia	2	.9	1.7	84.3	2.60
	Washington	13	6.1	**10.7**	95.0	2.30
	West Virginia	1	.5	.8	95.9	0.60
	Wisconsin	0	0	0	95.9	1.80
	Wyoming	0	0	0	95.9	0.20
	Outside the U.S.	5	2.4	4.1	100.0	0
	Total	121	57.1	100.0		
Missing	System	91	42.9			
Total		212	100.0			

Note. Estimated % of U.S. population from USCB (2017).

Table L7

Multicollinearity Review

	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q41	Q42	Q43	Q44	Q45
Q1				.138			.86	.127			.18		.067		.116	.122							.134	.104	.09		.112	.15	.09	.022	-.015
p				**.068**			**.176**	**.085**			**.052**		**.234**		**.105**	**.093**							**.073**	**.13**	**.164**		**.113**	**.052**	**.166**	**.408**	**.437**
Q2		.15		.145				.088	.119	.133	.152		.098	.140	.147	.071			.085		.133		.109		.126			.149	.123	.112	-.025
p		**.052**		**.058**				**.17**	**.098**	**.074**	**.050**		**.145**	**.064**	**.056**	**.221**			**.178**		**.074**		**.12**		**.085**			**.053**	**.092**	**.114**	**.395**
Q3		.127		.089				.137	-.02	.024	.059		-.007	.098	.042		0.1		.025	.076	.05			.039	.08	.104	.137		.085	.149	.011
p		**.084**		**.167**				**.069**	**.416**	**.398**	**.261**		**.469**	**.146**	**.324**		**0.2**		**.395**	**.206**	**.295**			**.335**	**.195**	**.131**	**.068**		**.18**	**.053**	**.454**
Q4								.121	.123	.119	.127		.146	.113		.121			.147				.151	.144						.048	-.03
p								**.095**	**.092**	**.098**	**.085**		**.057**	**.110**		**.094**			**.055**				**.05**	**.059**						**.302**	**.375**
Q5		.151		.118				.152	.112	.127			.126	.065	.058																.025
p		**.051**		**.102**				**.05**	**.112**	**.084**			**.087**	**.241**	**.265**																**.392**
Q6	.08				.129			.104	.085	.15	.097		.128			.12									.093			.141			-.03
p	**.192**				**.081**			**.131**	**.178**	**.051**	**.147**		**.082**			**.097**									**.158**			**.064**			**.372**
Q7								.093					.11		.118	.119													.14	.122	.056
p								**.157**					**.116**		**.101**	**.099**													**.065**	**.093**	**.273**
Q8	.126	.088						.037	.092	.122	.064			-.017	.028	.135						.109	.143							.089	-.02
p	**.085**	**.169**						**.343**	**.159**	**.093**	**.244**			**.429**	**.383**	**.072**						**.119**	**.061**							**.167**	**.413**
Q9				.076	.091				.087	.056	-.086		-.147	.067	.079	.117			.07	.123	-.013	.078	.058	.048	-.03	.042	.094	.141	-.014	.123	-.064
p				**.206**	**.163**				**.174**	**.272**	**.175**		**.055**	**.235**	**.198**	**.103**			**.226**	**.092**	**.444**	**.199**	**.266**	**.302**	**.372**	**.325**	**.155**	**.063**	**.44**	**.092**	**.244**
Q10		.114	.119	.092					.068	.099	.149		.061	.122	.017																.125
p		**.108**	**.099**	**.159**					**.231**	**.141**	**.053**		**.255**	**.093**	**.428**																**.087**
Q11		.092		.149				.126	.13	.093	.072	.145	.111		.136										.128						.081
p		**.160**		**.053**				**.086**	**.08**	**.157**	**.219**	**.058**	**.114**		**.071**										**.082**						**.221**
Q12		.085		.114	.126						.128	.107	.116	.113	.121										.093					.142	-.039
p		**.180**		**.108**	**.087**						**.083**	**.123**	**.104**	**.111**	**.095**										**.158**					**.061**	**.338**
Q13	.093							.105		.079	.045		.098	.084	.068										-.001	.114			.135		.018
p	**.158**							**.129**		**.198**	**.313**		**.145**	**.182**	**.232**										**.494**	**.108**			**.072**		**.425**
Q14		.075						.021	.137		.081		.15																		.07
p		**.21**						**.41**	**.069**		**.191**		**.052**																		**.224**
Q15				.141					.064	.139	.109		.138	.09	.039	.065			.091	.147	.128	.133	.143	.053	.016	-.028	.039		-.046	.03	.009
p				**.063**					**.245**	**.066**	**.119**		**.067**	**.164**	**.339**	**.24**			**.162**	**.055**	**.083**	**.074**	**.061**	**.285**	**.432**	**.379**	**.335**		**.31**	**.374**	**.461**
Q16			**.697**	**.513**	**.639**			.125					.148	.123	.114	-.054		.132		.143			.12	.073		.036	.078	.115	.001		-.099
p			0	0	0			**.088**					**.055**	**.091**	**.108**	**.279**		**.076**		**.061**			**.096**	**.214**		**.348**	**.2**	**.106**	**.496**		**.143**
Q17				**.621**	**0.7**			.056	.089		.145			.044	.143	-.064		.073			.116	.104		-.001		.004	.04	.128	-.016		-.081
p				0	0			**.271**	**.169**		**.058**			**.316**	**.06**	**.244**		**.216**			**.105**	**.131**		**.496**		**.484**	**.332**	**.082**	**.433**		**.19**
Q18					**.637**	**.518**	**.57**	.123								.058									.062	.009			.086		-.02
p					0	0	0	**.091**								**.267**									**.252**	**.46**			**.175**		**.416**

(*table continues*)

	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40	Q41	Q42	Q43	Q44	Q45	
Q19							**.517**			.08					.059		.083								.091	-.076	.054	.143		.058		-.064
	p						0			**.194**					**.261**		**.184**								**.163**	**.205**	**.28**	**.061**		**.265**		**246**
Q20								**.78**		.134	.039	.07			.061	.038	-.013									.096	.046			.021	.136	-.051
	p							0		**.074**	**.336**	**.224**			**.254**	**.342**	**.444**									**.149**	**.309**			**.412**	**.071**	**.292**
Q21									.146	.15	.095	.136	.139		.069	.048	-.038							.136		.135	.073			.061		-.029
	p								**.056**	**.434**	**.153**	**.07**	**.066**		**.227**	**.301**	**.34**							**.07**		**.072**	**.215**			**.256**		**.377**
Q22										**.531**														**.546**			.15					
	p									0														0			**.051**					
Q23											**.66**	**.539**	**.594**		**.572**	**.531**										.147						
	p										0	0	0		0	0										**.055**						
Q24												**.636**	**.715**	**.587**		**.532**						**.527**				.13						
	p											0	0	0		0						0				**.079**						
Q27															**.505**	**.504**																.088
	p														0	0																**.172**

Note. Table of Pearson Correlations modified to depict correlations above .5 and their associated significance. Cells not related to those parameters omitted.

Table L8

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-.610	.753		-.809	.421	-2.111	.891					
	Q1	.446	.112	**.211**	3.992	**.000**	.223	.668	.588	.423	.097	.211	4.735
	Q2	.114	.121	.052	.942	.349	-.127	.354	.569	.110	.023	**.191**	5.249
	Q3	.117	.108	.050	1.083	.282	-.098	.331	.430	.126	.026	.274	3.645
	Q4	-.048	.112	-.022	-.428	.670	-.271	.175	.571	-.050	-.010	.217	4.599
	Q5	.062	.114	.031	.543	.588	-.166	.290	.586	.063	.013	**.186**	5.380
	Q6	-.147	.088	-.074	-1.664	.100	-.322	.029	.481	-.191	-.040	.295	3.385
	Q7	.382	.112	**.203**	3.398	**.001**	.158	.606	.649	.370	.083	**.165**	6.047
	Q8	.235	.103	**.111**	2.269	**.026**	.029	.441	.493	.257	.055	.247	4.040
	Q9	-.148	.078	-.078	-1.890	.063	-.304	.008	.280	-.216	-.046	.344	2.909
	Q10	.060	.099	.028	.604	.548	-.137	.257	.541	.070	.015	.277	3.611
	Q11	-.190	.118	-.084	-1.610	.112	-.426	.045	.556	-.185	-.039	.216	4.625
	Q12	.024	.110	.012	.217	.829	-.195	.243	.548	.025	.005	**.184**	5.446
	Q13	-.008	.087	-.004	-.093	.926	-.181	.165	.498	-.011	-.002	.315	3.170
	Q14	.294	.106	**.152**	2.767	**.007**	.082	.505	.657	.308	.067	**.196**	5.113
	Q15	.225	.069	**.107**	3.259	**.002**	.088	.363	.396	.356	.079	.551	1.813
	Q16	-.265	.135	-.084	-1.964	.053	-.533	.004	.187	-.224	-.048	.319	3.137
	Q17	.160	.181	.049	.883	.380	-.201	.521	.278	.103	.021	**.188**	5.316
	Q18	-.059	.134	-.020	-.437	.663	-.326	.209	.325	-.051	-.011	.295	3.394
	Q19	.275	.158	.090	1.742	.086	-.040	.590	.376	.200	.042	.220	4.545
	Q20	.134	.124	.064	1.076	.285	-.114	.381	.444	.125	.026	**.165**	6.066
	Q21	.165	.121	.071	1.368	.176	-.076	.406	.376	.158	.033	.217	4.603
	Q22	.339	.098	**.156**	3.470	**.001**	.144	.533	.485	.376	.084	.292	3.425
	Q23	-.005	.109	-.002	-.042	.967	-.221	.212	.460	-.005	-.001	**.184**	5.422
	Q24	.071	.117	.030	.604	.548	-.162	.303	.440	.070	.015	.233	4.293
	Q25	.035	.106	.015	.328	.744	-.177	.246	.475	.038	.008	.273	3.665
	Q26	-.010	.119	-.005	-.086	.932	-.247	.227	.569	-.010	-.002	.200	4.989

(*table continues*)

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
Q27	.021	.092	.010	.229	.819	-.162	.204	.431	.027	.006	.325	3.081
Q28	.081	.109	.037	.741	.461	-.137	.299	.470	.086	.018	.242	4.136
Q29	.299	.101	**.140**	2.961	**.004**	.098	.500	.480	.327	.072	.263	3.802
Q30	.279	.094	**.131**	2.963	**.004**	.091	.467	.529	.328	.072	.303	3.301
Q31	-.016	.130	-.007	-.123	.902	-.276	.244	.616	-.014	-.003	**.194**	5.142
Q32	.022	.104	.011	.211	.834	-.185	.229	.686	.025	.005	.223	4.481
Q33	-.038	.109	-.016	-.352	.726	-.255	.178	.513	-.041	-.009	.282	3.551
Q34	.210	.107	.098	1.961	.054	-.003	.424	.573	.224	.048	.237	4.222
Q35	-.244	.123	**-.113**	-1.984	.051	-.490	.001	.538	-.226	-.048	**.183**	5.458
Q36	-.143	.164	-.065	-.872	.386	-.469	.183	.637	-.102	-.021	**.107**	**9.360**
Q37	.265	.144	**.121**	1.842	.070	-.022	.551	.627	.211	.045	**.137**	7.305
Q38	.376	.101	**.173**	3.704	**.000**	.174	.578	.555	.398	.090	.269	3.720
Q39	-.014	.087	-.007	-.157	.875	-.186	.159	.375	-.018	-.004	.301	3.322
Q40	.132	.093	.060	1.421	.159	-.053	.317	.443	.164	.035	.333	3.003
Q41	.182	.118	.071	1.539	.128	-.054	.417	.541	.177	.037	.275	3.636
Q42	-.008	.119	-.003	-.066	.948	-.244	.229	.538	-.008	-.002	.297	3.368
Q43	-.181	.117	-.085	-1.553	.125	-.414	.051	.464	-.179	-.038	**.195**	5.115
Q44	.040	.139	.014	.290	.773	-.236	.317	.475	.034	.007	.247	4.043
Q45	.308	.077	**.143**	3.991	**.000**	.154	.461	.363	.423	.097	.458	2.185

[a] DV

Appendix M: Supplemental Partial Regression Plots

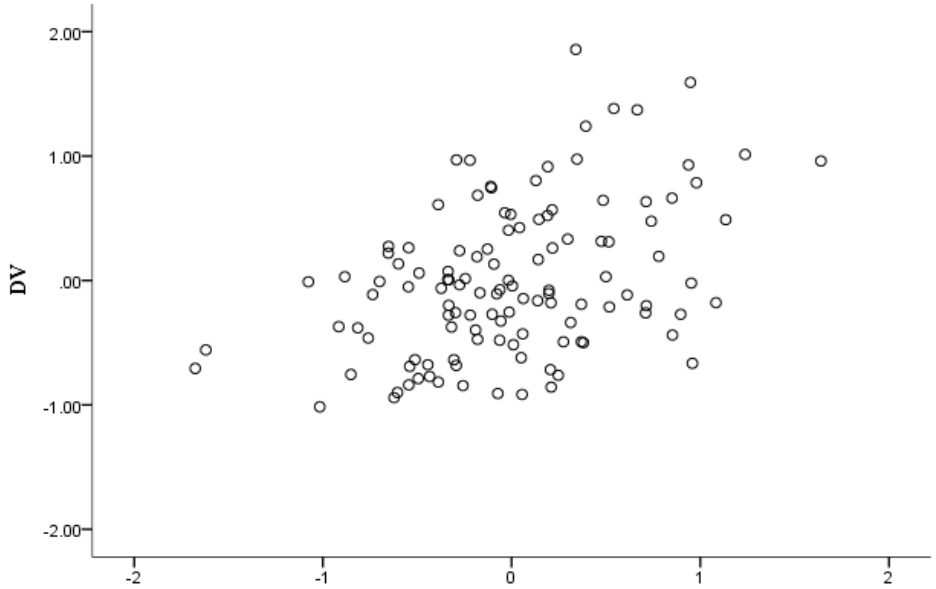

Figure M1. Organizational commitment to hire autistics.

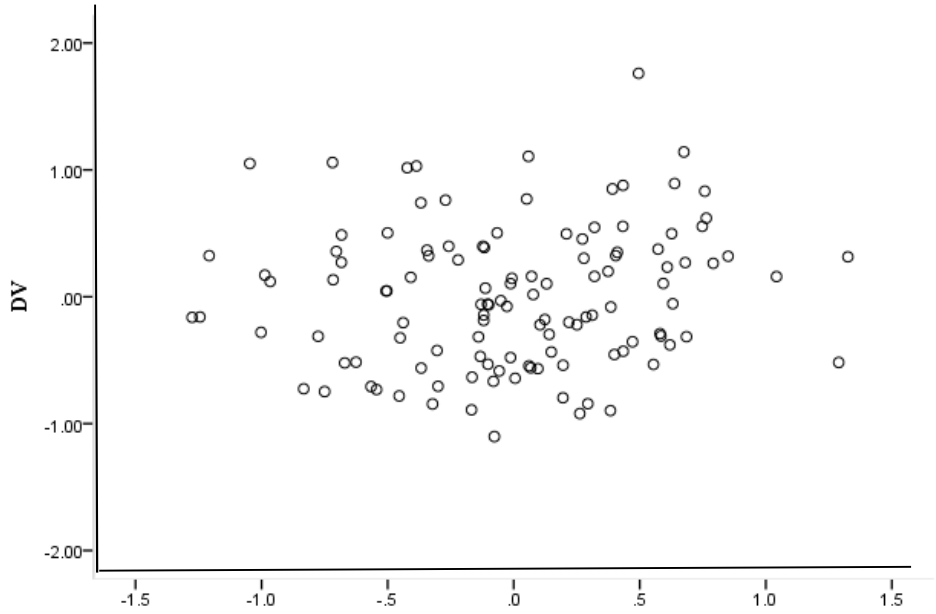

Figure M2. Organizational goals and strategies to hire and retain autistic workers.

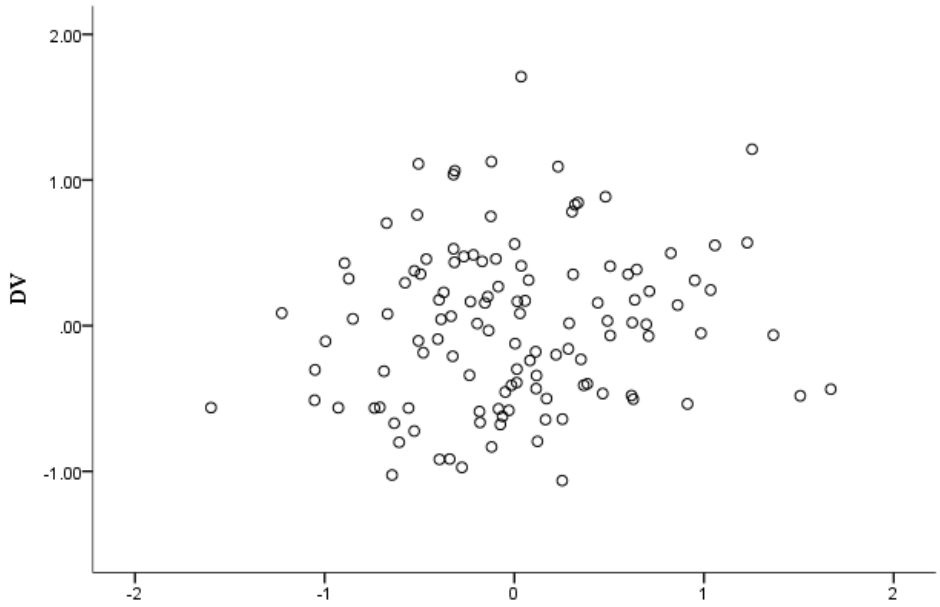

Figure M3. Dedicated organizational resources.

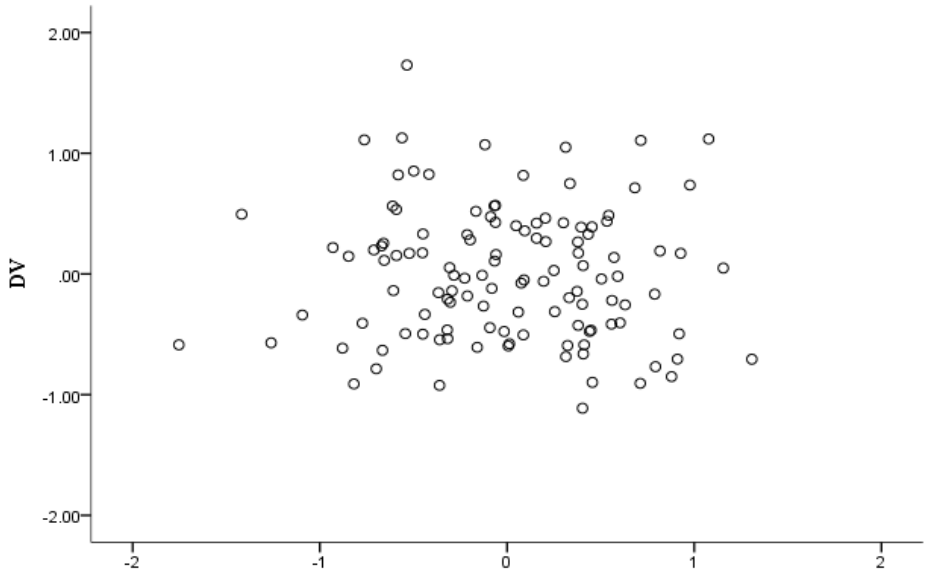

Figure M4. Hiring agents' legislative understanding.

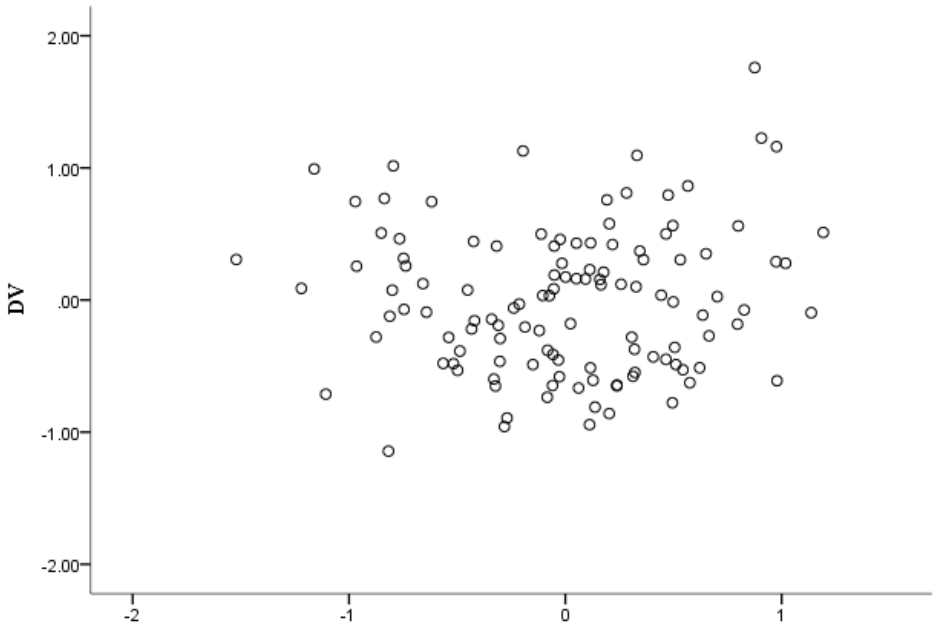

Figure M5. Organizational affinity group.

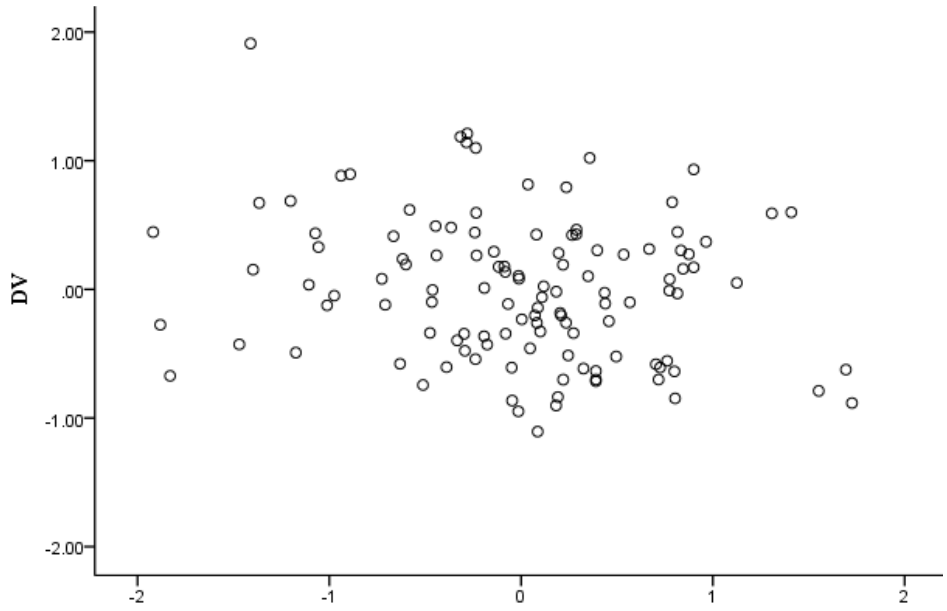

Figure M6. Fear of litigation.

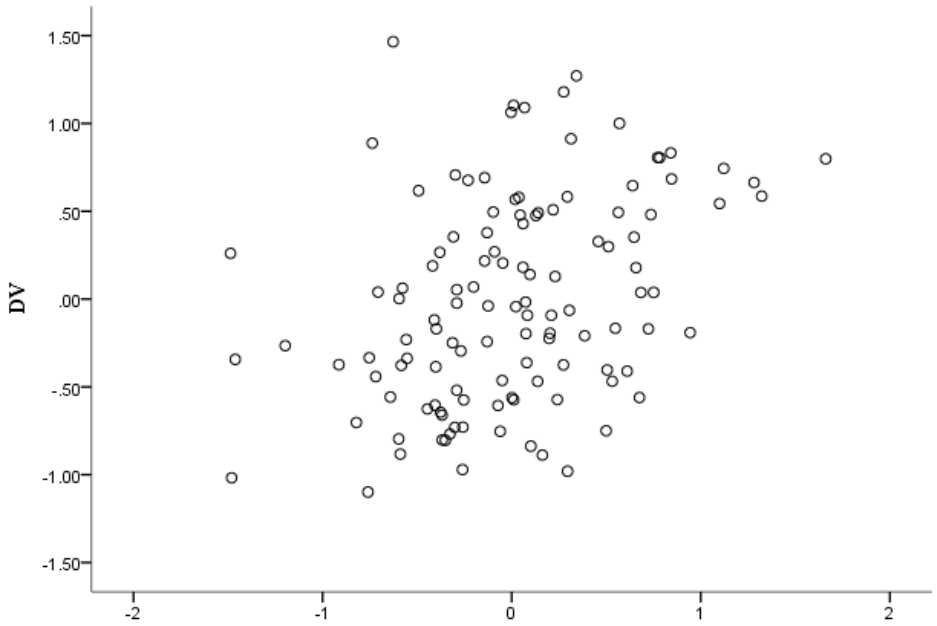

Figure M7. Dedicated organizational diversity personnel.

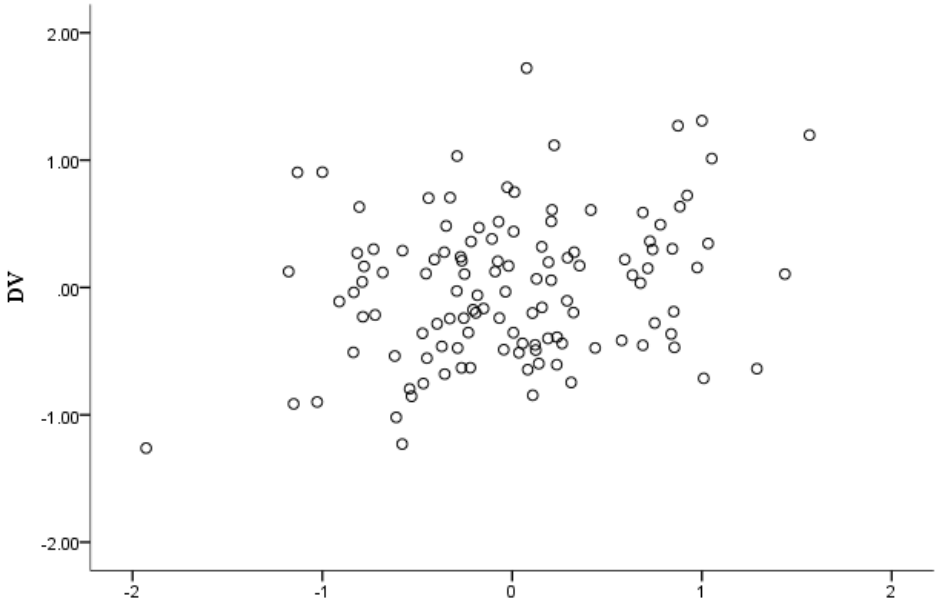

Figure M8. External mediation services.

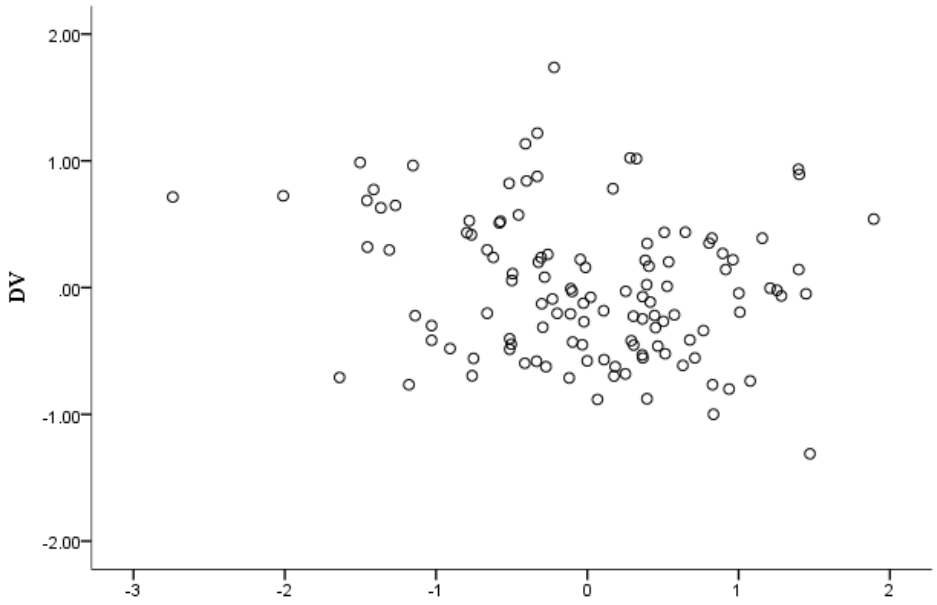

Figure M9. Hiring agents' legal understanding.

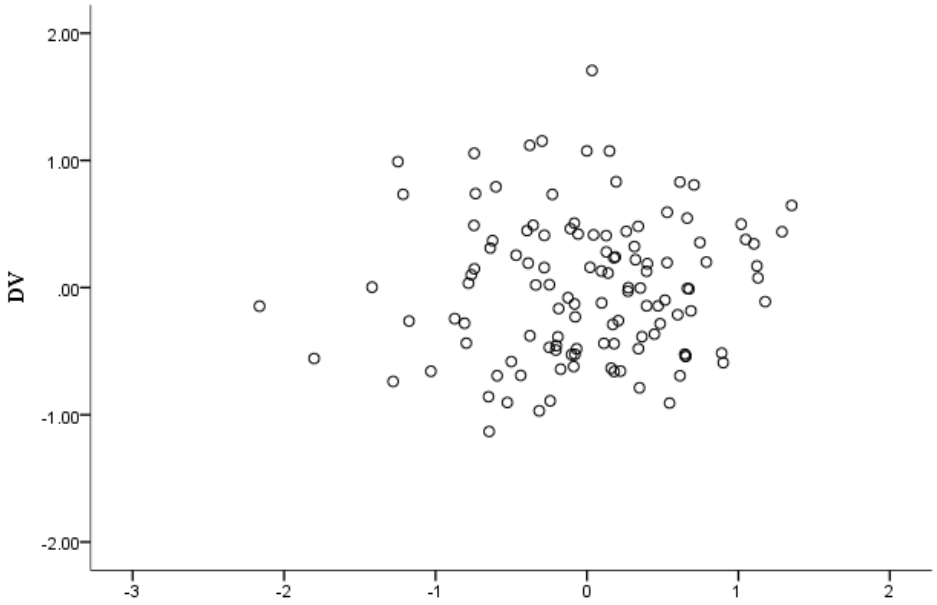

Figure M10. Hiring agents' understanding of insurance costs.

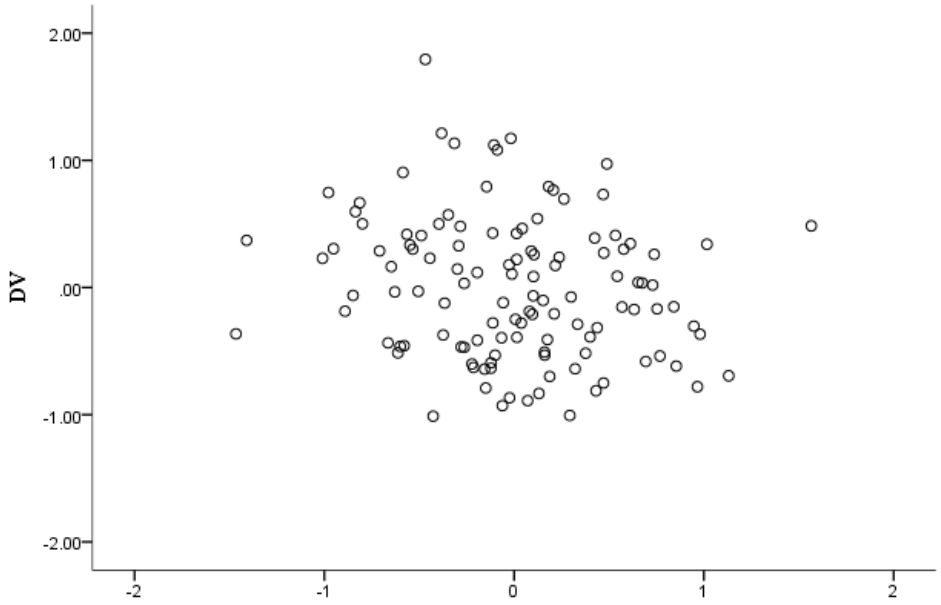

Figure M11. Hiring agents' knowledge of VR services.

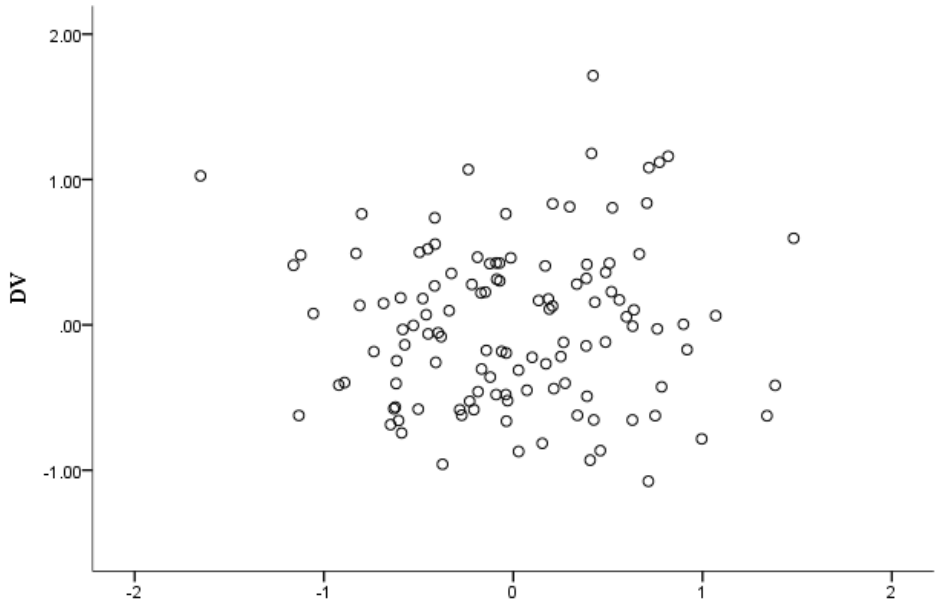

Figure M12. Hiring agents' awareness of supported employment options.

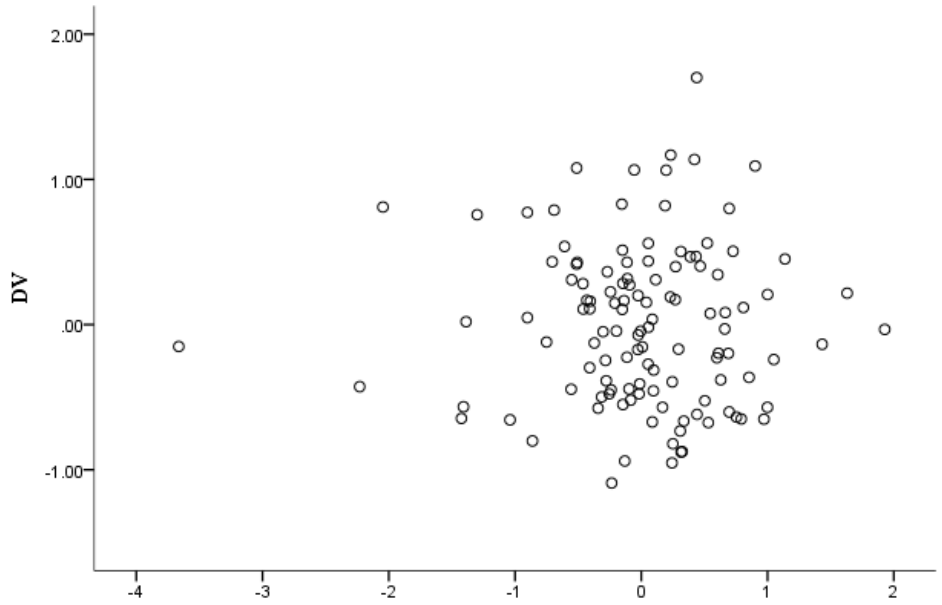

Figure M13. Costs of accommodations.

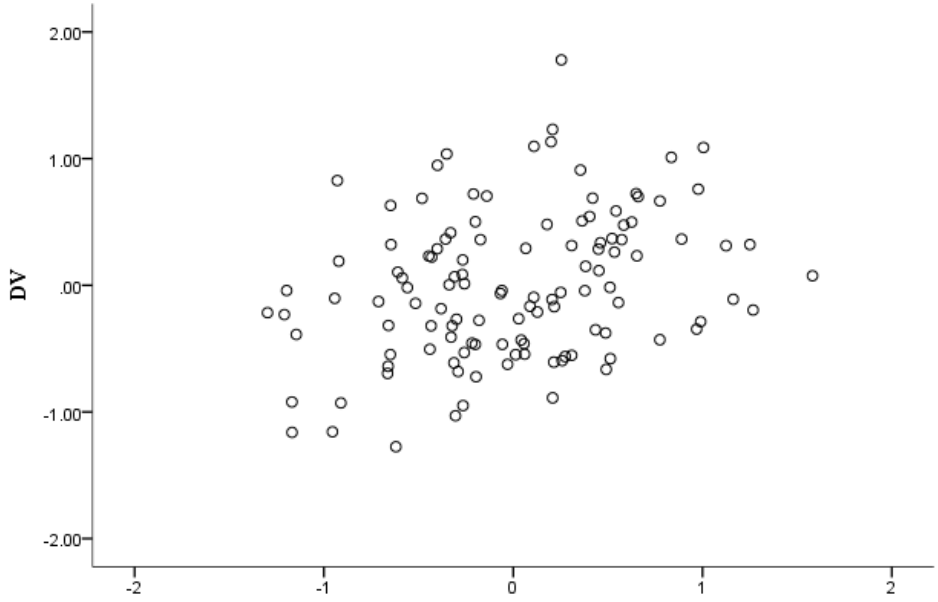

Figure M14. Routine prescreening practices.

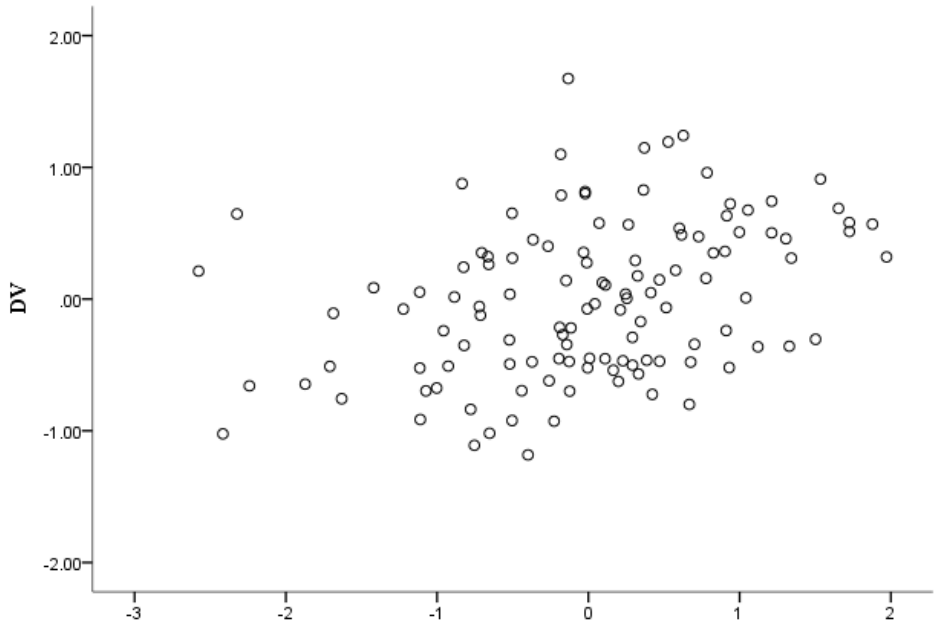

Figure M15. Autistic candidate identification.

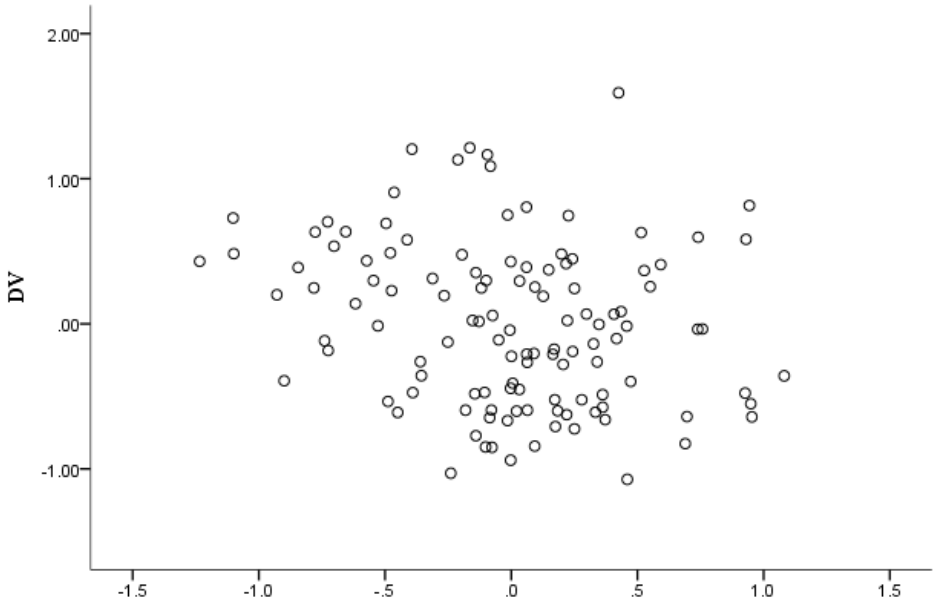

Figure M16. Autistics' interview skills.

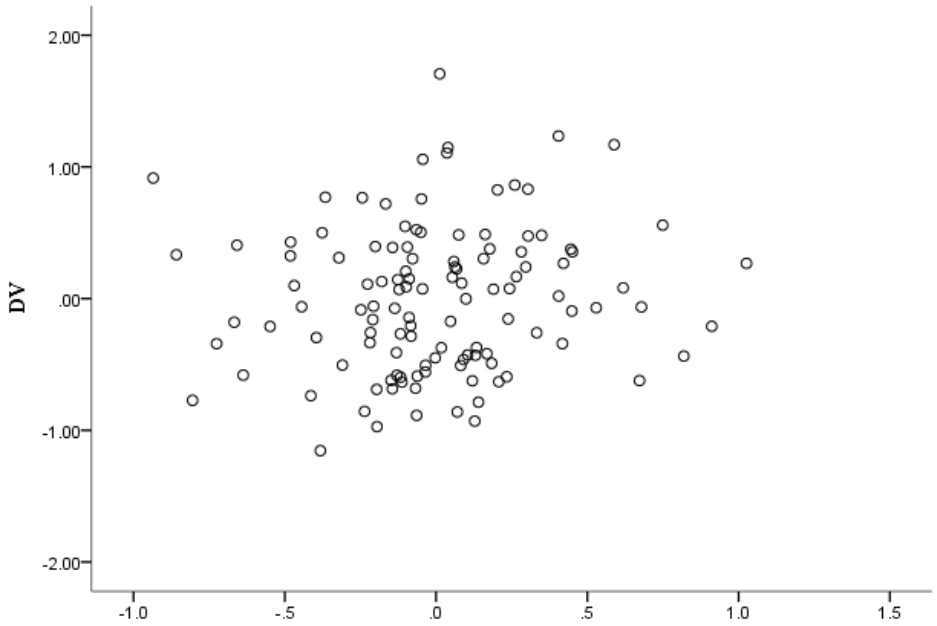

Figure M17. Hiring agents' awareness of potential operational benefits.

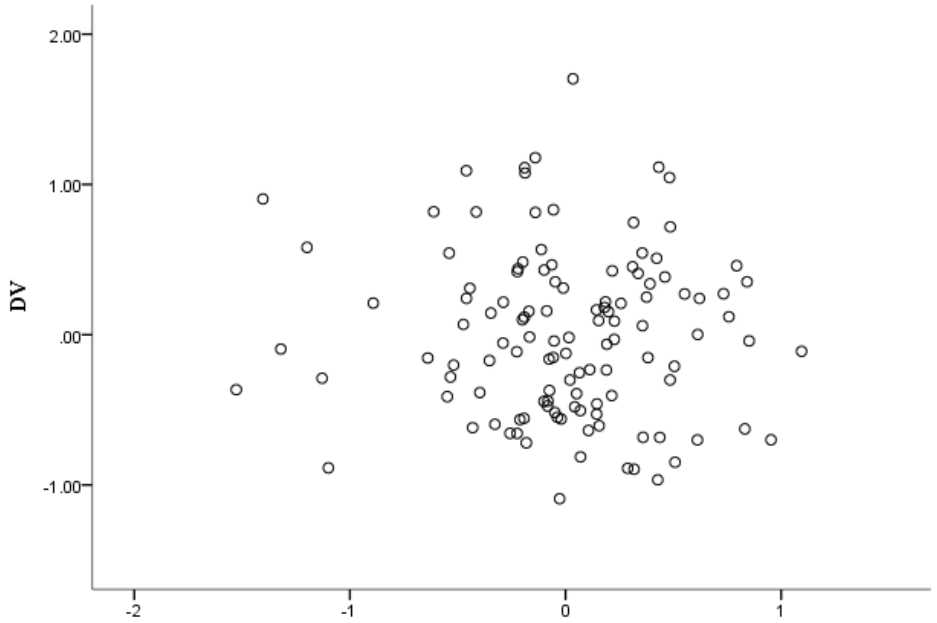

Figure M18. Retardation (IQ) stereotyping.

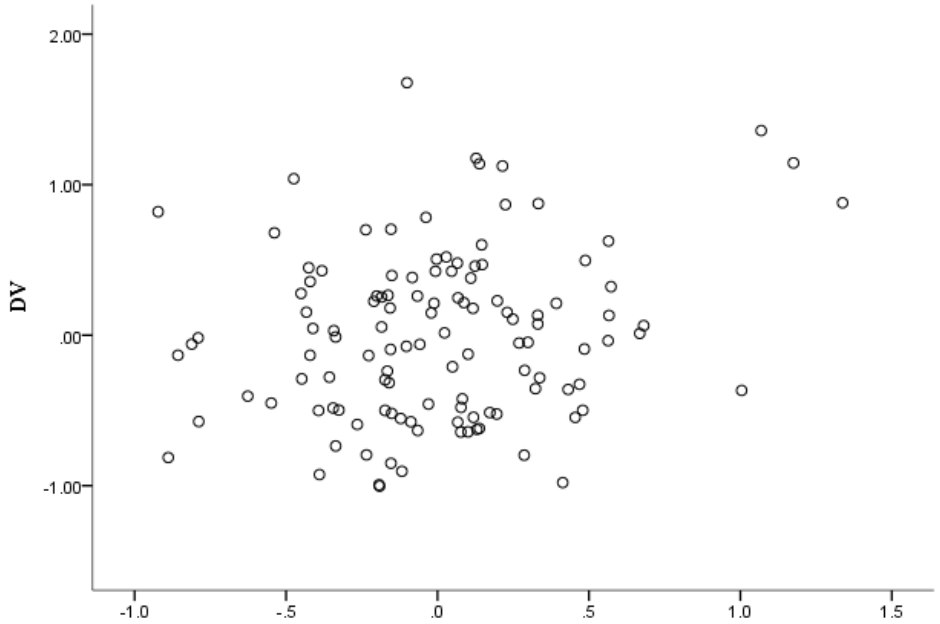

Figure M19. Skills and ability stereotyping.

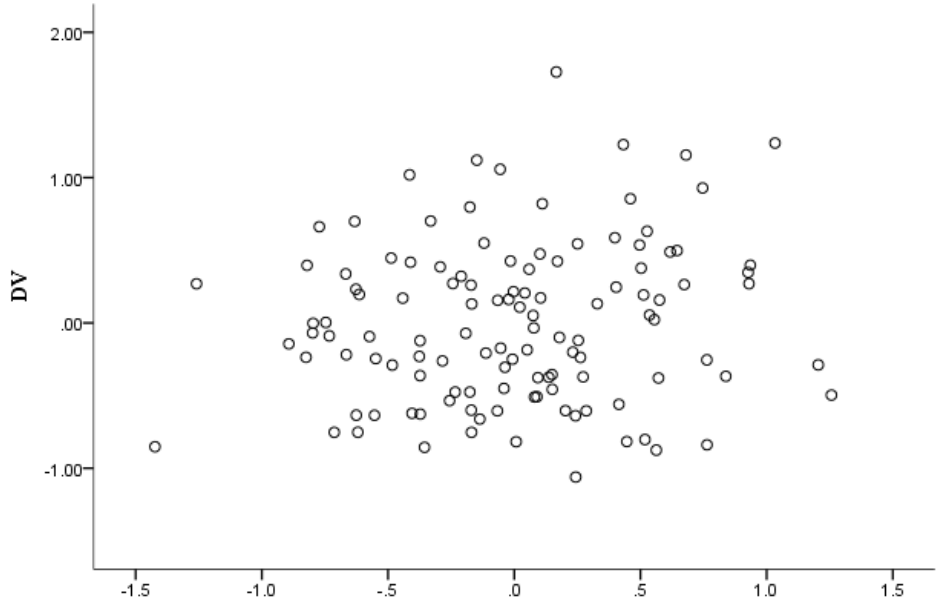

Figure M20. Hiring agents' fear of appearing incompetent.

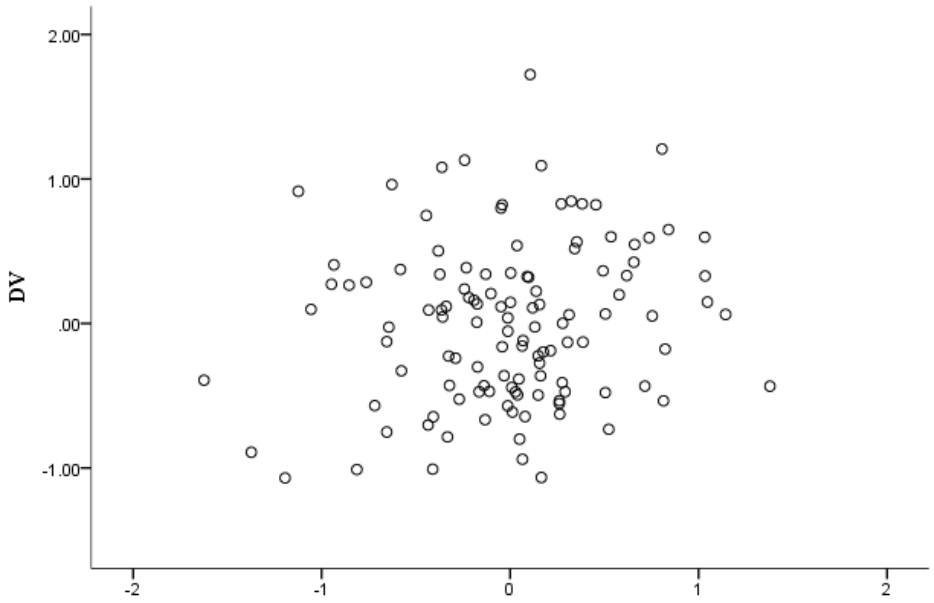

Figure M21. Autistic disclosure.

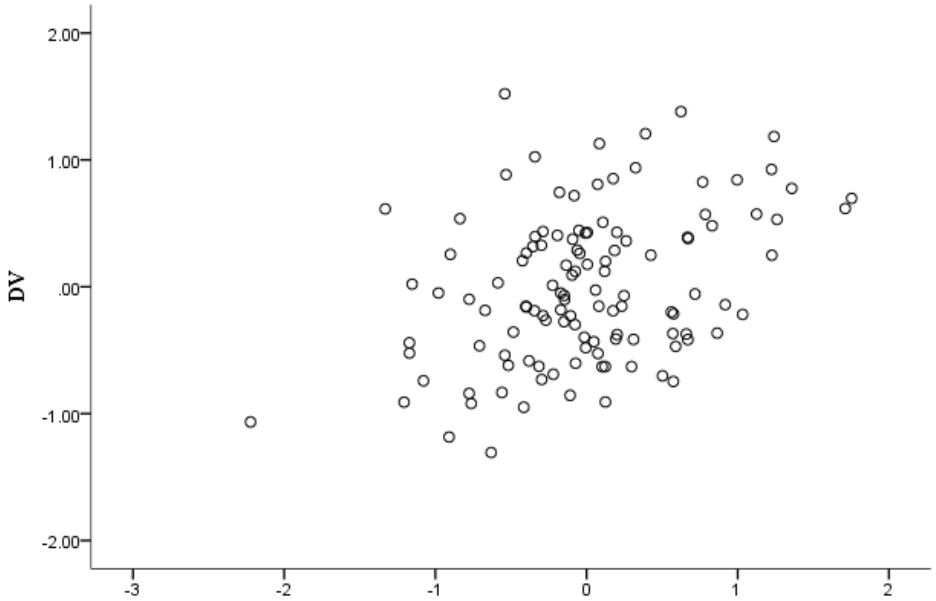

Figure M22. Societal pressure on hiring agents.

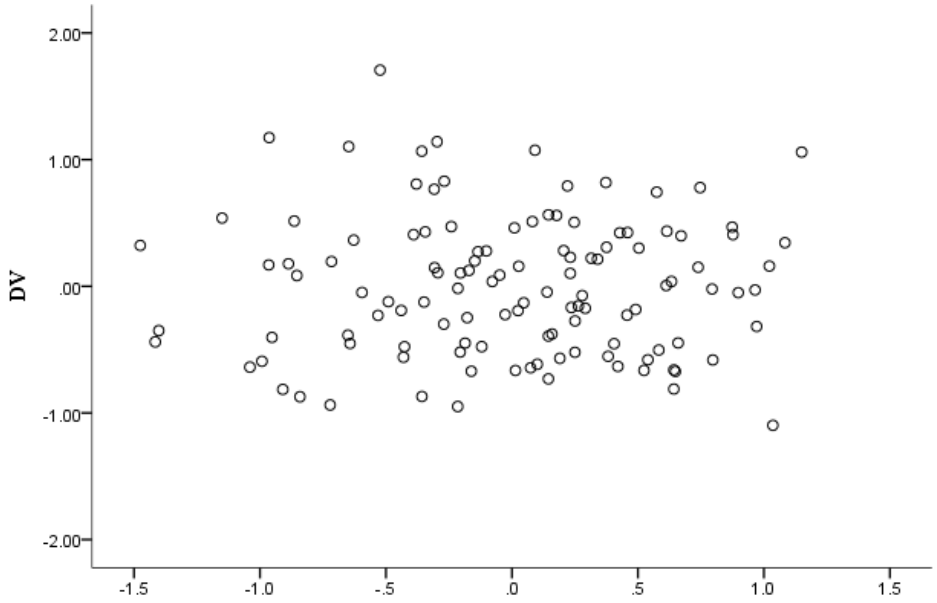

Figure M23. Hiring agents' fear of negative altercasting.

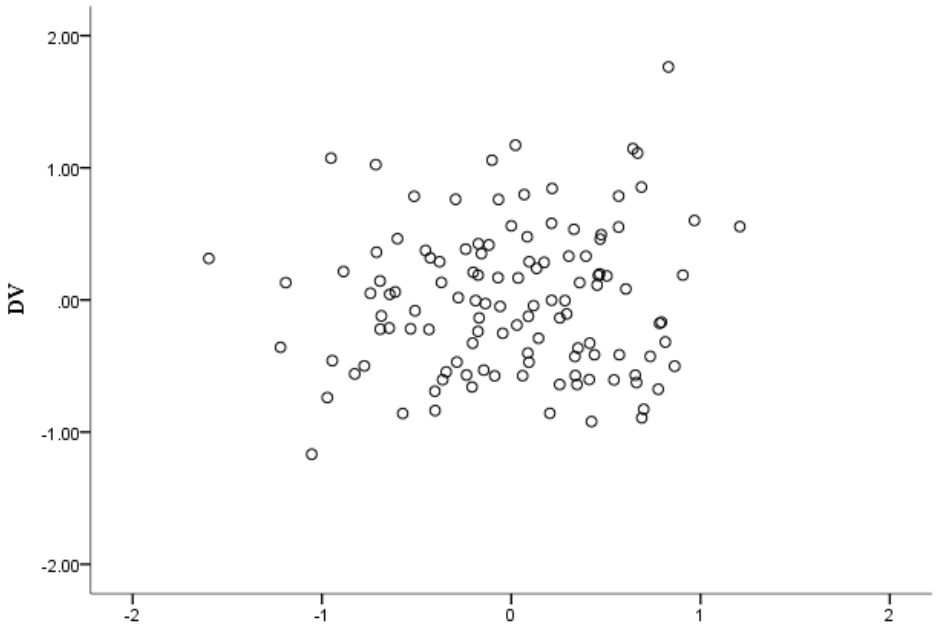

Figure M24. Hiring agents' fear autistics will be mistreated.

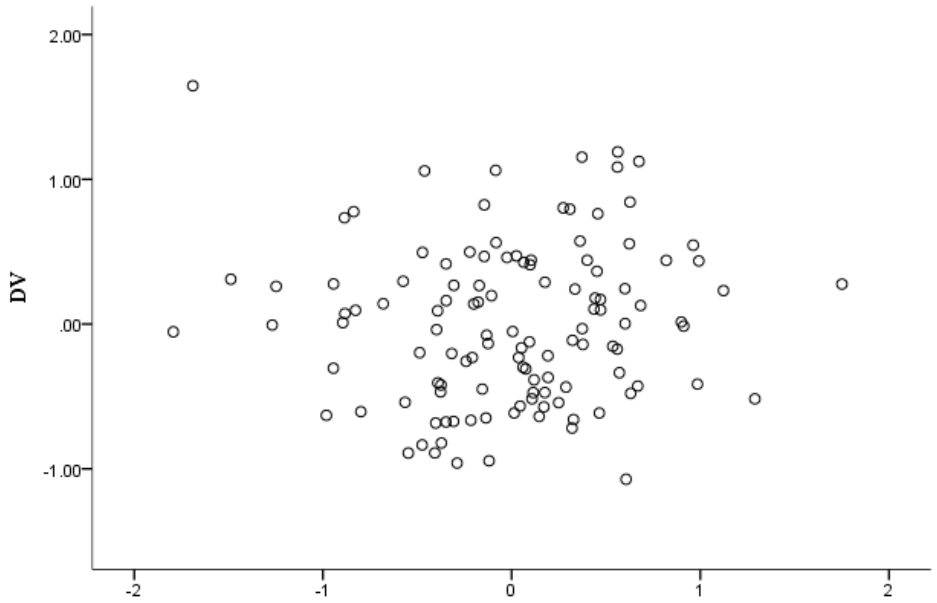

Figure M25. Lack of on-the-job equal employment practices.

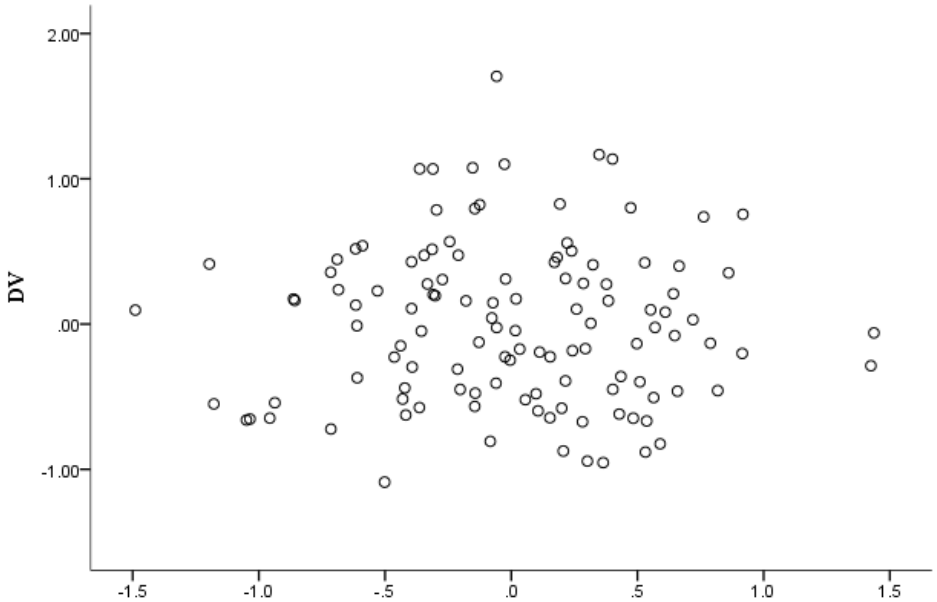

Figure M26. Discomfort working with autistics.

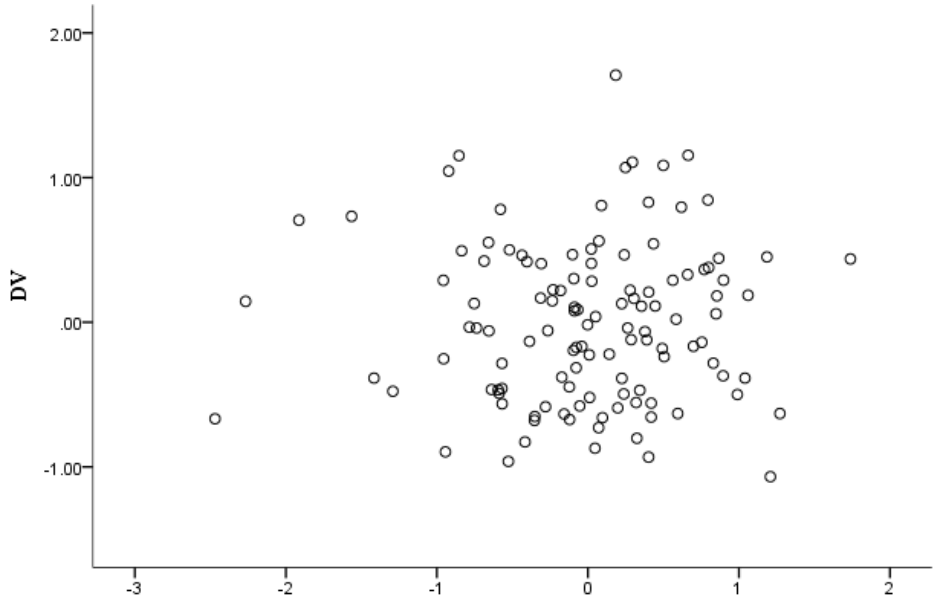

Figure M27. Past experiences with autistics.

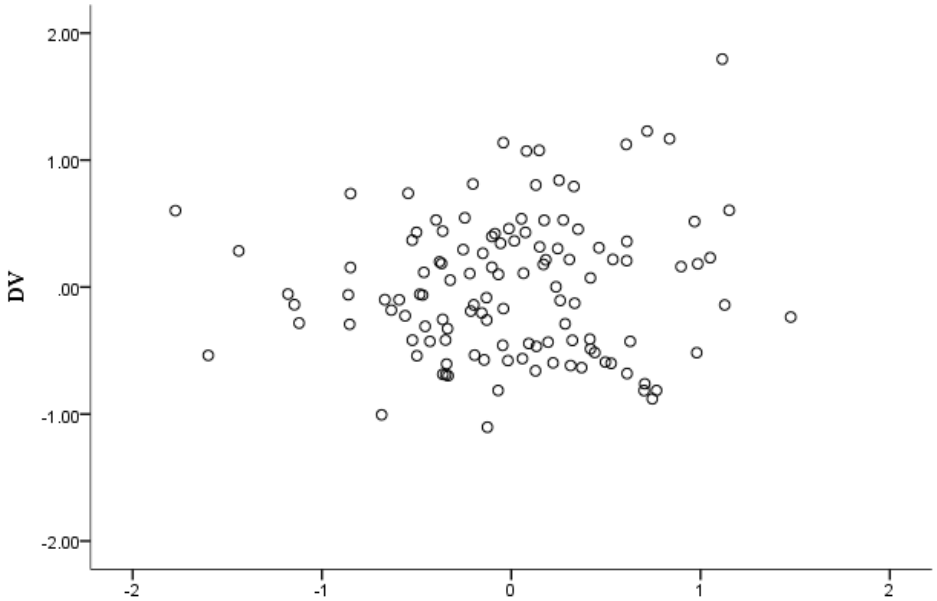

Figure M28. Subordinates will not respect autistics.

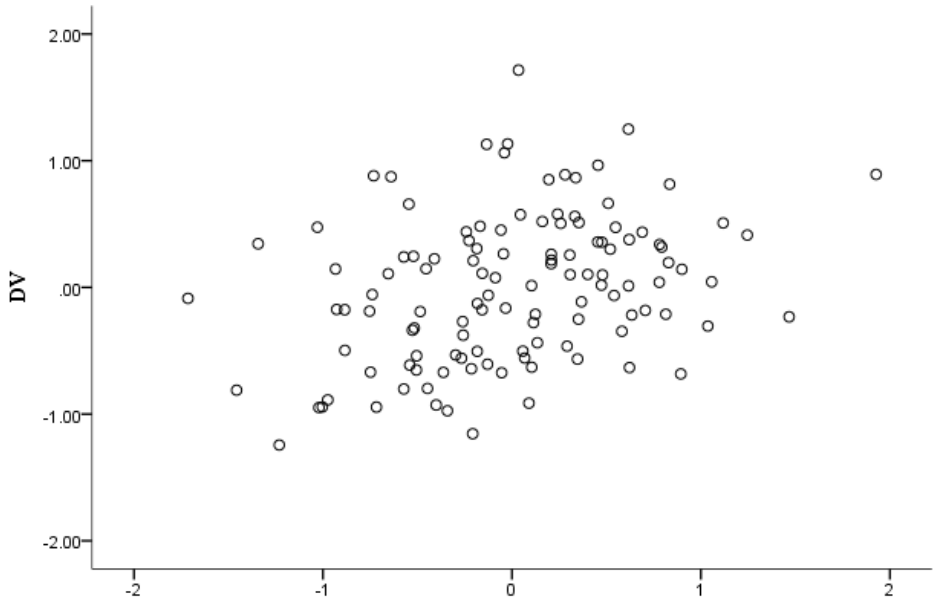

Figure M29. Productivity stereotyping.

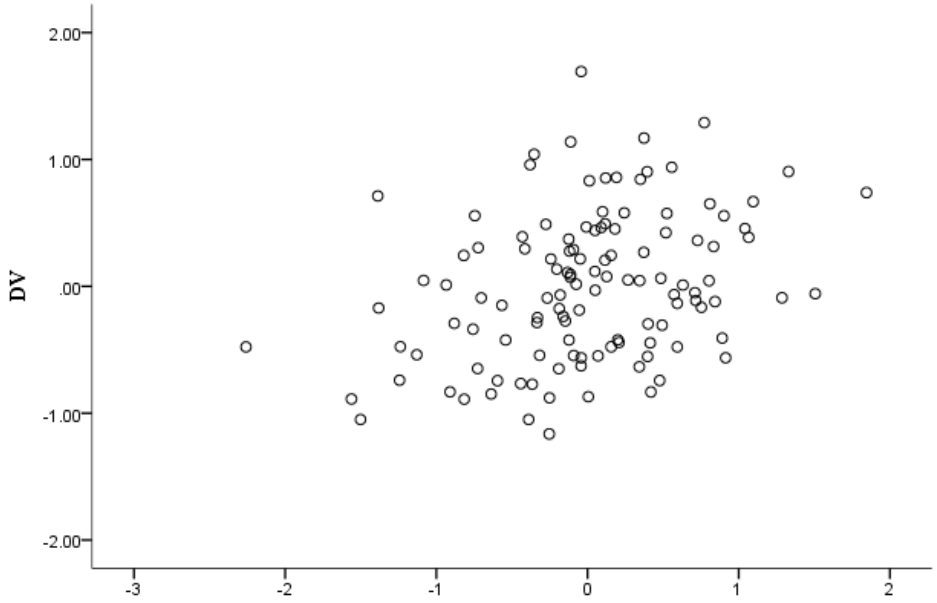

Figure M30. Autistics will embarrass the organization.

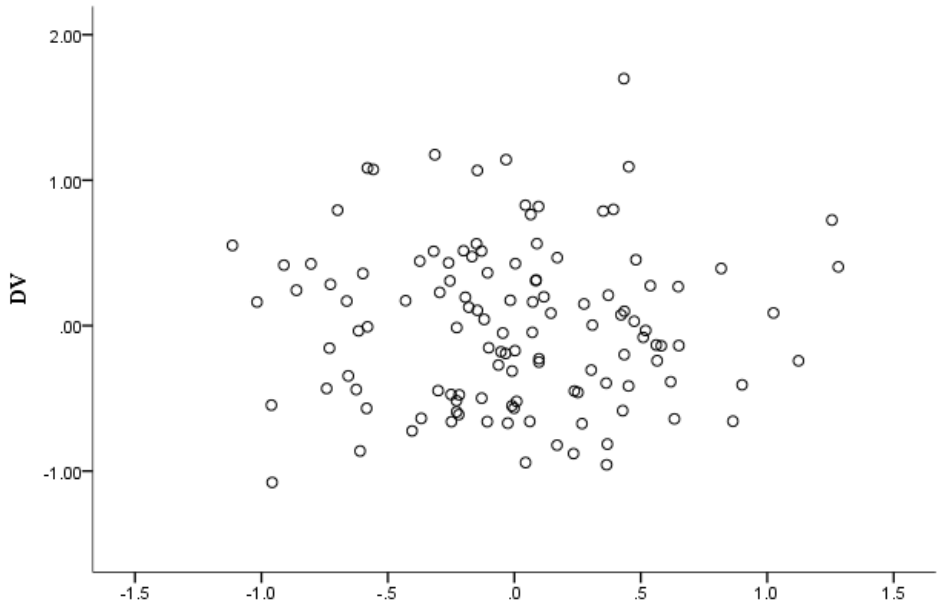

Figure M31. Inadequate physical environment.

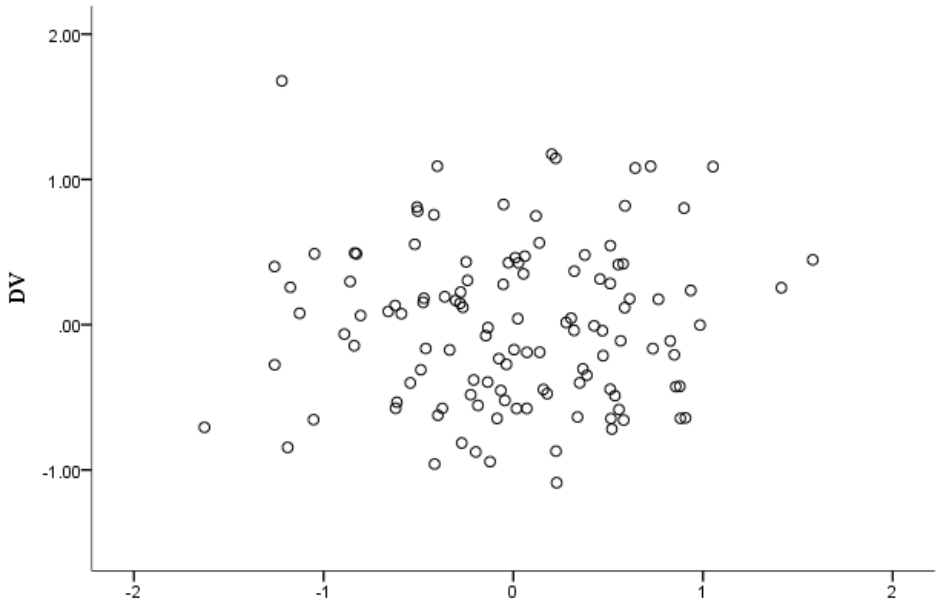

Figure M32. Increased hiring costs.

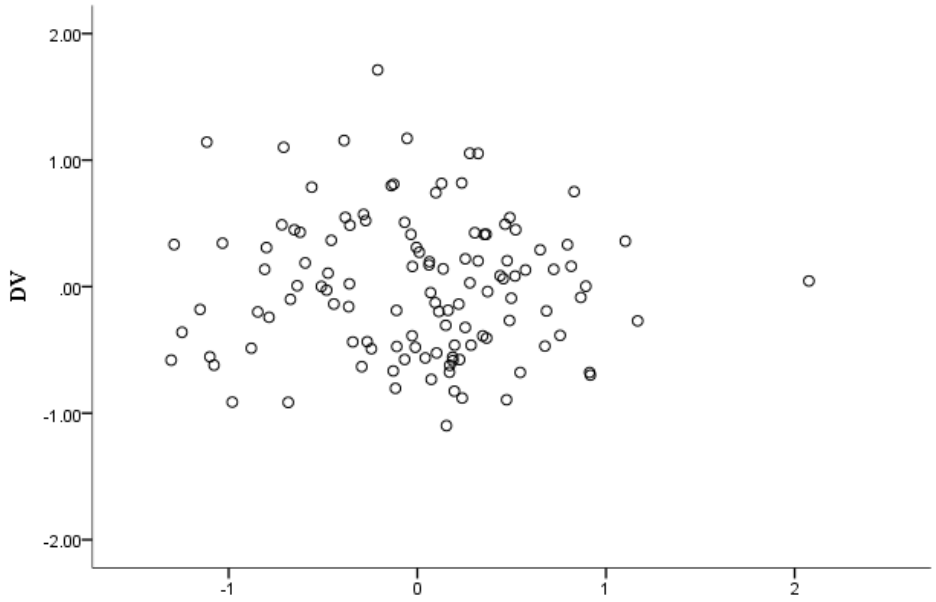

Figure M33. Negative schedule adaptations.

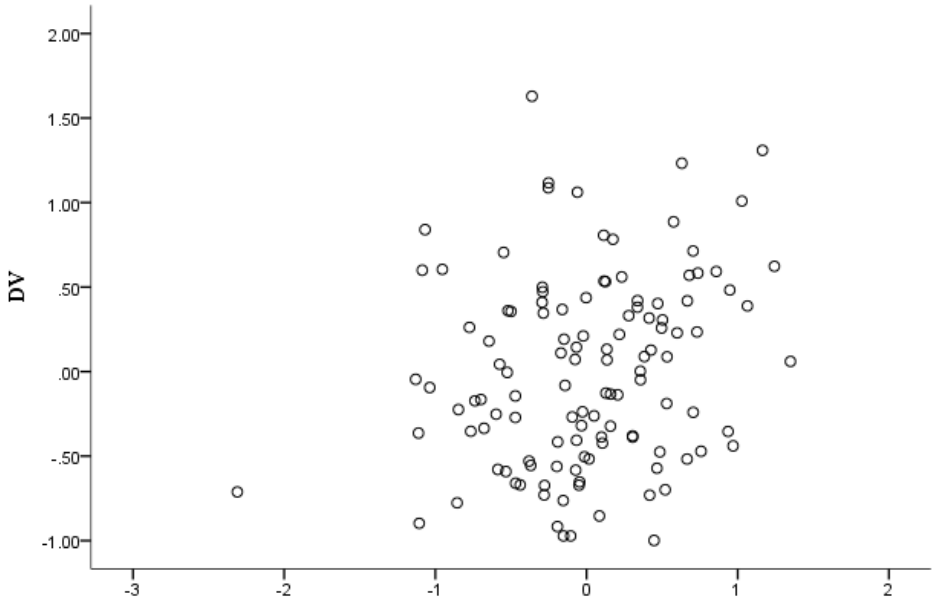

Figure M34. Autistics are hard to supervise.

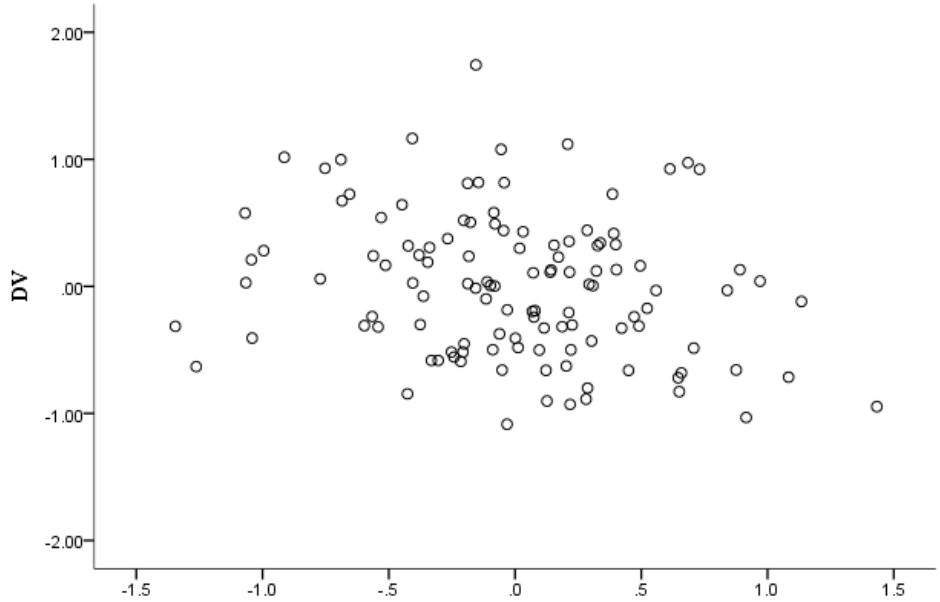

Figure M35. Hazardous or uncontrollable movement stereotyping.

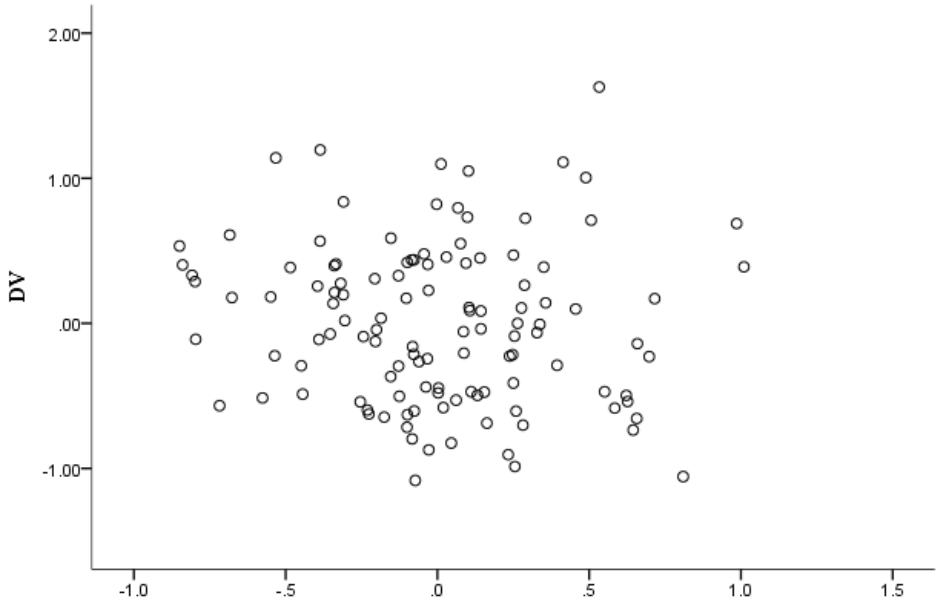

Figure M36. Autistics require excessive assistance.

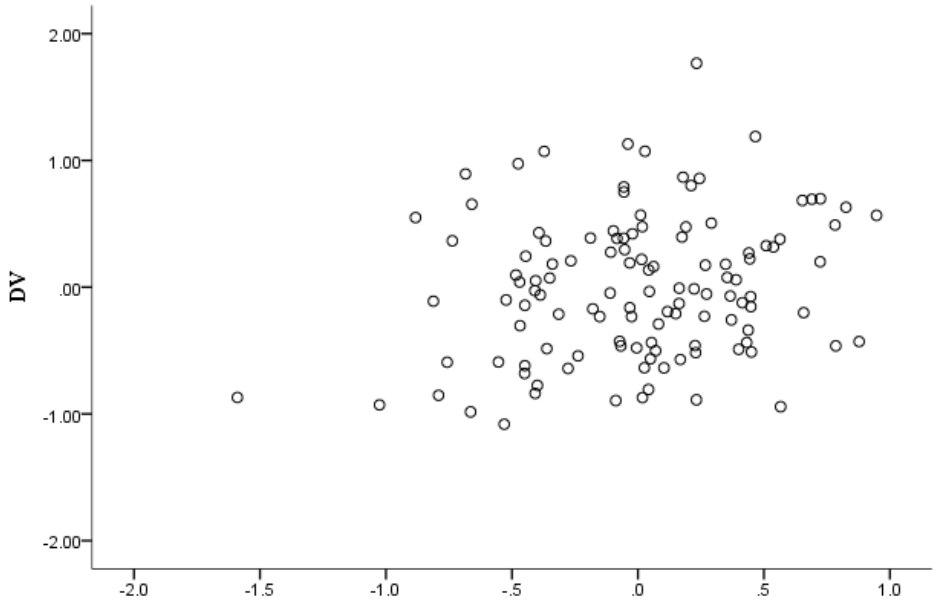

Figure M37. Autistics are inconvenient.

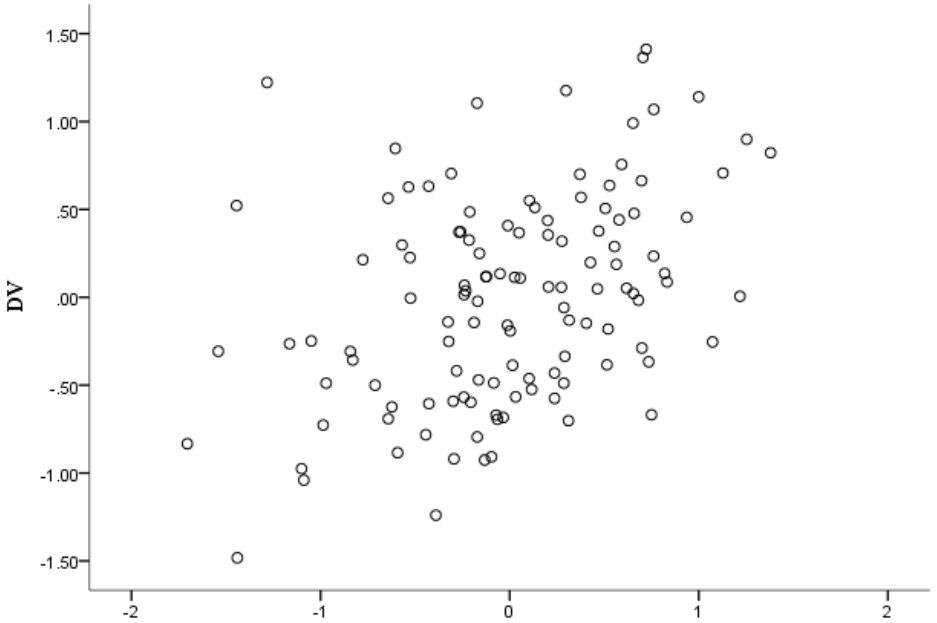

Figure M38. Autistics are excessively absent.

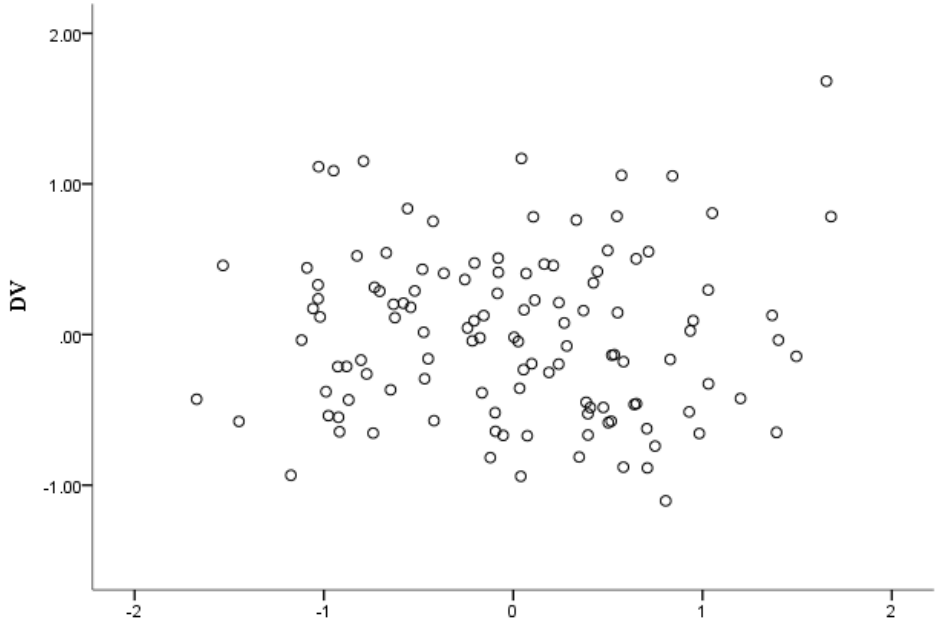

Figure M39. Autistics are less dedicated.

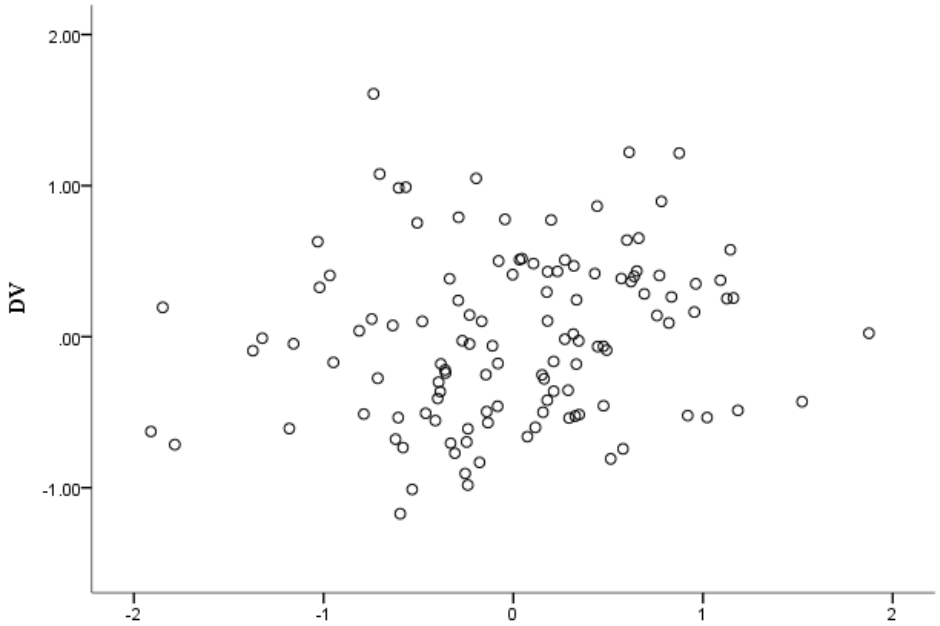

Figure M40. Blatant discrimination.

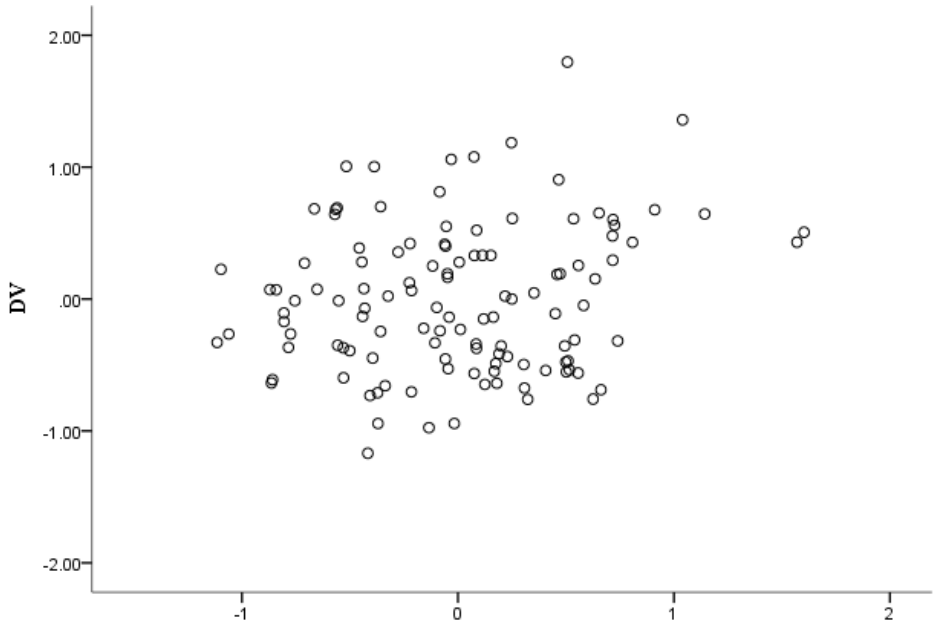

Figure M41. Negative social stewardship beliefs.

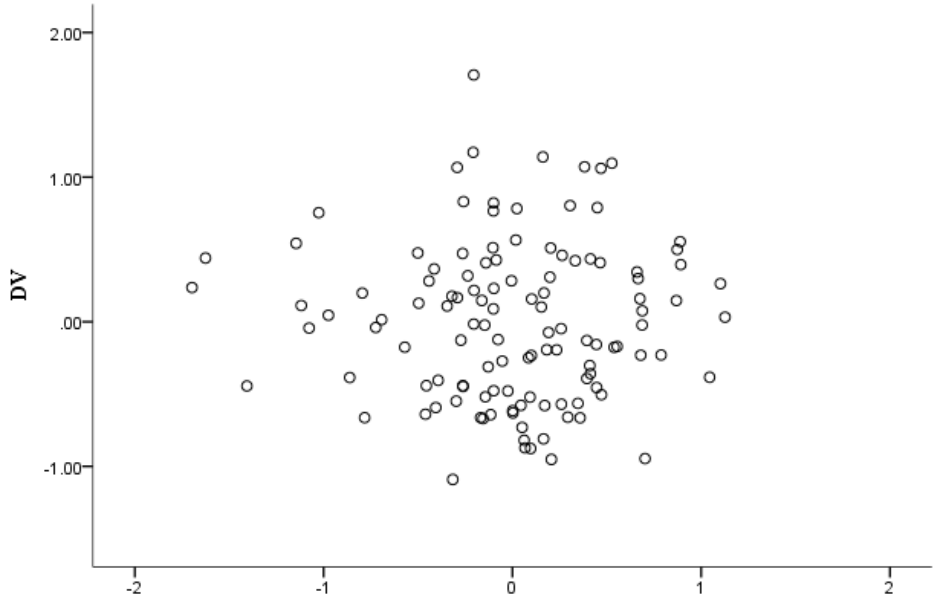

Figure M42. Autistics cannot handle work responsibilities.

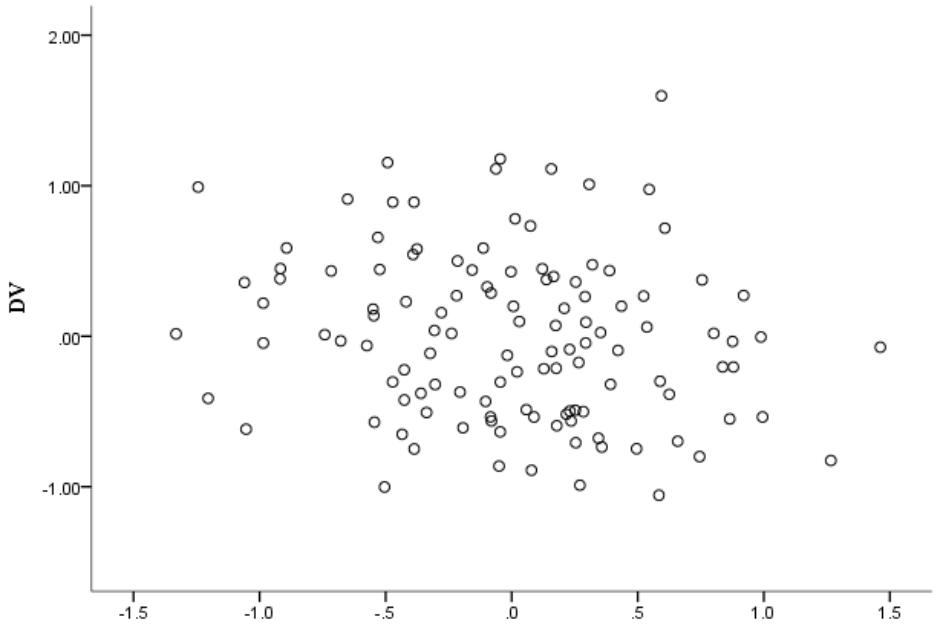

Figure M43. Autistics are problem employees.

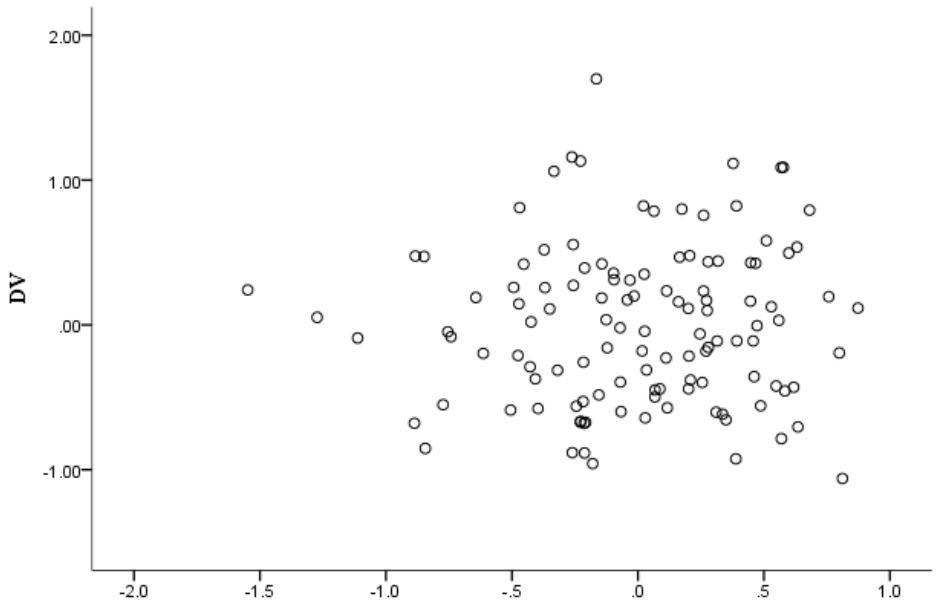

Figure M44. Autistics cannot communicate.

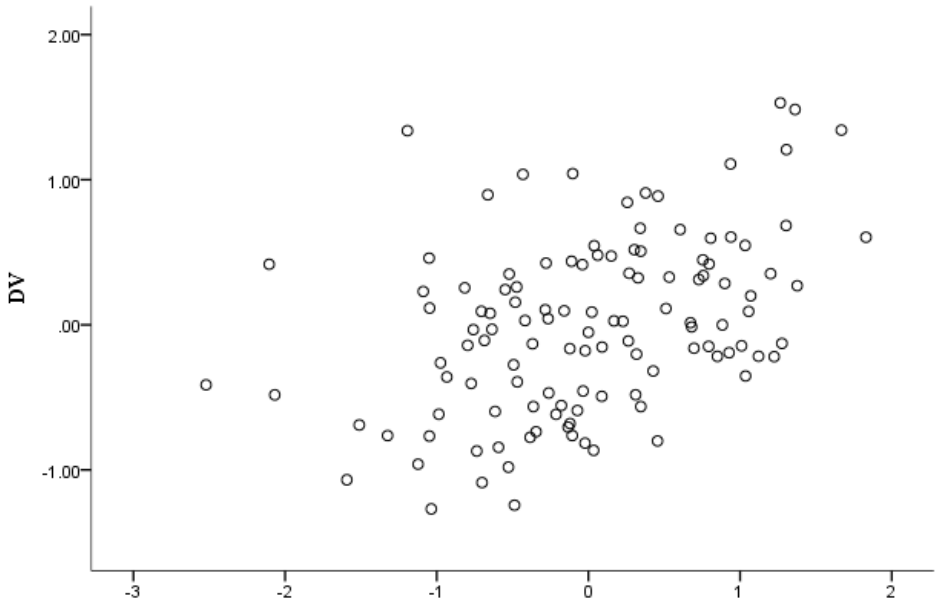

Figure M45. Hiring agents prefer physical disabilities.