SLAS 6013-01

What are the causes of the high rate of unemployment in the United States

among people with Autism?

Melinda Shannon

Marywood University

Abstract

This paper examines the reasons why there is such a high rate of unemployment among individuals on the autism spectrum. Using themes related to the literature, the paper discusses these reasons from the viewpoint of the employee with autism and their families, the employer, coworkers, and society as a whole. In a historical literature review it was found that social stigma around the subject of autism, lack of awareness, communication and social deficits, sensory challenges, and lack of long-term support were the most common barriers in relation to the employment of people on the autism spectrum. It was found that new policy and new awareness and knowledge for the neurotypical members of the workforce and employers, long-term support programs for the employer and employees, and reduced fear of disclosure by the autistic individual can reduce this high rate of unemployment.

Keywords: Employer, hiring, autism spectrum disorder, labor force.

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Introduction

Autism Spectrum Disorder (ASD) is a neurological developmental disorder, in which individuals typically have difficulties in social interaction, communication, and often exhibit repetitive or unusual behaviors (Scott et.al. 2017). In western countries it is estimated that approximately 34% of the labor force is made up of adults with ASD (Scott et. al. 2015). This increase is thought to be caused by better diagnostic criteria and an increase in the number of young people now exiting the school system and entering the workforce (Scott et. al. 2015).

Given the prevalence of Autism in today's workforce, it is important to figure out ways to ensure the entry of these individuals into the workforce is made as smooth and as successful as possible. In September of 2022, according to the Unites States Department of Labor, the labor force participation rate was 77.1% for persons between the ages of 16-64 without a disability but only 38.0% for persons with a disability in the same age group. (Disability 2022). Although the labor participation for persons with disabilities was half that of those without disabilities, the unemployment rate for that group was more than double that of persons without disabilities at 8.3% as compared to 3.2% (Disability 2022). These unemployment rates are estimated to be even more disparate for persons with autism who have obtained a college degree and by some estimates reached up to 85% in 2018 with only slight improvement since then (Why is 2018).

Studies to date have focused on the education of those with ASD as it relates to the education and life skills of the Autistic child in the areas of communication and social skills and sensory issues in the school and home environment but not much has been studied about the adult with ASD who is entering the workforce. Before this issue can be solved, more needs to be found out about the causes of these larger rates of unemployment among persons on the autism spectrum.

In today's post COVID economic environment, where many employers are having a difficult time finding suitable employees willing to work, determining why people with autism are not a larger part of the successful workforce is even more important. This paper will examine the issue from the perspective of the potential employee with autism and their families, the employer, and neurotypical employees working alongside the employee who has autism, as well as society in general.

Literature Review

Most research in the on autism has been centered on early childhood interventions for growing children who have autism or on figuring out the cause of autism. However, autism is a lifetime disability that still exists when a person becomes an adult. Therefore, much needs to be studied to find the causes of the high rate of employment of adults with autism spectrum disorders. Chen (2014) states that approximately that 1 out of every 68 babies is born and subsequently diagnosed with an autism spectrum disorder. These children will one day be adults who will be entering the job market. Employment is an important part of the well-being of all individuals and of society in general, including those with autism but there are many barriers to the successful employment of this group (Chen 2014). According to Henegan (2010), the rate of unemployment is much higher among people with disabilities than among those without a disability. There are many things that could account for this.

Many people believe that the rate of unemployment in this group is due to the inclusion of those with severe disability who are unable to work when in fact, according to the United States Bureau of Labor Statistics, only those who are able to work and actively seeking work are included in the workforce (see chart below for U.S. Bureau and Labor Statistics method of calculating the force) and hence, in the unemployment rates (Labor 2021). Because of this misconception, there is a general lack of belief that this is a real problem and so not enough is being done to solve it.





Another reason for the high unemployment rate among individuals with autism is the social stigma that is prevalent in our society (Autism 2018). Society as a rule gets their information and understanding about autism from television and the movies and their concept of an autistic person is either a genius such as "The Good Doctor" or "Rainman". Neither of these opposite ends of the spectrum accurately portray the average individual with autism who is looking for a job, but these misconceptions can deter employers from hiring the applicant with autism. According to an anonymous blogger on the Autism Recovery Network, if the autism is

not disclosed, the individual is labeled weird or creepy and if they do disclose the disability, they are subject to the most common misconceptions about people with autism and it becomes a nowin situation (Autism 2018).

Some other common misconceptions about individuals on the autism spectrum as noted by Paul Carroll are that autistic people are only competent at certain kinds of work, that because of their difficulties in communication and social skills they cannot work successfully in a team environment, and that they are all inflexible and not willing to change routines (2022). Often, due to these misconceptions, the employee with autism is put into low level service jobs, even when their education shows they can do a higher-level job requiring more skills. In an interview with Daniel Smith, he noted that after working in a county treasurer's office for 3 years, and with more technical computer skills and college education than other office staff, he was still assigned only the task of opening the mail (interview on September 19, 2022).

This misconception that autistic individuals can only do low level tasks is not the only barrier that arises from the viewpoint of the employer. Another misconception from the employer perspective is that it is cost prohibitive and would require too many accommodations and too much training to employ those with autism spectrum disorders. There has been some research completed about the employment of adults with autism from the perspective of the employer that shows that this misconception is not factual. A survey found that when employers and coworkers do not have any knowledge about the nuances of autism behavior it becomes one of the biggest on the job problems facing the autistic employee (Lopez 2014). One study by Scott, Jacob, & Hendrie (2017) reported findings, however, that suggested that employing adults with autism can be beneficial to employers and their companies without costing them any more in support and training than they would incur when hiring neurotypical employees.

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Perhaps one of the largest barriers to the employment of persons on the autism spectrum is the job interview process itself. The job interview is still the most common method employers use to select job candidates (Flower et al. 2019). The job interview requires good verbal communication skills which many autistic individuals lack. The interviewee may not understand the questions being asked or be able to properly articulate or "sell themselves" to the employer conducting the interview (Hendricks 2010).

Once the job has been obtained, it is often short lived. Employers in a 2015 study which explored the viewpoints for successful employment, showed three basic employer viewpoints. The first and largest group were open-minded about hiring autistic individuals but relied heavily on external support to make it work. The second slightly smaller group was also open to hiring the individual with autism and believed that life satisfaction and independence were important for all people but believed they could use internal sources to support these employees. A very small number of employers that were willing to provide the job opportunity but believed that the employee should work out their own issues from there. (Scott et al. 2015). It is interesting to note that in this study, the mean age of the groups showed that older employers were more likely to not provide support with the middle group relying more on external sources and the group with the youngest mean age were more likely to provide the support because they believed that life satisfaction was important to every individual (Scott et al. 2015).

The environment of the workplace and attitudes of the coworkers also plays an important role in the successful employment of individuals on the autism spectrum. The lack of awareness and knowledge of the disorder as well as negative attitudes towards diversity can be an impediment to the success of the autistic worker (Hendricks 2009). Most neurotypical people do not understand how to communicate properly with autistic coworkers and many are not openminded enough to learn and understand how to successfully navigate these uncomfortable interactions and learn how to work with and train individuals who are different.

A significant issue with incorporating an autistic employee into the workplace is the issue of confidentiality. Autism Spectrum Disorder is not only considered a diversity, but it is also a protected disability under the Americans with Disabilities Act (Hensel 2017). The guidance clearly states that, "information obtained regarding the medical condition or history of the applicant is collected and maintained on separate forms and in separate medical files and is treated as a confidential medical record". One exception is that information about the employee's disability can be given only to "supervisors and managers" when it pertains to "necessary restrictions on the work or duties of the employee and necessary accommodations". (42 U.S.C. section 12112(d)(3)(B)(i)).

Without awareness and a willingness to learn by coworkers, it is very difficult to for a person with autism to integrate into the workplace. According to Hendricks, an employer and a workforce that is open to gaining this understanding and building an environment that is open and trained on how to interact should be present for not only the autistic employee to be successful but to foster an overall successful workplace (Hendricks 2010).

Some barriers to the successful employment of those with autism is the disability itself. According to a study by Lorenz (2016), the largest barriers experienced by autistic employees were in the areas of communication at 15%, learning to navigate equipment and the environment at 16%, and work routines at 13%. Some other barriers and challenges to successful employment from a study by Chen (2014) included social difficulties, communication difficulties, educational level, as well as some challenging behaviors such as inflexible routines, tantrums, obsessive behaviors, and poor attention to tasks.

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According to the American Psychiatric Association autism spectrum disorder is defined as "persistent deficits in social communication and social interaction" (American 2013) which makes the job interview and obtaining a job a big hurdle for most people with autism. Career advice experts at Glassdoor state the top skills that an interviewer looks for include communication and teamwork in the top three (Top 14 Skills 2021). Potential employees with autism spectrum disorders may find the job interview itself an insurmountable hurdle. In an interview with Christopher Jones (interview on September 3, 2022) he stated that he missed out on multiple jobs because of the job interview even after testing in the highest percentage on preinterview aptitude testing.

This communication difficulty does not end with the job interview. Once a job is attained, many employees with autism have difficulty with interacting with coworkers and managers (Harmuth et al. 2018) who often think their behaviors such as lack of eye contact, monotone voice modulation, and the lack of ability to have a successful two-way conversation, and movements such as rocking are due to bad manners (McIntosh 2016). This can cause bullying, discrimination, and harassment by coworkers and managers and keep the employee from fully integrating with the rest of the staff. Studies have shown that without an understanding of a person with differences it is difficult to interact in a meaningful manner with that person (Macleod 2013).

In a study on mental health in individuals with autism, only 7% of respondents said they felt accepted by other people (Cage, Monaco, and Newell 2017). This lack of acceptance and social isolation and the general feeling of "not fitting in" often leads to depression, anxiety, and stress and can make keeping the job very difficult to sustain (Harmuth et al. 2018). This difficulty in social interaction can also make it hard for the individual on the autism spectrum to

learn the duties and skills of the job at hand. Autistic people may have learning preferences that are visual or written making it nearly impossible for them to succeed in a work environment that is primarily verbal and may have trouble asking for instruction and training in the way that suits them best.

Not only do employees on the autism spectrum struggle to be accepted by their peers but they often experience acute sensory issues that impact their success in the workplace. Our senses are used to help us see, hear, feel, smell, keep balance, and know where our bodies are in space. Up to 90% of people on the autism spectrum have sensory issues in one or more of these areas (Robertson 2017). Some common sensory issues a person on the autism spectrum might encounter in the workplace are a sensitivity to bright lights and certain sounds, an aversion or affinity for certain textures, inability to block out background noise, difficulties in understanding the boundaries of personal space, not being able to sit for long periods, difficulty with small motor movements, and being startled easily. All of these things can make it very difficult for an employee with autism to concentrate and learn in the workplace.

Many autistic people, through the years have learned how to self-regulate and keep their sensory systems calm and in balance by doing something commonly called stimming. These can include repetitive body movements such as rocking back and forth, by humming or making other sounds, or by fidgeting with their hands or other items or body parts. In an interview with Daniel Shannon (interview on September 19, 2022) he stated that he rocks and fidgets with a small action figure and this makes him feel calm and comfortable. He stated that he always has his "little man" in his pocket but has learned not to use it in places like work and school until he feels comfortable and safe with the people around him.

If a person feels like it would be disruptive or inappropriate in the work setting, he or she may not be able to make these self-regulating movements and it can cause the employee to feel overwhelmed and anxious. According to Autism Speaks (2022) this can cause the employee to devote all of their energy into sensory processing and this can result in a person not having enough left for speech, decision making, and other information processing. This anxiety and breakdown of functioning will often cause the employee to want to run away from the job and contributes to the low employment rates for these individuals. Noise and sounds can also make it difficult for the autistic person to drive in traffic and make transportation to and from work another barrier to employment (Hensel 2017).

It can also be difficult for the autistic employee to organize their work. Time management and being under pressure to meet deadlines are often problematic and this pressure can cause the same anxiety and lack of proper functioning and put the employee into the flight mode similar to the sensory issues mentioned above.

They often are very rigid in their behavior and very literal in their communication and pay an overwhelming amount of attention to detail. This can cause them to talk about the topics they want without regard to whether anyone else is interested which can sometimes annoy coworkers and clients and cause them to have a hard time following directions or learning and completing a task (Hensel 2017).

The ability to organize time effectively and prioritizing work is very important but difficult for most people on the autism spectrum. An employee with autism often has a difficult time understanding the basic concept of time due to their inherent neurological makeup. (Organizing 2022). Because of this, managers and coworker may have to provide a significant amount of support in this area at first and potentially always for the employee on the autism spectrum, causing the employer to resist supporting this type of employee which contributes to the unemployment of these individuals.

Another barrier to successful employment and perhaps the biggest issue autistic individuals have to face as they enter the workforce is whether or not to disclose their disability (Henegan 2010). It is a very personal decision with many nuances one of which is the timing of the disclosure (When 2019). There is the possibility of getting both positive and negative responses from managers and coworkers which can differ depending on the timing. There are six distinct times when a person can disclose that he or she has autism according to the Organization for Autism Research (2019). These include on the application or cover letter, during the interview, after you are hired but before your first day of work, after you start working, after a problem occurs, or never. In one study, it was found that employers overwhelmingly preferred job applications from employees without disabilities when all else was equal (Pearson et al. 2003) thus increasing the difficulty an autistic person has in obtaining a job to begin with. However, personal observation has indicated that disclosure of autism up front can make neurotypical people feel more comfortable working with that individual and be more willing to accept and support a person who is honest and open about it and comfortable with who they are.

Parents and families of autistic individuals also contribute to the high unemployment rate among autistic individuals. To quote a blogger who is on the autism spectrum (Autism 2022):

"Often, families of HFAs are simple good people who attribute everything to "fate" and are no closer to understanding that this person actually does have a very complex condition. Their immature or ignorant love for this person often puts them in vehement denial of his/her autism, leading to a further lack of understanding and requisite support."

Autistic individuals do not look different than other people and their disability is not obvious, making a lot of parents at a loss as to what to do, over explaining their child's behavior,

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or hiding the disability entirely. They may be ashamed of the diagnosis or may use it as an excuse for everything their child experiences (Parenting n.d.). In any of these cases, all of a sudden when the child turns 18 there is often no more support or programming to assist with the transition to adulthood and into the workforce (Young 2015). All of this uncertainty can contribute to the difficulty the autistic individual has when trying to obtain and keep employment.

Analysis

Through thorough review of the literature four key themes and issues were prevalent in the data related to the high unemployment rates of individuals on the autism spectrum. Each of these themes occurred from multiple perspectives. These include communication difficulties, lack of understanding and education, the need for social acceptance and support as the primary reason for the high unemployment rate among persons on the autism spectrum. The chart below shows the total counts found in the formulation of each of the themes across each type of data (not all articles read were eligible for inclusion as proper references in this paper).

Theme	Peer Reviewed Studies	Thesis/ Dissertation	Blogs/ Interviews/ Other articles	Government Sites/Data	Non- Profit Websites
Total articles in group	24	3	15	3	21
Communication	23	2	14	0	19
Understanding/Education	11	2	9	0	6
Social acceptance	22	3	8	0	13
Support	17	2	10	1	11

The most common theme that emerged from the literature was that communication difficulties were a common cause for the high unemployment rate among individuals on the autism spectrum. Communication was found to be a cause of unsuccessful employment not only from the perspective of the employer, but also from the perspective of the employee and his or her coworkers. It was found that communication difficulties can begin with job interview itself and carry through to interactions with managers and coworkers in the areas of training and other interactions with coworkers when working on teams and socializing.

Using narrative research theory to interpret stories in order to understand how people make sense of their experiences and using the perceptions of each stakeholder involved in the working environment it was shown that communication issues arise from all perspectives (Wolgemuth 2019. In the interviews undertaken to learn more about the communication issues in the employment of autistic individuals, it was found that some workers were not willing to keep trying.

Another theme that was recurring throughout the literature and interviews was that the lack of education and understanding played a large part in reducing the possibility for a successful long-term employment for the individual on the autism spectrum. In critical research theory it is believed that social problems derive more from social cultures and assumptions than from individuals. It was found that most neurotypical people get their information and understanding about autism from television and the movies and their concept of an autistic person is either a genius such as "The Good Doctor" or "Rainman". Most autistic people are neither of these extremes but the misunderstanding of who a person with autism is and what they are and are not capable of doing can deter employers from hiring the applicant with autism.

Lack of education and the belief that autistic people are only competent at certain kinds of work, that because of their difficulties in communication and social skills they cannot work successfully in a team environment, and that they are all inflexible and not willing to change routines was also prevalent in the literature and interviews played a part in the high unemployment rate of individuals with autism as did the employer misconception that cost them a lot more to employ an individual on the autism spectrum than it would to employ a neurotypical employee.

The third prevailing theme in the literature involved the effect a lack of social acceptance has on an autistic employee on their prospects of sustaining employment once they have obtained a job. The interactional research theory states that people's behavior depends on the impact and effect of their environment (Bangerter 2013). The literature indicated that because of social and communication deficits inherent in people on the autism spectrum, it is often very difficult for employees with autism to acclimate to the work environment and fit in with their coworkers. It was also found that due to this lack of feeling welcomed into a work group, many autistic workers wind up quitting. The lack of social acceptance also makes it more difficult for the individual with autism to learn the job due to difficulty initiating conversations with their coworkers and asking questions or explaining what they need in order to do the job properly.

Another theme that prevailed throughout the literature was that lack of support programming for the employee and employer was a large cause of high unemployment for individuals with autism. Because the entry of more autistic adults into the workforce recently, not a lot of study has been done to workout how to facilitate the employment of these individuals. It was found that older employers and managers relied more heavily on outside support and programs than did younger employers and managers.

Ethical Implications

The most obvious ethical issue in this study of the high rate of unemployment of autistic persons in the workplace is that the study is dealing with a vulnerable population in which many of the participants and literature deals with a vulnerable group which is covered by the Americans with Disabilities Act. Autism is a disorder in which the individual, although over the age of 18, could have a cognitive and/or developmental delay which could prevent them from giving informed consent. The research is designed to benefit this group and the risks are minimal. The research was undertaken utilizing prior literature and personal interviews as well as personal observation by the researcher. Another group of individuals involved in the prior literature were employers. The research study utilized prior literature for this group. No employers were personally interviewed in this study. The goal of the study was to benefit this group as well and there was no risk to this group.

Ethical principle's base themes on four ethical theories. Two of these, virtue and utilitarianism, fall into the consequential ethics area, and two, deontology and rights, fall into the nonconsequential area of ethics (Staff Writer 2020). Any of these ethical principles can help employers make decisions on hiring autistic workers and coworkers on deciding if they can interact with these coworkers in a way that enables the autistic worker to have a successful long-term employment opportunity. Utilitarianism is making decisions based on what is best for the largest amount of people. This ethical principle focuses on the outcome of a decision. A decision to hire autistic workers could fall into this category as it would help almost all people in society by lowering the cost of public programs to take care of the disabled and unemployed.

On the other side of the ethical dilemma is deontology and rights are considered nonconsequential because decision making is focused on what is right, duties and obligations, and moral character (Staff Writer 2020). This method is not guaranteed to work in this situation due to the nature of rights, duties, and morals as each culture and person develops his or her own sense of what is right and may not feel that the issue of the employment of autistic individuals is there problem to solve.

In this study, all society is likely to benefit from the results. However, the participants, including both the employers and the employee with autism, are likely to benefit the most. This benefit will be direct as it should enable better awareness and cooperation between the two groups. The autistic employee will be better able to obtain a job and the employer will not overlook an employee who could greatly benefit his company due to his inherent biases related to autism and its implications.

The individuals that were interviewed for this study were given a form explaining informed consent (Appendix A) and it was determined that they were competent to give informed consent before they were interviewed. All other research material was from previous studies, and it is assumed that consent was given at the time of research.

The concept of voluntariness in this study is pretty straightforward as it involved only an interview and all other material was obtained from previous studies. However, the concepts of information and comprehension could be an issue. While most people on the autism spectrum are intelligent and capable of voluntarism, there is a possibility that they are not. In this study the interviews were in person and voluntarism was apparent.

To ensure confidentiality, the records of this study will be kept private. The information used in any written or presented report will not make it possible to identify the interviewee. Only the researcher will have access to these records. Records will be kept in a locked file and only the researcher will have access to this file. These records will be kept for the duration of this class and will be shredded when the report has been reviewed by the committee assigned by the class advisor. All reasonable efforts will be made to protect any information obtained while writing this paper.

Policy Recommendations

The research in this paper has shown many causes for the extremely high rate of unemployment for individuals with autism but what do we do to improve it and tap into this large group of unemployed individuals that will benefit both the autistic individual and the employer? There are several current bills in place that would provide grants and funding to businesses that are interested in educating themselves about how to build diverse work forces that include those with disabilities. However, these include all disabilities and autism, because it is often not disclosed by the potential employee, may not benefit from this funding. Therefore, more specific education and training that focuses on learning how to provide an accepting work environment for the employee with autism needs to be undertaken.

So far, the responsibility for making the workplace work has fallen on the autistic employee. These individuals are not able to change their disability traits. In the research it was found that a significant part of the reason that jobs do not work out lies in the employee with autism not fitting into the work environment and social aspects at work due to stigma and biases that employers and coworkers have. This leads to the autistic employee keeping their disability a secret and just trying to adapt and learn proper behaviors so they can fit it. Although autism is a covered disability under the Americans with Disabilities Act, they are only covered under this act if they disclose their disability. Employer policies of education will make it easier for the employee to disclose that he or she has autism and help neurotypical employees feel more comfortable as learning about a different group of people almost always does. This education can include items such as teaching employers and staff that autism spectrum disorders are not debilitating mental disorders. In fact, most people with autism are of average or above average intelligence who simply function differently. The goal is to make other individuals aware of the skills and benefits that these autistic individuals bring to the workplace and dispel the incorrect stereotypes and misconceptions that people have based on what they have heard and seen on television and in the movies.

Employers, manager, and trainers need to be taught that explanations should be clear, tasks can be broken down into smaller parts. They need to be aware that accommodations needed for autistic employees rarely cost a lot of money. Most employers are very concerned about the bottom line. Some top tips from the National Autistic Society are to be explicit about what you expect from the autistic employee, instructions should be clear and concise, provide feedback as often as necessary, be supportive when you sense anxiety, and help other staff be more aware.

Other staff training programs can include sensitivity training so that the autistic employee's oddness is treated as nothing more than a difference. Teach them to learn about each other so that sensory needs are respected and bullying someone simply for behaving differently does not occur. Providing all employees will help the autistic employee to feel comfortable and confident disclosing information about his or her disability and their neurotypical coworkers will understand and accept these differences and eventually even feel comfortable speaking directly with the autistic coworker to learn more about him or her so the team can work in harmony with each other. In the interviews with the two gentleman mentioned above, one was comfortable and confident with his diagnosis from an early age and it became a part of who he is as a person. He thrives at work and in college and everyone who knows him accepts him for who he is and learns his strengths and assists him with his weaknesses as appropriate and the other learned about his diagnosis as a young adult and his anxiety and difficulties socializing have prevented him from being successful both at school and at work. He is not comfortable disclosing his disability and therefore, does not find the acceptance from other people.

Companies such as SAP, Microsoft, and IBM have implemented policies and programs which tap into the talents of autistic members of the workforce (Wilson 2020). Part of the programs at these companies are altered interview processes which our research has shown is one of the most significant barriers in the employment process where good communication skills is almost always the first item on the job requirements list.

Not all autistic individuals however, are interested in the stereotypical jobs that most people think suit them such as programming and information technology jobs. That is why all companies would benefit from implementing specific policies to make their workforce more diverse and effective and in turn, help to lower the high rate of unemployment among autistic people.

Summary

Work provides independence from parents for adults and provides a personal satisfaction of doing your part in the world. Work can also offer give the individual a sense of accomplishment and keep a person active and engaged with the world rather than isolated at home. Employment lowers the burden placed on taxpayers and the government to provide support in the form of welfare and unemployment programs. All individuals, including those with autism, have the need and the right to work. The rates of unemployment, however, are higher among this group than in the general population. This paper researched the causes of the high rate of unemployment among individuals with autism in the United States. Statistics found that the percentage of the workforce that had autism was only half as large as the workforce of people without a disability but the unemployment rate of people with disabilities was over twice as much as those without a disability. Research found that the four major causes of this high unemployment rate among individuals with autism were in the areas of communication, social acceptance, understanding and education, and the lack of support for employers, coworkers, and autistic employees.

Policy that needs to be implemented focused on training and support programs, specifically policies of companies nationwide in all industries to implement hiring, education, and training practices focused on the hiring of autistic employees to increase the diversity in the companies and decrease the unemployment rates of individuals on the autism spectrum. These policies will tap into the skills of the autistic person and potentially benefit the company, employees, and society as a whole.

This topic has not been studied in depth to date since the prevalence of autism spectrum disorder, although it has been increasing over the past twenty or so years, is just getting to the point where those that have been diagnosed are beginning to leave school and enter the workforce. Some studies have been conducted on this topic but much more research needs to be done to show the benefit of having diverse workforces and that entry into the workforce is smooth for both employees with autism and their employers.

According to United States census data, approximately 1.85% of the total population of 330 million people have autism. According to U.S. Labor and Industry statistics, there are 12.8 million workers in Pennsylvania. 1.85% of this amount is 142,812 workers on the autism spectrum in Pennsylvania. One area that has not been studied is the perception of employers on the benefits

and costs of hiring those on the autism spectrum in the areas of job performance, supervision and training, and accommodations and their costs. Feedback could be obtained from industry experts, employment coordinators, and employers of those with ASD. Once this feedback is obtained the researcher could explore the perceptions of employers' about the costs and benefits of hiring an individual with autism using statistical analysis. Descriptive statistics can be used to summarize the characteristics of businesses and employers employing an individual with ASD. Work performance will be compared between autistic and neurotypical employees. These statistics can be compared to discover if there are differences between the employer with experience versus the employer with no experience as well as between large and small employers and those with formal policies.

Several studies have been undertaken in this area. Results of these studies showed that the cost of hiring employees on the Autism spectrum is not higher than that of hiring neurotypical employees (Scott 2017, Sharpe 2022) and that the perceptions and understanding of the employer regarding the costs and benefits of hiring adults with autism spectrum disorders are disjointed (Scott 2015).

The area of Autism in the workplace has been surprisingly neglected until recently. Much more study needs to be undertaken to assist with the understanding of Autistic adults, the benefit they could bring to organizations that hire them, and the accommodations needed to make the transition from school to work successful for everyone involved. This study would make a significant contribution to existing literature by gathering information on what employers think about the costs of employing autistic people and to discover if they are aware of what the benefits may be. All organizations, adults with autism who are looking to work full-time and their coworkers and families, as well as all of society would benefit from this study. Work provides people with a sense of belonging and of contributing to society. Organizations will benefit by learning about the issue so that they can benefit from this unique set of potential employees rather than letting inherent biases cause them to be overlooked. Neurotypical employees will have information they need to make the teamwork and work interactions successful and society will be required to take care of fewer people through government and nonprofit social programs.

About the Author

Melinda Shannon grew up in a small town in Northeastern Pennsylvania. As the mother of two young men on the autism spectrum much of the past twenty-four years has been devoted to understanding the needs, strengths, and weaknesses of individuals on the spectrum at each stage of development. She has a B.S. degree in accounting, an MBA with a focus on finance and investments, and is currently working on a PhD in Strategic Leadership and Administrative Studies. She is a Certified Public Accountant who owns an accounting firm with two offices and has faced the struggles of employment from both the employer and the employee sides as her children have entered the job market. She currently resides in Tunkhannock, Pennsylvania with her two children, two dogs, and one cat.

References

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). https://doi-org.ezproxy.frederick.edu/10.1176/appi.books.9780890425596
- Autism and unemployment (2022). Azura Thought Project. Retrieved on September 1, 2022. https://azurathoughtproject.com/autism-unemployment/
- Sensory issues. (2022). Retrieved September 3, 2022 Autism Speaks website: https://www.autismspeaks.org/sensory-issues
- Bangerter, A., & Mayor, E. (2022). Interactional theories of communication. 10.1515/978311024 0450.257.
- Cage, E., Monaco, J., & Newell, V. (2018). Experiences of autism acceptance and mental health in autistic adults. J Autism Dev Disord. 48, 473–484 https://doi.org/10.1007/s10803-017-3342-
- Career Advice Experts. (2021). Top 14 skills for interview success. Retrieved September 15, 2022 Glassdoor website:https://https:www.glassdoor.com/blog/guide/skills-for-interview
- Carroll, P. (2022). The six most common misconceptions about autism. Retrieved September 9, 2022 Autism advocate website:https://www.autismadvocate.org
- Chen, J., Leader, G., Sung, C., & Leahy, M. (2015). Trends in Employment for Individuals with Autism Spectrum Disorder: a Review of the Research Literature. *Review Journal of Autism and Developmental Disorders*, 2(2), 115-127. https://doi.org/10.1007/s40489-014-0041-6
- Flower, R., Hedley, D., Spoor, J., & Dissanayake, C. (2019). An alternative pathway to employment for autistic jobseekers: a case study of a training and assessment program targeted to autistic job candidates, *Journal of Vocational Education & Training*, 71(3), 407-428. https://doi.org/10.1080/3636820.2019.1636846
- Harmuth, E., Silletta, E., Bailey, A., Adams, T., et al. (2018). Barriers and facilitators to employment for adults with autism: a scoping review. *Annals of International Occupational Therapy*, 1(1), 31-40. https://doi.org/10.3928/24761222-20180212-01
- Hendricks, D. (2010). Employment and adults with autism spectrum disorders: Challenges and Strategies For success. *Journal of Vocational Rehabilitation*, *32*(2), 125-34. https://doi.org/10.3233/jvr-2010-0502

- Henegan, K. (2010). Effects of explanatory autism disclosure on coworker attitudes. (Honors project, Illinois Wesleyan University, 2010). http://digitalcommons.iwu.edu/ psych_honproj/138
- Hensel, W. (2017). People with autism spectrum disorder in the workplace: an expanding legal frontier. Harvard Civil Rights Civil Liberties Law Review (CR-CL), Vol. 52, 2017, Georgia State University College of Law, Legal Studies Research Paper No. 2017-01, Available at SSRN: https://ssrn.com/abstract=2916911
- Lopez, B., & Keenan, L. (2014). Barriers to employment in autism: future challenges to Implementing the Adult Autism Strategy. Autism Research Network. Retrieved October 15, 2022, from http://www.autismrpphub.org/sites/default/files/articles/employment _report.pdf
- Lorenz, T., Frischling, C., Cuadros, R., & Heinlitz, K. (2016). Autism and Overcoming Job Barriers: Comparing Job-Related Barriers and Possible Solutions in and outside of Autism-Specific Employment. PLOS ONE, 11(1), Article e0147040. https://doi:10.1371/journal.pone.0147040
- Mcleod, A., Lewis, A., & Robertson, C. (2013). Why should I be like bloody Rain Man?! Navigating the autistic identity. https://onlinelibrary.wiley.com/doi/epdf/10.1111/1467-8578.12015
- McIntosh, C. (2016). Asperger's Syndrome and the Development of a Positive Work Identity. *Journal of Business and Management*. 22(1). 87-102.
- Merriam-Webster. (n.d.). Employer. In Merriam-Webster.com dictionary. Retrieved April 25, 2022, from https://www.merriam-webster.com/dictionary/employer
- Office of Disability Employment Policy. (n.d.). *Disability employment statistics*. U.S. Department of Labor. https://www.dol.gov/agencies/odep/research-evaluation/statistics
- Parenting a child with autism (n.d.). Retrieved September 3, 2022 from Psychology Today website. https://www.psychologytoday.com/intl/basics/autism/parenting-child-autism
- Pearson, V. & Ip, F. & Hui, H. & Yip, Nelson & Ho, K.K. & Lo, E. (2003). To Tell or Not to tell; Disability Disclosure and Job Application Outcomes. *Journal of Rehabilitation*. 69. 35-38.
- Robertson, C., Baron-Cohen, S. (2017) Sensory perception in autism. *Nat Rev Neurosci* 18. 671–684. https://doi.org/10.1038/nrn.2017.112

- Scott, M., Falkmer, M., Girdler, S., & Falkmer, T. (2015). Viewpoints on Factors for Successful Employment for Adults with Autism Spectrum Disorder. PLOS ONE, 10(10), Article e0139281. https://doi.org/10.1371/journal.pone.0139281
- Scott, M., Jacob, A., Hendrie, D., Parsons, R., Girdler, S., Falkmer, T., & Falkmer, M. (2017). Employers' Perception of the costs and the benefits of hiring individuals with autism https://doi.org/10.1371/journal.pone.0177607
- Sensory issues. (2022). Retrieved September 3, 2022 Autism Speaks website: https://www.autismspeaks.org/sensory-issues
- Sharpe, M., Hutchinson, C., & Alexander, J. (2022). The Lived Experiences and Perspectives of People with Autism Spectrum Disorder in Mainstream Employment in Australia. *Disabilities*, 2(2), 164–177. MDPI AG. Retrieved from http://dx.doi.org/10.3390/disabilities2020013
- Staff Writer. (2020, May 27). Retrieved September 12, 2022 from Reference website:https://www.reference.com/world-view/four-major-ethical-theoriesfe06344fe488fa54
- U.S. Bureau of Labor Statistics. (n.d.). *Labor force statistics from the current population survey*. https://www.bls.gov/cps/cps_over.htm
- When and if to Disclose ASD. (2019, October 23). Retrieved September 12, 2022 from Organization for Autism Research Website.
- Why is the autistic unemployment rate so high. (2018). Retrieved September 6, 2022 Autism Recovery Network website:https://www.thinkingautismguide.com/2018/02/why-is Autistic-unemployed-rate-so.html
- Wilson, Bernadette. (2020, February 7). 7 Tech Companies that hire autistic adults. Retrieved September 9, 2022 from Daivergent website: https://daivergent.com/blog
- Wolgemuth, J., & Agosto, V. (2019). Narrative Research. 10.1002/9781405165515. Wbeos1244.
- Young adults with autism more likely to be unemployed, isolated (2015, April 21). Retrieved September 3, 2022, from NPR Public Health website. https://www.npr.org

Appendix A

Informed Consent Form

Title: What are the causes of the high rate of unemployment in the United States among people with Autism?

Principal Investigator (PI): Name redacted for this submission - Student at Marywood University
Principal Investigator Contact Information: redacted for this submission

Invitation for a Research Study

You are invited to participate in a research study about the causes of the high rate of unemployment among people with autism. You were chosen because you are an individual over the age of 18 who has been diagnosed with an autism spectrum disorder who is currently a member of the workforce. Please read this form. Ask any questions you may have before agreeing to take part in this study.

Purpose – About the Study

The purpose of this study is to gather information to explain the causes of the high unemployment rate among individuals with autism.

Procedures - What You Will Do

You will be answering questions about your job seeking history in person with the researcher. Your answers may lead the researcher to more related questions.

Risks and Benefits

The risks are no greater than the risks in daily life or activities.

A benefit may be that both employers and employees along with potential coworkers will recognize what is causing this high unemployment rate among individuals with autism and upon recognizing the problem, work together to initiate further research in order to solve the problem and get more individuals with autism in successful employment positions.

Payment or Other Rewards

You will not receive a payment or reward.

Confidentiality

The records of this study will be kept private. Information used in any written or presented report will not make it possible to identify you. Only the researcher and the research advisor till have access to the research records. Records will be kept in a locked file. Records will be kept for 3 years. They will then be shredded and/or deleted as appropriate.

No web-based action is perfectly secure. However, reasonable efforts will be made to protect your transmission from third-party access.

Taking Part is Voluntary

Participation is voluntary. Your decision whether or not to participate will not affect your current or future relationship with the investigator. It will not affect your relationship with Marywood University. You may withdraw your at any time until the interview is conducted. There will be no penalty. To withdraw before or during the interview process, you can simply let the interviewer know that you wish to withdraw. Your information will be deleted or shredded as appropriate. Once you have completed the interview, your answers will become part of the study.

Contacts and Questions

If you have any questions about this study at any time, contact the principal investigator. Her contact information appears at the top of page one.

Statement of Consent

Your receipt of this document signifies that:

- You understand what the study involves.
- You have asked questions is you had them.
- You agree to participate in the study.

Printed Name of Subject or Legally Authorized Representative	
Signature of Subject or Legally Authorized Representative	Date
Printed Name of Authorized Person Obtaining Informed Consent	Date
Signature of Authorized Person Obtaining Informed Consent	Date