Journal of Autism and Developmental Disorders (2020) 50:4209–4217
https://doi.org/10.1007/s10803-020-04537-w

COMMENTARY

Autism and Employment: Implications for Employers and Adults with ASD

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Published online: 15 May 2020

Abstract

A small but growing body of research has been conducted on vocational outcomes for adults with Autism Spectrum Disorder (ASD); however, limited resources have been directed towards understanding outcomes for competitive employers. While ASD does present with a range of social communication and adaptive behavior deficits, adults on the spectrum may be extremely efficient, trustworthy, reliable, and cost-effective employees. Nevertheless, fewer than half of young adults with ASD maintain a job. Many businesses are unwilling to hire these capable candidates, concerned among other things about an increase in supervision costs and a decrease in productivity. This is a bias based on misperceptions; the financial and social benefits of hiring adults with ASD, for businesses and the individual, often outweigh the costs.

Keywords Autism spectrum disorder (ASD) · Employment · Rehabilitation · Competitive employment · Vocational habilitation · Employer outcomes

Introduction

Today, one quarter of American life is spent at work (Warr and Clapperton 2010). The financial motivations of vocation aside, employment is an integral part of the American self-concept and, indeed, of the much-trumpeted American dream. Jobs are ever-flowing sources of friendship, socialization, identity, and achievement, adding meaning and structure to life while simultaneously providing personal and familial financial stability. Recent research suggests that 82% of Americans have close friendships with at least five people at work, while 29% of those friendships are with best friends (Olivet Nazarene University 2019). Having a job has also been shown to improve subjective well-being by as much as 30% as compared to those who are unemployed (Helliwell et al. 2018). In this regard, the effects of employment extend far beyond bank balance—they extend to relationships, social status, goals, and even personal validation. That said, the financial security of a paycheck cannot be overstated. From paying for essential needs including food, housing, and healthcare, to ensuring financial stability in retirement and reduced reliance on government funding, access to dependable income through employment is critical. With American unemployment at an all-time low of 3.5%, these benefits may be more accessible than ever (U.S. Department of Labor 2019). However, for many with Autism Spectrum Disorder (ASD), access to employment is extremely limited — and so those with ASD are often forced to forego the tangible and intangible benefits of vocation, fenced off by a myriad of naive prejudices and discriminatory social, financial, and political barriers.

While the overall American job market is flourishing, statistics on employment opportunities for adults with ASD paint a grimmer picture. Over the past ten years, the prevalence of ASD has increased dramatically. Today, 1 in 59 children is diagnosed with ASD, a 15% increase over 2012, and the highest prevalence the CDC has reported since it began tracking the disorder in 2000 (CDC 2018). With this increase has come a heightened demand for employment; however, today, this demand far exceeds supply (Gerhardt et al. 2014). Research by Roux et al. (2015), suggests that only 58% of young adults in their early 20s with ASD are employed. Supporting data from the CDC (2018) indicates

The author is grateful for the opportunity to work with students in the Asperger Syndrome Adult Transition Program (ASAT) at Chapel Haven Schleifer Center in New Haven, Connecticut. Their search for employment inspired this paper.

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that in 2014, only 60% of the 18,000 individuals with ASD in state-funded vocational rehabilitation programs attained employment. For those adults on the spectrum not receiving aid, employment outcomes are purported to be even poorer (Gerhardt et al. 2014). This employment rate is also far below outcomes reported for other disability groups including those with learning and intellectual disabilities (Roux et al. 2015). In fact, it is even lower than the employment rate of ex-convicts who achieve a more inspiring 75% rate of employment (National Justice Institute 2013). Research by Scott et al. (2017) suggests employers are apprehensive and unwilling to hire adults on the spectrum, associating ASD hires with an increase in operating costs and a decrease in productivity. That perception is likely the result of limited societal knowledge about ASD and a dearth of effective transition services. Nevertheless, as it stands now, the employment potential for adults on the spectrum is considerably limited.

Lack of access to employment may have a number of devastating personal, familial, and financial effects on adults with ASD, leaving even the highest cognitively functioning stranded after high school or college graduation. Failure to acquire employment bars adults with ASD from being active, productive, and positive members of society. This is particularly true insofar as employment enables adults with ASD to acquire and polish the life and social skills they may have begun to acquire through transition programs. Unemployment, in contrast, excludes adults on the spectrum from the practical application and evolution of these skills, and may lead to the loss of these skills over time. Moreover, while state-funded programs are available, the best private, day or residential transition programs are expensive, with tuition on the order of $75,000 per year and additional room and board charges brining the cost to nearly $100,000 per year (Butterworth et al. 2012). With median household income in the U.S. in 2018 at only $61,937, the average American on the spectrum and their family simply cannot afford to pay for private transition services (U.S. Census Bureau 2018). Even for those families earning above median income, tuition alone may put them into significant financial hardship or bankruptcy. Because of the presumed genetic contribution to ASD, these financial struggles may also manifest themselves in subsequent generations, causing an even greater economic impact on potential parents with ASD (U.S. National Library of Medicine, 2019). More concerning, research by Stone (2019) suggests that as a result of unemployment, adults on the spectrum are at increased risk of homelessness. This is especially worrying given the adaptive behavior deficits many adults with ASD demonstrate (Bodfish et al. 2000).

Even if employment is achieved and the negative outcomes of unemployment averted, Gerhardt et al. (2014) explain that adults with ASD receive significantly lower wages than those not on the spectrum. In fact, of those adults who attained employment in the aforementioned CDC (2018) study, 80% worked part-time, making a median weekly salary of $160. Not only does this salary place these individuals below the poverty line, but also it is merely one-fifth of what the average American makes in a week ($1066 for men and $857 for women) (U.S. Department of Labor 2020). The social inequalities of this reality aside, the wage disparity may be psychologically damaging to adults with ASD and their self-concept as equally contributing members of society. The wage gap also appears unjustified given new research indicating the "trustworthiness, reliability, integrity, attention to detail and low absenteeism" (Scott et al. 2017, pg. 2) of many adults with ASD. While employers may be hesitant to hire adults with ASD because of a flawed understanding of the associated social and financial implications for business, research such as this suggests that the benefits of hiring adults on the spectrum far outweigh the costs (Scott et al. 2017). Some government programs, big retail employers, and transition services for vocation or college seek to reduce this employment disparity, and to train adults with ASD so that they may overcome these poor odds. However, with rates of ASD expected only to increase in the next ten years, it will take a united front on the part of policymakers, employers, private institutions, families, and the ASD community to provide the necessary transition programming and achieve meaningfully increased access to employment (CDC 2018; Gerhardt et al. 2014).

Discussion

Implications of ASD Symptoms in Employment

ASD is an extensive neurodevelopmental disorder primarily characterized by difficulty integrating necessary social communication skills and adaptive behavior (CDC 2018). Many adults with ASD also show repetitive or compulsive behaviors, challenges adapting to change in routine, an interest in atypical objects, and heightened or decreased reactions to one or more of their senses (CDC 2018; Scott et al. 2017). These characteristics, while significant both at the individual and employment level, are variable depending on where one falls on the spectrum, and often are not discernible to the naked eye at all; ASD is often a so-called "invisible disability." That said, they manifest positive and negative qualities in the context of attaining and maintaining employment, which are pertinent to both adults with ASD and employers.

In the context of securing employment, one of the greatest obstacles for adults with ASD is promoting themselves in an interview (Scott et al. 2017). Interviews are at their core a social test. They examine a candidate's ability to synthesize past experiences in a way that not only demonstrates high intellect, but also indicates and manifests some degree

of social competency. Interviewers, as described on the Autism Speaks Job Preparedness Tool Kit (2018a), demand applicants to conform to a fundamental list of behavioral norms such as focused conversation; listening without interrupting; good grooming, hygiene and dressing; handshakes; understanding and reciprocating facial expressions; and eye contact. However, for many adults on the spectrum, these normative behaviors are not easily learned or enacted. Moriuchi et al. (2016) demonstrated a diminished attention to eyes; Loth et al.(2018) demonstrated deficits in recognition of facial expressions; Matson et al. (2009), discussed a general lack of independent living skills including grooming, hygiene, dressing and bathing; and Bodfish et al. (2000), showed a variety of repetitive behaviors and tendency to interrupt. These non-normative behaviors have made many employers unwilling to hire adults with ASD (Scott et al. 2017). In fact, Scott et al. (2017) showed that employers rated 1 in 5 job candidates with ASD as showing significant deficits in social interaction skills. Whether it is because employers are made to feel uneasy by these atypical behaviors, or because these behaviors indirectly suggest to employers that candidates may have unrelated deficits in other areas such as cognition or intellect, or because employers perceive that normative social behavior is required to do the job being contemplated, or because employers feel that non-normative social behavior would put off colleagues, this research suggests that it may be the interview stage that presents the greatest challenge for adults with ASD; a critical reason why the ASD population faces such a high rate of unemployment (Roux et al. 2015).

Following through with the required drafting and submission of application materials may present as another obstacle to employment for many adults with ASD. According to Adreon and Durocher (2007), many young adults on the spectrum struggle with time management. This is particularly significant because the job application process requires being organized and timely with requested materials. Whether it is submitting a cover letter and resume by a due date, responding to a potential employer's email, or arriving at an interview as scheduled, time management is critically important to receiving a job offer. Moreover, adults with ASD may face difficulties in confidently reaching out to potential employers. Kim (2014), discusses how many adults with ASD are incredibly shy and quiet. This may pose an issue, as self-advocacy and confidence are paramount when seeking a job, and employers expect a certain degree of demonstrated interest and enthusiasm. Many support programs work with students in areas such as self-confidence and time management – offering life skills classes on public transportation, interview preparation, and budgeting. However, these are skills that, while intuitive for people without ASD, must be learned over time by those with ASD, requiring repeated weekly attention by instructors. For the vast majority of those with ASD, who are not fortunate enough to be enrolled in top-of-the-line programming, time management and self-confidence may be hard learned, in turn creating a barrier to employment.

None of this is to say that there are not limitations in what kinds of jobs are suitable for people with ASD. Adults with ASD may struggle to find employment with a scope that does not exceed their psychosocial and cognitive abilities. Just as with interviews, almost all jobs involve some degree of interpersonal communication, flexibility around routine, and emotion regulation. As the Autism Society (2019) reports, adults with ASD should only examine jobs which require limited social interaction and have clearly defined goals; additional help may be found through a system of support and relevant workplace accommodations. While such jobs do exist, these parameters are undeniably limiting and may explain the U.S.'s poor employment outcomes for adults on the spectrum (Roux et al. 2015). Moreover, once employment is attained, adults with ASD may struggle to acclimate to new work environments and expectations, to recall and follow instructions, and to work and correspond productively with co-workers (Scott et al. 2017). These social and cognitive differences may explain why the average employed adult with ASD only maintains their job for roughly 2 years as compared to the national average of 4.2 years (Wei et al. 2018; U.S. Department of Labor 2018). Based on this data, it seems that the low employment rate of adults with ASD sometimes stems from the actual and perceived challenges inscribed in the disorder itself, manifesting within each stage of employment, including the application process and interview, the actual assigned work, and even possible reprimands, resignation or termination (Scott et al. 2017).

Despite these struggles, many adults with ASD demonstrate strengths associated with being on the spectrum—strengths which when understood and applied to the right job and circumstances, may make those on the spectrum particularly efficient and cost-effective employees (Scott et al. 2017). Adults with ASD tend to demonstrate a higher degree of reliability and dependability, and many show superior concentration and patience for repetitive work (Scott et al. 2017; Baldwin et al. 2014). Within the right employment context, these skills could prove to be significant assets to businesses. Jobs involving sameness, routine, and a need for accuracy, such as assembly line manufacturing, computer programming, or laboratory work, while apparently dull for many typical workers, may be especially suitable for adults with ASD (Hagner and Cooney 2005). These jobs not only allow for stable routines to be established, but also require limited social interaction with customers or coworkers. Moreover, many of these jobs, particularly assembly line and computer work, require a degree of precision that much of the mainstream population lacks the patience or calm to complete. In addition to these traits, adults with ASD

are also likely to demonstrate a number of other desirable traits, including trustworthiness, honesty, and integrity—traits that Hillier et al. (2007) demonstrated to be rated as highly important in the eyes of employers (Scott et al. 2017). Despite the fact that many employers acknowledge the presence of these beneficial traits in employees with ASD and rate the work of such employees as extremely strong, the high unemployment rate of those with ASD suggests that there may still be other factors at play (stigma, lack of knowledge, economic impacts, etc..) causing employers to turn their backs on the available ASD workforce even for the jobs for which they are most suitable (Hagner and Cooney 2005; Hillier et al. 2007).

Employment Related Services

There is a wide array of private and fully state-funded services aimed at educating and preparing individuals with ASD for competitive employment. These services primarily include day and residential transition programs and supported employment programs (Gerhardt et al. 2014). The outcomes of these programs are widely variable. While some studies have suggested that such programs overall are underfunded, understaffed, not adequately effective and financially prohibitive, others have indicated extremely positive outcomes, including an increased chance of competitive employment, higher job satisfaction, and improved independent living skills (Gerhardt et al. 2014). These mixed reviews suggest that the efficacy of such programs is affected not only by outside sources including budget and staffing, but also by the nature, type, and scope of the programs themselves.

Vocational and Pre-Vocational Habilitation

Gerhardt et al. (2014), propose that transition programs continue to be the most popular service for those with ASD. Transition programs offer a wide array of supports aimed at educating and supporting those with ASD to prepare for, find, and achieve employment. These programs, primarily focused around social communication and independent living skills, include classes, exercise programs, basic education, college guidance, and employment support. These skills are significant for daily functioning and are tremendously important within an employment context. Transition programs act as a necessary steppingstone to employment for hundreds of thousands of students every year. That said, research on accessibility to such programs is mixed. Lawler et al. (2009) report that upwards of 4% of ASD cases are dismissed by state-funded transition programs due to the disability being too great. Moreover, McDonough and Revell (2010) discuss the high degree of individual focus many vocational programs choose to institute, creating an Individualized Plan of Employment (IPE) for every person. This individual focus, coupled with the growing prevalence of ASD, may be the reason why transition services for ASD rank among the highest total costing habilitation services in the U.S. (Cimera & Cowan 2009). While state-funded transition programs have limited resources, those families who have the money to apply to private programs may find that such services effectively teach social communication and independent living skills; even though they do not alter the fundamental nature of autistic thinking and perception, they ultimately bolster student preparedness for competitive employment (Gerhardt et al. 2014).

As one of the private, better funded, well-staffed, and respected community-based transition program for young adults with ASD, Chapel Haven Schleifer Center (Chapel Haven) in New Haven, Connecticut has done an effective job preparing students for employment. Chapel Haven boasts an 85% employment rate after graduation, a stark contrast to the aforementioned 58% reported by Roux et al. (2015). In talking with Chapel Haven students about why Chapel Haven and similarly well-funded private programs across the U.S. may achieve such positive employment outcomes, one of the major themes discussed was an individualized focus. Class sizes at Chapel Haven are significantly lower than those in many other programs, while instructor-to-student ratio is significantly higher. This enables a far greater level of individualized learning, enabling instructors to provide immediate and relevant feedback, and ultimately allowing students better to understand, internalize, and implement what they learn in real world contexts. This is seemingly the inverse of many other programs which, because of limited resources, are not consistently able to offer a high level of individualized instruction (Gerhardt et al. 2014).

In addition to student feedback, instructors at Chapel Haven argue that the school's emphasis on social communication and independent living skills, as opposed to more typical collegiate curricula, may be another reason the program achieves such significant employment success. Many ASD programs, in addition to social skill building, mix in classes in math and quantitative skills, sciences, and humanities, supplementing what students are learning in high school or college. Chapel Haven's choice not to integrate such curricula may actually benefit students, allowing more time for them to focus on social communication and independent living skills. While adults with ASD have been shown to display learning and cognitive weaknesses, ASD is primarily defined, as previously explained, by deficits in social communication skills (Scott et al. 2017; CDC 2018). Moreover, while knowledge of typical school subjects may be useful in certain contexts, in the larger context of employment, this information may not be as useful. While many jobs aimed at individuals with ASD maintain less stringent expectations regarding social communication and independent living

skills, employers may still require some degree social competency, not to mention effective time management, focus, and awareness. In contrast, knowing the finer details of calculus or genetics is far less important. In this regard, Chapel Haven may have better employment outcomes because it focuses its curriculum on the areas that matter most to baseline employers and disregards the less job-relevant curricula, though of course jobs such as computer programming may require academic knowledge. It is important to note that Chapel Haven is far from alone when it comes to placing an emphasis on social communication and independent living skills. Gerhardt et al. (2014) note the wide array of services, public and private, offering such instruction. Taking Chapel Haven as an exemplar, it appears that access to transition services are a critical component to job preparedness. If all higher cognitively functioning adults with ASD could access programming that places an emphasis on social communication and independent living skills combined with a high level of individualized focus, perhaps employment outcomes for adults with ASD would be higher.

Supported Employment

Supported employment is a specialized method of employment first established in the U.S in the 1980s, whereby employees with developmental disabilities receive individual aid, training, and support within a carefully constructed, stable work environment (Gerhardt et al.2014; García-Villamisar & Hughes 2007). Supported employment programs aim to provide an individual level of support and guidance to employees not yet ready or able to enter competitive work environments. The Rehabilitation Service Administration's (RSA) stated goal for supported employment is to help individuals achieve integrated employment, where people with ASD are placed within a non-disabled working population; however, a key component of supported employment is ongoing support even once integrated employment is achieved (Gerhardt et al. 2014). García-Villamisar and Hughes (2007), examined adults with ASD and determined that supported employment may lead to improved cognitive performance and quality of life, while Mawhood and Howlin (1999) demonstrated that supported employment may lead to comparatively superior income, job satisfaction, and social involvement. Mawhood and Howlin (1999) further showed that employers utilizing supported employment reported extremely positive experiences, rating employee work as high-quality. Additionally, when asked about weaknesses, employers had little to no negative feedback to offer (Mawhood and Howlin 1999). This data suggests that public and, often, employer perception of the ASD workforce may not align with its actual abilities. Despite the fact that employers utilizing supported employment programs acknowledge the benefits and admit that there are limited weaknesses of the ASD workforce, the high ASD unemployment rate suggests that job applicants with ASD are hampered by common misperceptions, stigma, or lack of knowledge about ASD, all of which leads businesses not to hire adults on the spectrum.

Competitive Employment

Around the world today, particularly in the U.S., some competitive employers are beginning to consider the ASD population as an option for their workforces. Larger retail employers such as Walgreens, Home Depot, CVS, and AMC have created entire programs for disability hiring, while companies in the technology industry, such as Microsoft and Facebook, are now getting onboard as well. While the support systems at these companies are diverse and often significantly less far-reaching than what someone with ASD would receive in a stricter supported employment environment, many are actually quite comprehensive. Walgreens and CVS run a program to evaluate employees' disabilities to help find them the ideal placement and work setting, Home Depot provides job matching, job coaching, and community support, and AMC has partnered with Autism Speaks to cultivate an outreach program directed towards hiring potential employees with ASD (Rudy 2019). While these three examples are just a glimpse into the variable support systems competitive employers across the U.S. offer, they speak to the burgeoning efforts of many employers who are beginning to recognize the advantages of hiring on the spectrum. As employers educate themselves on the social and economic benefits of hiring adults with ASD, employment outcomes for those on the spectrum seem likely to improve (Roux et al. 2015).

Negative Societal Attitudes and Discrimination

Negative societal attitudes, stereotypes, and stigma towards people with ASD may explain why many competitive employers decline to hire adults on the spectrum (Gerhardt et al. 2014). For years, individuals with ASD have been characterized in popular media (for example, *Rain Man*, *Forest Gump*, or *My Name Is Khan*) as troubled or emotionally unstable — characteristics that may be interpreted as weaknesses by employers. Stories in the press often present people with ASD who have committed murders or engaged in other horrifying behavior or crime, though the rate of such behavior in people with ASD is in fact lower than in the general population (Brookman-Frazee et al. 2009; Mouridsen et al. 2008). Perhaps a result of popular media or perhaps just because of a general lack of knowledge about ASD, many employers, according to Scott et al. (2017), when confronted with the opportunity to hire individuals on the spectrum are hesitant and unwilling to do so. Moreover, according to Scott et al. (2017), employers believe that

individuals with ASD will be less efficient and productive than their non-disabled counterparts. Due to the noticeable and atypical nature of its symptoms, specifically normative social deficits, ASD is also uniquely stigmatized (Butler and Gillis 2011). This stigma may play a critical role in the hiring processes, leading employers knowingly or unknowingly disregard the application of an adult with ASD because they have been conditioned by society and popular media to view individuals on the spectrum as troubled, dangerous, mentally ill, emotionally challenged, and unfit for employment (Butler and Gillis 2011).

Johnson and Joshi (2014) suggested that individuals with ASD may also be victims of stereotyping and discrimination. These stereotypes take the form of preconceived assumptions about adults with ASD including such individuals being dangerous and rude (Johnson and Joshi 2014). Given the negative societal attitudes attached to ASD, disclosure of a candidate's ASD may negatively impact his or her chances of getting hired. For individuals on the spectrum who are already employed, disclosure of an ASD diagnosis may impact coworker perception, leading to further negative attitudes and discrimination. This hostile social response is not only unjust, but could be psychologically damaging and embarrassing for many with ASD, possibly leading them to resign: the worst outcome for all parties. Adverse perception may also negatively impact the general quality of life for adults with ASD in the workplace, as people, even if unintentionally, tend to treat those with a disability differently. Moreover, as previously discussed, the deficits of people with ASD may explain the discriminatory wage gap between those with and without ASD. While the majority of negative workplace stereotypes are misinformed and the stigma and negative attitudes are unwarranted, these factors combined may explain why the unemployment rate for adults with ASD remains so high. Moving forward, it is critical that employers educate themselves about ASD so that they may make reasoned and fair hiring decisions.

Economic Considerations

Privately owned businesses have a fiduciary responsibly to their shareholders, and so the perceived economic costs of hiring adults on the spectrum weighs heavily on many employers. Scott et al. (2017) showed that many are concerned about incurring higher costs as a result of hiring adults with ASD. However, the same research by Scott et al. (2017) also suggests that hiring on the spectrum does not in fact increase costs. The first reason for this may be that adults with ASD earn lower wages than those without ASD. Scott et al. (2017) suggest that this may be because employees with ASD primarily work part time positions, making less and receiving fewer benefits than their non-disabled, full-time counterparts. Hernandez and McDonald (2010) suggested that employers believe supervision and oversight costs for adults with ASD will be higher; however, Mavranezouli et al. (2014) demonstrated that the difference in supervision costs between employees with and without ASD is less than £18 per week. This research suggests that while employers perceive the cost of hiring adults with ASD to be high, the expense is in fact indistinguishable if not lower from that associated with similar non-disabled hires.

In the U.S., the Internal Revenue Service (IRS) offers three critical tax incentives that make hiring individuals with ASD even more cost-effective for business of all sizes (IRS 2019). The first of these is the Disabled Access Credit incentive. This incentive offers a tax credit of up to $10,000 per year to small businesses (revenue under one million USD, 30 or fewer employees) that provide employment to people with disabilities (IRS 2019). Second is the Barrier Removal Tax Deduction which allows businesses of all sizes to deduct up to $15,000 a year on expenses for removing architectural and transportation barriers that impact the mobility of individuals with disabilities (IRS 2019). While ASD does not necessarily manifest itself with mobility troubles, many people with ASD display problems with fine motor skills leading to uncoordinated or clumsy movement (Stins and Emck 2018). In this regard, companies should not feel economically disadvantaged by costs relating to the creation of such things as ADA compliant walkways, because the IRS, with this tax incentive, will cover many of these expenses (IRS 2019). Finally, the IRS offers a work opportunity tax credit of up to $9,600 for every employee hired with disability, including adults with ASD (IRS 2019). Applying these three tax incentives, even if supervision and oversight costs are indeed higher, costs should reasonably normalize. In fact, if filed consistently for every eligible employee, businesses may be able to save money and reduce costs by hiring individuals with ASD.

Corporate Social Responsibility

Businesses utilizing the ASD workforce may benefit from a favorable public eye. Corporate Social Responsibility (CSR) refers to the do-good economic, social, and humanitarian practices put in place by businesses. CSR initiatives can be incredibly beneficial from a marketing perspective, driving sales and increasing revenue (Thorpe 2018). Just as green initiatives to reduce plastic bags have drawn positive attention to many big chain supermarkets in recent months (Kelly 2019), so may ASD hiring initiatives be seen as socially responsible and benevolent. This positive attention may in turn manifest itself in increased sales and new customers. In a world driven by social media, newsworthy, innovative, and socially responsible business strategies regarding a disadvantaged population have the potential to lift a business into the favorable eyes of the nation's informed and sympathetic

citizens. Coupling effective marketing with programs aimed at hiring adults with ASD may in fact be revenue-driving and cost-effective for businesses.

Employer Reactions

Research suggests that once employed, individuals with ASD are evaluated far more favorably by their employers. Scott et al. (2017) showed that over 50% of employers indicated friendly interactions amongst employees with and without ASD, while only 20% of employers reported any sort of interpersonal struggle. Employers also noted that the presence of ASD hires increased respect for and awareness of ASD (Scott et al. 2017). It led also to improved morale and facilitated innovative idea formulation across the company (Scott et al. 2017). Despite some less positive reports regarding instances of miscommunication and need for extra supervision, employer reactions regarding the impact of hiring adults with ASD was overall extremely positive (Scott et al. 2017). In fact, the majority of employers indicated that they would hire more employees with ASD if given the chance and would endorse hiring adults on the spectrum to a colleague (Scott et al. 2017). This data suggests that while the benefits of hiring adults with ASD far outweighs the costs, a mismatch between the perceived and actual business costs of hiring on the spectrum continues to result in an underutilized ASD workforce.

Recommendations

Employer Recommendations

Importantly, competitive employers must educate themselves and their hiring teams on the effects of employing adults with ASD. As employers come better to understand the positive economic impacts of hiring individuals on the spectrum — including increased productivity and access to government tax breaks — it is likely that competitive employment offerings for the ASD population will begin to appear in greater number. Offering jobs to adults on the spectrum will not only benefit competitive employers, but it will also work to reduce stereotyping and increase ASD awareness among an American population much of which may be misinformed about the true nature, symptoms, and outcomes of the condition. Finally, to the extent that it is economically sound, employers should integrate support services such as those used by Walgreens, HomeDepot, and CVS. Programs ranging from ASD employee outreach initiatives to increased daily supervision and support may not only improve the subjective well-being and long term outcomes of employees with ASD, but may also be economically advantageous for businesses. (Scott et al. 2017; Gerhardt et al. 2014).

Policy Recommendations

Funding for ASD related services including day and residential transition programs and supported employment needs to be increased. As has been shown in this analysis, the efficacy of many programs in supporting competitive employment for people on the spectrum may affect institutes' abilities to work with adults with ASD on a more individualized and personalized level. This requires hiring more staff, moving away from broken employment systems such as sheltered employment, reworking curricula to align with the needs of students (including moving away from programs focused only on academic support), creating more programs to meet the needs of the growing ASD population, and, most importantly, securing the funding necessary to make these changes possible. While federal funding for ASD-related services in 2018 increased dramatically—including an additional $2 billion for the National Institutes of Health (NIH), an additional $150 million for the National Institute of Mental Health (NIMH), and an additional $23.1 million for autism activities at the Centers for Disease Control and Prevention—it is critical that the federal government continue to increase its funding for these services so that employment outcomes for adults with ASD may match their innate abilities (Autism Speaks 2018b). Lastly, the federal government, specifically the IRS, should broadcast its tax cuts and economic incentives more loudly to the business world, so that a greater number of employers may realize the economic advantages of hiring adults with ASD.

Employment Related Services Recommendations

Day and residential transition programs should focus on social and living skills. While academic support can be useful in some contexts, it does not support the long-term competitive employment outcomes that many with ASD may be able to achieve. Moreover, to the extent possible, transition services should focus on the individual. As described above, it may be this individualized approach and high instructor-to-student ratio that has led to the most successful outcomes. Employers, both in supported and competitive work environments, realizing the value added by hiring adults with ASD, should take steps to reduce the wage disparity, paying their employees fairly and equitably. Not only is this morally correct, but it might facilitate growth and independence among employees with ASD, so mustering greater value, while also demonstrating to them that they are valued, respected, and should stay employed.

Increasing wages may also solve issues surrounding healthcare for adults with ASD. Many adults with ASD with part-time or minimum wage employment earn too much to qualify for Medicaid, but not enough to pay for health insurance (Gerhardt et al. 2014). Accordingly, an increase in wages will enable employees with ASD to pay for health insurance if they no longer qualify for Medicaid. Annual salaries just above the Medicaid cutoff may actually be more damaging than low salaries below the cutoff. In this regard, fair wages are especially important given the high medical costs associated with ASD, which are reported to be over $7,438 per year (Wang et al. 2013).

Policymakers may have a role to play in solving this problem. Social Security disability insurance (SSDI) currently limits its services to individuals making less than $1,170 per month (U.S. Social Security Administration 2020). This in turn disincentivizes individuals with high medical costs from obtaining employment which does not offer built-in health insurance. Since many of the part-time jobs available to individuals with ASD out of high school do not include health insurance, some on the spectrum may feel that the benefits of government assistance outweigh those of employment. Policymakers should consider loosening the income restrictions for SSDI in order to promote employment among adults with ASD.

Employee Recommendations

To the extent possible, adults with ASD should make efforts to attain competitive employment. By actively engaging with transition programming and learning some social communication and independent living skills, adults with ASD can put themselves in an ideal position for competitive employment. Parents of children and young adults with ASD should provide the time and resources necessary to locate and apply to the best transition services they can reasonably access. Parents can have a major effect on the attitude and aspirations of their children, from whether they want to go to college to what kind of employment they might be interested in. One of the major issues in interpreting the existing literature is the selection bias: often it focuses on parents who can afford to send their adolescent and young adult children to more intensive support programs. As the incidence of ASD continues to climb across all socioeconomic groups, despite the fact that employers may be more cognizant of the benefits of hiring on the spectrum, it is likely the parents with the financial resources to pay for first-rate services who will end up with the best employment outcomes for their children, so extending concerns of income inequality and poor social justice.

Compliance with Ethical Standards

Conflicts of interest The author declares that they have no conflict of interest and no ethical approval is required.

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