

Promoting Employment Success for Autistic College Graduates

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TABLE OF CONTENTS

Background.....	1
NEXT for AUTISM Survey and Results.....	3
Recommendations and Call to Action.....	7
Conclusions.....	10
References.....	11

BACKGROUND

Disclaimer: Please note that we will use identity-first, rather than person-first, language throughout this paper to reflect a growing preference expressed by autistics (Bury et al., 2020). We recognize this continues to be an evolving discussion amongst the autistic community and use identity-first language with the best intentions. Neurodiversity is an identification that describes global variations in learning, mood, sociability, and other ways of interacting with and interpreting the world. It views brain differences as normal, rather than through a deficit lens. Autism is included under the neurodiversity umbrella.

A growing number of companies are creating a welcoming environment where everyone, including autistic employees, can bring their authentic selves to work. This is particularly important for employees with disabilities who continue to face significant stigma in the workplace (Bury, et al, 2021). Working alongside employees with disabilities makes non-disabled individuals more aware of workplace inclusivity and promotes a better work environment for everyone. The Accenture and Disability:IN report [Getting to Equal: The Disability Inclusion Advantage](#), reports staff turnover is lower —by up to 30%—when a well-run disability community outreach program is in place (Accenture, 2018).

Many organizations are also working to address the issue of under-employment and unemployment for young autistic adults. In 2021, the unemployment rate for persons with disabilities is 10.1% versus 5.1% without a disability. Given these data there is a significant need for this focus (U.S. Department of Labor, 2020). Indeed, this focus on neurodiversity melds well with the overall diversity, equity, and inclusion efforts addressing marginalized populations, including people with disabilities. Two such organizations are [The Valuable 500](#) and [Disability:IN](#). The Valuable 500, a global business collective, actively recruits companies committed to improving outcomes for people with disabilities in the workforce. Disability:IN, a leading nonprofit resource for business disability inclusion worldwide, hosts a page on their website for the [Neurodiversity @ Work Employer Roundtable](#), a collection of companies actively recruiting and retaining neurodivergent talent.

One of those companies is [Freddie Mac](#), an early adopter for engaging with autistic individuals. Since 2012, the company has actively recruited autistic talent to match business needs with the unique capabilities of autistic individuals. Starting out with a successful internship program that saw a 50% conversion rate to full time employment, in 2020 Freddie Mac revised their program to a full-time work initiative and rebranded to Neurodiversity at Work Program. Given Freddie Mac's mission is to make home possible, it's important their workforce reflects the mission and all the people they serve.

According to the National Center for Education Statistics, there are 3,982 degree-granting post-secondary institutions in the U.S. 2019-2020 school year (Moody, 2021). Of these, just 84 have implemented targeted autistic support programs (McDermott et al., 2021). The autism specific programs have been designed to directly address the unmet needs autistic students experience on campus, including the provision of specialized tutoring, soft skills training,

and life skills instruction. While program content and format vary widely for these college programs, some provide housing, mentoring, and employment opportunities in addition to academic and social opportunities. Unfortunately, these autism-specific support programs are rare; most colleges and universities do not have these supports in place for their autistic students. This lack of programming may be the result of the lack of education about the needs of the autistic student population, lack of autistic students disclosing, the cost to create/maintain a program, and/or the lack of faculty to support a program (Nachman et al., 2018).

Data suggests that 19% of undergraduate and 12% of graduate students report having a disability (U.S. Department of Education, 2021). Autistic students conservatively account for 1-2% of college students, however this may be an underestimate as students may not disclose (White et al., 2017). Many more students may not choose to attend a post-secondary institution as they know it will not adequately meet their needs. Autistic students have reported feeling pressure to “normalize,” or present themselves as neurotypical (Cox et al., 2016), and can experience academic, social, and executive functioning challenges. Further, though McDermott and colleagues (2021) have identified 84 autistic-supportive programs at a college or university level through the [College Autism Network](#), an additional investigation that sampled 60 of these programs demonstrated that 50% of these programs may require an additional annual fee. These fees ranged from \$1,200 to \$18,180 (average of \$5,000) (Cox et al., 2020). Many programs have strict eligibility requirements including 1) formal diagnosis, 2) registration with disability/accessibility services, 3) separate program application, and 4) interview with program. These requirements may be barriers for students who are hesitant to disclose or those who do not have a formal diagnosis. Students are not guaranteed to be accepted into this autistic support programs and the financial requirements may contribute to inequity in access.

Although companies are building recruitment programs and post-secondary institutions are increasing their capacity to serve autistic students, there is still a large gap between autistic adults graduating and entering the workforce. Young adults with autism in their early twenties have lower employment rates than other disability groups (Roux, 2015); employment rates are also well below their typically developing peers. The lack of meaningful employment can contribute to feelings of social exclusion, financial difficulty, and a decreased quality of life (Howlin, 2013).

While more companies are becoming aware of the unique skills and innovation autistic talent can provide in the workforce, they are experiencing challenges that may hinder increasing neurodiversity hiring, such as matching communication styles (Lorenz et al., 2016), increasing acceptance and inclusivity within the company culture (Lindsay et al., 2018), understanding [reasonable accommodations](#), and [mentorship for autistic employees](#). Why is there such a disconnect in supporting autistic employment and what can be done to bridge this gap? It is critical for post-secondary institutions and the workforce to work together to address these needs.

NEXT for AUTISM SURVEY & RESULTS

NEXT for AUTISM is a nonprofit organization that is transforming the national landscape of services for people with autism by strategically designing and launching innovative initiatives. Our team is laser-focused on quality-of-life areas that truly promote meaningful impact on the lives of autistic adults and their families in the four key areas of home, work, social, health and wellbeing. In partnership with Freddie Mac and SUNY State Empire College, surveys with two specific groups were conducted to understand the relationship between companies actively hiring autistic college graduates and post-secondary institutions with autism support programs. Colleges and universities were recruited for participation with the methodology listed below.

The goals of these surveys were to learn which schools are leading the charge in innovation with their programs, as well as barriers schools and businesses experience when supporting their program initiatives. Below are the findings based on answers from the surveys. Surveys were sent to 71 post-secondary institutions. These institutions were selected because of their affiliation with the [College Autism Network](#). Surveys were sent via email invitation. Invitations were sent twice and yielded a 26% return rate (n=19). All respondents completed every survey question.

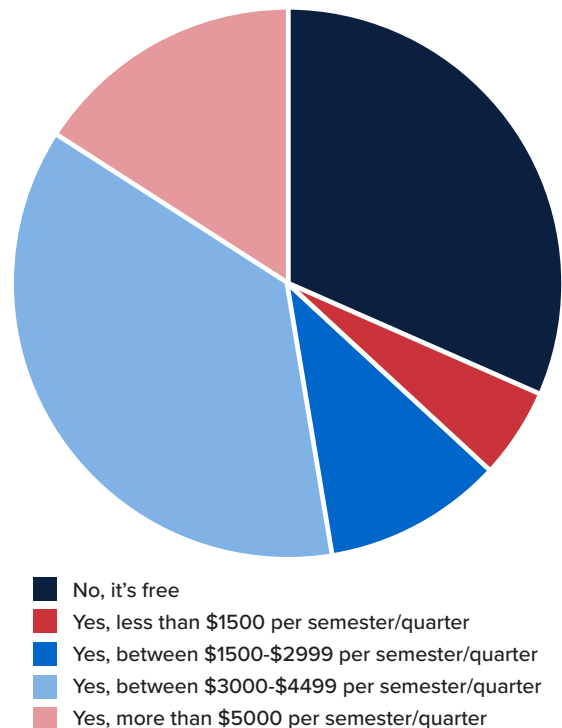
Findings in Higher Education

Programmatic Costs

Program cost was identified as a potential barrier to participation in post-secondary autistic specific program supports. This question was intended to gather information about associated fees with autistic specific support programs. Approximately 70% of the post-secondary institutions with autism programs surveyed stated that there was an additional cost to enroll in their autism-specific program (see Figure 1). The fees ranged between \$1500-\$5000 per semester. This fee is on top of student tuition. This financial barrier prevents many students from getting the much-needed support they may require during their undergraduate years.

Figure 1.

Reported Program Rates for College Autism Programs



Longitudinal Relationships with Autistic Alumni

The surveyed programs were asked if they stayed in contact with their autistic alumni and only 50% stated that they keep in touch.

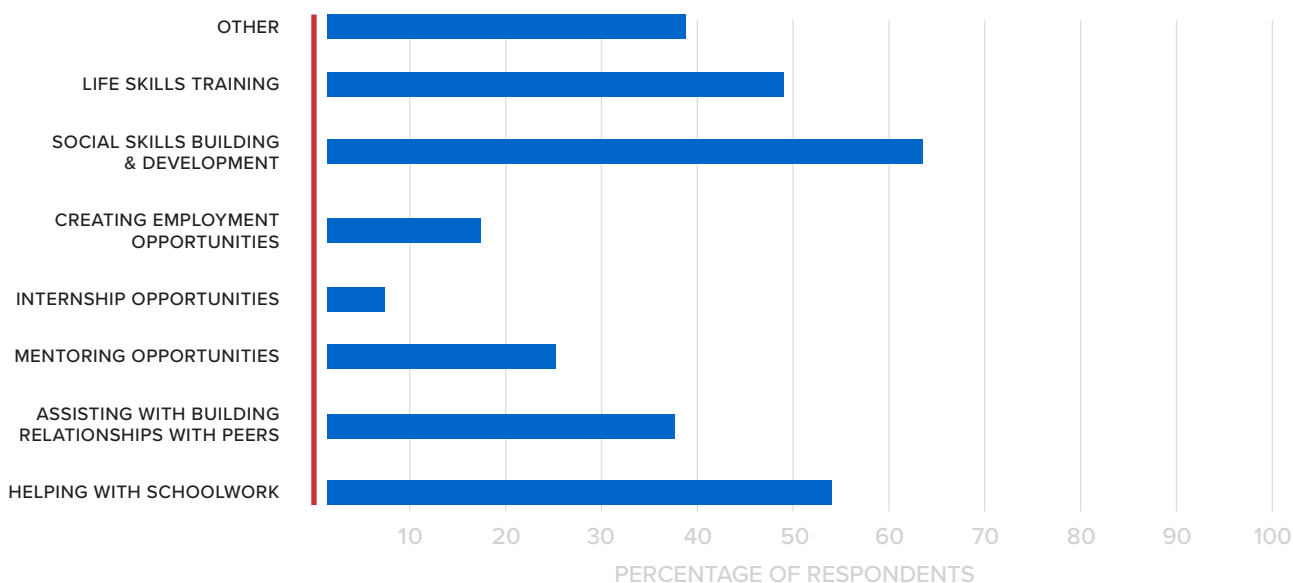
63% of respondents shared that they are unaware of their student's employment status within one year after graduation. This insufficient tracking of data decreases the respective autism program's ability to evaluate its programmatic success. Evaluating longitudinal data would allow for the identification of barriers their students faced in securing and maintaining employment. Once barriers were identified, programmatic changes could be made that might eliminate these challenges.

Employment Opportunities

Survey respondents were asked to identify their program's top three services. Reflected in Figure 2, over 60% of the colleges surveyed ranked social skills as the top service offered, followed by assistance with schoolwork at 50%, and life skills training at 40%. The two lowest-ranking services were opportunities for internships and creating employment opportunities for autistic students. Both employment-focused services came in at under 10%. Some of the services colleges listed under "other" include, but are not limited to, self-advocacy skills, case management, and executive functioning skills. This lack of focus on employment may be an opportunity for improvement for autistic support programs.

Figure 2.

Top Three Services Offered to Autistic Students by Surveyed Programs



Challenges in Program Access

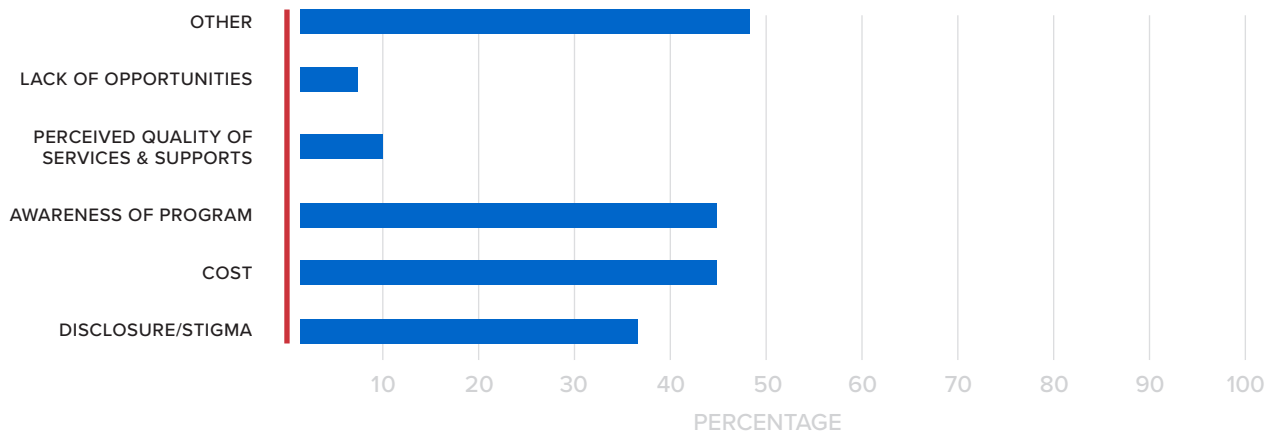
The surveyed programs were asked to identify their barriers to enrollment and success. It was found that approximately 35% of the post-secondary institutions surveyed indicated that many students did not want to disclose that they were autistic (Figure 3). This lack of desire to identify themselves as autistic decreased the student's ability to access services and supports to address their unique needs.

Approximately 50% of the post-secondary institutions surveyed stated that a significant barrier to their program is that many students may not be aware an autistic-supportive program exists

within the institution due to a lack of marketing and promotion. Typically, the professionals engaged in autism-specific programs are focused on service program design and delivery. As a result, there is not much opportunity nor budget to market the program to the student population.

Figure 3.

Top Three Barriers to Accessing Services Offered by the Surveyed College Autism Programs



Findings in Businesses

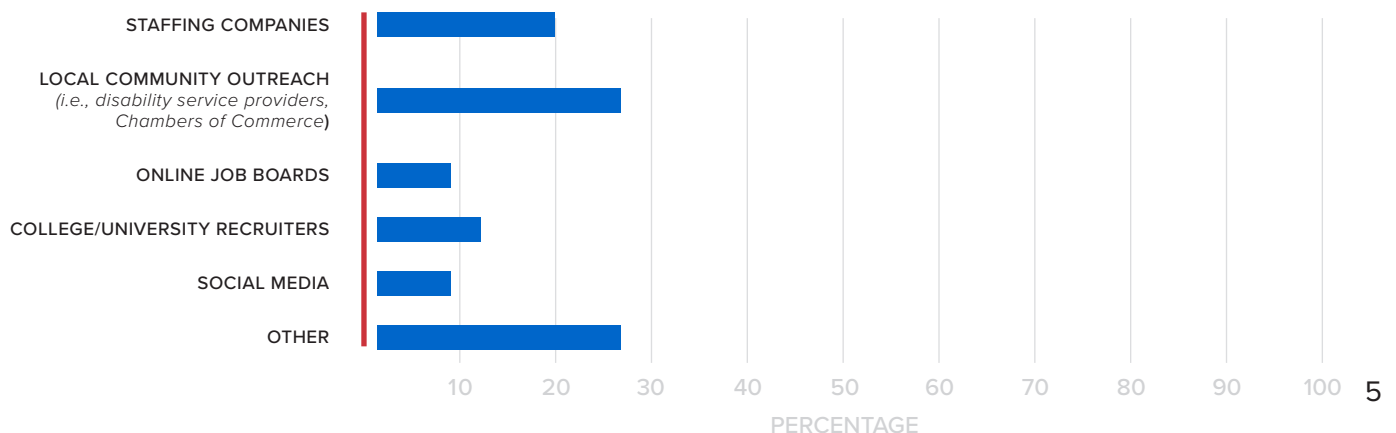
The companies that are part of the Autism at Work Roundtable were invited to participate in a survey. Surveys were sent to multiple contacts within companies via email and the survey was announced at a webinar presentation; 26 individuals completed the survey. Below are our findings from the businesses surveyed.

College Recruitment

Seventy percent of the businesses surveyed stated that they have established recruiting relationships with colleges and universities, however, only about 12% of these businesses actively recruit autistic talent from these same post-secondary institutions. These disparate data suggests that although companies are partnered with post-secondary institutions these relationships are not being leveraged for autism specific programs. Businesses are not tapping into the autistic talent pipeline. This is a missed opportunity; college autism programs and businesses should actively seek relationships with each other to leverage building a pipeline of autistic talent from the programs.

Figure 4.

Strategies Reported by Companies to Recruit Autistic Talent

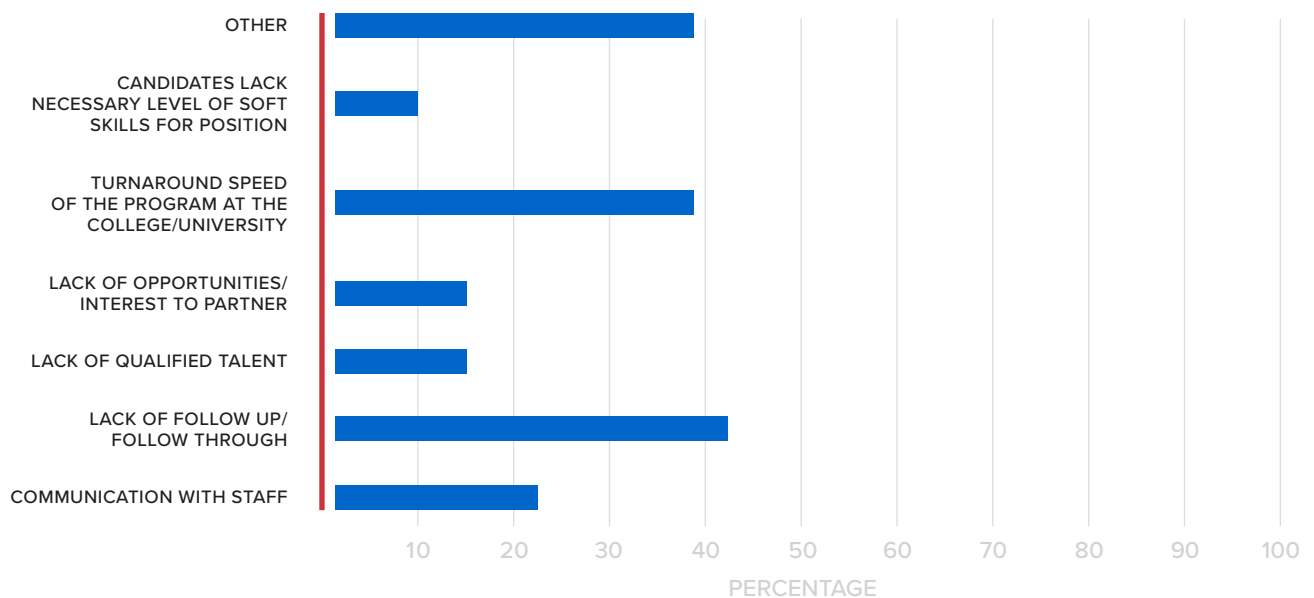


Relationship

The surveyed businesses were asked to identify challenges when building ongoing relationships with higher education institutions. Of the surveyed businesses that actively recruit autistic graduates, two areas were identified as the most significant barriers for establishing sustainable relationships with the programs: turnaround time and follow through (Figure 5). Thirty-three percent of the businesses said that the turnaround speed of the program at the post-secondary institutions was a top barrier, suggesting that the post-secondary institutions have a slower turnaround speed than the businesses, which can create problems for communication and timing. Forty-one percent of the companies found the lack of follow-up and follow-through to be the most significant barrier to working with a post-secondary institution's autism program.

Figure 5.

Challenges Reported by Surveyed Businesses in Building Ongoing Relationships with Higher Education Institutions, Including Lack of Follow Through



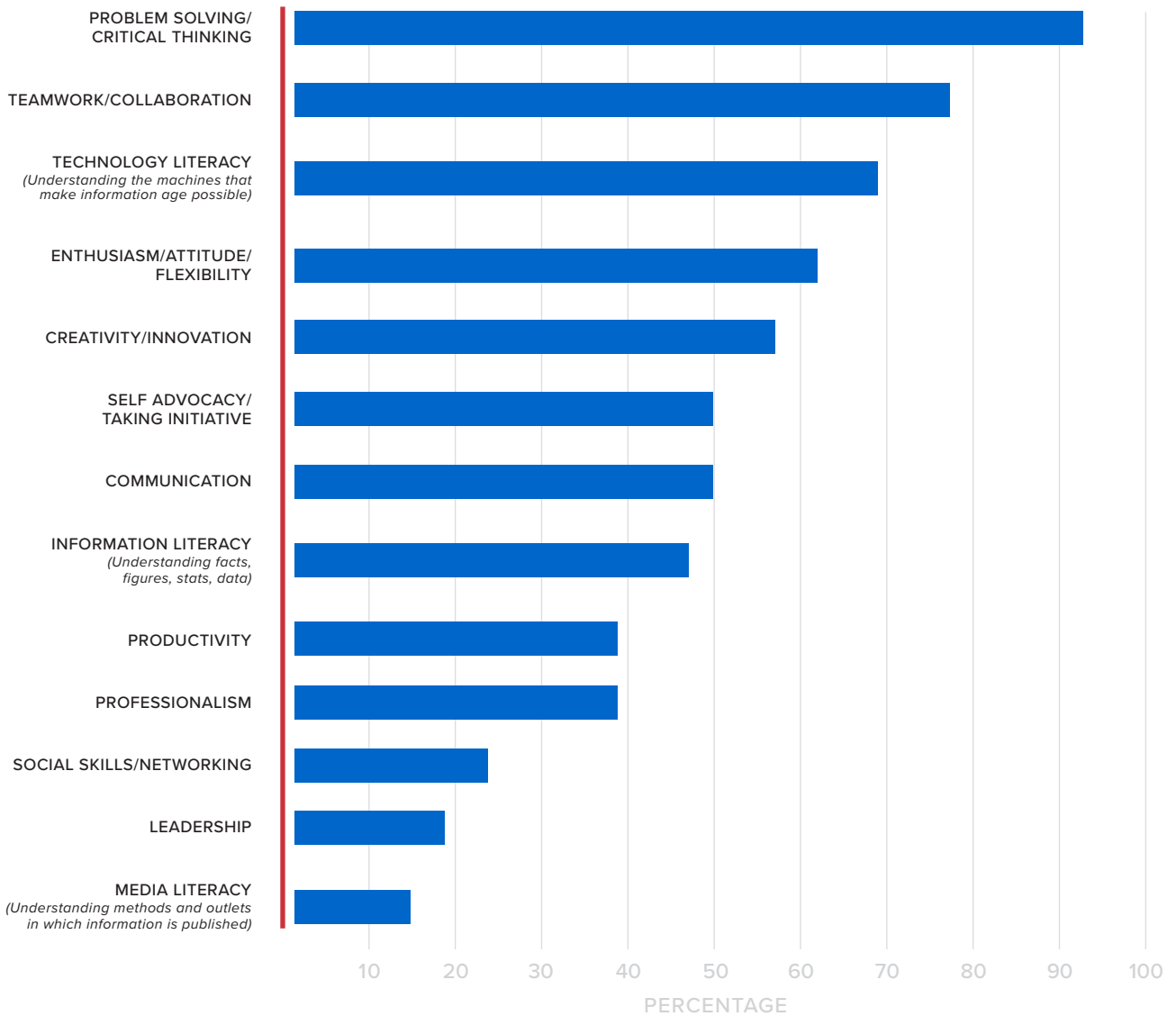
Additional Topic Of Interest

Employee Characteristics

The top characteristic businesses surveyed wanted to see in their candidates was problem-solving and critical thinking skills, coming in at 92%. This may be a particular strength of autistics, as studies suggest autistic people are 40 times better at problem solving than non-autistics (Soulières et al., 2009; University of Montreal, 2009). The second characteristic, at 77%, was the ability to work as a team and collaborate (Figure 6). Sixty-nine percent felt that technological literacy was the third most crucial characteristic young professionals should know and/or understand when entering the workforce. Other essential elements include enthusiasm, positive attitude, and flexibility (62%), and self-advocacy skills and ability to take initiative (50%).

Figure 6.

Challenges Reported by Surveyed Businesses in Building Ongoing Relationships with Higher Education Institutions, Including Lack of Follow Through



RECOMMENDATIONS AND CALL TO ACTION

Recommendations

Although we are drawing from a limited sample (N= 19 for post-secondary institutions and N=26 for businesses) we are able to come to some reasonable conclusions. It appears that post-secondary institutions with autism programs may not be addressing or providing needed skills or resources for success in the workforce post-graduation. For example, less than 16% of the surveyed post-secondary institutions provided employment opportunities for autistic students, only 27% had mentoring opportunities, and less than 6% provided internship opportunities. This internship rate is drastically lower than the national average reported in **2017 by the National Association of College and Employers**, whose student survey found that 60% of graduating seniors took part in an internship or co-op experiences during college.

There is an opportunity for these post-secondary institutions to include greater internship and employment experiences during their school tenure.

With only 12% of surveyed businesses actively recruiting from college campuses, recruitment of this talent pool could be an important target and priority for more businesses. Businesses may want to add college autism programs into their recruitment portfolio. If college recruiters specifically targeted the autistic student population, it is reasonable to assume that more autistic and neurodivergent students would get involved with their on-campus programs to increase access for employment opportunities post-graduation. Given the increased interest in businesses looking to build neuro-inclusive talent pipelines, there is an opportunity for schools and businesses alike to come together with a joint purpose.

Businesses may choose to connect with post-secondary institutions to create internship opportunities for autistic students, which would provide students with much-needed work experience, build a professional network, and provide early-career growth opportunities. As stated in Fig. 6, businesses identified their most sought-after skills as problem solving/critical thinking skills, teamwork and collaboration, and technology literacy which are all skills that could be addressed and developed during internships. In addition, continuously connecting with post-secondary institutions would provide a talent pipeline year over year that businesses can readily tap into. Businesses can also cultivate professional relationships with the post-secondary institutional faculty to make connections, exchange professional insight, and provide training specific to their programs. The stronger the relationship between the two entities, the more potential opportunities will surface for their autistic students, thus leading to additional employment opportunities.

Ideally, every institution of higher learning could have an internal autism/neurodiversity network embedded within the college campus at no additional cost. Each of these programs would have established business connections for post-graduation employment opportunities. Adding services that focus on assisting autistic students with matriculating out of college and into the workforce could potentially lower the risk of autistic talent being overlooked and/or underemployed. Below we highlight two such post-secondary programs.

Highlighted College Programs

Bellevue College- The Neurodiversity Navigators

One innovative College Autism Program, [The Neurodiversity Navigators](#) at Bellevue College located in Bellevue, Washington, was listed as the top college for students with autism by [Best Value Schools](#), an organization dedicated to researching schools that meet the essential needs of prospective students. The Neurodiversity Navigators program started with 18 students in 2011, and grew to 143 students in 2021, including two international students.

Bellevue College's program is provided for no additional cost to the student. The students participating in the program meet with peer mentors and attend career preparation classes alongside their chosen program of study. These classes are designed to assist with career preparation, and the focus is soft skills, including Executive Functioning, Interpersonal Communication, and Occupational Wellness. In addition, as a cohort, Neurodiversity Navigators students have earned a 3.0 GPA average and have completed 85% of their courses each quarter for the past 10 years, showing that the program supports academic success. Through their Center for Career Connections, Bellevue has connected students with companies such as Microsoft, Terrapower, Ultronauts, and the Neurodiversity Hub.

“We’re thrilled to have been working with students for 11 years and to be starting a new cohort for disabled students in STEM, sponsored by Microsoft’s Accessibility University Initiative. I couldn’t say it better than our first new student for Winter 2022, who said, ‘I pray for this a lot - to break out of the isolation.’ When it comes down to it, that’s what we are about: creating a community where our students can be themselves and use their strengths to experience success,” says Sara Sanders Gardner, Director, and Designer of the Neurodiversity Navigators at Bellevue College.

SUNY Empire State College-

embedded model of multi-tiered supports, with universal designs for learning.

SUNY Empire State College (SUNY Empire), via the **Center for Autism Advocacy: Research, Education, and Supports** (CAARES), conducted a background assessment with the autistic community at large to better understand how to create an autistic supportive college program. CAARES overwhelmingly heard concerns of stigma and understood the importance of embedding universal supports such that students are not forced to disclose or register. It is important that the goal for inclusivity is shared and the burden for advocacy does not fall solely on the shoulders of students. Using a multi-tiered support system framework, SUNY Empire and CAARES is seeking to embed universal supports throughout the college by working with all faculty, staff, and professional employees on understanding neurodiversity and how to implement evidenced-based strategies in supporting student success. CAARES is also creating more intensive supports, such as asynchronous and real-time training opportunities and 1:1 mentoring for faculty and employees.

CAARES is providing support for students through the creation of peer mentorship programs and will be offering training opportunities based on empowerment, advocacy, executive functioning, and other areas identified in needs assessments, mental health support, as well as 1:1 guidance. Understanding the need for workforce development, CAARES is partnering with colleagues at organizations such as NEXT for Autism and Neurodiversity Hub to provide resources aimed at gainful employment following post-secondary instruction, such as a professional mentorship program, access to job readiness training, and easy access to employers who are specifically seeking neurodivergent talent. The creation and implementation of these initiatives is guided by advisory teams of autistic individuals and the broader autism community, SUNY Empire faculty and staff, and professionals of various backgrounds working together. Access to learning for all learners is a mission of SUNY Empire and CAARES hopes to build upon this infrastructure to create a culture of inclusivity, acceptance, and accessibility for students who identify with autism.

Call To Action

We are calling upon post-secondary institutions and businesses to develop a framework towards increased inclusivity and support within higher education and the workforce. It is critical for these organizations to work together to build a pipeline supporting gainful employment for autistic and neurodivergent talent.

Make a Commitment:

1. Post-secondary institutions with autism programs should build programmatic supports to address what businesses want from their employees. If the programs can help prep the students for employment after graduation, then students are better prepared for corporate culture. This can include creating an Advisory Board made up of companies recruiting

autistic talent, connecting to the [Neurodiversity @ Work Employer Roundtable](#), and reaching out to local companies to build sustainable relationships.

2. Businesses need to support and build lasting relationships with local post-secondary programs, providing resources and experience opportunities such as internships and mentoring programs. Building these community connections will build a talent pipeline that can create more opportunities for autistic graduates. In addition, companies can start with local post-secondary institutions and expand nationally to build relationships that will last and bring the same opportunities that other students have in their post-secondary institution experience.
3. Post-secondary institutions with autism-supportive programs should build and engage in marketing and recruitment strategies. This includes supporting potential autistic students and building relationships with businesses actively recruiting autistic talent. It is likely that an increased awareness of resources available for students that set them up for success post-graduation, such as networking opportunities, internships, and employment opportunities, will increase participation in the college autism program. Additionally, marketing that the program has such connections may lead to program growth and more opportunities to help resolve the unemployment and underemployment of autistic adults.



CONCLUSION

Results of these investigations indicate underemployment and lack of employment opportunities continues to be significant challenge in autistic communities. A stronger relationship is needed between institutions of higher education and businesses. While the findings from our research have provided useful information regarding current practices of business and higher education regarding collaboration, the survey had several limitations:

1. The data collection did not allow for the tracking of multiple responses from the same company/post-secondary institution. This prevented us from determining if the same person/company/ institution filled out the survey more than once. In future surveys, it is recommended to use a platform that allows for this detailed tracking for more accurate results.
2. The survey for businesses was provided during a meeting at the Autism at Work Roundtable meeting. The number of companies in attendance was not collected. This prevented us from accurately recording the number of companies/representatives targeted.
3. Post-hoc analysis of survey questions identifies opportunities to improve queries for clarity and understanding. In future studies, the wording and data collection will be clearer and more precise to eliminate any confusion by the people taking the survey. This in turn, could make for more accurate results in the data collection.

Future investigations will refine recruitment procedures and clarify survey questions. We will also build upon the findings to further identify preferred partnership pathways between post-secondary institutions and organizations with the goal of gainful employment for autistic students upon graduation.

REFERENCES

- Accenture. (2018). *Getting to the equal: The disability inclusion advantage*.
https://www.accenture.com/_acnmedia/pdf-89/accenture-disability-inclusion-research-report.pdf
- Bury, S. M., Flower, R. L., Zulla, R., Nicholas, D. B., & Hedley, D. (2021). Workplace social challenges experienced by employees on the autism spectrum: An international exploratory study examining employee and supervisor perspectives. *Journal of Autism and Developmental Disorders*, 51(5), 1614-1627.
- Bury, S.M., Jellett, R., Spoor, J.R. & Headley, D. (2020). “It defines who I am” or “It’s something I have”: What language to autistic Australian adults [on the autism spectrum] prefer? *Journal of Autism and Developmental Disorders*, Advance online publication. <https://doi.org/10.1007/s10803-020-04425-3>
- Cox, B.E., Kepple, C.R., Francis, C.B., & Griffing, O.M. (2020). Autism-Specific College Support Programs: National Report. College Autism Network.
- Cox, B.E., Thompson, K., Anderson, A., Mintz, A., Locks, T., Morgan, L., Edelstein, J., & Wolz, A. (2016). College experiences for students with autism spectrum disorder (ASD): Personal identity, public disclosure, and institutional support. *Journal of College Student Development*, 58(1), 71-87.
<https://doi.org/10.1353/csd.2017.0004>
- Drexel. (2016). *National Autism Indicators Report: Vocational Rehabilitation*. Drexel University.
- Howlin, P. (2013). Social disadvantage and exclusion: Adults with autism lag far behind in employment prospects. *Journal of the American Academy of Child & Adolescent Psychiatry*, 52(9), 897-899.
- Lindsay, S., Cagliostro, E., Albarico, M., Mortaji, N. & Karon, L. (2018).. A systematic review of the benefits of hiring people with disabilities. *Journal of Occupational Rehabilitation*, 28(4), 634–655.
<https://doi.org/10.1007/s10926-018-9756-z>
- Lorenz, T., Frischling, C., Cuadros, R., & Heinitz, 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).
<https://doi.org/10.1371/journal.pone.0147040>
- McDermott, C.T., Nachman, B.R., Hartlage, A., Jackson, B., & Orlando, A. (2021, January 25). *United States college programs for autistic students*. College Autism Network. collegeautismnetwork.org
- Moody, J. (2021, April 27). *A Guide to the Changing Number of U.S. Universities*. Retrieved from US NEWS:
<https://www.usnews.com/education/best-colleges/articles/how-many-universities-are-in-the-us-and-why-that-number-is-changing>
- Nachman, B. R., McDermott, C. T., & Cox, B. E. (2021). Brief report: Autism-specific college support programs: Differences across geography and Institutional type. *Journal of Autism and Developmental Disorders*, 1-8.
<https://doi.org/10.1007/s10803-021-04958-1>
- Roux, A. M. (2015). *National Autism Indicators Report: Transition into Young Adulthood*. Drexel University, A.J. Drexel Autism Institute. Philadelphia, PA: Life Course Outcomes Research Program.
- Soulières, I., Dawson, M., Samson, F., Barbeau, E.B., Sayhoun, C.P, Strangman, G.E., Zeffiro, T.A., & Mottron, L. (2009). Enhanced visual processing contributed to matrix reasoning in autism. *Human Brain Mapping*, 30(12), 4082-4107.
- University of Montreal. (2009, June 17). Autistics better at problem-solving, study finds. *ScienceDaily*. Retrieved February 22, 2022 from www.sciencedaily.com/releases/2009/06/090616121339.htm
- U.S. Department of Education, National Center for Education Statistics. (2021). *Digest of Education Statistics*, 2019 (2021-009)
- U.S. Department of Labor, Bureau of Labor Statistics (2020). Persons with a disability: Labor force characteristics 2019. <https://www.bls.gov/news.release/disabl.nr0.htm>
- White, S.W., Elias, R., Salinas, C.E., Capriola, N., Conner, C.M., Asselin, S.B., Miyazaki, Y., Mazefsky, C.A., Howlin, P., & Getzel, E.E. (2017). Students with autism spectrum disorder in college: Results from a preliminary mixed methods needs analysis. *Research in Developmental Disabilities*, 56, 29-40.
<https://doi.org/10.1016/j.ridd.2016.05.010>