GOAL 2
ENABLING NEURODIVERSE TALENT IN THE INTELLIGENCE COMMUNITY

by Maria Redman and Teresa Thomas
Expanding the Concept of Diversity

The new 2023 National Intelligence Strategy (NIS) establishes the importance of a diverse workforce as a key component of the U.S. Intelligence Community’s (IC’s) recruiting, development and retention goals and the IC’s Principles of Professional Ethics.\(^1\) While much effort has gone into understanding and improving IC workforce diversity, equity, and inclusion, neurodiversity remains an underexplored element due to limits on data collection and challenges in recognizing and observing neurological differences.

As the IC calls for more diversity of thought to address an increasingly complex and dynamic threat landscape, the cognitive differences observed in neurodistinct groups such as those with autism, attention-deficit hyperactivity disorder (ADHD), and dyslexia can be advantageous for intelligence work. Individuals with these neurodistinct conditions bring exceptional strengths in areas such as visual processing\(^2\) and cognitive originality,\(^3\) constitute a considerable and growing portion of the general population, and remain underemployed compared with their neurotypical counterparts. In other words, the neurodiverse community represents a potentially valuable and largely underappreciated source of new talent for the IC.

Industry and foreign partners have already embraced neurodiverse talent to improve performance, productivity, and innovation for their missions, and they have established best practices in recruiting and hiring, reasonable accommodations, employee support, and training. These best practices are not complicated or costly to implement and have benefits that extend to all employees.

We recommend the IC pursue an intentional and purposeful neurodiverse talent program to support the intelligence mission. This includes better understanding the composition and needs of the IC’s existing neurodistinct workforce; fostering awareness and acceptance of neurodiversity within IC organizations; and increasing hiring, recruiting, and retention of neurodistinct talent to support the intelligence mission.

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**THE IC SHOULD PURSUE AN INTELLIGENT AND PURPOSEFUL NEURODIVERSE TALENT PROGRAM TO BETTER UNDERSTAND THE COMPOSITION AND NEEDS OF THE IC’S EXISTING NEURODISTINCT WORKFORCE; INCREASE AWARENESS AND ACCEPTANCE OF NEURODIVERSITY WITHIN IC ORGANIZATIONS; AND INCREASE HIRING, RECRUITING, AND RETENTION OF NEURODISTINCT TALENT TO SUPPORT THE INTELLIGENCE MISSION.**

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Neurodiversity as Part of Diversity, Equity, and Inclusion

IC leaders have long expressed their commitment to increasing the diversity, equity, and inclusion (DEI) of the intelligence workforce. This is reflected in the recently released NIS Goal 2 as well as the IC’s Principles of Professional Ethics.\(^4\) Over the past decade, the IC has increased the proportion of women, racial or ethnic minorities, and persons with disabilities in the intelligence
workforce, but as noted in MITRE’s 2021 Intelligence After Next paper Diversity and Inclusion—A Mission Imperative for the Intelligence Community, the gains overall have been modest. MITRE’s paper stated that current conditions and “the need for intelligence that is free from bias, require a much more diverse and inclusive IC workforce to scrupulously collect and analyze intelligence.”

Neurodiversity, however, is not comprehensively tracked as part of federal or IC DEI data collection, nor is it consistently included in DEI programming. This is likely for two reasons: it involves protected health information, which may not be disclosed by individuals to their employers; or, if the information is disclosed, it is then aggregated into broader persons with disabilities statistics. In addition, the differences in neurological functioning that characterize neurodistinct conditions are not usually outwardly visible or obvious, making their presence and prevalence difficult to ascertain.

In a recent publication, RAND noted, “the current size of the neurodivergent population in the U.S. national security community is unknown. Within government disability data, government reporting does not distinguish different causes of disability, resulting in all disabilities being lumped together, such that employees with cognitive diagnoses are reported with amputees, deaf and vision-impaired employees, employees with psychological accommodations, and so on.” As a result, unlike with other diversity groups, we currently lack sufficient data to baseline and measure workforce neurodiversity.

What Is Neurodiversity?

Sociologist Judy Singer first coined the term “neurodiversity” in the 1990s, based on the concept of biodiversity, “to promote equality and inclusion of ‘neurological minorities.’” From Singer’s perspective, everyone is neurodiverse, because no two individuals think alike, but “some individuals have neurological variations that make it particularly challenging for their communication, self-expression and interactions with others.” Individuals with these neurological variations are “wired differently than what is considered to be ‘typical’, and this includes different ways of thinking, moving, behaving, visualizing, communicating and processing information.”

In practical terms, neurodiversity is an umbrella term that encompasses clinical and applied neuro-developmental conditions such as autism, ADHD, dyslexia, dysgraphia, and dyscalculia. The terminology in this domain is ever evolving, and terms such as “neurodivergent,” “neurodistinct,” “neurodiverse,” and “neurominority” are often used interchangeably. Many of these terms are used throughout this paper when citing articles, reports, or scholarly research.

Why Is Neurodiversity Important for the IC?

Neurodiversity should be a topic of intentional focus in the IC for multiple reasons. First, decades of research and practice have demonstrated that individuals with neurodistinct conditions display cognitive and performance traits that can be highly advantageous for intelligence work. Second, neurodistinct individuals and employees make up a considerable and growing portion of the general population and workforce, which makes understanding the strengths and challenges that often accompany these conditions critical for IC leadership and managers if they are to effectively understand and support their existing workforce and the next generation of recruits. Finally, in the current competitive labor environment, those with neurodistinct conditions represent an often underemployed, yet capable, group. Understanding and adapting to their unique needs and abilities can yield advances toward the IC’s recruiting goals from a largely underappreciated source.
Highly Advantageous Traits

Clinical research has identified important cognitive differences in individuals with neurodiverse conditions, including autism, ADHD, and dyslexia—traits that can be advantageous for intelligence work.

- A landmark study conducted by Harvard University and the University of Montreal in 2009 found that individuals with autism spectrum diagnoses are up to 40 percent faster at some forms of problem-solving than non-autistics and have higher levels of visual processing capacity and faster processing times.\(^\text{14}\)
- A study published in 2020 on code breaking suggested that certain traits that are typically enhanced in autistic individuals may correlate with better performance in cyber and information security jobs.\(^\text{15}\)
- Another study suggested that autistic individuals can rely more heavily on rational and logical decision making, which may make them less influenced by the emotive content in misinformation and disinformation.\(^\text{16}\)
- Other studies have noted that people with autism show superior abilities in identifying patterns and working with systems.\(^\text{17}\)

Clinical research also documents traits among individuals with ADHD or dyslexia that are well aligned to intelligence work. For example, a study of students at the University of Memphis suggested that “ADHD in adults may be associated with better performance on certain types of creativity tasks, specifically, those that involve divergent thinking.”\(^\text{18}\) “A recent study also found that the ADHD brain tends to produce more Theta waves than average brains. Theta waves indicate a state of deep relaxation, and ADHD employees’ over-abundance of theta waves can make them great in a crisis.”\(^\text{19}\) Other research suggests the dyslexic managers and leaders seemed more willing to take risks and possessed strong communication skills.\(^\text{20}\)

In practice, managers and organizations with intentional neurodiversity enablement programs report on-the-job performance trends that align with these clinical findings. For example, JP Morgan Chase “found that their neurodiverse hires were, on average, 90 to 140 percent more productive than employees who had been at the company for 5 or 10 years.”\(^\text{21}\) In addition, business sector data has shown that neurodistinct employees display “cognitive advantages such as superior creativity, focus and memory; increased efficiency and personal qualities such as honesty and dedication.”\(^\text{22}\) Other data shows that “neurodiverse employees tend to be loyal . . . and have a high job retention rate.”\(^\text{23}\) This combination of factors—advanced cognitive abilities and high productivity, coupled with attention to detail, honesty, and loyalty—is powerful, highly desirable, and advantageous for the IC’s mission.

Considerable and Growing Population

In addition to understanding the strengths and abilities of neurodistinct individuals, it is important for IC leaders and managers to acknowledge that neurodistinct conditions such as autism, ADHD, and dyslexia are not obscure or rare. Instead, they impact a considerable and growing portion of the population—and likely represent a growing portion of the IC’s current and projected workforce. “A reasonable estimate of all
neurominorities within the population is around 15-20 percent, i.e., a significant minority.”\textsuperscript{24} Scientific research points to similar approximations. For example, research estimates that individuals with ADHD make up approximately 9.4 percent of the general U.S. population,\textsuperscript{25} autism 2.7 percent of the population,\textsuperscript{26} and dyslexia approximately 7 percent of the population.\textsuperscript{27}

Data from the Centers for Disease Control documents an increase in prevalence of some neurodistinct conditions, particularly autism, with rates more than tripling since 2000.\textsuperscript{28} This suggests that a non-negligible percentage of current IC employees may be neurodistinct in some way—and the same could be the case for interns, recruits, and the next generation of applicants. In light of these statistics and evolving demographics, it is imperative for IC organizations to better understand and adapt recruiting, hiring, training, retention, and employee support programs to include the needs of neurodistinct individuals.

**Underappreciated Talent Source**

Despite their considerable talents, neurodistinct individuals are significantly underemployed compared with their neurotypical peers. Currently, “the unemployment rate for neurodivergent adults runs at least as high as 30-40 percent, which is three times the rate for people with disability, and eight times the rate for people without disability.”\textsuperscript{29} While not every neurodistinct individual is suited to work in the IC, it should be noted that even neurodistinct individuals with college degrees share similar difficulty in finding meaningful work. For example, according to a Harvard Business Review report, “when they are working, even highly capable neurodiverse people are often underemployed…. Program participants told us story after story of how, despite having solid credentials, they had previously had to settle for the kinds of jobs many people leave behind in high school.”\textsuperscript{30} In light of the ongoing recruitment and retention challenges in the IC,\textsuperscript{31} and the difficulties in competing for talent with the private sector, a more intentional focus on neurodiversity could represent an important and largely unexplored talent pool.

**How Are Our Industry and Foreign Partners Tapping into Neurodiversity?**

**Private Industry**

Multiple industry partners and government organizations have recognized the benefits that a more neurodiverse employee base brings to their work and have begun to implement intentional neurodiversity enablement and support programs. Within private industry, the Neurodiversity at Work Employer Roundtable includes organizations such as “Microsoft, SAP, Clintas, Ford, Ernst & Young, JP Morgan Chase and DXC Technology,”\textsuperscript{32} all of which are committed to intentional neuro-inclusivity and some of which have been running specialized hiring and support programs for more than a decade.

In terms of tangible benefits, these organizations report higher productivity,\textsuperscript{33} new perspectives on old issues,\textsuperscript{34} and technical acumen. “The CEO of one defense contracting firm described how his autistic workforce tags geospatial imagery with high precision and low error rates. He bragged that his autistic employees could look at a blurry image obscured with foliage and tell the difference between a Russian MiG, a Ukrainian MiG, and a Russian MiG painted to look like a Ukrainian MiG.”\textsuperscript{35}

These hiring and support programs have demonstrated other benefits, including building a culture wherein “managers have begun to think more deeply about leveraging the talents of all employees through greater sensitivity to individual needs. SAP’s program, ‘forces you to know the person better, so you know how to manage them, says Silvio Bessa, the senior vice president of digital business services. ‘It’s made me a better manager, without a doubt.’”\textsuperscript{36}

**International Government Organizations**

Government and military organizations have also started experimenting with intentionally hiring and supporting neurodistinct talent. The United Kingdom, Australia, and Israel publicly acknowledge these initiatives and their benefits.
• The United Kingdom has begun recruiting dyslexic individuals for national security work. In 2019, Government Communications Headquarters (GCHQ) confirmed that “neurodiverse employees were integral to the workings of the national security services—adding that the agency had three times the national average of dyslexic people in its apprenticeship programmes.”

• Australia’s Department of Defence has hired and trained autistic individuals for cyber security positions, noting that these individuals are doing an outstanding job. Analysts with ASD [autism spectrum disorder] are mostly very hard workers; it is difficult, in fact, to get them to take breaks. They are able to spot patterns others cannot see.

• Israel’s Defence Forces have an entire special division that recruits autistic young adults to enlist in military intelligence organizations as imagery analysts, under a program called Ro’am Rachok (“seeing the future”).

U.S. Government Organizations

Within the U.S. federal government, a small number of organizations—including the National Geospatial-Intelligence Agency (NGA) and the Cybersecurity and Infrastructure Security Agency—have undertaken neurodiversity pilot efforts, and other organizations have created modest neurodiversity programs. U.S. military organizations are exploring questions about whether and how to better integrate neurodistinct individuals, but these organizations are limited by the Department of Defense (DoD)’s military accessions policy, which bans the recruitment of individuals with autism spectrum diagnoses and limits accession opportunities for recruits with other neurodistinct conditions. To date, we know of no IC-wide or DoD-wide programs that focus on neurodiverse talent enablement. To reap comparable benefits to those described by federal, foreign, and industry counterparts, the IC and military organizations should consider piloting targeted neurodiverse talent programs and sharing lessons learned.

Best Practices for Implementing Neurodiversity Programs

Organizations with intentional neurodiversity programs offer a wealth of information about best practices. These generally include four broad categories: (i) a recruitment process targeting workers with autism and other neurodiverse conditions, (ii) a distinct hiring process, often done in collaboration with an agency specializing in neurodiverse employment, (iii) supportive career services and job coaching, and (iv) buy-in from constituencies … and neurodiversity education and related information available for managers.

Recruiting and Hiring Adjustments

Adjustments to recruiting and hiring are needed to ensure that processes, which are largely built by and for the neurotypical majority, do not inadvertently screen out capable neurodistinct candidates. When Microsoft began its targeted neurodiverse talent program, it found that its existing recruiting and hiring process resulted in non-placement of neurodistinct candidates, even though the “knowledge base and technical aptitude of the individuals can be very high.” For example, indicators normally used during interviews by hiring managers to assess competence and confidence, such as looking interviewers in the eye, can be difficult for some neurodistinct candidates and have no relation to technical competence or aptitude for the actual work. Microsoft now works “with a local group to bring in candidates for a week-long academy. We offer teamwork and technical exercises, and a lot of training. At the end of the week, we have an idea of those who will receive a job offer.” SAP and Hewlett Packard Enterprise (HPE) also found that “interviews are not the only way to assess a candidate’s suitability,” and have pivoted to additional forms of evaluation.

Reasonable Accommodations

Once hired, neurodistinct employees may require accommodations to allow them to perform most effectively. While most accommodations are simple
adjustments, they sometimes run counter to HR policies that expect conformity. Instead, “employees in neurodiversity programs typically need to be allowed to deviate from established practices. This shifts a manager’s orientation from assuring compliance through standardization, to adjusting individual work contexts.” In other words, many neurodistinct individuals may need reasonable accommodations. Beginning before the initial interview and continuing throughout their careers, agencies should share information with candidates and employees about what reasonable accommodations are available and how to access them. Most accommodations, such as less intense lighting, a flexible work schedule, a quiet workspace, or headphones, are no or low cost for the employer.

**Employee Support Systems**

Companies with neurodiversity programs also design and maintain simple support systems for their neurodistinct employees. These include employee resource groups for neurodistinct employees to connect with one another, job coaching, mentoring, and other types of supportive infrastructure. SAP’s program uses “support circles,” which include a team manager, a buddy or mentor, job coaches, and an HR representative. HPE integrates neurodistinct and neurotypical employees into small “pods” and includes a trained manager and a consultant to address specific issues that may arise related to employee neurodiversity. Many organizations also have structured mentoring systems in place for employees. These support systems provide a safe forum for employees to communicate their accommodation needs and can increase performance and retention.

**Neurodiversity Training**

All companies and organizations that have tailored neurodiversity employment programs incorporate neurodiversity awareness and acceptance training for their general workforce, and more specialized training for team leads, supervisors, managers, and HR professionals. This ensures a broader understanding of neurodiversity across the entire organization. It also fosters a sense of safety and acceptance for neurodistinct individuals and ensures that managers and HR professionals have the tools and knowledge to help those individuals navigate long-term careers.

The results of such efforts have the potential to be profound. A 2022 survey found that “93 percent of neurodivergent employees would be more likely to apply to, or continue to work for, a company that was supporting neurodivergent employees well. Sixty-three percent of neurotypical respondents said the same.” Many of the organizations also provide free information and training resources online.

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**AS THE IC SEeks TO IMPROVE AND EXPAND WORKFORCE DIVERSITY AS PART OF THE NEW 2023 NIS, IC LEADERS WOULD DO WELL TO BETTER UNDERSTAND, SUPPORT, AND EMBRACE NEURODIVERSE TALENT FOR THE IC’S MISSION.**

**How Can the IC Better Support and Leverage Neurodiversity?**

In light of the changes in workforce demographics and the continued need to increase the IC’s diversity of thought, we recommend the IC take steps to pursue an intentional and purposeful neurodiverse talent enablement effort. The goal of this effort should be to better understand the composition and needs of the IC’s existing neurodistinct workforce; increase awareness and acceptance of neurodiversity within IC organizations; and increase hiring, recruiting, and retention of neurodistinct talent to support the intelligence mission.
The Office of the Director of National Intelligence (ODNI) and IC agencies can take several actions in pursuit of these goals. ODNI should support research exploring statistics on neurodiversity like those tracked for other minority groups, including, but not limited to:

- Percentages of neurodistinct employees
- Retention of the neurodistinct workforce
- Promotion of neurodistinct employees
- The effects of neurodiversity on applying for and attaining security clearances

The data gathered from these studies should be used to guide systematizing neuro-inclusive practices in hiring, supporting, retaining, and promoting employees. Because neurodistinct conditions such as autism are "reported to occur in all racial, ethnic, and socioeconomic groups," improving hiring, support, retention, and promotion systems for this group could improve them for many other underrepresented groups, and ultimately for everyone.

ODNI also should convene a conference or series of conferences on Neurodiversity in the IC to enable IC elements to share data and best practices for recruiting, hiring, supporting, and retaining neurodistinct employees. Finally, ODNI should establish a standing IC neurodiversity working group or community of practice to explore and pilot initiatives to increase recruiting and hiring of neurodistinct talent.

Each IC agency also plays a critical role in the inclusion of neurodiversity in its workforce. Each can:

- Normalize and celebrate neurodiversity as an integral part of the IC’s DEI imperative.
- Expand DEI training and dialogue with the help of subject matter experts to explicitly include neurodiversity as a key diversity group. Include neurodiversity in required training for task leads, managers, and supervisors and train HR professionals on best practices for creating an effective neuro-inclusive hiring process.
- Leverage existing Neurodiversity at Work playbooks and other publications that document best practices for neuro-inclusive hiring, retention, support, and promotion.\(^{56}\)
- Collect voluntary, non-attributable data about neurodiversity within each IC element.
- Partner with experts to pilot internships and/or intentional hiring programs for neurodistinct talent.
- Work with federal, foreign, and private sector partners to better understand and leverage lessons learned from their neurodiverse talent enablement programs.
- Partner with colleges and universities that have strong neurodiversity support programs to establish new recruiting opportunities.\(^{57}\)

**Neurodiversity Can Be an IC Mission Enhancer**

Neurodiversity is an important, yet not sufficiently understood aspect of IC workforce diversity. It crosses all race, ethnic, gender, orientation, and regional bounds and is growing in prevalence across the general population. As the IC seeks to improve and expand workforce diversity as part of the new 2023 NIS, and as part of its Principles of Professional Ethics, IC leaders would do well to better understand, support, and embrace neurodiverse talent for the IC’s mission. Private sector and foreign intelligence partners have recognized the benefits to productivity and innovation that neurodistinct employees contribute and have already moved forward in establishing neurodistinct talent enablement and support programs. With a few intentional adjustments and with the benefit of industry and foreign partners’ past experiences, the IC could tap into this often uniquely qualified workforce to help stay ahead in an increasingly complex, diverse, and dynamic threat environment, while also helping its current neurodistinct workforce thrive.
References


7. Ibid.


34. Ibid.


45. Ibid.


47. Ibid.


49. Ibid.

51. Ibid.


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