

Opportunities for Maryland's Neuro- Diverse Workforce

Michael Siers

Senior Economist, Regional Economic Studies Institute

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What is Neuro-Diversity?

- ▶ Neuro-diversity reflects the fact that our population has a variety of neurological ability levels and conditions
- ▶ Some neurological conditions included in neuro-diversity include:
 - ▶ Dyspraxia
 - ▶ Dyslexia
 - ▶ Attention Deficit Hyperactivity Disorder (ADHD)
 - ▶ Autism Spectrum Disorder (ASD)
 - ▶ Tourette Syndrome
 - ▶ Individuals with a mental illness

Creating a Neuro-Diverse Workforce

- ▶ Our population is already neuro-diverse
 - ▶ 1 in five students has a language-based learning disability, the most common of which is dyslexia.
 - ▶ The CDC estimates up to 11 percent of children have ADHD
 - ▶ Estimated that 1 in 68 children nationwide have ASD
 - ▶ Maryland: 1 in 122 children have ASD

Creating a Neuro-Diverse Workforce

- ▶ Our workforce is not as neuro-diverse.
 - ▶ Up to 80% unemployment rate for individuals with ASD
 - ▶ Roughly 45% unemployment rate for dyslexic individuals
- ▶ Creating a neuro-diverse workforce means recognizing that workers have a variety of different skillsets and strengths.
 - ▶ Applying one-size fits all solutions to Maryland's workforce misses individuals with atypical needs.
 - ▶ Individuals with attention deficit disorders benefit from multi-tasking instead of focusing on one task at a time.
 - ▶ Individuals with dyslexia are often visual learners, so redesigning trainings may increase familiarity with office procedures.

ASD: An Increasingly Common Condition

- ▶ ASD encompasses a wide range of individuals, many of whom need extra support to enter the workforce and become independent.
- ▶ ASD is a developmental disorder which typically appears in early childhood.
- ▶ ASD impacts the ability to develop social and communication skills.
- ▶ Primarily affects males
- ▶ Rates have been increasing, primarily due to better detection.

- ▶ As just one example of neuro-diversity, what opportunities exist in Maryland's workforce for individuals with ASD?

ASD in the Workforce

- ▶ Individuals with ASD have a harder time entering the workforce, but that's not due to a lack of skills.
- ▶ Individuals with ASD have many skills employers need:
 - ▶ They're smart, diligent, detail oriented, and creative
- ▶ Growth of initiatives at large businesses:
 - ▶ "Autism at Work" by Microsoft, SAP, HP, and Ernst & Young
 - ▶ Efforts at Google, Salesforce, Best Buy, Deloitte, and many others
- ▶ Many smaller businesses hire exclusively individuals with ASD
 - ▶ Rising Tide Car Wash company in Florida
- ▶ Self-employment and sales over the internet

Identifying Opportunities in Maryland for an ASD Workforce

- ▶ To forecast employment opportunities for workers with ASD, RESI recreated work done by Stephanie Good at Willamette University in December 2016.
- ▶ Good used O*NET Online's Computerized Interest Profiler (CIP) to identify occupations best suited for individuals with ASD.
- ▶ The CIP is a 180-question survey which asks respondents their interest in various work activities
 - ▶ EX: Would you like to design artwork for magazines?
 - ▶ EX: Would you like to assist doctors in treating patients?
- ▶ After completing the CIP, O*NET provides the respondent with the most appropriate jobs.

Identifying Opportunities in Maryland for an ASD Workforce

- ▶ Good created a profile for an average high-functioning person with ASD and ran it through CIP.

| Prompt | Like | ? | Dislike |
|---|------|---|---------|
| Build kitchen cabinets | X | | |
| Guard money in an armored car | | | X |
| Study space travel | X | | |
| Make a map of the bottom of an ocean | X | | |
| Conduct a symphony orchestra | | X | |
| Write stories or articles for magazines | | X | |
| Teach an individual an exercise routine | | | X |

Identifying Opportunities in Maryland for an ASD Workforce

- ▶ O*NET categorizes responses in 6 categories:
 1. Realistic (practical, hands-on)
 2. Investigative (work with ideas and thinking)
 3. Artistic (creative work)
 4. Social (work involving others)
 5. Enterprising (starting up and carrying out projects)
 6. Conventional (work follows set procedures)
- ▶ According to Good's profile and O*NET's methodologies, individuals with ASD are oftentimes most interested in realistic, investigative, and conventional work, though creative work is frequently interesting too.
- ▶ This profile only examines one type of individual with ASD

Identifying Opportunities in Maryland for an ASD Workforce

- ▶ Good's methodology results in 24 occupations requiring little to medium preparation.
- ▶ Examples include:
 - ▶ Production Inspectors
 - ▶ Medical and Clinical Lab Technicians
 - ▶ Statistical Assistants
 - ▶ City Planning Aides
 - ▶ Mapping Technicians
- ▶ Good vetted these results against several SMEs who replied it seemed appropriate for a generic profile

Identifying Opportunities in Maryland for an ASD Workforce

- ▶ RESI mapped these 24 occupations to our proprietary PROM tool, which produces occupational-level employment forecasts.
 - ▶ RESI aggregated these to 19 occupations to provide more accurate results
- ▶ Each year between 2017 and 2019, RESI predicts there will be 2,463 job openings in the 19 occupations from the CIP.
- ▶ Individuals with ASD are often excluded from the workforce, and focusing recruitment efforts on individuals with ASD may be a low-cost way to fill staffing needs.
- ▶ RESI's estimate is low, since individuals with ASD can and do support a variety of other roles.

Identifying Opportunities in Maryland for an ASD Workforce

| Occupation | Average Annual Job Openings 2017-2019 |
|---|--|
| Compliance officers | 366 |
| Pharmacy technicians | 342 |
| Data entry keyers | 333 |
| Construction and building inspectors | 319 |
| Medical and clinical laboratory technicians | 277 |
| Mail clerks and mail machine operators, except postal service | 209 |
| Biological technicians | 172 |
| Inspectors, testers, sorters, samplers, and weighers | 159 |
| Architectural and civil drafters | 72 |
| Social science research assistants | 44 |

Identifying Opportunities in Maryland for an ASD Workforce

- ▶ How can we train a neuro-diverse workforce to be prepared for these jobs?
- ▶ RESI identified key certifications through its PROM tool which would help prepare individuals for growth jobs suited for individuals with ASD. Examples include:

| Certification | Average Annual Number of Openings Using Certification, 2017-2019 |
|---|---|
| Concrete Field Testing Technician - Grade I | 517 |
| Bridge Safety Inspection - Level I | 478 |
| Certified Pharmacy Technician | 342 |

Maryland Resources

- ▶ There are various groups in Maryland working to provide assistance for individuals with ASD.
- ▶ If your business is hiring, consider meeting with one of these groups to learn more about how you can meet staffing needs through a neuro-diverse workforce.
 - ▶ Itineris
 - ▶ Madison House
 - ▶ DORS (Maryland State Division of Education Division of Rehabilitation Services)
 - ▶ Alliance Inc
 - ▶ CSAAC (Community Services for Autistic Adults and Children)
 - ▶ Towson University Hussman Center for Adults with Autism
 - ▶ One World Center for Autism

Any Questions?