2018

Vocational Rehabilitation

Comprehensive Statewide Needs Assessment

Ohio | Opportunities for Ohioans with Disabilities

September 2018

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2018 CSNA Research and Analysis Resources

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Executive Summary

Opportunities for Ohioans with Disabilities (OOD), Division of Employer and Innovation Services (EIS), produced this 2018 Comprehensive Statewide Needs Assessment (CSNA) to assess the vocational rehabilitation (VR) service needs of individuals related to six primary disability categories. These disabilities include visual impairments, hearing impairments, communicative impairments, physical impairments, psychosocial impairments and cognitive impairments. Data was collected from various sources and used to illustrate OOD's ability to meet the demand for VR services. This methodology focuses on the extent to which OOD was serving prospective job seekers with disabilities, and OOD's balance in serving the cross-section of individuals with disabilities who are seeking employment.

To address priorities established by the 2014 Workforce Innovation and Opportunity Act (WIOA), OOD approached its 2018 CSNA with an increased focus on identifying service needs of students with disabilities and employer partners, and an analysis of 10-year industry growth projections throughout Ohio. The CSNA culminates in a series of recommendations designed to address gaps, enhance services, increase employer engagement, and guide program development and expansion over the next few years. A summary evaluation of the progress made on the nine recommendations from the 2015 CSNA is also included. Enhancements to the 2018 CSNA include:

- Published web-based interactive maps that the public can use to understand OOD's ability to serve prospective job seekers with disabilities and the balance with which OOD is serving individuals across all disability categories.

- Availability of OOD's services for students with disabilities, including pre-employment transition services, considering geographic distribution and types of work experiences.

- Identification of industry growth opportunities to inform VR Counselors and participants when selecting vocational goals with the greatest potential for success.

Data Collection Strategies

Projections of the number of individuals with disabilities in need of VR services by category of disability and county of residence in Ohio were developed by the CSNA team. Similarly, service data from OOD's VR case management system and employment statistics were utilized to develop estimates of the number of individuals likely to need VR services by disability category and by county. This provided a basis for developing estimates of the number of individuals actively participating in the labor force that need services to assist them in finding a job and who could benefit from OOD VR services. Information was used from other key agencies that serve individuals with disabilities through the analysis of a variety of reports, documents and service data.

OOD also partnered with Mathematica Policy Research to conduct a follow-up report to the 2014 Survey on Disability Employment (SDE) to explore which factors are a barrier or facilitator to successful engagement in VR. This was accomplished using survey data and state wage records along with VR administrative data. Lastly, survey data from members of Disability: IN Ohio (formerly the Ohio Business Leadership Network) was used to identify service needs of employer partners.

Need for Services

Review of Existing Data. According to the American Community Survey (ACS), in 2016 approximately 1.6 million (13.8 percent) Ohioans experience disabilities. This ranks Ohio sixth among U.S. states and territories in the number of residents with disabilities and 19th in the percentage of individuals with disabilities out of the total population. For Ohioans ages 18 to 64, ambulatory disabilities are the largest category of impairment (27 percent of individuals with disabilities) and visual disabilities are the smallest (9.4 percent of individuals with disabilities). Just over one-third (35.8 percent) of individuals with disabilities ages 18 to 64 were employed and 30.1 percent of individuals with disabilities ages 21 to 64 were living in poverty.

According to the Disability Statistics Compendium published by the University of New Hampshire's Institute on Disability in 2016, for individuals with disabilities ages 16 years and over who are living in the community and had earnings from work, median earnings were $22,047. By contrast, individuals without disabilities ages 16 years and over, median earnings were $32,479, representing an earnings gap of $10,432.

Comparing 2017 to 2014:

- OOD received $15,833,449 in General Revenue Funding, which was a 2.2 percent increase;
- 5,980 OOD participants achieved a successful employment outcome, which was a 30.6 percent increase; and
- 13,480 VR service plans were written, which was a 12.2 percent increase.

Race and Ethnicity. ACS 2016 (Erickson, Lee, & von Schrader, 2017) data indicate that the estimated prevalence of disability for working age Ohioans (ages 18 to 64) was:

- 11.6 percent among Whites, approximately 669,400 individuals;
- 15.3 percent among Black/African Americans, approximately 131,700 individuals;
- 3.7 percent among Asians, approximately 6,100 individuals;
- 26.2 percent among Native Americans/Alaskan Natives, approximately 3,000 individuals; and
- 15.2 percent among all other races, approximately 32,100 individuals.

In 2016, OOD served[1] 29,800 individuals, 6,892 (23.1 percent) of whom were Black/African American. Estimates indicate that 15.3 percent of working age Black/African Americans experience disabilities. When including individuals ages 16 to 64, this equates to approximately 140,672 individuals, of whom approximately 7.8 percent (or 10,972) were seeking employment in 2016. That year, OOD served 6,892 Black/African Americans, or approximately 62.8 percent of the individuals who were seeking employment and could benefit from VR services. More than eight out of 10 working-age Black/African Americans (80.3 percent) with disabilities reside in the following seven Ohio counties: Cuyahoga, Franklin, Hamilton, Montgomery, Lucas, Summit, and Mahoning. (U.S. Census – ACS, 2016) (Erickson, Lee, & von Schrader, 2017) (OOD – AWARE)

In 2016, Ohio's working age (16 to 64) population of Hispanic/Latino ethnicity was estimated to be 245,713, of whom approximately 29,240 (11.9 percent) experienced disabilities. During that year, approximately 5.02 percent of those individuals were estimated to be seeking employment, which equates to 1,468 individuals. OOD served 695 individuals of Hispanic/Latino ethnicity in 2016, indicating that 47.3 percent of Hispanic/Latino individuals who were seeking employment and could benefit from VR services were being served. Over 60 percent (63.6 percent) of working age Hispanics/Latinos with disabilities reside in the following eight counties: Cuyahoga, Franklin, Lucas, Lorain, Hamilton, Butler, Montgomery, and Mahoning. (U.S. Census – ACS, 2016) (Erickson, Lee, & von Schrader, 2017) (OOD – AWARE)

[1] A served individual is one who has been determined eligible for VR services and has signed an Individualized Plan for Employment.

Disability Categories

OOD VR Service Rate: Need Ratios in Ohio Counties. Maps and tables in Section V of this report indicate "VR service rate: need" ratios in 2017 for the six major OOD impairment categories for all 88 counties in Ohio. A VR service rate: need ratio represents the number of working age Ohioans with disabilities who receive OOD VR services out of the total number who want to work that could be served. These data indicate that OOD continues to serve individuals with cognitive and psychosocial impairments at a high rate while additional focus could be placed on individuals with communicative, hearing and visual impairments. The highest statewide service rate: need ratio in 2017 was 41.0 percent for cognitive impairments, while the lowest statewide ratio was 13.4 percent for visual impairments.

Number of Counties by Impairment and OOD Service Rate: Need Ratio Range

Range	Cognitive	Communicative	Hearing	Physical	Psychosocial	Visual
0 to 10%	0	78	31	14	4	35
10.1% to 20%	4	7	40	49	17	45
20.1% to 30%	12	2	11	17	20	8
30.1% to 40%	24	1	5	5	17	0
40.1% to 50%	22	0	0	2	15	0
Higher than 50%	26	0	1	1	15	0

Counties with Low and High Service Rate: Need Ratios. Nine counties did not have a service rate: need ratio greater than 30 percent for any impairment category: Clermont, Geauga, Holmes, Lake, Montgomery, Trumbull, Tuscarawas, Warren, and Wayne. Ten counties have service rate: need ratios greater than 30 percent in at least three categories of impairment: Allen, Auglaize, Champaign, Crawford, Henry, Huron, Lawrence, Morgan, Richland, and Sandusky. Erie is the only county with no service rate: need ratio below 10 percent in any impairment category.

Balance Ratios. Section VI includes maps and tables addressing balance ratios of service delivery statewide according to the six categories of impairment. The distribution and balance ratios statewide also suggest that OOD has continued to serve individuals with cognitive and psychosocial impairments at a high rate. However, this occurs in conjunction with significant negative balance ratios for the other four impairment categories, most notably communicative impairments. This reflects OOD's concentration in recent years in providing services to individuals with cognitive and psychosocial impairments through the Employment First Partnership interagency agreement with the Ohio Department of Developmental Disabilities, and focused engagement with county behavioral health authorities. Each of these populations has an organized representative presence through established county board agencies across Ohio.

Students with Disabilities

Section VII of this CSNA focuses on services to students with disabilities. Changes in VR program requirements put forth by WIOA emphasized the need to engage youth and students with disabilities in VR services to better prepare them for employment and independence in adulthood. OOD has significantly increased engagement with this population through the establishment of the Ohio Transition Support Partnership (OTSP) with the Ohio Department of Education. This interagency agreement launched in 2015 to expand services to students with disabilities ages 14 to not yet 22 who are receiving services under an Individualized Education Program (IEP) and meet OOD eligibility criteria. In addition, OOD provides services to students with disabilities on general caseloads not affiliated with the OTSP.

Summer Youth Work Experience. A primary service provided to students with disabilities is Summer Youth Work Experience (SYWEs). This service is typically group-based, and is intended to teach students with disabilities vocational skills and appropriate work behaviors. Though SYWE services are not intended to prepare participants for work in any specific occupation, there appears to be some alignment between participants' job goals and the types of work experiences provided in 2018. For example, the top work experience offered (by count of openings) involves sorting and stocking duties. This is closely aligned with the second and third most frequent job goals of SYWE participants. There is also alignment in the areas of food preparation, customer service, and janitorial/custodial work. Data also indicate that the geographic distribution of SYWE opportunities closely matches the distribution of youth and students throughout the state. (OOD – AWARE)

Services to Students and Employment Outcomes. In 2014, OOD implemented Progressive Career Development as a service delivery model for students with disabilities. This includes a series of transition-specific services designed to help students move from basic developmental activities to those requiring more skills and increased independence. Although it is too early to determine if this model results in a greater likelihood of the student achieving a successful employment outcome, there are early indications that receipt of at least one of these transition-specific services is positively correlated with continuation of VR services, especially with more recent applicants.

Two services, School-based Job Readiness Training and Non-permanent Job Development, do appear to have a substantial correlation to achieving an employment outcome, with 100 percent and 98 percent probability, respectively.

School-based Job Readiness Training is a series of several short-term rotations or internships that take place at a host business and are

intended to prepare participants to be job ready and to secure permanent employment. Non-permanent Job Development is a service to help a student with a disability obtain summer or after-school employment, typical of jobs that students without disabilities may experience. One explanation for this result could be that these services more closely resemble the typical workplace, directly involve an employer and allow for more independent completion of work activities.

Balance Ratio of OOD Services to Ohio Students with Disabilities. To measure the effectiveness of OOD's allocation of resources in services to students with disabilities, OOD obtained data from ODE regarding the number of students with disabilities receiving services through IEPs that reside in each Ohio county. Data collected at the end of the 2015 – 2016 school year indicated that there were approximately 52,695 students with disabilities in Ohio who were receiving special education services through an IEP and could potentially benefit from VR services. At that time, OOD was delivering services to 7,609 students with IEPs statewide.

Balance ratios were calculated by comparing the percentage of total students residing in each county to the percentage of total students being served in each county. This analysis revealed that OOD services are well balanced to the distribution of students with disabilities across Ohio. In fact, 13 Ohio counties were found to have achieved a balance ratio of 0.0, indicating that the distribution of resources in services to students with disabilities has been aligned well with the distribution of the student population.

Looking strictly at the volume of students served, OOD was able to serve approximately 14.4 percent of the population of students with disabilities in Ohio, suggesting a need to continue expanding services to these individuals.

Youth with Disabilities and Supplemental Security Income (SSI). Reliance on SSI is thought to create a significant barrier to achieving an outcome that maximizes the income generated through employment because individuals are reluctant to engage in activity that may result in the reduction or elimination of SSI. However, reliance on SSI may not be a guaranteed strategy for long-term financial support. When a child SSI recipient reaches age 18, SSA requires that their claim be re-determined under adult disability determination rules. These rules can differ significantly from those that apply to child claims, potentially disqualifying the individual from receiving continued SSI payments. According to SSA, between 1998 and 2008, 47.8% of child recipients of SSI experienced a cessation of benefits upon redetermination at age 18. (Hemmeter & Stegman Bailey, 2015) Because they may not be prepared for employment when benefits are ceased, approximately half of child SSI recipients are left with no means to support themselves

in adulthood, with 9.4% returning to SSI within 10 years. (Hemmeter & Stegman Bailey, 2015) OOD's VR program has the potential to affect change in this environment, including offering support for postsecondary education.

In 2007, SSA conducted a study in cooperation with the National Technical Institute for the Deaf (NTID) examining the outcomes achieved by SSI youth who applied for postsecondary education at NTID. Perhaps the most compelling result of this study addresses the outcomes achieved by graduates in comparison to those who did not attend NTID at all. The study authors noted that "[c]ompared with SSI children who were accepted to NTID but chose not to attend, SSI children who graduated from NTID left the SSI program 19 months earlier, were less likely to reenter the program, and at age 30 had increased their earnings by an estimated 49 percent." (Weathers, et al, 2007) Those differences are significant and strongly suggest that a potential strategy for reducing dependence on SSI among youth recipients is to emphasize postsecondary education as a path to employment.

Opportunity also exists to increase engagement with youth recipients of SSI and their families to create awareness of different paths to independence outside of SSI. Additional authorized services under Pre-ETS encourage coordination with local education agencies, and building upon existing partnerships with the Ohio Department of Education, these could provide a framework under which OOD can increase involvement with youth recipients of SSI.

Industry Growth and Participant Job Goals

OOD places a priority on engaging businesses in Ohio to form employer partnerships, creating employment opportunities for individuals with disabilities served by VR. The Business Relations Unit within the Division of Employer and Innovation Services is led by an Assistant Deputy Director and includes a Business Relations Manager, two Business Relations Liaisons, and five regional Business Relations Specialists (BRSs).

With the goal of creating opportunities for employment in competitive integrated settings and fostering long-term success for individuals with disabilities, BRSs attempt to identify businesses who are likely to have job openings either in the form of replacing existing employees as they leave or in the form of additional job growth as the business expands. To the extent that these activities can be anticipated, BRSs can target their efforts toward employers who are likely to generate sustainable employment opportunities for individuals with disabilities. To this end, the CSNA offers insight into what industries and occupations are likely to present the most opportunities for individuals with disabilities, as well as those that may present the greatest challenges.

Industries that are projected to grow the most in terms of new job creation in Ohio are Health Care and Social Assistance; Professional, Scientific, and Technical Services; and Accommodation and Food Services. Approximately 18,916 new jobs will be created in these industries each year.

When considering new job creation plus replacement opportunities, the occupations that are projected to have the most annual openings include Combined Food Prep & Service Workers, including Fast Food; Retail Salespersons; Cashiers; Waiters and Waitresses; and Registered Nurses. Together, these occupations are expected to generate 26,953 open positions annually.

Balance ratios were generated for the various occupations and industries to evaluate the degree to which VR participant job goals align with annual projected job opportunities. This analysis revealed that there are industries where demand for openings far outstrips supply, most notably the Administrative and Support, Manufacturing, and Retail Trade industries; and industries where the supply of job openings far outstrips demand, highlighted by the Health Care and Social Assistance industry.

It is unlikely that a high rate of success will be achieved by individuals pursuing occupations in industries with high balance ratios, regardless of the total volume of opportunities created. High balance ratios represent occupations for which there are significantly more job seekers than opportunities, creating a highly competitive placement scenario among the individuals served by OOD, let alone the members of the general public who are also seeking employment in those occupations.

This scenario should prompt a reevaluation of job goals among VR participants to ensure that efforts are directed toward outcomes presenting the greatest opportunity for success.

Trends and Other Considerations

Social Security Disability Insurance (SSDI). The Social Security Administration groups SSDI beneficiaries into three classifications: Workers, Adult Children, and Widow(er)s and Parents. When comparing the number of beneficiaries in 2014 to the number in 2017, Adult Children experienced the largest percentage change of the three classifications, reducing in count by 3.4 percent over those three years. However, when comparing the value of the payments made to each classification, Workers with disabilities experienced the largest increase, at 2.7 percent. In total, the number of beneficiaries in Ohio has reduced by 3.1 percent to 695,594 beneficiaries, while the value of payments received increased by 0.7 percent to approximately $728.2 million in 2017. (Social Security Administration, 2017)

Labor Force Participation. In 2016, the U.S. unemployment rate for working age (16 to 64) individuals with disabilities was 11.5 percent, a decrease of 2.4 percentage points from 2014. The U.S. labor force participation rate in 2016 for the same population was 31.2 percent, an increase of 1 percentage point from 2014. Both trends reflect positive changes for working age individuals with disabilities. More individuals with disabilities are working (as a percentage of the population) and more individuals with disabilities are actively seeking work. (Bureau of Labor Statistics, 2016)

Recommendations

The data summarized above and in more detail in the following report suggested several formal recommendations. Recommendations were developed as a prelude to and support for formal planning activities. The recommendations are provided below:

1. **Increase outreach to individuals with hearing and visual impairments to increase services to these populations.** As a result of recommendations made by Governor Kasich's Workforce Integration Taskforce, OOD has implemented a number of programs to expand services to individuals with hearing and visual impairments in the last three years. However, service rate: need ratios and balance ratios still highlight the need for additional engagement with these populations. OOD should engage the Community Centers for the Deaf, Sight Centers, and other organizations focused on serving individuals with hearing and visual impairments to identify additional opportunities in this regard.

   Sources:

   Section V. Prevalence and Service Rate: Need Ratio Projections of Unmet Need

   Section VI. Balance Ratios: Comparison of Needs to Service Provision

2. **Explore opportunities to expand access to assistive technology resources to support individuals with disabilities to be more independent.** OOD should consider allocation of resources for assistive technology resources for individuals with disabilities, particularly those disabilities with a lower service rate: need ratio (e.g. hearing, visual and physical impairments). This could include expansion of BlindSquare installations at appropriate locations throughout the state and other resource allocations to support Ohio's Technology First Initiative.

   Sources:

   Section V. Prevalence and Service Rate: Need Ratio Projections of Unmet Need

   Section VI. Balance Ratios: Comparison of Needs to Service Provision

3. **Explore the potential causes of service deficits in counties with low balance ratios to identify strategies that might provide greater service delivery rates in those areas.** The balance ratio analysis highlighted a number of counties with very low balance ratios, particularly with regard to services for individuals with communicative, hearing, physical, and visual impairments. OOD should explore the causes behind these service deficits and devise strategies to enhance service

delivery where needed.

Sources:

Section VI. Balance Ratios: Comparison of Needs to Service Provision

4. **Explore opportunities to increase the availability of work experiences for students with disabilities that more closely resemble the adult workplace through expanded business partnerships.** Services provided to students with disabilities with a business partnership focus and that more closely resemble the adult work environment appear to have a substantial correlation to achieving an employment outcome.

   Sources: Section VII. Youth and Students with Disabilities

5. **Expand outreach and information services to youth with disabilities receiving Supplemental Security Income (SSI) and their parents or other support structures regarding the potential for cessation of benefits at age-18 redetermination of disability and access to VR services.** Statistics indicate that nearly half of youth with disabilities (47.8%) who receive SSI will experience a cessation of benefits upon age-18 redetermination during the Continuing Disability Review. In many cases, these youth and their families are not prepared for this loss of income and are unable to quickly transition to other means of generating financial support. In addition to the proposed demonstration project that has been submitted to the Social Security Administration, OOD should explore opportunities under the auspices of additional authorized Pre-Employment Transition Services to expand outreach and information services to these individuals.

   Sources:

   Section VII. Youth and Students with Disabilities

6. **Increase outreach efforts to colleges and universities to encourage students with disabilities who could benefit from VR services to apply.** Students with disabilities enrolled in post-secondary education may benefit from many VR services while pursuing their degree, including career counseling, rehabilitation technology, work experiences, internships, job development services and on-the-job supports. Research indicates that SSI recipients who participate in postsecondary education have access to better employment opportunities and reduced dependence on SSI.

   Sources:

   Section VII. Youth and Students with Disabilities

7. **Expand the menu of services to business, such as consultation about accommodations, job task analyses and worksite accessibility.** By providing these services, OOD can better meet the needs of its dual customer, the employer, and increase opportunities for individuals with disabilities to obtain and maintain employment.
   Sources:
   Section VIII. Industry Growth and Employer Engagement

8. **Pursue business relationships within those industry sectors that are projected to experience the highest growth.** Nearly 19,000 new jobs are projected to be created in the following industries each year: Health Care and Social Assistance; Professional, Scientific, and Technical Services; and Accommodation and Food Services.
   Sources:
   Section VIII. Industry Growth and Employer Engagement

9. **Provide VR counselors with training and resources about industries with the largest potential for growth.** The industries with the largest potential for growth include Health Care and Social Assistance and Professional, Scientific, and Technical Services, yet very few OOD participants have a goal on their IPE for an occupation in one of those industries. As part of informed choice, it is recommended that VR counselors review these industry growth projections with participants and where appropriate, focus job goals and training toward these.
   Sources:
   Section VIII. Industry Growth and Employer Engagement

10. **Consider strategies to assist VR Counselors in serving OOD participants with barriers such as long separations from the job market and employment perceptions.** Research from Mathematica indicates that long separations from the workplace and little to no expressed interest in working results in poor employment outcomes for VR participants. Arming counselors with strategies to address these barriers earlier in the process may allow them to offer interventions that lead to better outcomes.
    Sources:
    Section IX. Survey Results

Section I.

Introduction

This report provides Opportunities for Ohioans with Disabilities (OOD) with findings and recommendations related to the vocational rehabilitation (VR) needs of Ohioans with disabilities.

Recent Trends in Funding and Past and Current Needs Assessments

The current needs assessment builds upon the methodologies developed from the 2015 CSNA by evaluating OOD's ability to meet the demand for VR services and OOD's balance in serving the cross-section of individuals with disabilities who are seeking employment, estimated for 2019. These data were considered critical in order to develop policy and resource allocation recommendations responsive to future needs. Procedures and specific data were collected in response to recent changes in funding trends. Responses to recommendations from the 2015 CSNA are highlighted, as well as financial and service trend data in sections of the CSNA.

Purpose of the Comprehensive Statewide Needs Assessment

The primary purpose of OOD's vocational rehabilitation CSNA is to provide a basis for allocating resources to support individuals with a variety of disabilities in Ohio. In order to make policy decisions about the optimal distribution of resources, this CSNA delivers information to OOD about disability prevalence in each of Ohio's 88 counties. Prevalence is defined as the total number of estimated cases present in a specific population and location at a particular point in time (Green & Kreuter, 1991). Prevalence rate is calculated by dividing the number of individuals reporting a disability by the total number of individuals in the population (Erickson, Lee, & von Schrader, 2016). Individuals served by OOD's VR program are divided into one of the following categories: visual impairments, hearing impairments, communicative impairments, physical impairments, psychosocial impairments, or cognitive impairments.

OOD's 2015 CSNA provided the basis to find estimates of the prevalence of disabilities consistent with the classification system for disabilities used by OOD and defined by the Rehabilitation Services Administration (RSA). Although definitions of a specific category of disability may not precisely match definitions used by OOD or definitions that facilitate clinical practice, the prevalence estimates used in the CSNA and corresponding definitions were the most appropriate for estimating the prevalence of disabilities consistent with the classification system used by OOD.

All prevalence figures and other projections cited in the CSNA are estimates and are intended to represent the magnitude of prevalence of specific disabilities in specific counties in Ohio. It is appropriate to

use such figures and comparisons across counties and categories of disabilities in conjunction with other information to support planning and policy development. However, prevalence and other projections are not representative of the precise number of individuals with specific disabilities.

Needs Assessment Questions

The 2018 CSNA reflects OOD's focus on those priorities established by WIOA, including services to business and an enhanced focus on services to students with disabilities. It addresses the following questions:

1. What is the projected number of individuals that will experience each category of disability in Ohio?
2. How many individuals with disabilities are projected to be seeking employment, who currently are not working?
3. How do prevalence estimates differ for individuals by race/ethnicity and age groups?
4. How many individuals with disabilities received services from OOD?
5. How have the Employment First Partnership and the Ohio Transition Support Partnership impacted service delivery to those target populations?
6. What are the gaps in serving disability populations and how should gaps be prioritized?

Questions specific to youth and students with disabilities:

7. What are the job goals for Summer Youth Work Experience (SYWE) participants and what kinds of work experiences have been provided?
8. How are SYWE programs distributed geographically and how does that compare with the location of students with SYWE or Summer Youth Career Exploration on their VR plan?
9. What services for students with disabilities are most likely to lead to improved employment outcomes?
10. Is the number of students served by OOD proportionate to the number of students with IEPs in Ohio based on ODE data?
11. What percentage of students with disabilities in Ohio are enrolled in SSI and how many are removed each year due to age-18 redetermination? How can OOD ensure that students with disabilities are aware of this information and how can we engage them in VR services to better prepare them for employment and independence?

Questions specific to employer engagement activities:

12. What industry sectors exhibit the most growth potential in Ohio?

13. What are the gaps in alignment of VR participant job goals with growth industries?

14. What services are most needed by businesses in relation to staff education and awareness of disability issues, and to support retention of employees with disabilities?

Focus Areas and Data Collection Strategies

The 2018 CSNA focuses on seven critical tasks:

1. Evaluation of the recommendations made in the 2015 OOD CSNA;
2. Utilization of federal, state, and local data resources;
3. Analyzing service delivery needs for individuals with disabilities based on disability categories and geographic locations;
4. Identifying proportionately underserved and un-served populations;
5. Analysis of working-age population and students/youth with disabilities;
6. Analysis of impact of state-level partnerships in serving specific populations; and
7. Make data informed recommendations to improve helping individuals with disabilities achieve competitive employment outcomes.

Addressing these questions required the CSNA team to implement several data collection strategies. Projections of the number of individuals with disabilities by category and county of residence in Ohio were developed for 2019. Similarly, service data from OOD's VR case management system and employment statistics were utilized to develop estimates of the number of individuals likely to need VR services by disability category and by county. This provided a basis for developing estimates of the number of individuals actively participating in the labor force that need services to assist them in finding a job and who could benefit from OOD VR services.

Information was used from other key agencies that serve individuals with disabilities through the analysis of a variety of reports, documents and service data. OOD also partnered with Mathematica Policy Research to conduct a follow-up report to the 2014 Survey on Disability and Employment (SDE) to explore which factors are a barrier or facilitator to successful engagement in VR using survey data and state wage records along with VR administrative data. Lastly, survey data from members of Disability:IN Ohio (formerly the Ohio Business Leadership Network) was used to identify service needs of employer partners.

Projections were made in the number of Ohioans with disabilities in need of vocational rehabilitation (VR) services by category of disability and by county of residence in Ohio using American Community Survey (ACS) population projections and Bureau of Labor Statistics labor force participation and employment statistics. Similarly, service data from Ohio's VR case management system and employment statistics were utilized to develop estimates of the number of individuals likely to need VR services. Information was used from other agencies that serve individuals with disabilities through the analysis of a variety of reports, documents and service data.

Content of the Needs Assessment Report

The remainder of this report is divided into several sections corresponding to data collection strategies and other phases of the needs assessment project. Section II summarizes background information (secondary data) and other contextual factors. Information summarizing VR services provided by OOD and annual funding for OOD are summarized in this section. This information is viewed as a critical foundation for the needs assessment data summarized in this report. Section III provides a progress report on OOD's efforts to address recommendations made in the 2015 CSNA. Section IV reviews race, ethnicity, age, and disabilities in Ohio. Sections V and VI provide information related to the amount of service provided in Ohio counties. Section VII provides information about OOD's services to students with disabilities, including pre-employment transition services. Section VIII provides information about industry growth and employer engagement, including the alignment of OOD participant goals with projected growth sectors. Section IX provides survey results from the Disability:IN Ohio membership as well as a summary of a collaboration with Mathematica Policy Research to explore which factors are a barrier or facilitator to successful engagement in VR using survey data and state wage records along with VR administrative data. Section X presents formal recommendations. Section XI includes a Bibliography and Section XII provides a list of the tables, charts, and maps contained in the CSNA.

Section II.

Background Information and Methodology

Current System for Delivering Vocational Rehabilitation Services in Ohio

Opportunities for Ohioans with Disabilities (OOD) is the state agency that partners with Ohioans with disabilities to achieve quality employment, independence and Social Security disability determination outcomes. It is accomplished through its Bureau of Vocational Rehabilitation (BVR), Bureau of Services for the Visually Impaired (BSVI) and Division of Disability Determination (DDD). A fourth area is the Division of Employer and Innovation Services (EIS), which is responsible for establishing and maintaining partnerships with employers.

Approximately 290 OOD counselors deliver VR services via 14 field offices located across Ohio, as well as from embedded locations, such as schools and OhioMeansJobs (OMJ) Centers. OOD also provides VR services through established case management and service delivery contracts with local and state agencies. During FFY 2017, 16 contracts provided a basis for delivering VR services. In addition to employment and independent living support programs, OOD is responsible for making disability determinations for the Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) programs in Ohio.

OOD receives funding from the Rehabilitation Services Administration (RSA) for the following programs: Vocational Rehabilitation (through BVR and BSVI), independent living initiatives for older individuals who are blind (ILOB), and statewide independent living programs. VR services include activities designed to assist individuals with disabilities to engage in competitive employment capitalizing on their strengths, resources and abilities.

Elimination of the VR Wait List. Federal regulations require that when a State does not have sufficient resources to serve all VR eligible individuals in the State, it must implement an order of selection (OOS) that gives priority for services to individuals with the most significant disabilities (MSD). In 1991, Ohio's VR program was placed on an OOS, which required the State to prioritize employment services to Ohioans with disabilities based on their degree of disability.

OOD had been operating under an OOS policy since 1991 and had been operating a statewide waiting list since December of 2008. OOD eliminated the waiting list for individuals with significant disabilities (SD) in June 2014. After eliminating this waiting list, OOD began providing services to individuals with disabilities (D) for the first time since 1991. In February 2015, the waiting list for all priority levels (MSD, SD and D) was eliminated. With the implementation of the current combined state plan, OOD is no longer operating under an

Order of Selection.

Business as a Customer. OOD places a priority on engaging businesses in Ohio to form employer partnerships, creating employment opportunities for individuals with disabilities served by VR. The Business Relations Unit within the Division of Employer and Innovation Services is led by an Assistant Deputy Director and includes a Business Relations Manager, two Business Relations Liaisons, and five regional Business Relations Specialists (BRSs). From 2014 to 2017, the number of Disability: IN Ohio member businesses increased from 24 to more than 160.

Workforce Innovation and Opportunity Act. In 2014, the federal Workforce Innovation and Opportunity Act (WIOA) became law. WIOA was the first legislative reform of the public workforce development system in more than 15 years and replaced the Workforce Investment Act of 1988 (WIA). WIOA, which authorizes funding for the state VR program, establishes VR as a core workforce development program and imposed regulations that require combined strategic planning and common performance measures among all state workforce development agencies, including workforce programs run by the Ohio Department of Job and Family Services, the Ohio Department of Higher Education, and ASPIRE (Ohio's adult basic literacy and education program, formerly ABLE). Other areas of priority include heightened emphasis that employment outcomes achieved by the VR program meet the definition of competitive integrated employment and funding requirements on the provision of services, including pre-employment transition services, to students with disabilities.

Needs Assessment Methods

Needs assessment is defined as a systematic and ongoing process of providing usable and useful information about the needs of a target population in order to make judgments about policy and programs (Shell, 2009) (Steinmetz, 2006). OOD is committed to using the data from the current needs assessment to inform future state plans and policy. As with any service delivered to a population in need, OOD acknowledges that there are gaps between the current reality of the VR system in Ohio and ideal conditions. The goal of current needs assessment activities is to assess the progress made since 2015 and continue to strategically identify gaps through the use of data and, ultimately, expand services to unserved and underserved populations in Ohio. Many of the projection statistics referenced in this report are estimates of existing and/or future conditions. The existing sources used for generating estimates were vetted by individuals with expert knowledge through the 2015 CSNA process, and new sources were also vetted through experts.

The Needs Assessment Process. This needs assessment utilizes each of the strategies identified in the most current available VR Needs Assessment Guide (Shell, 2009) and the innovative methods designed in the 2015 CSNA that further meets the unique needs of Ohioans that could benefit from OOD VR services. The six basic steps described by Shell (2009) guided project activities:

Step 1: Defining and Establishing CSNA Goals

Step 2: Developing CSNA Plan for Information and Dissemination

Step 3: Gathering the information

Step 4: Analyzing the Results and Developing Findings

Step 5: Develop the Conclusions: Potential Action Strategies

Step 6: Informing Ohio's Combined State Workforce Plan, Goals, Priorities, and Strategies

The strategies for gathering and analyzing information and data in steps 3 and 4 included: 1) using existing disability population statistics; 2) creating disability population estimates from available data; 3) creating population projections; 4) Utilizing federal and state labor force statistics; 5) utilizing existing VR data; and 6) incorporating state and county level statistics.

Environmental Scan

The information in this section provides the foundation for the needs assessment activities described in this report. American Community Survey (ACS) data was used from the US Census Bureau, as well as the Institute on Disability's 2017 Disability Statistics Compendium and Cornell University's Disability Statistics website (disabilitystatistics.org). Data sources also include the Bureau of Labor Statistics and other administrative records of government programs (such as Social Security Disability Insurance, Supplemental Security Income and federal/state vocational rehabilitation programs).

Population of Ohio Counties. 2016 Estimates suggest Ohio's total population is 11,586,941 (U.S. Census – American Community Survey). Sixty-one of Ohio's 88 counties have total populations of less than 100,000 residents. Vinton County in the southeast part of Ohio, with 13,128 residents, has the smallest total population. Eighteen counties have populations between 100,000 and 250,000 residents and the remaining nine counties all have populations that exceed 300,000.

As shown in Table 1 below, the nine counties with populations exceeding 300,000 residents are: Cuyahoga, Franklin, Hamilton, Summit, Montgomery, Lucas, Stark, Butler, and Lorain. Cuyahoga is Ohio's most populous county with 1,258,710 residents. Together, these counties account for 50 percent of the state's total population.

Table 1 - Counties with Largest Populations in Ohio: 2016 Estimate

County	Age 0 - 14	Age 15 - 64	Age 65+	Total Population	Percent of Total Population
Cuyahoga	222,792	829,490	207,687	**1,258,710**	**10.9%**
Franklin	246,424	852,626	134,301	**1,232,118**	**10.6%**
Hamilton	157,163	534,355	115,253	**805,965**	**7.0%**
Summit	95,823	357,847	87,702	**541,372**	**4.7%**
Montgomery	99,094	344,696	88,438	**532,761**	**4.6%**
Lucas	84,351	286,098	63,481	**434,800**	**3.8%**
Stark	67,457	240,972	66,333	**374,762**	**3.2%**
Butler	75,101	249,590	49,320	**373,638**	**3.2%**
Lorain	56,561	197,355	49,567	**304,091**	**2.6%**
9-County Subtotal	**1,104,765**	**3,893,029**	**862,082**	**5,858,217**	**50.6%**
Ohio	**2,178,345**	**7,612,620**	**1,807,563**	**11,586,941**	**100.0%**

Prevalence of Disabilities. The following data represent disability prevalence statistics reported in the American Community Survey (ACS) (Institute on Disability). The ACS is conducted by the U.S. Census Bureau and provides annual community profiles. The information is collected through a questionnaire mailed to a random sample of addresses. The data specific to disability are based on six questions. If individuals answer "yes" to any one of these six questions they are classified as having a disability. The disability categories identified in the ACS are ambulatory disability, cognitive disability, hearing disability, independent living disability, self-care disability and vision disability.

Definitions and descriptions of methodology are available at http://www.factfinder.census.gov.

According to the ACS, in 2016 Ohio had the sixth largest population of individuals with disabilities in the United States. Approximately 13.8 percent of the total population in the state was identified as having a disability (1,571,654). Table 2 illustrates the prevalence of disability by age group.

Table 2 - Age of Ohioans with Disabilities: 2016

Age Range	Number with Disabilities	Percent of Total Population
Under 5	5,039	0.04%
5 - 17	124,463	1.1%
18 - 64	836,051	7.3%
65+	606,101	5.3%
All Ages	**1,571,654**	**13.8%**

Table 3 provides the percent of Ohioans experiencing specific categories of disability as a percent of the total population.

Table 3 - Disability Categories and Employment Status of Ohioans: 2016 (Ages 18 - 64)

Disability Category	Prevalence within Population by Category	Total	Employed	Percent Employed
Ambulatory	6.0%	415,800	96,700	23.3%
Cognitive	5.4%	377,800	110,300	29.2%
Independent Living	4.3%	302,600	53,900	17.8%
Hearing	2.2%	154,600	75,900	49.1%
Self-Care	2.1%	146,700	21,300	14.5%
Vision	2.1%	145,500	63,500	43.6%

U.S. Employment Statistics and Labor Force Participation. Table 4 and Table 5 illustrate the U.S. labor force participation and unemployment rates for working age (16 - 64) individuals with disabilities compared to individuals without disabilities, as reported by the Bureau of Labor Statistics. In 2016, the U.S. unemployment rate for working age (16 - 64) individuals with disabilities was 11.5 percent, a decrease of 2.4 percentage points from 2014. Over the same period, the labor force participation rate for these individuals increased from 30.2 percent to 31.2 percent, reflecting a slight increase in the number of individuals with disabilities who are working and/or actively seeking work.

Table 4 - Employment status of the civilian noninstitutional population by disability status ages 16 to 64, 2015 and 2016 annual averages Bureau of Labor Statistics (Table A) [Numbers in thousands]

	PERSONS WITH A DISABILITY			PERSONS WITH NO DISABILITY		
Characteristic	2014*	2015	2016	2014*	2015	2016
Civilian noninstitutional population	15,613	15,771	15,746	187,375	188,521	189,757
Civilian labor force	4,718	4,812	4,919	142,847	143,517	144,996
Participation rate	30.2	30.5	31.2	76.2	76.1	76.4
Employed	4,061	4,250	4,356	134,272	136,119	138,164
Employment-population ratio	26.0	26.9	27.7	71.7	72.2	72.8
Unemployed	655	562	564	8574	7,398	6,832
Unemployment rate	13.9	11.7	11.5	6.0	5.2	4.7
Not in labor force	10,895	10,959	10,827	44,528	45,004	44,761

*2014 figures from Bureau of Labor Statistics Table A-6; Annual U.S. Unemployment of Civilians Ages 16 to 64 by Disability Status - 2012-2014

(Bureau of Labor Statistics, 2016; https://www.bls.gov/bls/news-release/empsit.htm)

Table 5 - Persons not in the labor force by disability status, age, and sex, 2016 annual averages [Numbers in thousands]

Category	Total, 16 years and over	16 to 64 years			Total, 65 years and over
		Total	Men	Women	
PERSONS WITH A DISABILITY					
Total not in the labor force	23,965	10,827	5,097	5,730	13,139
Persons who currently want a job	734	506	242	264	228
Marginally attached to the labor force(1)	198	155	84	71	43
Discouraged workers(2)	52	39	27	12	13
Other persons marginally attached to the labor force(3)	147	117	57	60	30
PERSONS WITH NO DISABILITY					
Total not in the labor force	70,385	44,761	16,339	28,422	25,624
Persons who currently want a job	5,115	4,527	2,099	2,428	587
Marginally attached to the labor force(1)	1,605	1,465	778	687	141
Discouraged workers(2)	502	446	280	166	56
Other persons marginally attached to the labor force(3)	1,103	1,018	498	521	85

Footnotes

(1) Data refer to persons who want a job, have searched for work during the prior 12 months, and were available to take a job during the reference week, but had not looked for work in the past 4 weeks.

(2) Includes those who did not actively look for work in the prior 4 weeks for reasons such as thinks no work available, could not find work, lacks schooling or training, employer thinks too young or old, and other types of discrimination.

(3) Includes those who did not actively look for work in the prior 4 weeks for such reasons as school or family responsibilities, ill health, and transportation problems, as well as a number for whom reason for nonparticipation was not determined.

(Bureau of Labor Statistics, 2016; https://www.bls.gov/news.release/archives/disabl_06212017.pdf)

Ohio's Labor Force Participation and Employment. The discrepancy between the employment rate for individuals with and without disabilities in the U.S. is mirrored at the state level in Ohio. According to the ACS, in 2016 35.1 percent of individuals with disabilities ages 16 to 64 in Ohio are employed compared to 76.4 percent of individuals without disabilities. These data reveal an employment gap of 41.3 percent between the two groups. Furthermore, only 21.7 percent of the total population of individuals with disabilities ages 21 to 64 were employed full time and year round, whereas 60.5 percent of the population without disabilities ages 21 to 64 were employed full time and year round in Ohio. This represents a gap of 38.8 percent. (Cornell University; http://disabilitystatistics.org)

ACS 2016 data indicate that 28.4 percent of working age Ohioans with a cognitive disability were employed compared to 25.9 percent nationally. OOD has continued its involvement in the Employment First partnership with the Ohio Department of Developmental Disabilities (DODD) in delivering services to this population. In April 2015, DODD reported that 17,241 persons were employed in facility based workshops while 8,405 were employed in integrated employment settings. As of September 2017, 13,659 DD-eligible individuals had been served by OOD through the Employment First partnership with 1,436 gaining employment in an integrated setting.

Poverty and Earnings. Data regarding poverty are also collected through the ACS. A set of 14 standards are used to calculate poverty. Thresholds are based on family size and composition. In 2016, it is estimated that 30.1 percent of Ohioans with disabilities ages 21 to 64 were living in poverty as compared to 11.1 percent of individuals without disabilities (a gap of 19 percentage points). In 2016 the median annual earnings for Ohioans with disabilities who worked full-time and year round was $38,300 compared to $45,300 for individuals without disabilities who worked full-time and year round (a difference of $7,000). (Cornell University; http://disabilitystatistics.org)

Insurance and Health. According to the 2016 ACS, approximately 96.3 percent of Ohioans with disabilities ages 21 to 64 have health insurance (nationally, this rate is 90.3 percent). In comparison, 92.1 percent of Ohioans without disabilities ages 21 to 64 have health insurance. (Cornell University; http://disabilitystatistics.org)

Social Security Administration Programs. The following information describes Ohio statistics regarding the number of beneficiaries and the amount spent on disability benefits by the Social Security Administration. Supplemental Security Income (SSI) distributes funds to adults and children with disabilities who have limited income or are 65 years of age or older who meet financial limits. Social Security Disability Insurance (SSDI) is paid to individuals and family members if they worked for a specific amount of time and paid taxes. Table 6 and Table 7 provide the number of Ohioans who received federally administered SSI and SSDI payments in 2014 and 2017. (Social Security Administration, 2018)

Table 6 - Ohio SSI - Number, Average Monthly Benefit Payments (in thousands of dollars), and Category of Disability Beneficiary: 2014 vs. 2017

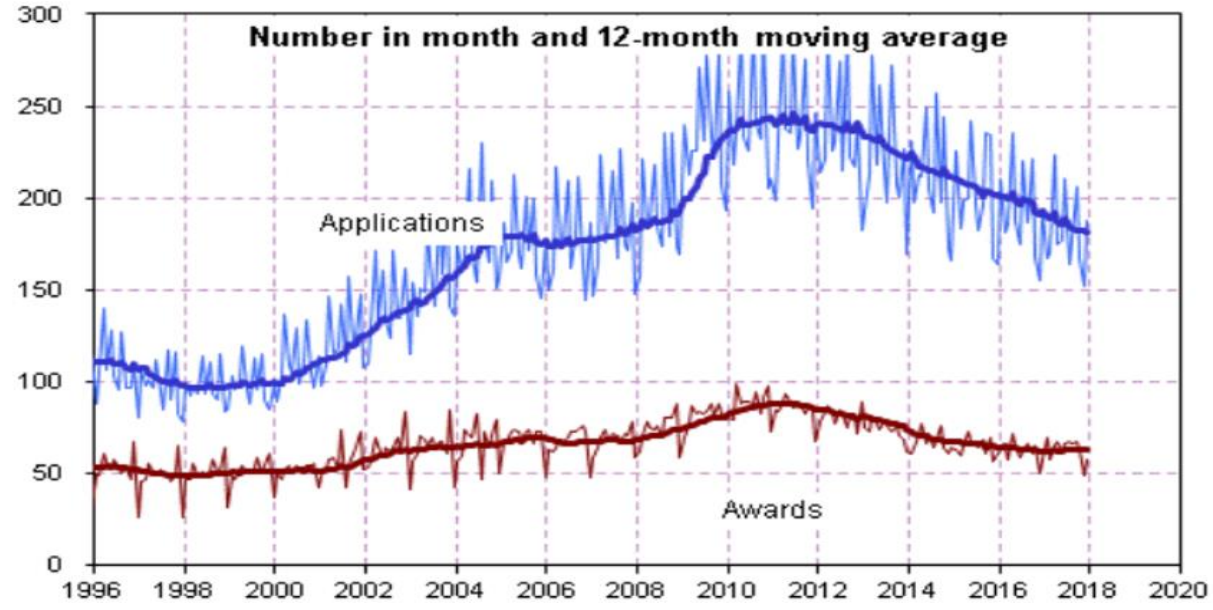
Classification	2014		2017		Change (2014 v 2017)	
	Number	Payments	Number	Payments	Number	Payments
Aged	15,226	$5,715	16,318	$6,434	7.2%	12.6%
Blind	1,881	$1,007	2,022	$1,099	7.5%	9.1%
Disabled	296,152	$173,010	292,149	$173,578	-1.4%	0.3%
Total	**313,259**	**$179,732**	**310,489**	**$181,111**	**-0.9%**	**0.8%**

Table 7 - Ohio SSDI - Number, Average Monthly Benefit Payments (in thousands of dollars), and Category of Disability Beneficiary: 2014 vs. 2017

Disability Benefit Classification	2014		2017		Change (2014 v 2017)	
	Number	Payments	Number	Payments	Number	Payments
Workers	356,270	$401,323	351,027	$405,130	-1.5%	0.9%
Adult Children	68,721	$22,240	59,228	$20,155	-13.8%	-9.4%
Spouses	5,980	$1,901	5,037	$1,655	-15.8%	-12.9%
Total	**430,971**	**$425,464**	**415,292**	**$426,940**	**-3.6%**	**0.3%**

Workers with disabilities accounted for the smallest percentage change for beneficiaries receiving SSDI from 2014 to 2017. There was a 1.5 percent decrease in the number of workers who are classified as beneficiaries, as compared to the total population receiving federally administered payments. The number of applications for benefits for workers with disabilities per month from 1996 to 2017 in the U.S. is displayed in Chart 1 on the following page. There was a steady upward trend in the number of monthly applications for SSDI by workers with disabilities from 1998 through 2012. Since that time, the trend has reversed with applications in steady decline over the last five years.

Chart 1 - SSDI - U.S. Disabled Worker Beneficiary Trend Disabled Worker Data (in thousands)



https://www.ssa.gov/oact/STATS/dibGraphs.html

Chart 2 - SSDI - U.S. Number in Current Payment Status at End of Month (in thousands)

https://www.ssa.gov/oact/STATS/dibGraphs.html

Chart 1 above represents the 20-year U.S. trend of SSDI applications and awards made as a twelve month moving average. Chart 2 shows the number of SSDI beneficiaries receiving payments over the same time period. Despite a steady upward trend over the majority of the past two decades, both charts show a declining trend in recent years. (Social Security Administration, 2018). Table 8 on the following page shows the trends of Ohio's SSI recipients between 2006 and 2016. The trend of the percentage of SSI recipients working has continued to trend downward from 7.2 percent in 2006 to 6.3 percent in 2016.

Table 8 - Ohio: Number and Employment of SSI Recipients: 2006 - 2016

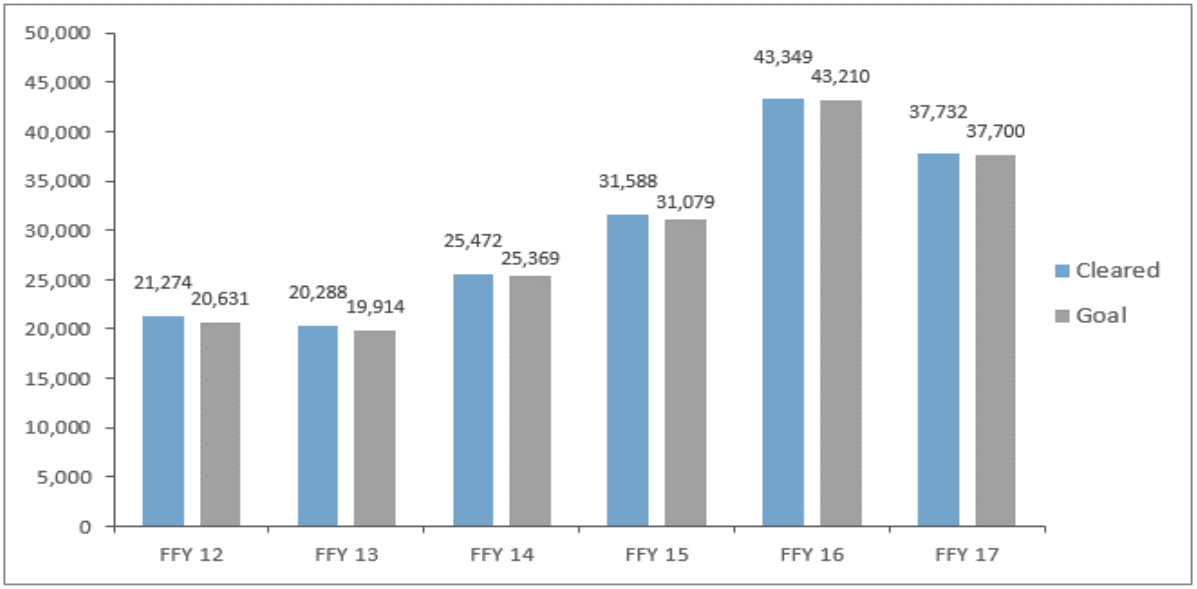
	2006	2008	2010	2012	2014	2016
# of SSI Recipients with Disabilities	238,810	254,015	273,627	292,153	301,169	298,510
# of SSI Recipients with Disabilities Working	17,170	17,366	16,573	17,415	17,715	18,946
% of SSI Recipients with Disabilities Working	7.2%	6.8%	6.1%	6.0%	5.9%	6.3%
SSI Recipients with Disabilities as a % of Population	2.1%	2.2%	2.4%	2.5%	2.6%	2.6%
Population*	11,478,006	11,485,910	11,539,282	11,546,969	11,593,741	11,622,554
SSI Applications (Ages 18 - 64)	93,024	97,242	107,724	94,548	73,521	62,076

*Population estimates for Ohio as of July 1 for each year as reported by the U.S. Census Bureau

As part of the Disability Program, SSA completed Continuing Disability Reviews (CDRs) each year to ensure that only those beneficiaries and recipients who are still disabled continue to receive monthly benefits. These reviews can result in a cessation of benefits, mostly due to medical improvement and the ability to work.

Based on the *Social Security Administration Annual Performance Report 2017 – 2019*, the target number of CDRs nationally increased from 790,000 in 2015 to 850,000 in 2017. Specifically, for the Ohio Disability Determination Service, Chart 3 below shows the annual CDR targets and actual determinations completed from 2012 through September 2017. (OOD – Division of Disability Determination)

Chart 3 - Ohio: Continuing Disability Reviews Goals and Actual Determinations 2012-2017



Special Education. According to the U.S Department of Education's Office of Special Education, more than 236,000 students in Ohio ages 6 to 21 were served under the Individuals with Disabilities Education Act (IDEA). Students between the ages of 12 and 21 account for 51.5 percent of the total, numbering 130,105 served under IDEA. Table 9 and Table 10 below show breakdowns of students served by disability category and age group, respectively. (U.S. Department Of Education – IDEA Data, 2016)

Table 9 - Ohio: Number of Students Age 6-21 Served under IDEA, Part B by Disability Category in 2016

Disability Category	Number Served
Specific learning disability	96,904
Other health impairment	40,587
Speech or language impairment	24,799
Autism	21,258
Intellectual disability	20,024
Emotional disturbance	15,172
Multiple disabilities	12,450
Hearing impairment	1,870
Traumatic brain injury	1,440
Orthopedic impairment	1,275
Visual impairment	890
Deaf-blindness	49
Developmental delay	0

Table 10 - Ages of Students Served Under IDEA: 2016

Ages	Number	Percent of Total Special Education
3 to 5	22,662	9.0%
6 to 11	99,429	39.4%
12 to 17	115,123	45.6%
18 to 21	14,982	5.9%

OOD VR Program Metrics. The number of applications processed, eligibility decisions made, service plans written, and outcomes for individuals engaged in the VR program from 2014 to 2017 are illustrated below in Chart 4. While the number of applicants has remained relatively consistent, the number of individuals engaged in the program and achieving successful outcomes has improved. The annual number of eligibility decisions has increased by 9 percent, the number of plans written has increased by 17.3 percent, and the number of successful outcomes has increased by 30.5 percent. There continues to be no wait list for individuals seeking OOD services. (OOD – AWARE)

Chart 4 - Number of applications, eligibility decisions, case service plans, and successful employment outcomes from 2014-2017

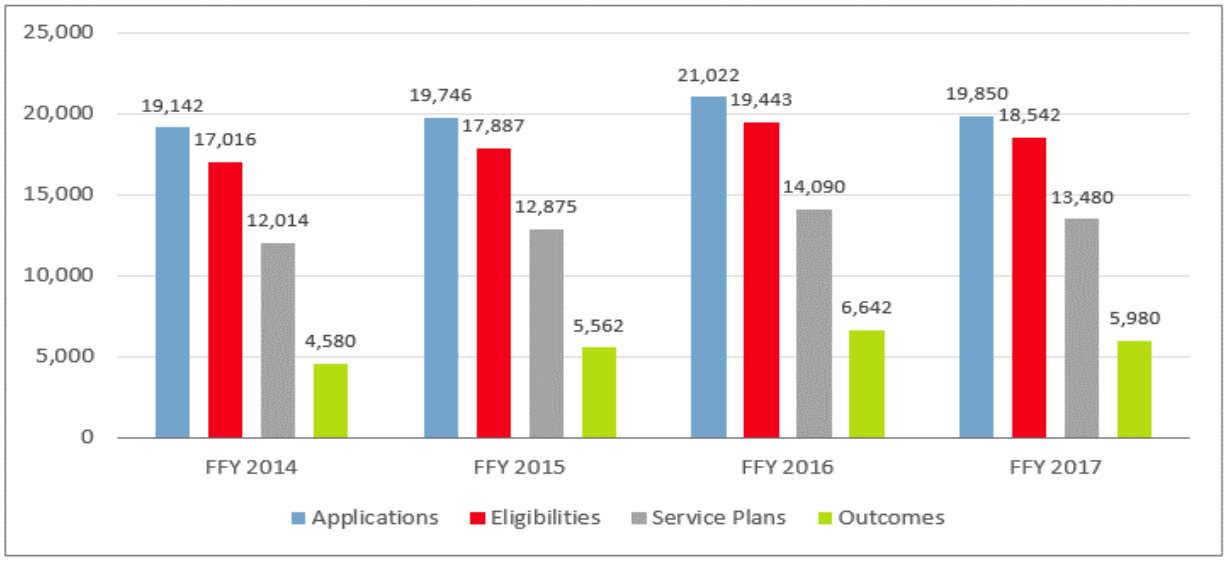


Table 11 - Vocational Rehabilitation Program - as of July 31, 2018

Vocational Rehabilitation Program

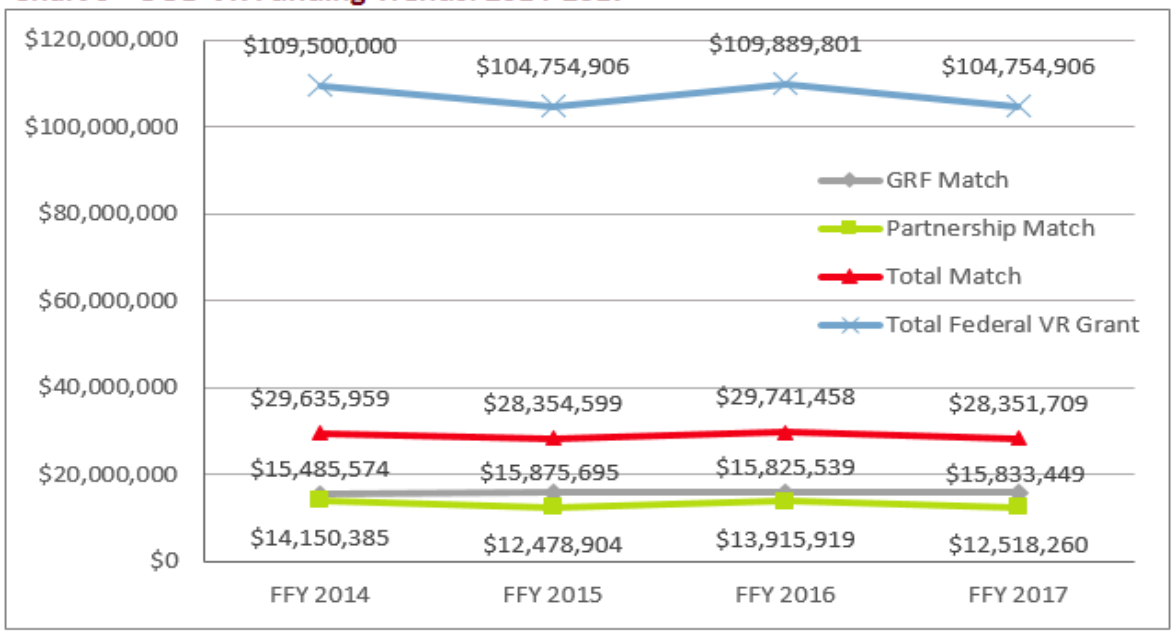
	METRICS	FFY 2014	FFY 2015	FFY 2016	FFY 2017	YTD FFY 2018	Change FFY 14 v YTD FFY 18
Financial	COST PER SERVED (Annual In Plan Only - Case Services)	$2,800	$2,760	$2,921	$2,697	*$2,480*	-3.7%
	COST PER EMPLOYMENT OUTCOME (Life of Case Expenditures)	$9,773	$8,786	$7,481	$7,442	$7,489	-23.4%
Case Processing	AVERAGE TIME TO ELIGIBILITY DECISION (Days from Application)	48	36	28	26.0	24.7	-49.0%
	ELIGIBILITY DECISIONS MADE	17,016	17,887	19,443	18,542	*13,984*	9.0%
	APPLICATIONS PENDING	1,990	1,607	1,414	1,306	1,150	-42.2%
	SERVICE PLANS WRITTEN	12,014	12,875	14,090	13,480	*10,191*	12.2%
	TIME TO REHABILITATION (Months from Application)	25.3	22.8	19.3	17.6	17.0	-32.8%
	ELIGIBLES and SERVED	39,214	38,820	38,876	37,574	*33,257*	-4.2%
Outcomes	TOTAL REHABILITATIONS	4,580	5,562	6,642	5,980	*4,188*	30.6%
	REHABILITATION RATE	41.2%	44.0%	47.9%	45.0%	42.0%	+1.8% points
	AVERAGE WAGE	$10.07	$10.34	$11.14	$11.04	$11.48	14.0%

Percentage Change comparison is only to FFY 2017 because YTD FFY 2018 performance progress is a cumultative statistic/partially represented.

Recent Funding for OOD. For every dollar in state/local match provided, OOD generates an additional $3.69 in federal VR funds. Over the past four federal fiscal years (FFYs), match ranged from $29.6 million in 2014 to $28.4 million in 2017.

The decline in match over this period is due to a reduction in partnership match. While General Revenue Funds (GRF) increased by almost $350,000 from 2014 to 2017, partnership match decreased by approximately $1.6 million. As a result of these changes in match, total VR federal funds drawn decreased by approximately $4.7 million, or 4.3 percent. Funding information is illustrated below in Chart 5. (OOD – Division of Fiscal Management)

Chart 5 - OOD VR Funding Trends: 2014-2017



Findings

The secondary data summarized in this section of the CSNA provides a variety of important findings. Findings indicate that Ohio is a large state with a number of urban areas. Though Ohio is divided into 88 counties, approximately half of the population resides in only nine counties. Ohio ranks sixth among states/territories in the number of residents with disabilities and 18th in the percentage of individuals with disabilities. (Cornell University, http://disabilitystatistics.org)

National data suggest that there is a significant gap between employment rates for individuals with disabilities and individuals without disabilities, while the labor force participation rate for working age (16 to 64) individuals with disabilities has increased slightly from 2014 to 2016. Furthermore, the poverty rate for individuals with disabilities is significantly higher than the poverty rate for individuals without disabilities.

Other more specific findings are indicated as follows:

1. Ohio is a large state with a population of 11,586,941. Half (50.6 percent) of the population resides in the following nine Ohio counties: Cuyahoga, Franklin, Hamilton, Summit, Montgomery, Lucas, Stark, Butler, and Lorain. Cuyahoga is Ohio's largest county with 1,258,710 residents.

2. Ohio is ranked sixth among the states in the number of individuals with disabilities, with 1.57 million individuals (13.8 percent of the total population). Of these, 836,051 (7.3 percent) were between the ages of 18 and 64.

3. Individuals with cognitive and ambulatory disabilities have the highest prevalence rates of disability among Ohioans. Individuals with independent living and self-care disabilities have the lowest employment rates.

4. It is estimated that 30.1 percent of Ohioans with disabilities ages 21 to 64 were living in poverty as compared to 11.1 percent of individuals without disabilities. In 2016, the median annual earnings for Ohioans with disabilities who worked full time and year round was $38,300 compared to $45,300 for individuals without disabilities who worked full time and year round.

5. The number of workers with disabilities receiving SSDI benefits has increased steadily the majority of the last 10 years, though there has been a slight decline over the last two years. The labor force participation rate of working age individuals has remained relatively stable, with a slight decline of 0.4 percentage points between 2012 and 2016.

6. More than 236,000 Ohio students ages 6 to 21 are served through the Individuals with Disabilities Education Act (IDEA).

7. Despite a 4.3 percent decrease in OOD's budget from 2014 to 2017, the number of service plans written has increased by 12.2 percent and the number of successful outcomes has increased by 30.6 percent.

Section III.

Progress and Follow-up to the 2015 CSNA Recommendations

Below is a summary of the recommendations presented in the 2015 CSNA and OOD's progress towards addressing them. OOD has implemented all but one of the nine 2015 CSNA recommendations. The recommendation that has not been implemented involves an agreement with the Social Security Administration that is still in process.

Recommendation	Status
Actively engage OOD VR counselors in the early stages of a student's Individualized Education Program (IEP) development and utilize the VR services that have yielded positive outcomes.	OOD and the Ohio Department of Education entered into an interagency agreement to launch the Ohio Transition Support Partnership (OTSP) in October 2015. This partnership funds 30 dedicated VR counselors and 15 caseload assistants to serve approximately 3,800 students with disabilities each year. OOD is also actively engaging with students and contributing to IEP development for younger students. The number of youth with disabilities between the ages of 14 and 18 served by OOD has increased more than 77 percent from FFY 15 to FFY 17. The Partnership supports earlier engagement for students with disabilities to get a head start on becoming job ready and better prepared to enter the labor market with the skills necessary to be successful in today's workforce. From its launch in October 2015 through September 4, 2018, over 1,000 youth have obtained a job through the Partnership.
Formalize efforts to increase services to individuals with visual and hearing disabilities; specifically evaluate and prioritize identified recommendations cited in the Workforce Integration Taskforce (WIT).	The Workforce Integration Taskforce (WIT) presented a series of recommendations and strategies that OOD has implemented, including: • Driver's License – Removal of the Ohio Driver's License requirement to apply for state jobs. This requirement screened out visually impaired applicants who are unable to attain a driver's license due to their disability. • CDL testing – OOD partnered with Ohio Bureau of Motor Vehicles and Office of Criminal Justice to implement Ohio's authority to train and test individuals who obtain a federal hearing exemption waiver for a CDL licensure for the first time since 1970. So far, 11 individuals have completed this process with average earnings of $16.28 per hour. • Braille Literacy – In June 2017, OOD and the Ohio Department of Higher Education Aspire program partnered with the Cleveland Sight Center and Cuyahoga Community College to implement instruction in basic braille literacy. • OOD partnered with Columbus State Community College (CSCC) to install BlindSquare beacons on the campus to

Recommendation	Status
	assist students with visual impairments and other wayfinding barriers to independently navigate the campus. • To increase access to jobs and enhance disability inclusion in state government for Ohioans with hearing and visual impairments disabilities, OOD has collaborated with more than 40 state agencies to provide disability awareness and accessibility training sessions for state agency human resources administrators. OOD also assists qualified job candidates to apply and interview for available positions.
Expand and leverage new employer and state agency partnerships to achieve Workforce Innovation and Opportunity Act common performance measure outcomes.	In alignment with the WIOA common performance measure in serving employers effectively, OOD's Division of Employer and Innovation Services provides training and technical assistance to employers throughout Ohio. OOD's Business Relations Specialists have conducted approximately 346 training sessions for 147 employers since 2016. Other activities that support this performance measure include regional job fairs and hiring events, which connect more than 700 OOD candidates to nearly 200 businesses each year; administrative support for Disability:IN Ohio; candidate sourcing for Ohio employers; and On-the-Job training arrangements.
Meet the workforce needs of employers by evaluating in-demand occupations as a standard approach of VR counselors' work in developing job goals and service plans for OOD job seekers.	OOD developed several labor market information tools to assist OOD's VR counselors in writing Individualized Plans for Employment (IPE) that align with the in–demand occupations in their particular area and by industry cluster. OOD's Business Relations team also uses this information to identify employers seeking candidates for these occupations to establish partnerships for the purpose of sourcing qualified OOD eligible individuals for the available jobs. OOD promoted In-Demand Jobs Week by hosting events throughout Ohio during the first full week of May 2018 to align job seekers and employers to raise awareness on the in-demand jobs available in Ohio.
Work with the Social Security Administration to identify strategies for referring disability claimants to the Vocational Rehabilitation program.	OOD's Division of Disability Determination has submitted a proposal to the Social Security Administration (SSA) outlining a pilot process for referring youth who are approaching age-18 re-determination to the Vocational Rehabilitation Program. A final decision from SSA is pending.
Concentrate efforts to bring awareness and assist OOD VR served individuals to register in OhioMeansJobs.com (OMJ) as means to achieving their employment goals.	The VR Job Related Services procedure directs VR Staff to assist job-ready individuals with online registration for OhioMeansJobs.com as part of job seeking skills training. CRPs who provide job development services for OOD are also required to assist candidates to register as a requirement for billing.

Recommendation	Status
Utilize technology to increase access to OOD VR services and improve operational efficiencies.	In October 2016, OOD launched an online application portal, OODWorks.com, to assist individuals with disabilities and their families to learn about the vocational rehabilitation (VR) program to determine if the program is appropriate for them, as well as allowing them to begin the process of applying for VR services online. It includes a motion graphics video discussing the purpose of the VR program, a self-assessment to help someone determine if they are a good candidate for the program, and connection to other resources if they are not a good candidate for services. OODWorks.com has been well received by individuals who have used the site and as of August 2018, more than 2,250 Ohioans with disabilities have initiated an application for vocational rehabilitation services through this initiative.
Design a formal business plan model that allows for agile deployment of human and financial resources across Ohio counties when new opportunities to expand VR services arise.	The establishment of a fifth administrative area in VR was announced on January 24, 2018. The East Central Area, which covers Canton, Mansfield, Youngstown and Zanesville, consists of seven teams of VR Counselors and support staff aligned under seven Supervisors and an Area Manager. The new area is also supported by a dedicated Business Relations Specialist to facilitate interactions with employers in the East Central Area in the development of employment opportunities for VR participants. In 2015, the VR program implemented a new structure for onboarding new VR counselors. All probationary counselors are supervised by a designated training supervisor for the area during at least the first six months of service. This structure allows for consistent training and development of new VR counselors statewide and ensure they are properly supported during this critical period of mastering their job duties.
Re-evaluate the partnership with the Ohio Department of Aging, leveraging both Vocational Rehabilitation and the Independent Living and Older Blind programs.	In 2015, OOD changed its service delivery model for the Independent Living and Older Blind (ILOB) program. OOD hired dedicated staff to manage cases, resulting in an increase in the number of individuals served. In FFY 2017, the ILOB program achieved a reduction of 95.3 percent in the time an individual waited for an eligibility decision after applying for services. OOD also increased the number of Independent Living Plans written by 28.1 percent. The ILOB program partners locally with Area Agencies on Aging to provide wrap around services to older individuals who are blind, as well as to develop program referrals for both the ILOB and AAA programs. It should be noted that the ILOB program is not an employment program, rather an independent living program that focuses on assisting older individuals who are blind in maintaining their independence through rehabilitation teaching services and orientation and mobility training.

Section IV.

Disability Demographics and Employment Status

The information presented in the following section focuses on race, ethnicity and age. A review of a variety of data suggests that, for both age and race, OOD proportionately serves African Americans and individuals ages 18 to 34 at a higher rate than the demographic makeup of the state. As Ohio's largest minority race and ethnic populations are African Americans and Hispanics/Latinos, respectively, this analysis will first focus on statistics regarding those populations. Finally, data related to age and disabilities are summarized.

Need for Vocational Rehabilitation Services among Minorities

Race. ACS 2016 data indicate that the estimated prevalence of disability for working age Ohioans (ages 16 to 64) was:

- 11.4 percent among Whites, estimated 687,400 individuals
- 15.2 percent among Black/African Americans, estimated 138,000 individuals
- 3.6 percent among Asians, estimated 6,100 individuals
- 25.5 percent among American Indians or Alaskan Natives, estimated 3,000 individuals
- 14.9 percent among Other Races, estimated 34,600 individuals

Chart 6 - Race of Ohioans with Disabilities: 2016 (n=1,571,654)

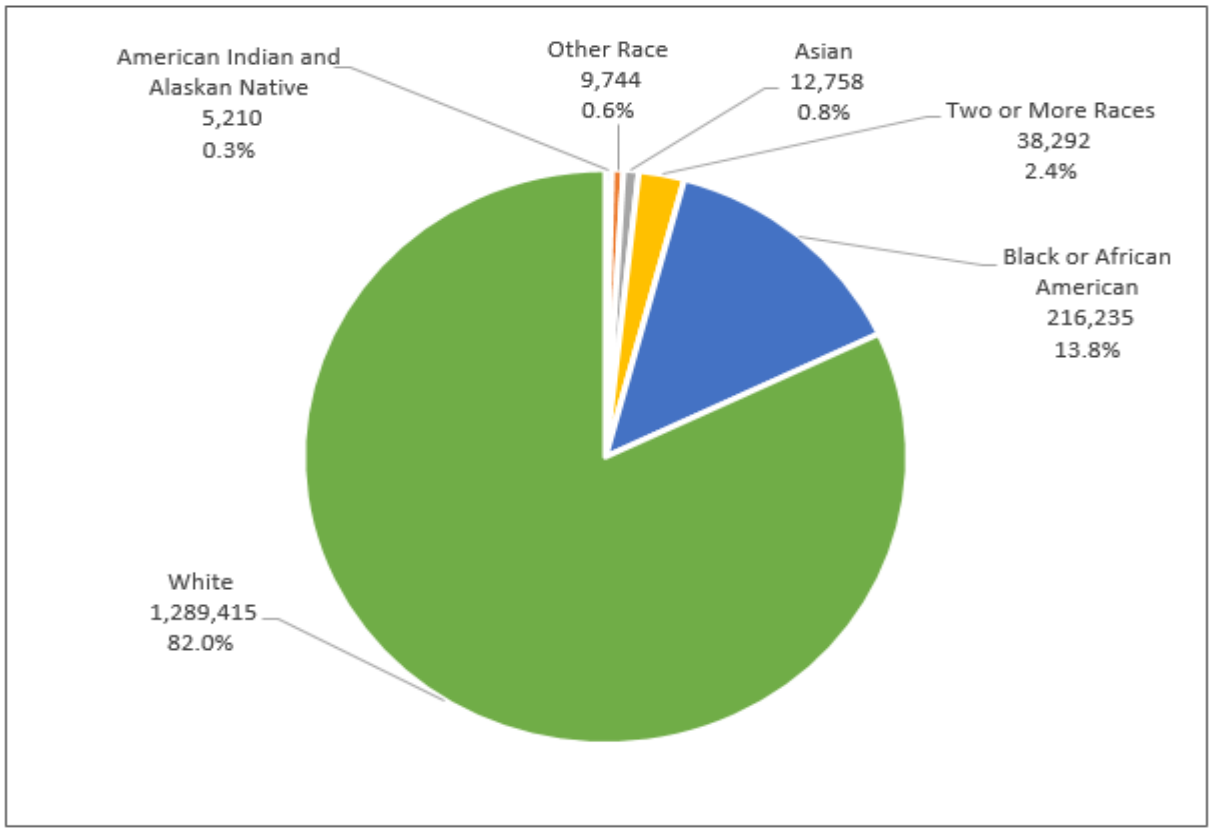
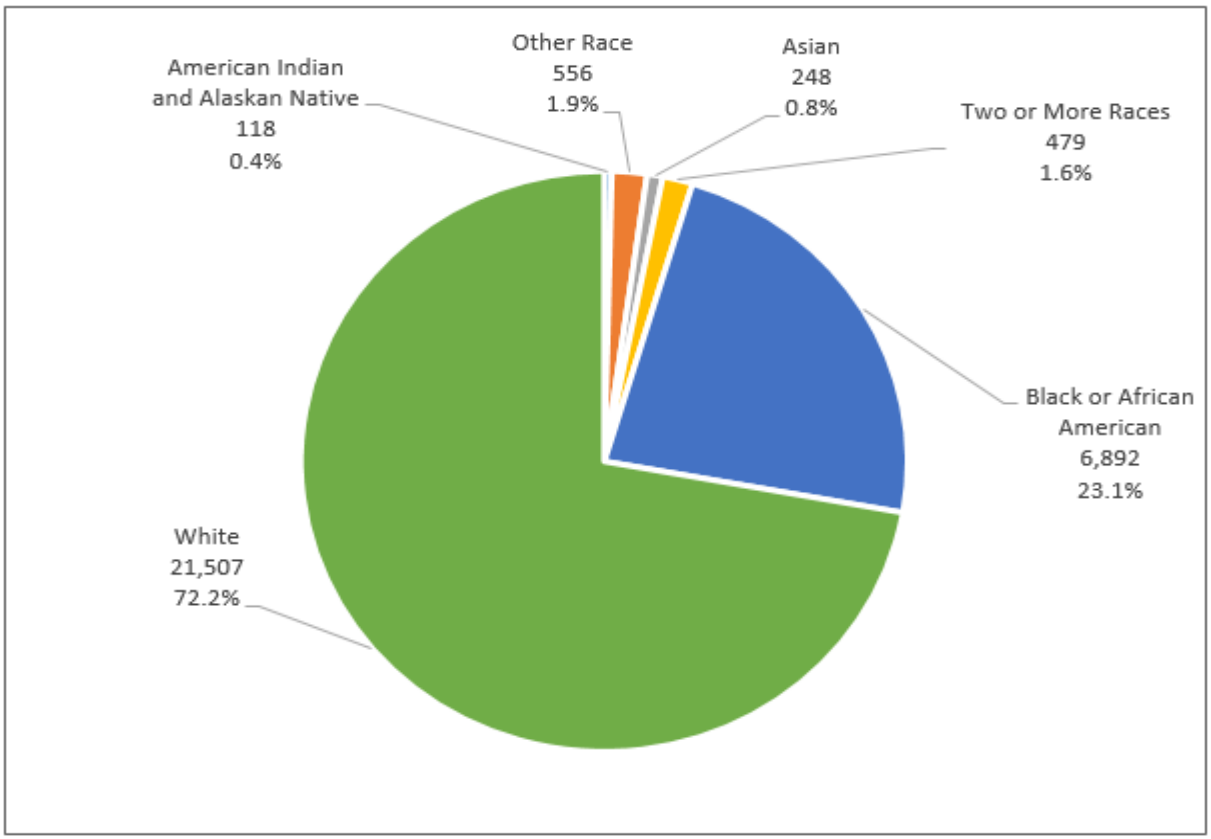


Chart 7 - OOD Served by Race - 2016 (n=29,800)



African American Population. The total African American Population in Ohio is 1,080,650, or 9.3 percent of the state's total population. Of these, 925,472 are of working age (16 to 64). Seven of Ohio's counties have African American working age populations of 20,000 or more, which combine to make up 80.3 percent of the state's African American working age population; see Table 13 on the following page for additional detail (U.S. Census – ACS, 2016). The prevalence of disability for African Americans ages 18 to 64 is 15.2 percent (Erickson, Lee, & von Schrader, 2017).

The total number of working age African Americans with disabilities in Ohio is estimated to be between 138,000 and 140,672. The Bureau of Labor Statistics further cites that 31.2 percent of individuals are actively engaged in the labor force. The unemployment rate for African Americans tends to be almost 2.2 times greater than the overall unemployment rate. Applying this to the unemployment rate of individuals with disabilities, we can estimate that 35 percent, or between 10,764 and 10,972, of the estimated 31.2 percent subset of African Americans engaged in the labor force are seeking employment. (Bureau of Labor Statistics, 2017) (U.S. Census – ACS, 2016)

Table 13 - Seven (7) Counties with African American Working Age Population of 20,000+

Counties with African American Working Age Population of 20,000+ (7)	Total African American Population	African American Population Age 16 - 64	African American Disability Prevalence Estimate (15.2%)	Estimated Seeking Employment (7.8%)	OOD 2016 Served	Service Rate: Need Ratio
Cuyahoga	288,463	239,987	36,478	2,845	2,071	72.8%
Franklin	195,231	173,455	26,365	2,056	1,019	49.6%
Hamilton	154,721	132,796	20,185	1,574	942	59.8%
Montgomery	84,691	70,263	10,680	833	516	61.9%
Lucas	62,302	53,737	8,168	637	364	57.1%
Summit	59,444	50,479	7,673	598	418	69.8%
Mahoning	27,310	22,533	3,425	267	252	94.3%
Total	**872,162**	**743,250**	**112,974**	**8,812**	**5,582**	**63.3%**
Ohio Total	**1,080,650**	**925,472**	**140,672**	**10,972**	**6,892**	**62.8%**
Percent of Ohio Total	**80.7%**	**80.3%**	**80.3%**	**80.3%**	**81.0%**	

Table 14 - Eight (8) Counties with African American Working Age Population of 7,000 - 20,000

Counties with African American Working Age Population of 7,000 - 20,000 (8)	Total African American Population	African American Population Age 16 - 64	African American Disability Prevalence Estimate (15.2%)	Estimated Seeking Employment (7.8%)	OOD 2016 Served	Service Rate: Need Ratio
Butler	21,487	19,297	2,933	229	75	32.8%
Stark	20,818	17,596	2,675	209	288	138.1%
Lorain	19,496	16,912	2,571	201	41	20.4%
Trumbull	13,207	10,992	1,671	130	67	51.4%
Greene	9,913	8,823	1,341	105	34	32.5%
Allen	9,419	8,131	1,236	96	121	125.5%
Clark	8,769	7,100	1,079	84	52	61.8%
Fairfield	7,632	7,082	1,076	84	38	45.3%
Total	**110,741**	**95,933**	**14,582**	**1,137**	**716**	**63.0%**
Ohio Total	**1,080,650**	**925,472**	**140,672**	**10,972**	**6,892**	**62.8%**
Percent of Ohio Total	**10.2%**	**10.4%**	**10.4%**	**10.4%**	**10.4%**	

Table 14 provides a summary of the eight Ohio counties with African American working age populations between 7,000 and 20,000. These counties combine to make up 10.4 percent of the total African American working age population in Ohio. The remaining 73 counties contain 9.3 percent, or 86,289, working age African Americans as shown below in Table 15.

Table 15 - Seventy-three (73) Counties with African American Working Age Population of less than 7,000

Counties with African American Working Age Population of less than 7,000 (73)	Total African American Population	African American Population Age 16 - 64	African American Disability Prevalence Estimate (15.2%)	Estimated Seeking Employment (7.8%)	OOD 2016 Served	Service Rate: Need Ratio
Total	**97,747**	**86,289**	**13,116**	**1,023**	**587**	**57.4%**
Ohio Total	**1,080,650**	**925,472**	**140,672**	**10,972**	**6,892**	**62.8%**
Percent of Ohio Total	**9.0%**	**9.3%**	**9.3%**	**9.3%**	**8.5%**	

Of the more than 29,000 individuals served by OOD in 2016, 23.5 percent or 6,892 were African American. Service Rate: Need Ratio refers to number of individuals with a specific disability served as a percentage of the total number who could potentially be served. It is estimated that OOD's service rate: need ratio for serving African Americans with disabilities who may be seeking employment was 62.8 percent, which is more than 15 percentage points higher than the estimated service rate for the Hispanic/Latino population, as discussed below.

Ethnicity. The prevalence of disability for the working age (16 to 64) Hispanic/Latino population is 11.9 percent. (Cornell University, http://disabilitystatistics.org) The total number of working age Hispanics/Latinos with disabilities in Ohio is estimated to be 29,240.

Table 16 - Eight (8) Counties with Hispanic or Latino Working Age Population of 8,000+

Counties with Hispanic or Latino Working Age Population of 7,000+ (8)	Total Hispanic or Latino Population	Hispanic or Latino Population Age 16 - 64	Hispanic or Latino Disability Prevalence Estimate (11.9%)	Estimated Seeking Employment (5.02%)	OOD 2016 Served	Service Rate: Need Ratio
Cuyahoga	47,676	43,686	5,199	261	168	64.4%
Franklin	39,892	38,183	4,544	228	71	31.1%
Lucas	18,849	17,306	2,059	103	57	55.1%
Lorain	18,933	16,876	2,008	101	44	43.6%
Hamilton	14,778	13,866	1,650	83	24	29.0%
Butler	10,215	9,731	1,158	58	17	29.2%
Montgomery	9,290	8,565	1,019	51	16	31.3%
Mahoning	8,889	8,017	954	48	34	71.0%
Total	**168,522**	**156,230**	**18,591**	**933**	**431**	**46.2%**
Ohio Total	**265,654**	**245,713**	**29,240**	**1,468**	**695**	**47.3%**
Percent of Ohio Total	**63.4%**	**63.6%**	**63.6%**	**63.6%**	**62.0%**	

Table 17 - Eight (8) Counties with Hispanic or Latino Working Age Population of 2,500 - 7,000

Counties with Hispanic or Latino Working Age Population of 2,500 - 7,000 (8)	Total Hispanic or Latino Population	Hispanic or Latino Population Age 16 - 64	Hispanic or Latino Disability Prevalence Estimate (11.9%)	Estimated Seeking Employment (5.02%)	OOD 2016 Served	Service Rate: Need Ratio
Total	**35,364**	**32,759**	**3,898**	**196**	**431**	**220.2%**
Ohio Total	**265,654**	**245,713**	**29,240**	**1,468**	**695**	**47.3%**
Percent of Ohio Total	**13.3%**	**13.3%**	**13.3%**	**13.3%**	**62.0%**	

Table 18 - Seventy-two (72) Counties with Hispanic or Latino Working Age Population of less than 2,500

Counties with Hispanic or Latino Working Age Population of less than 2,500	Total Hispanic or Latino Population	Hispanic or Latino Population Age 16 - 64	Hispanic or Latino Disability Prevalence Estimate (11.9%)	Estimated Seeking Employment (5.02%)	OOD 2016 Served	Service Rate: Need Ratio
Total	**61,768**	**56,724**	**6,750**	**339**	**174**	**51.3%**
Ohio Total	**265,654**	**245,713**	**29,240**	**1,468**	**695**	**47.3%**
Percent of Ohio Total	**23.3%**	**23.1%**	**23.1%**	**23.1%**	**25.0%**	

Table 16 shows the total Hispanic/Latino population in Ohio to be 265,654, or 2.3 percent of the state's total population. Of these, 245,713 are working age (16 to 64). Table 17 provides a summary of the eight Ohio counties with Hispanic/Latino working age populations of 8,000 or more. Bureau of Labor Statistics further cites that 31.2 percent of individuals are actively engaged in the labor force. The unemployment rate for Hispanics/Latinos tends to be almost 1.4 times greater than the overall unemployment rate. Applying this to the unemployment rate of individuals with disabilities, we can estimate that 16.1 percent, or approximately 1,468, of the estimated 31.2 percent engaged in the labor force are seeking employment. In 2016, OOD provided vocational rehabilitation services to 695 Hispanics/Latinos with disabilities. This represents 2.4 percent of all individuals served by OOD with a service rate: need ratio of 47.3 percent of Hispanic/Latino Ohioans that could benefit from OOD VR services. (U.S. Census – ACS, 2016)

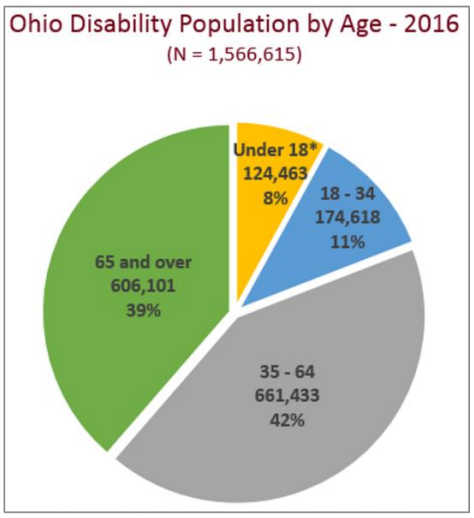
Age and Disabilities in Ohio

In 2016, Ohio's population ages 18 to 34 was approximately 2,522,084. Estimates indicate that 6.9 percent of these individuals experience a disability (U.S. Census – ACS, 2016), which represents 174,618 individuals. The ACS indicates that approximately 72.7 percent of the disability population in Ohio is not working at any given time, and the Bureau of Labor Statistics indicates that, of the individuals not working, approximately 9.2 percent are actively seeking work at any given time. Of the individuals with disabilities ages 18 to 34 in 2016, approximately 11,676 individuals were likely to have benefitted from OOD services. In 2016, OOD served 16,179 individuals ages 18 to 34, representing a service rate: need ratio greater than 100 percent for this age group.

ACS estimates indicate that Ohio's 2016 population ages 35 to 64 was approximately 4,528,611, with 14.6 percent (661,433) of these individuals experiencing a disability. Of these, approximately 44,227 individuals were likely to have benefitted from OOD services. In 2016, OOD served 10,927 individuals ages 35 to 64, representing a service rate: need ratio of approximately 24.7 percent for this age group.

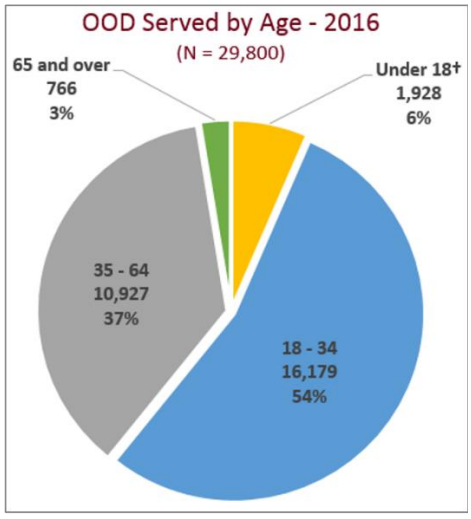
In 2016, the ACS estimated that Ohio's population ages 65 and over was 1,726,927, with 35.1 percent (606,101) of these individuals experiencing a disability. Individuals in this age group, however, were much less likely to have been actively seeking work than the other groups. As noted in Table 5, approximately 1.7 percent of the individuals in this age group who were not in the labor force were actively seeking work. This equates to approximately 10,546 individuals that could potentially benefit from OOD services. OOD served 766 individuals in this age group in 2016, representing a service rate: need ratio of approximately 7.3 percent.

Chart 8



*Under 18 includes individuals age 5 to 17

Chart 9



†Under 18 includes individuals age 14 to 17

Findings

1. In 2016, OOD provided VR services to 29,800 individuals; 6,892 or 23.1 percent were African Americans and 2.3 percent were Hispanics/Latinos.

2. Estimates indicate that 15.2 percent of working age African Americans experience disabilities. This equates to between 138,000 and 140,672 Ohioans. Other estimates indicate that of the 31.2 percent of African Americans with disabilities who are engaged in the labor force, 35 percent, or between 10,764 and 10,972, are actively seeking employment at any given time. Therefore, in 2016 OOD served approximately 62.8 percent of African Americans who could benefit from services.

3. More than eight out of 10 working age African Americans (80.3 percent) reside in the following seven Ohio counties: Cuyahoga, Franklin, Hamilton, Montgomery, Lucas, Summit, and Mahoning.

4. Estimates indicate that 11.9 percent of Hispanic/Latino working age individuals experience disabilities. This equates to 29,240 individuals. Other estimates indicate that 16.1 percent (1,468) of the 31.2 percent subset engaged in the labor force are actively seeking work at any given time. Therefore, in 2016 OOD served approximately 47.3 percent of Hispanics/Latinos who could benefit from services.

5. More than six out of 10 working age Hispanics/Latinos (63.6 percent) reside in the following eight Ohio counties: Cuyahoga, Franklin, Lucas, Lorain, Hamilton, Butler, Montgomery, and Mahoning.

6. In 2016, there were approximately 2.5 million individuals ages 18 to 34 in Ohio. Estimates suggest that approximately 174,618 individuals in this population experience disabilities. In that same year, OOD served 16,179 individuals between 18 and 34 years of age.

7. In 2016, there were approximately 4.5 million individuals ages 35 to 64 in Ohio. Estimates suggest that approximately 661,433 individuals in this population experience disabilities. In that same year, OOD served 10,927 individuals between 35 and 64 years of age.

8. In 2016, there were approximately 1.7 million individuals age 65 and over in Ohio. Estimates suggest that approximately 606,101 individuals in this population experience disabilities. In that same year, OOD served 766 individuals age 65 and over. It is important to note that less than two percent of individuals with a disability in this age group are actively seeking employment.

Section V.

Prevalence and Service Rate: Need Ratio Projections of Unmet Need

Projecting the number of Ohioans experiencing various categories of disability is a key tool for addressing the needs assessment questions. The purpose of developing such projections is to determine, with as much accuracy as possible, the estimated number of individuals in each county likely to experience a disability consistent with the categories of disability served by OOD. These projections assist planners in making resource allocation decisions based on reasonable estimates of the need for services.

Limitations of the Data

The findings summarized in this section of the CSNA are intended to be estimates of the magnitude of need in any individual county in Ohio. The precision of these estimates is not sufficient to address questions about the actual numbers of individuals likely to experience specific disabilities. Rather, the estimates are used to categorize counties into one of six groups representing a continuum of need from lowest to highest. It is important to point out that data reviewed in this section of the CSNA indicate that there are unmet needs in all counties in Ohio.

Methods for Developing Prevalence Estimates

Following the method utilized in the two previous CSNAs (2012 and 2015), OOD estimated county level prevalence rates based on multiplying population figures by a coefficient derived from a national or other reputable source. Estimates of prevalence from the ACS were considered when there was a close match with OOD categories of disability. When there was not a close match, other reputable sources suggested in the RSA CSNA manual (Shell, 2009) were consulted.

Prevalence of Disabilities

Table 19 below provides the prevalence estimate for each category of disability and the source from which each estimate was obtained.

Table 19 - Estimated Prevalence for Specific Categories of Disabilities in Ohio

Disability Category	Prevalence Estimate	Source
Visual Impairment	2.1%	U.S. Census Bureau - 2016 American Community Survey (disabilitystatistics.org)
Hearing Impairment	2.2%	U.S. Census Bureau - 2016 American Community Survey (disabilitystatistics.org)
Communicative Impairment	2.0%	U.S. Department of Health & Human Services - 2012 National Health Interview Survey (nidcd.nih.gov)
Physical Impairment	5.9%	U.S. Census Bureau - 2016 American Community Survey (disabilitystatistics.org)
Psychosocial Impairment	5.1%	Substance Abuse and Mental Health Services Administration (SAMHSA, 2015 and 2016)
Cognitive Impairment	5.4%	U.S. Census Bureau - 2016 American Community Survey (disabilitystatistics.org)

Visual Impairment. The 2016 ACS indicates that of the population ages 18 to 64, 2.0 percent in the U.S. and 2.1 percent in Ohio experience a visual impairment. Individuals were classified as having a visual impairment if they answered yes when asked if they had serious difficulty seeing even when wearing glasses.

Hearing Impairment. The 2016 ACS indicates that of the population ages 18 to 64, 2.0 percent in the U.S and 2.2 percent in Ohio experience a hearing impairment. Individuals were classified as having a hearing impairment if they answered yes when asked if they were deaf or had serious difficulty hearing.

Communicative Impairment. The 2012 National Health Interview Survey conducted by the U.S. Department of Health & Human Services indicated that 2.0 percent of the U.S. adult population, ages 18 and over, experience a speech impairment.

Physical Impairment. The 2016 ACS indicates that of the population ages 18 to 64, 5.1 percent in the U.S. and 5.9 percent in Ohio experience ambulatory impairments. Individuals were classified as having an ambulatory impairment if they answered yes when asked if they had serious difficult walking or climbing steps.

Psychosocial Impairment. The Substance Abuse and Mental Health Services Administration's National Survey on Drug Use and Health for 2015 and 2016 reported that 5.1 percent of U.S. adults, ages 18 and over, reported serious mental illness in the past year.

Cognitive Impairment. The 2016 ACS indicates that of the population ages 18 to 64, 4.5 percent in the U.S. and 5.4 percent in Ohio experience cognitive impairments. Individuals were classified as having a cognitive impairment if they answered yes when asked if they had serious difficulty concentrating, remembering or making decisions due to a physical, mental or emotional condition.

Service Rate: Need Ratio of Primary Disability Categories

"Service Rate: Need Ratio" refers to the number of individuals with a specific disability served as a percentage of the total number who could potentially be served; this is also known as a penetration rate. The total number who could potentially be served refers to estimates of working age (15 to 64) individuals with disabilities looking for work. In order to accurately reflect the VR needs of individuals by disability that are actively seeking work, the working age population was utilized in these estimates. This is particularly crucial when considering the Bureau of Labor Statistics estimate that less than 2 percent of individuals age 65 and older are actively seeking work, or even marginally attached to the labor force. The number of individuals that are looking for work is impacted by many factors. The formula for calculating the Service Rate: Need Ratio is:

A × B = C

A = Estimated population. Projected population age 15 and older was obtained from the U.S. Census American Community Survey 2016 – 5-year projection data.

B = Prevalence rate for a specific disability.

C = Estimated number of individuals who potentially experience a particular disability.

C × D = E

D = Estimated percentage of individuals in the working age population with disabilities who are not working. The estimated percentage not working was obtained by subtracting the estimated employment rate from 100 percent.

E = Estimated number of working age individuals with disabilities who are not working.

E × F = G

F = Estimated percentage seeking employment that could benefit from OOD VR services. U.S. Bureau of Labor Statistics suggest that 9.2 percent of working age individuals with disabilities who are not working are unemployed, meaning they were actively seeking work in the four weeks prior to the 2017 survey.

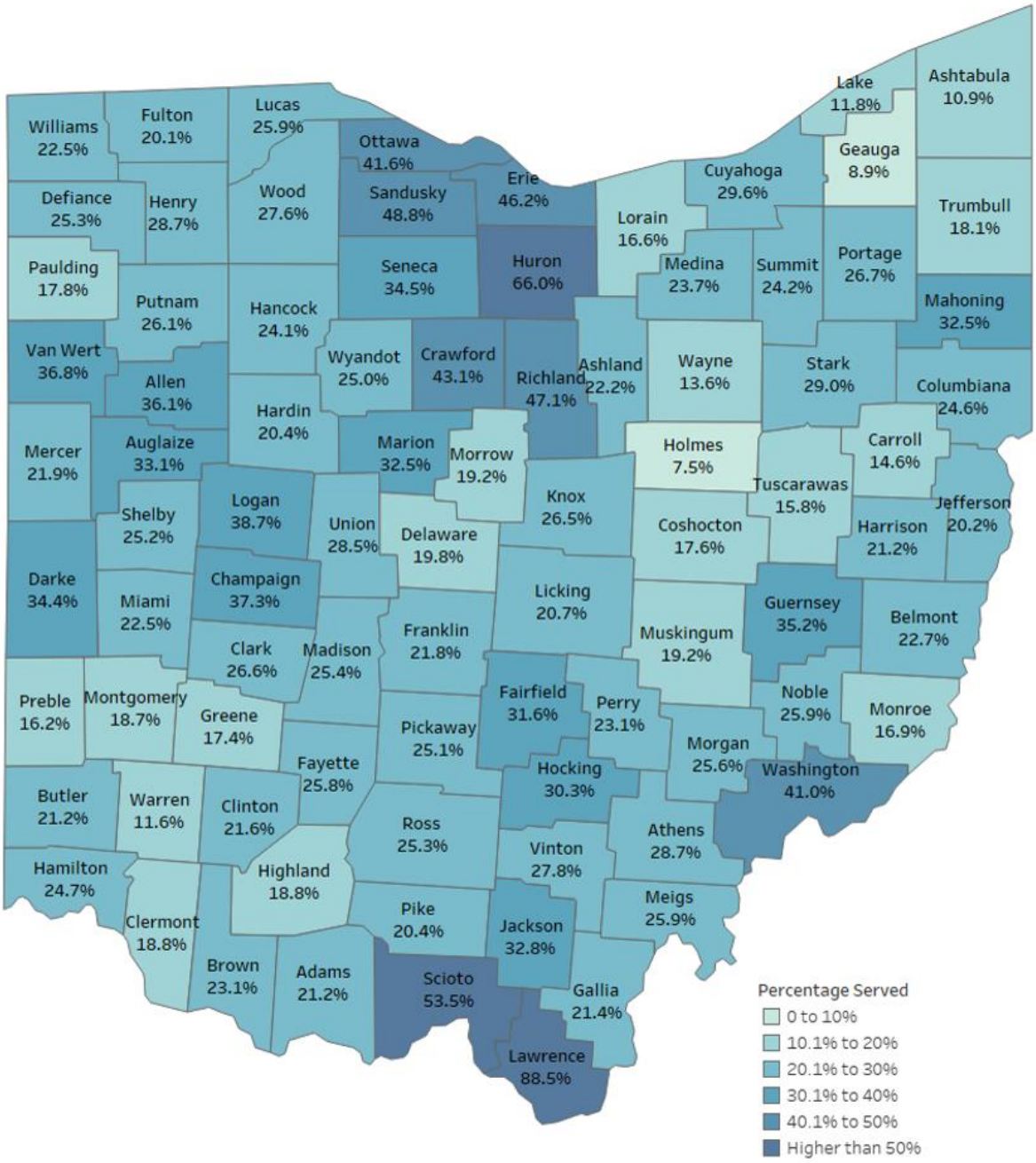
G = Estimated number of working age individuals with disabilities seeking employment that could benefit from OOD VR services.

Number Served by OOD / G × 100 = Service Rate: Need Ratio

Maps 1 through 7, and supporting Table 23, provide 2017 estimated service rate: need ratios for the six major OOD categories of disability by county. A map is also provided to illustrate the service rate: need ratio when all impairment categories are combined. Counties are categorized into one of six groups representing a continuum of need from lowest to highest. The darker shades of blue represent a better alignment of resources in meeting service needs, and lighter shades represent areas where greater opportunity exists for OOD.

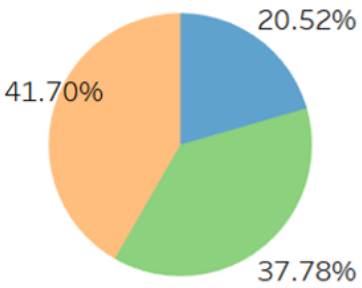
Following each map are additional graphics illustrating the breakdown of OOD participants by age group and race in comparison to all Ohio working age individuals with disabilities who are actively seeking work.

Map 1
All Impairments – OOD Service Rate: Need Ratio

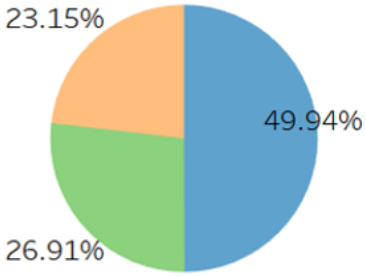


Age & Race Breakout 1
All Impairments

Job Seekers by Age Group



OOD Served by Age Group



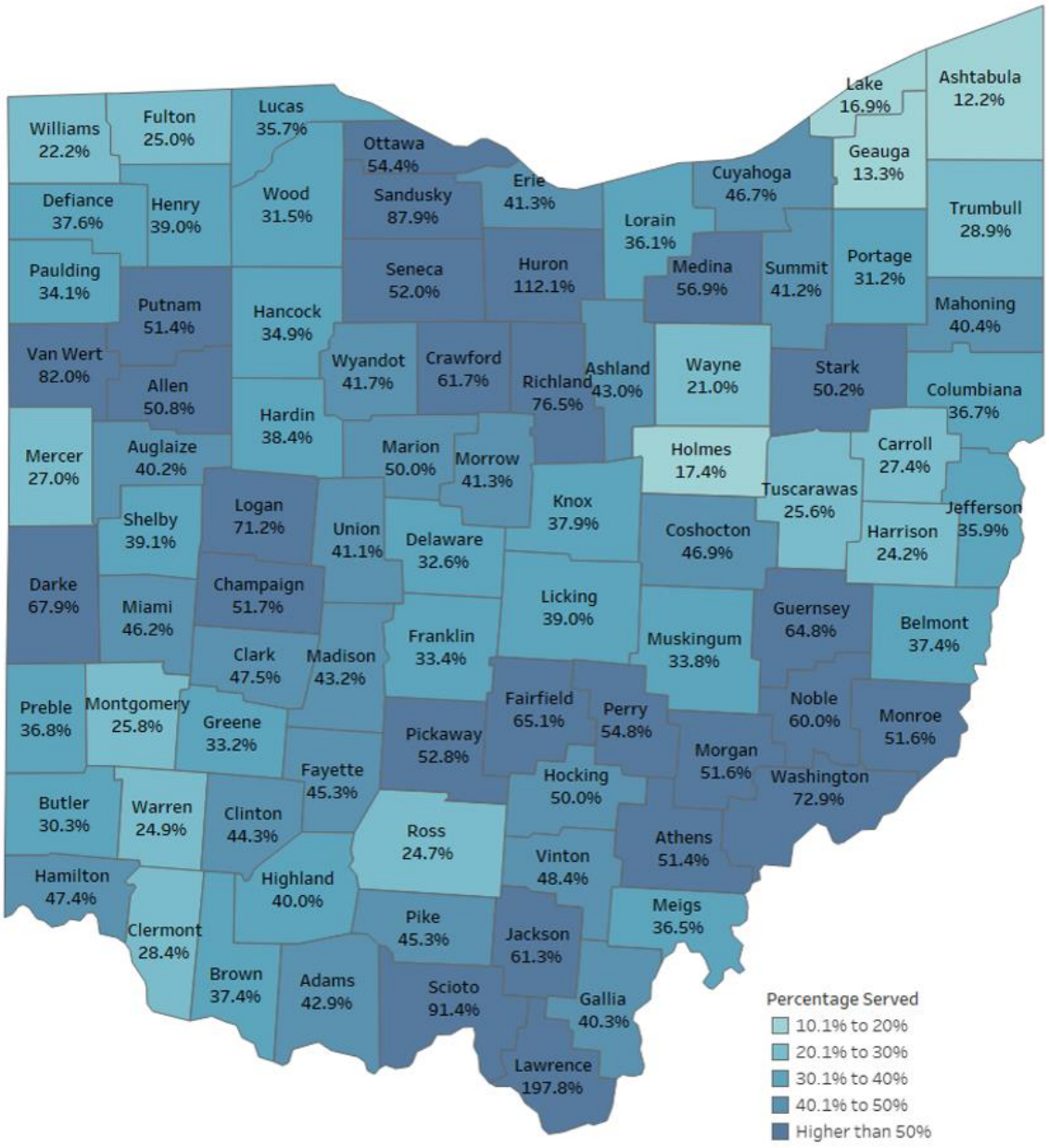
Job Seekers by Race

White	83.23%
Black or African American	12.25%
Two or More Races	2.51%
Asian	1.92%
American Indian or Alaskan Native	0.09%
Native Hawaiian or Other Pacific Islander	0.00%

OOD Served by Race

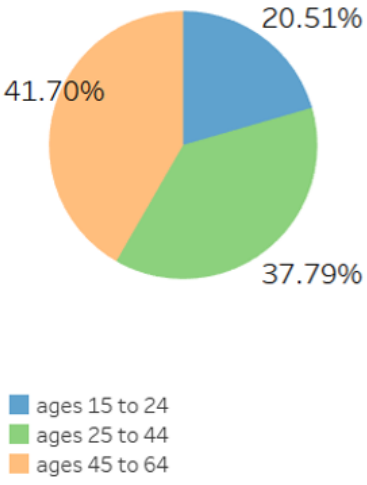
White	73.04%
Black or African American	23.63%
Two or More Races	1.83%
Asian	0.98%
American Indian or Alaskan Native	0.40%
Native Hawaiian or Other Pacific Islander	0.12%

Map 2
Cognitive Impairments – OOD Service Rate: Need Ratio

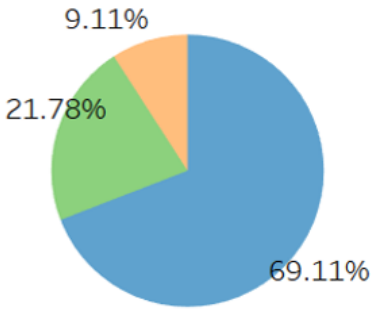


Age & Race Breakout 2
Cognitive Impairments

Job Seekers by Age Group



OOD Served by Age Group



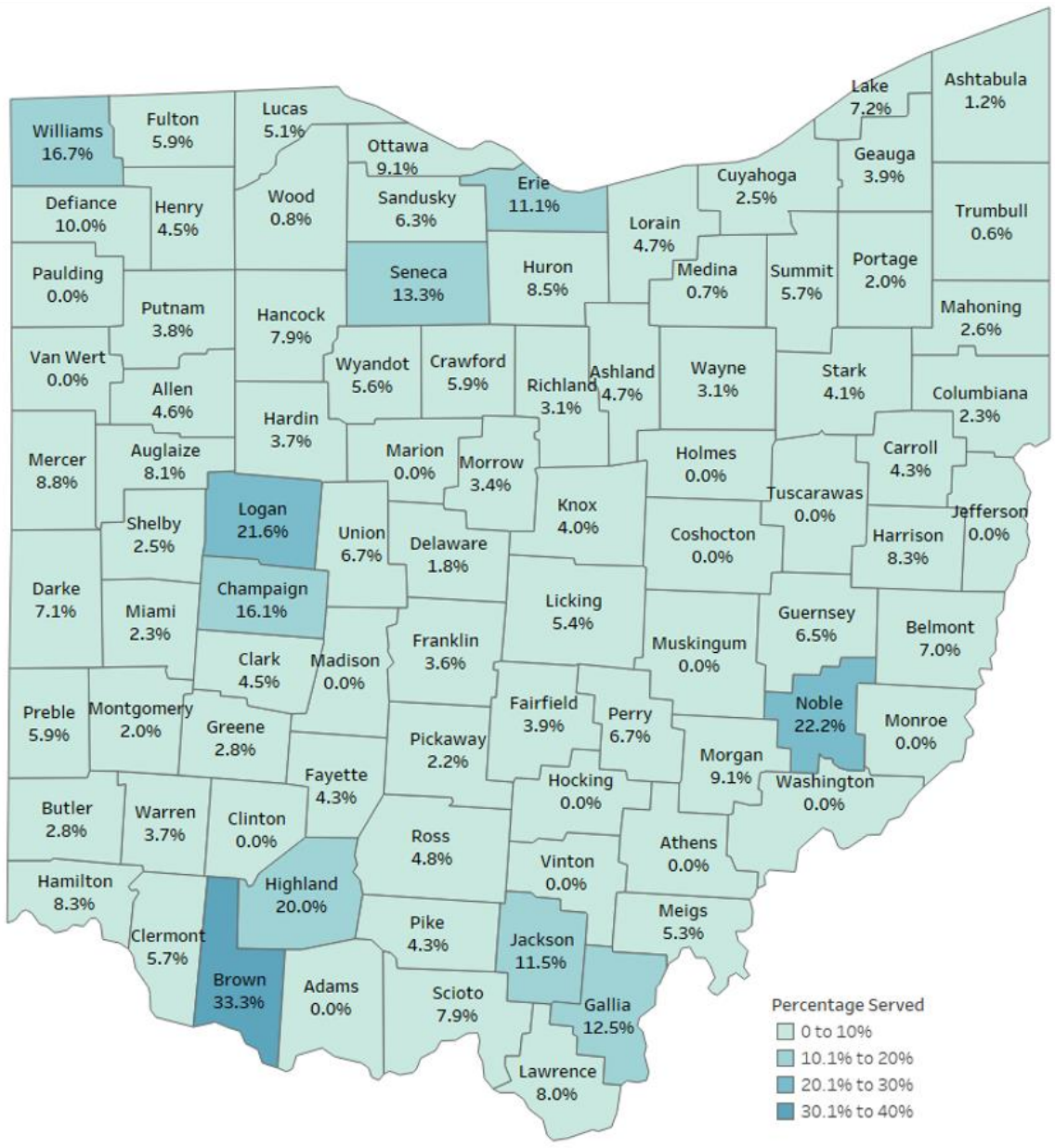
Job Seekers by Race

White	83.12%
Black or African American	12.27%
Two or More Races	2.57%
Asian	1.92%
American Indian or Alaskan Native	0.11%
Native Hawaiian or Other Pacific Islander	0.00%

OOD Served by Race

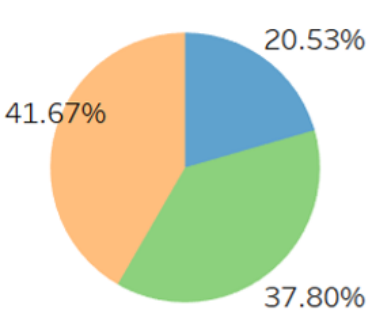
White	72.61%
Black or African American	24.39%
Two or More Races	1.73%
Asian	0.80%
American Indian or Alaskan Native	0.34%
Native Hawaiian or Other Pacific Islander	0.14%

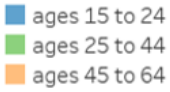
Map 3
Communicative Impairments – OOD Service Rate: Need Ratio



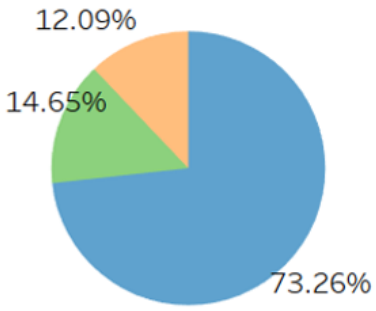
Age & Race Breakout 3
Communicative Impairments

Job Seekers by Age Group





OOD Served by Age Group



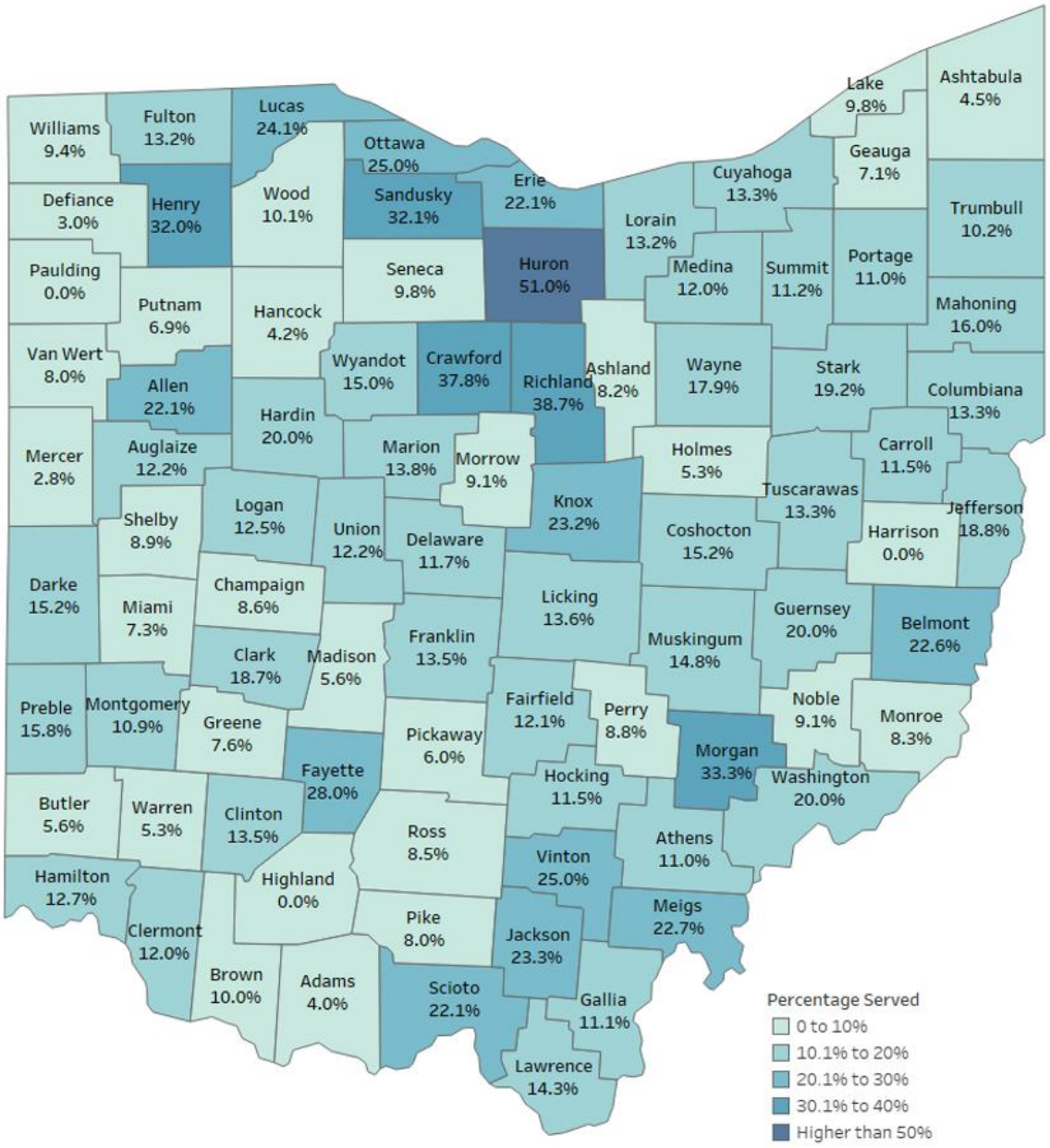
Job Seekers by Race

White	83.53%
Black or African American	12.14%
Two or More Races	2.35%
Asian	1.92%
American Indian or Alaskan Native	0.05%
Native Hawaiian or Other Pacific Islander	0.00%

OOD Served by Race

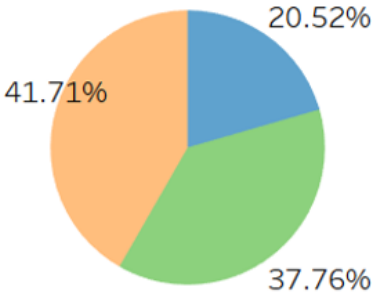
White	80.70%
Black or African American	14.88%
Two or More Races	2.56%
Asian	1.63%
American Indian or Alaskan Native	0.23%
Native Hawaiian or Other Pacific Islander	0.00%

Map 4
Hearing Impairments – OOD Service Rate: Need Ratio

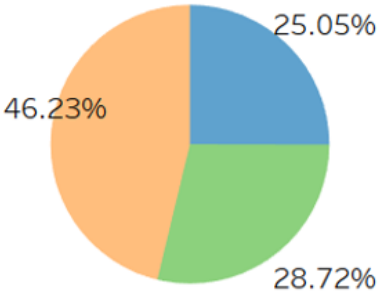


Age & Race Breakout 4
Hearing Impairments

Job Seekers by Age Group



OOD Served by Age Group



ages 15 to 24
ages 25 to 44
ages 45 to 64

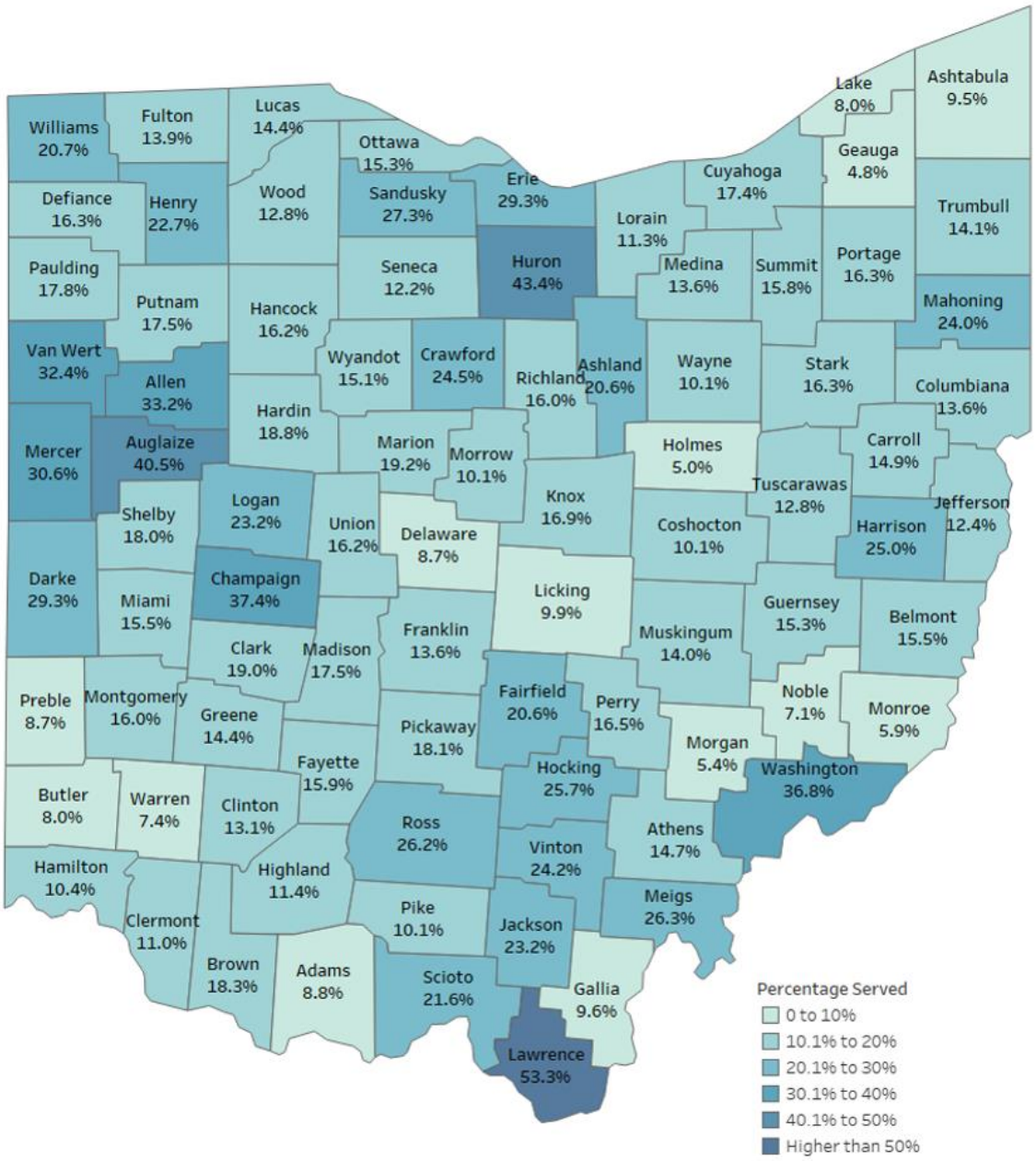
Job Seekers by Race

White	83.49%
Black or African American	12.21%
Two or More Races	2.35%
Asian	1.91%
American Indian or Alaskan Native	0.05%
Native Hawaiian or Other Pacific Islander	0.00%

OOD Served by Race

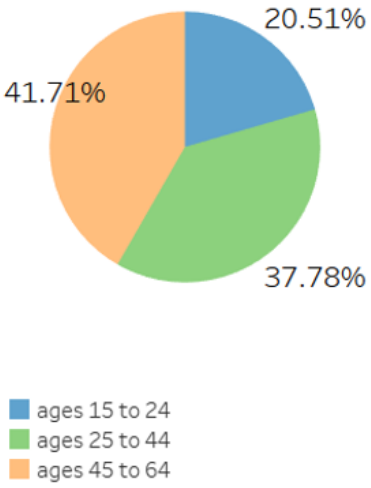
White	77.12%
Black or African American	18.33%
Two or More Races	2.04%
Asian	1.83%
American Indian or Alaskan Native	0.48%
Native Hawaiian or Other Pacific Islander	0.20%

Map 5
Physical Impairments – OOD Service Rate: Need Ratio

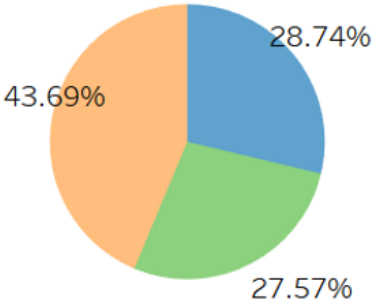


Age & Race Breakout 5
Physical Impairments

Job Seekers by Age Group



OOD Served by Age Group



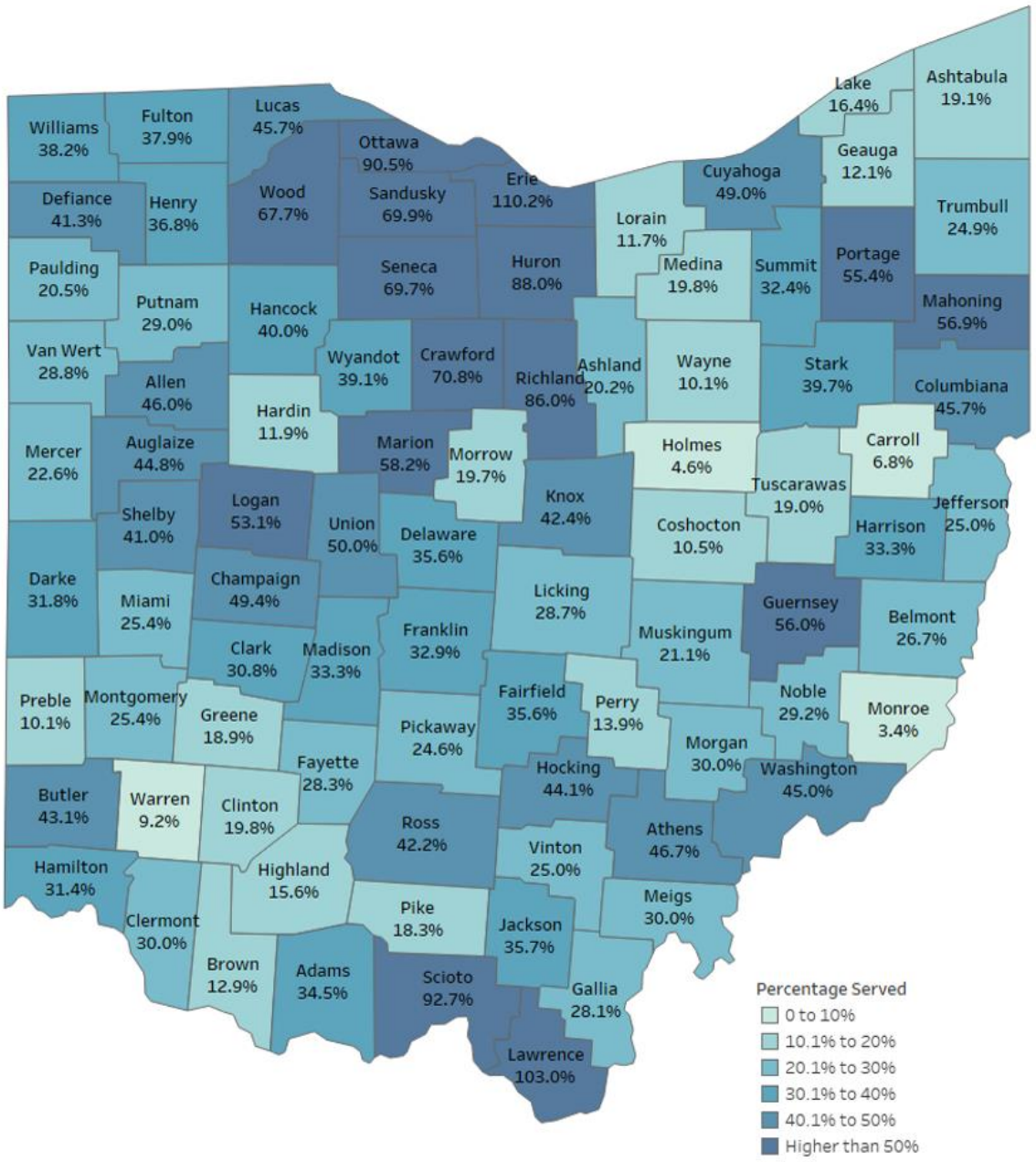
Job Seekers by Race

White	83.13%
Black or African American	12.28%
Two or More Races	2.57%
Asian	1.92%
American Indian or Alaskan Native	0.11%
Native Hawaiian or Other Pacific Islander	0.00%

OOD Served by Race

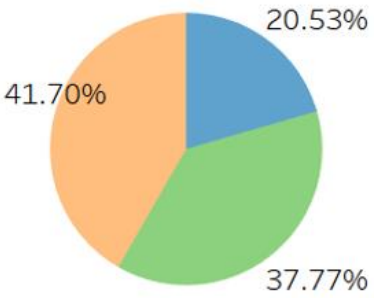
White	72.50%
Black or African American	24.04%
Two or More Races	1.77%
Asian	1.09%
American Indian or Alaskan Native	0.51%
Native Hawaiian or Other Pacific Islander	0.09%

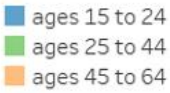
Map 6
Psychosocial Impairments – OOD Service Rate: Need Ratio



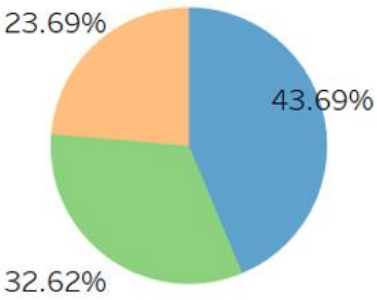
Age & Race Breakout 6
Psychosocial Impairments

Job Seekers by Age Group





OOD Served by Age Group



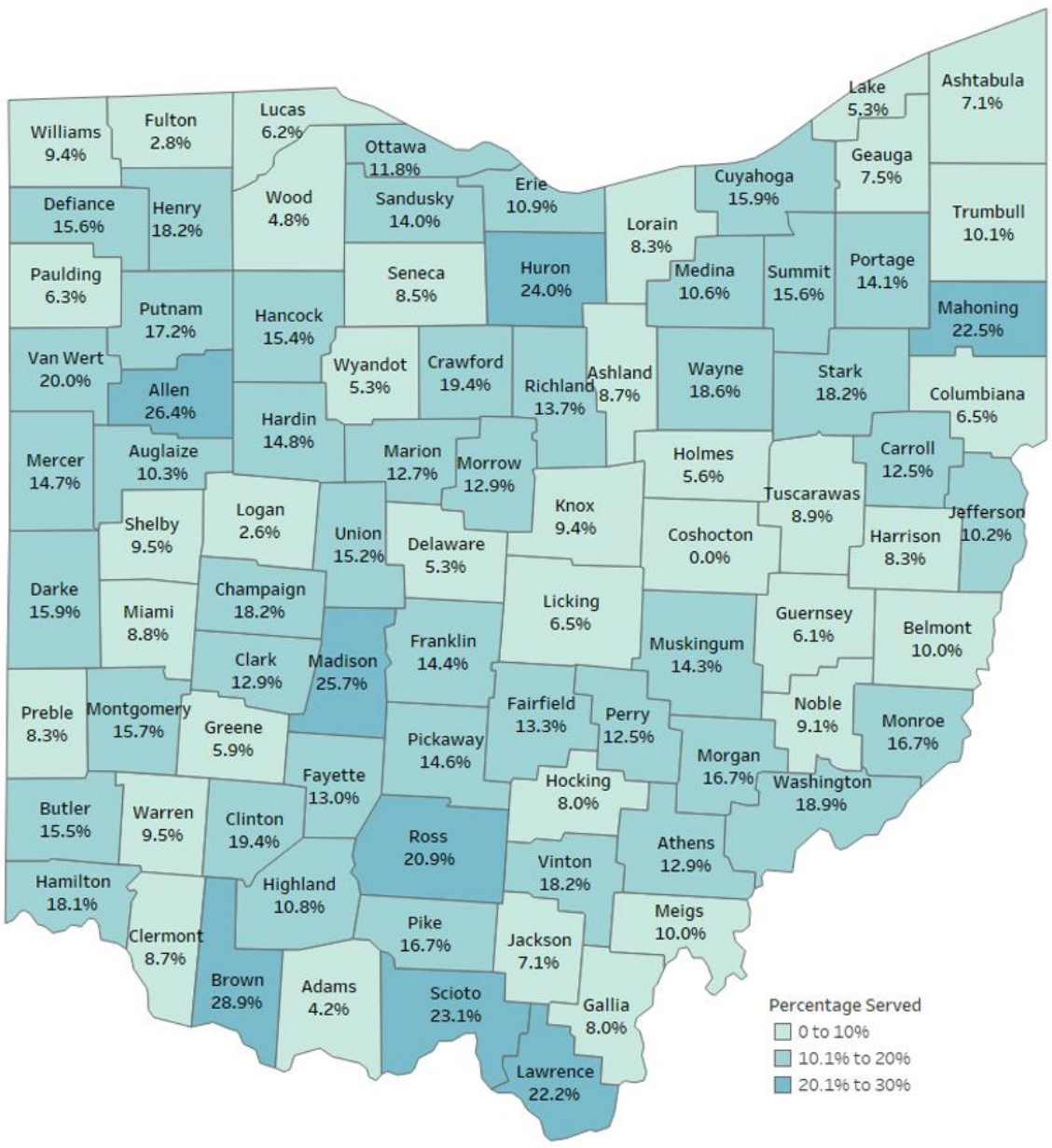
Job Seekers by Race

White	83.12%
Black or African American	12.26%
Two or More Races	2.56%
Asian	1.94%
American Indian or Alaskan Native	0.11%
Native Hawaiian or Other Pacific Islander	0.00%

OOD Served by Race

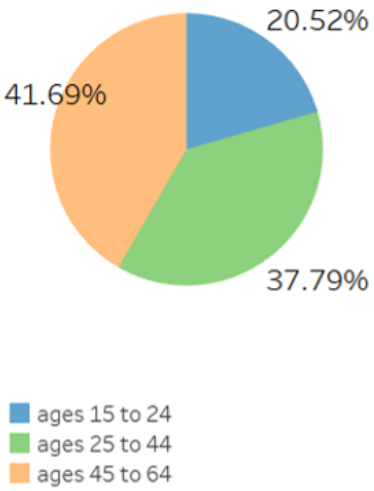
White	72.83%
Black or African American	23.79%
Two or More Races	2.00%
Asian	0.85%
American Indian or Alaskan Native	0.41%
Native Hawaiian or Other Pacific Islander	0.12%

Map 7
Visual Impairments – OOD Service Rate: Need Ratio

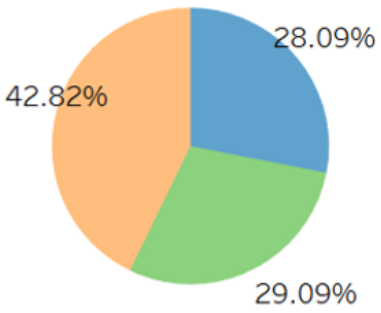


Age & Race Breakout 7
Visual Impairments

Job Seekers by Age Group



OOD Served by Age Group



Job Seekers by Race

White	83.48%
Black or African American	12.19%
Two or More Races	2.34%
Asian	1.93%
American Indian or Alaskan Native	0.05%
Native Hawaiian or Other Pacific Islander	0.00%

OOD Served by Race

White	72.92%
Black or African American	23.49%
Asian	1.87%
Two or More Races	1.29%
American Indian or Alaskan Native	0.36%
Native Hawaiian or Other Pacific Islander	0.07%

Findings

Findings related to Service Rate: Need Ratios are as follows:

1. Table 20 below summarizes that, in the vast majority of counties, OOD is currently serving a very small number, 0 to 10 percent, of individuals with communicative impairments as compared to the estimated need. Additionally, in the majority of counties individuals with physical, hearing, and visual impairments are served at rates between 0 and 20 percent.

2. OOD's service provision rate is higher for individuals with cognitive and psychosocial impairments. This reflects OOD's concentration in recent years in providing services to these individuals through inter-agency partnerships with the Ohio Department of Developmental Disabilities and engagement with county Mental Health and Drug Addiction boards. Each of these populations has an organized representative presence through established county public agencies across Ohio.

Number of Counties by Impairment and OOD Service Rate : Need Ratio Range

Range	Cognitive	Communicative	Hearing	Physical	Psychosocial	Visual
0 to 10%	0	78	31	14	4	35
10.1% to 20%	4	7	40	49	17	45
20.1% to 30%	12	2	11	17	20	8
30.1% to 40%	24	1	5	5	17	0
40.1% to 50%	22	0	0	2	15	0
Higher than 50%	26	0	1	1	15	0

3. Eighteen counties had service rate: need ratios at or below 10 percent for three or more impairment categories: Adams, Ashland, Ashtabula, Butler, Delaware, Geauga, Greene, Harrison, Holmes, Lake, Licking, Miami, Monroe, Noble, Paulding, Preble, Shelby, and Warren.

4. Nine counties did not have a service rate: need ratio greater than 30 percent for any impairment category: Clermont, Geauga, Holmes, Lake, Montgomery, Trumbull, Tuscarawas, Warren, and Wayne.

Table 21 - OOD Service Rate: Need Ratio Ranges - Counts by County

County	0 to 10%	10.1% to 20%	20.1% to 30%	30.1% to 40%	40.1% to 50%	Higher than 50%	County	0 to 10%	10.1% to 20%	20.1% to 30%	30.1% to 40%	40.1% to 50%	Higher than 50%
Adams	4	0	0	1	1	0	Licking	3	1	1	1	0	0
Allen	1	0	2	1	1	1	Logan	1	1	2	0	0	2
Ashland	3	0	2	0	1	0	Lorain	2	3	0	1	0	0
Ashtabula	4	2	0	0	0	0	Lucas	2	1	1	1	1	0
Athens	1	3	0	0	1	1	Madison	2	1	1	1	1	0
Auglaize	1	2	0	0	3	0	Mahoning	1	1	2	0	1	1
Belmont	2	1	2	1	0	0	Marion	1	3	0	0	1	1
Brown	1	2	1	2	0	0	Medina	1	4	0	0	0	1
Butler	3	1	0	1	1	0	Meigs	2	0	3	1	0	0
Carroll	2	3	1	0	0	0	Mercer	2	1	2	1	0	0
Champaign	1	2	0	1	1	1	Miami	3	1	1	0	1	0
Clark	1	3	0	1	1	0	Monroe	4	1	0	0	0	1
Clermont	2	2	2	0	0	0	Montgomery	1	3	2	0	0	0
Clinton	1	4	0	0	1	0	Morgan	2	1	0	2	0	1
Columbiana	2	2	0	1	1	0	Morrow	2	3	0	0	1	0
Coshocton	2	3	0	0	1	0	Muskingum	1	3	1	1	0	0
Crawford	1	1	1	1	0	2	Noble	3	2	0	0	0	1
Cuyahoga	1	3	0	0	2	0	Ottawa	1	2	1	0	0	2
Darke	1	2	1	1	0	1	Paulding	3	1	1	1	0	0
Defiance	2	2	0	1	1	0	Perry	2	3	0	0	0	1
Delaware	3	1	0	2	0	0	Pickaway	2	2	1	0	0	1
Erie	0	2	2	0	1	1	Pike	2	3	0	0	1	0
Fairfield	1	2	1	1	0	1	Portage	1	3	0	1	0	1
Fayette	1	2	2	0	1	0	Preble	3	2	0	1	0	0
Franklin	1	3	0	2	0	0	Putnam	2	2	1	0	0	1
Fulton	2	2	1	1	0	0	Richland	1	2	0	1	0	2
Gallia	2	2	1	0	1	0	Ross	2	0	3	0	1	0
Geauga	4	2	0	0	0	0	Sandusky	1	1	1	1	0	2
Greene	3	2	0	1	0	0	Scioto	1	3	0	0	0	2
Guernsey	2	2	0	0	0	2	Seneca	2	2	0	0	0	2
Hamilton	1	3	0	1	1	0	Shelby	3	1	0	1	1	0
Hancock	2	2	0	2	0	0	Stark	1	3	0	1	0	1
Hardin	1	4	0	1	0	0	Summit	1	3	0	1	1	0
Harrison	3	0	2	1	0	0	Trumbull	1	3	2	0	0	0
Henry	1	1	1	3	0	0	Tuscarawas	2	3	1	0	0	0
Highland	1	4	0	1	0	0	Union	1	3	0	0	2	0
Hocking	2	1	1	0	2	0	Van Wert	2	1	1	1	0	1
Holmes	5	1	0	0	0	0	Vinton	1	1	3	0	1	0
Huron	1	0	1	0	1	3	Warren	5	0	1	0	0	0
Jackson	1	1	2	1	0	1	Washington	1	2	1	1	0	1
Jefferson	1	3	1	1	0	0	Wayne	1	4	1	0	0	0
Knox	2	1	1	1	1	0	Williams	2	1	2	1	0	0
Lake	4	2	0	0	0	0	Wood	2	2	0	1	0	1
Lawrence	1	1	1	0	0	3	Wyandot	2	2	0	1	1	0
							Ohio	**1**	**3**	**0**	**1**	**1**	**0**

5. Ten counties have service rate: need ratios greater than 30 percent in at least three categories of impairment: Allen, Auglaize, Champaign, Crawford, Henry, Huron, Lawrence, Morgan, Richland, and Sandusky. Erie is the only county with no service rate: need ratio below 10 percent in any impairment category.

6. Table 22 below provides a list of counties with the highest and lowest service rate: need ratios for each impairment category.

Table 22 - Counties with the Highest and Lowest Service Rates: Need Ratios by Impairment

Impairment	Highest Service Rate: Need Ratios	Lowest Service Rate: Need Ratios
Cognitive	Lawrence, Huron, Scioto, and Sandusky	Ashtabula, Geauga, Lake, and Holmes
Communicative	Brown, Noble, Logan, and Highland	Holmes, Tuscarawas, Muskingum, and Paulding
Hearing	Huron, Richland, Crawford, and Morgan	Highland, Harrison, Paulding, and Mercer
Physical	Lawrence, Huron, Auglaize, and Champaign	Geauga, Holmes, Morgan, and Monroe
Psychosocial	Erie, Lawrence, Scioto, and Ottawa	Monroe, Holmes, Carroll, and Warren
Visual	Brown, Allen, Madison, and Huron	Coshocton, Logan, Fulton, and Adams

Table 23 on the following page color codes the service rate: need ratio ranges and provides the estimated ratio by county for each category of impairment. This represents the number of individuals who receive services out of the total number who could be served by OOD. These data are also represented on the maps presented previously.

Table 23 - County Service Rate: Need Ratios by Impairment

County	Cognitive	Communi-cative	Hearing	Physical	Psycho-social	Visual	County	Cognitive	Communi-cative	Hearing	Physical	Psycho-social	Visual
Adams	42.90%	0.00%	4.00%	8.80%	34.50%	4.20%	Licking	39.00%	5.40%	13.60%	9.90%	28.70%	6.50%
Allen	50.80%	4.60%	22.10%	33.20%	46.00%	26.40%	Logan	71.20%	21.60%	12.50%	23.20%	53.10%	2.60%
Ashland	43.00%	4.70%	8.20%	20.60%	20.20%	8.70%	Lorain	36.10%	4.70%	13.20%	11.30%	11.70%	8.30%
Ashtabula	12.20%	1.20%	4.50%	9.50%	19.10%	7.10%	Lucas	35.70%	5.10%	24.10%	14.40%	45.70%	6.20%
Athens	51.40%	0.00%	11.00%	14.70%	46.70%	12.90%	Madison	43.20%	0.00%	5.60%	17.50%	33.30%	25.70%
Auglaize	40.20%	8.10%	12.20%	40.50%	44.80%	10.30%	Mahoning	40.40%	2.60%	16.00%	24.00%	56.90%	22.50%
Belmont	37.40%	7.00%	22.60%	15.50%	26.70%	10.00%	Marion	50.00%	0.00%	13.80%	19.20%	58.20%	12.70%
Brown	37.40%	33.30%	10.00%	18.30%	12.90%	28.90%	Medina	56.90%	0.70%	12.00%	13.60%	19.80%	10.60%
Butler	30.30%	2.80%	5.60%	8.00%	43.10%	15.50%	Meigs	36.50%	5.30%	22.70%	26.30%	30.00%	10.00%
Carroll	27.40%	4.30%	11.50%	14.90%	6.80%	12.50%	Mercer	27.00%	8.80%	2.80%	30.60%	22.60%	14.70%
Champaign	51.70%	16.10%	8.60%	37.40%	49.40%	18.20%	Miami	46.20%	2.30%	7.30%	15.50%	25.40%	8.80%
Clark	47.50%	4.50%	18.70%	19.00%	30.80%	12.90%	Monroe	51.60%	0.00%	8.30%	5.90%	3.40%	16.70%
Clermont	28.40%	5.70%	12.00%	11.00%	30.00%	8.70%	Montgomery	25.80%	2.00%	10.90%	16.00%	25.40%	15.70%
Clinton	44.30%	0.00%	13.50%	13.10%	19.80%	19.40%	Morgan	51.60%	9.10%	33.30%	5.40%	30.00%	16.70%
Columbiana	36.70%	2.30%	13.30%	13.60%	45.70%	6.50%	Morrow	41.30%	3.40%	9.10%	10.10%	19.70%	12.90%
Coshocton	46.90%	0.00%	15.20%	10.10%	10.50%	0.00%	Muskingum	33.80%	0.00%	14.80%	14.00%	21.10%	14.30%
Crawford	61.70%	5.90%	37.80%	24.50%	70.80%	19.40%	Noble	60.00%	22.20%	9.10%	7.10%	29.20%	9.10%
Cuyahoga	46.70%	2.50%	13.30%	17.40%	49.00%	15.90%	Ottawa	54.40%	9.10%	25.00%	15.30%	90.50%	11.80%
Darke	67.90%	7.10%	15.20%	29.30%	31.80%	15.90%	Paulding	34.10%	0.00%	0.00%	17.80%	20.50%	6.30%
Defiance	37.60%	10.00%	3.00%	16.30%	41.30%	15.60%	Perry	54.80%	6.70%	8.80%	16.50%	13.90%	12.50%
Delaware	32.60%	1.80%	11.70%	8.70%	35.60%	5.30%	Pickaway	52.80%	2.20%	6.00%	18.10%	24.60%	14.60%
Erie	41.30%	11.10%	22.10%	29.30%	110.20%	10.90%	Pike	45.30%	4.30%	8.00%	10.10%	18.30%	16.70%
Fairfield	65.10%	3.90%	12.10%	20.60%	35.60%	13.30%	Portage	31.20%	2.00%	11.00%	16.30%	55.40%	14.10%
Fayette	45.30%	4.30%	28.00%	15.90%	28.30%	13.00%	Preble	36.80%	5.90%	15.80%	8.70%	10.10%	8.30%
Franklin	33.40%	3.60%	13.50%	13.60%	32.90%	14.40%	Putnam	51.40%	3.80%	6.90%	17.50%	29.00%	17.20%
Fulton	25.00%	5.90%	13.20%	13.90%	37.90%	2.80%	Richland	76.50%	3.10%	38.70%	16.00%	86.00%	13.70%
Gallia	40.30%	12.50%	11.10%	9.60%	28.10%	8.00%	Ross	24.70%	4.80%	8.50%	26.20%	42.20%	20.90%
Geauga	13.30%	3.90%	7.10%	4.80%	12.10%	7.50%	Sandusky	87.90%	6.30%	32.10%	27.30%	69.90%	14.00%
Greene	33.20%	2.80%	7.60%	14.40%	18.90%	5.90%	Scioto	91.40%	7.90%	22.10%	21.60%	92.70%	23.10%
Guernsey	64.80%	6.50%	20.00%	15.30%	56.00%	6.10%	Seneca	52.00%	13.30%	9.80%	12.20%	69.70%	8.50%
Hamilton	47.40%	8.30%	12.70%	10.40%	31.40%	18.10%	Shelby	39.10%	2.50%	8.90%	18.00%	41.00%	9.50%
Hancock	34.90%	7.90%	4.20%	16.20%	40.00%	15.40%	Stark	50.20%	4.10%	19.20%	16.30%	39.70%	18.20%
Hardin	38.40%	3.70%	20.00%	18.80%	11.90%	14.80%	Summit	41.20%	5.70%	11.20%	15.80%	32.40%	15.60%
Harrison	24.20%	8.30%	0.00%	25.00%	33.30%	8.30%	Trumbull	28.90%	0.60%	10.20%	14.10%	24.90%	10.10%
Henry	39.00%	4.50%	32.00%	22.70%	36.80%	18.20%	Tuscarawas	25.60%	0.00%	13.30%	12.80%	19.00%	8.90%
Highland	40.00%	20.00%	0.00%	11.40%	15.60%	10.80%	Union	41.10%	6.70%	12.20%	16.20%	50.00%	15.20%
Hocking	50.00%	0.00%	11.50%	25.70%	44.10%	8.00%	Van Wert	82.00%	0.00%	8.00%	32.40%	28.80%	20.00%
Holmes	17.40%	0.00%	5.30%	5.00%	4.60%	5.60%	Vinton	48.40%	0.00%	25.00%	24.20%	25.00%	18.20%
Huron	112.10%	8.50%	51.00%	43.40%	88.00%	24.00%	Warren	24.90%	3.70%	5.30%	7.40%	9.20%	9.50%
Jackson	61.30%	11.50%	23.30%	23.20%	35.70%	7.10%	Washington	72.90%	0.00%	20.00%	36.80%	45.00%	18.90%
Jefferson	35.90%	0.00%	18.80%	12.40%	25.00%	10.20%	Wayne	21.00%	3.10%	17.90%	10.10%	10.10%	18.60%
Knox	37.90%	4.00%	23.20%	16.90%	42.40%	9.40%	Williams	22.20%	16.70%	9.40%	20.70%	38.20%	9.40%
Lake	16.90%	7.20%	9.80%	8.00%	16.40%	5.30%	Wood	31.50%	0.80%	10.10%	12.80%	67.70%	4.80%
Lawrence	197.80%	8.00%	14.30%	53.30%	103.00%	22.20%	Wyandot	41.70%	5.60%	15.00%	15.10%	39.10%	5.30%
							Ohio	**41.00%**	**4.36%**	**13.56%**	**15.41%**	**36.62%**	**13.43%**

Section VI.

Balance Ratios: Comparison of Needs to Service Provision

This section evaluates the balance ratio of needs to service provision. Also known as "relative proportionality", the balance ratio is another means to assess the discrepancy between the needs for services and the number of individuals served. This considers OOD's investment in the provision of serving individuals with disabilities among the six primary impairment categories in relation to the distribution of those in need within the general population of Ohioans with disabilities.

Table 24 - Balance Ratio for Ohio - Working Age Population

Impairment Category	Est. Seeking Employment	Proportion of Total Est. Seeking Employment	OOD VR Served 2017	Proportion of OOD VR Served 2017	Percentage Point Difference
Cognitive	26,784	23.8%	10,982	39.2%	15.3
Communicative	9,873	8.8%	430	1.5%	-7.2
Hearing	10,865	9.7%	1,473	5.3%	-4.4
Physical	29,266	26.0%	4,509	16.1%	-10.0
Psychosocial	25,295	22.5%	9,264	33.0%	10.5
Visual	10,365	9.2%	1,392	5.0%	-4.3
Total	**112,448**	**100.0%**	**28,050**	**100.0%**	**N/A**

Methods

Balance Ratios for Ohio for Six Impairment Categories. The second column in Table 24 above represents the estimated number of working age individuals, by impairment category, who may be seeking employment. The third column is the number of individuals in the particular impairment category seeking employment as a proportion of the total number of individuals with any impairment who are seeking employment. These figures are illustrated in Chart 10 on the following page. For example, the number of individuals with visual impairments seeking employment as a proportion of the total number of individuals with any impairment equals 9.2 percent. This is calculated by dividing 10,365 by 112,448. The fourth column represents those served by OOD's VR program, with the fifth column representing the number of individual served in each impairment category as a proportion of the total number served in 2017 (28,050). The last column represents the percentage point difference between the third and fifth columns. The values that are closer to zero represent a greater balance ratio between the individuals served and the number of individuals that could benefit from OOD services.

Chart 10 - Proportion of Ohioans with Disabilities Seeking Employment (n = 112,448)

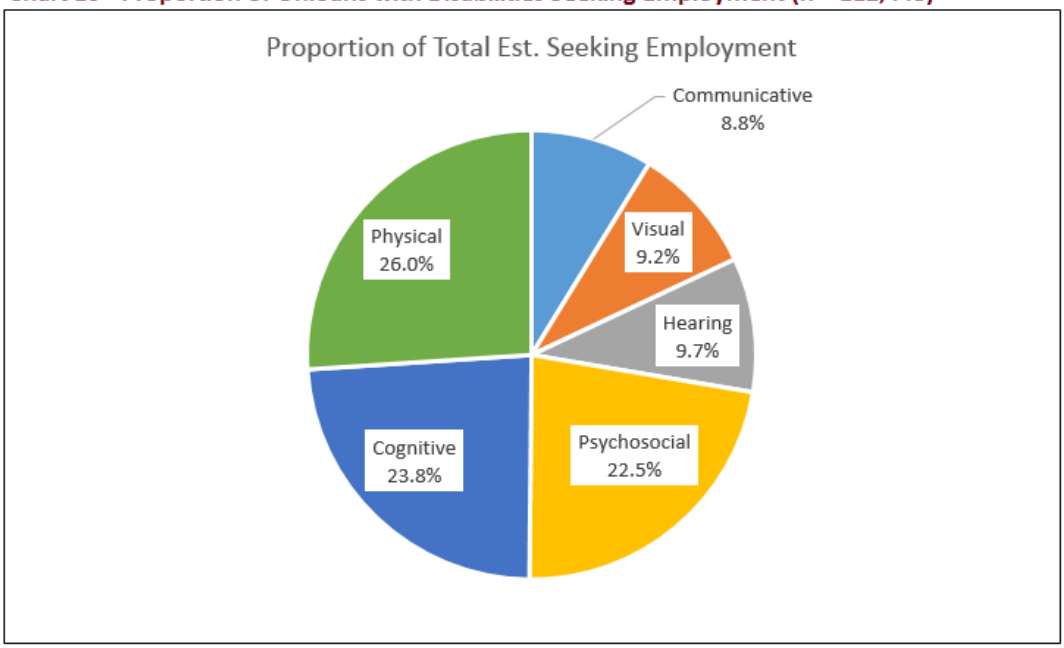
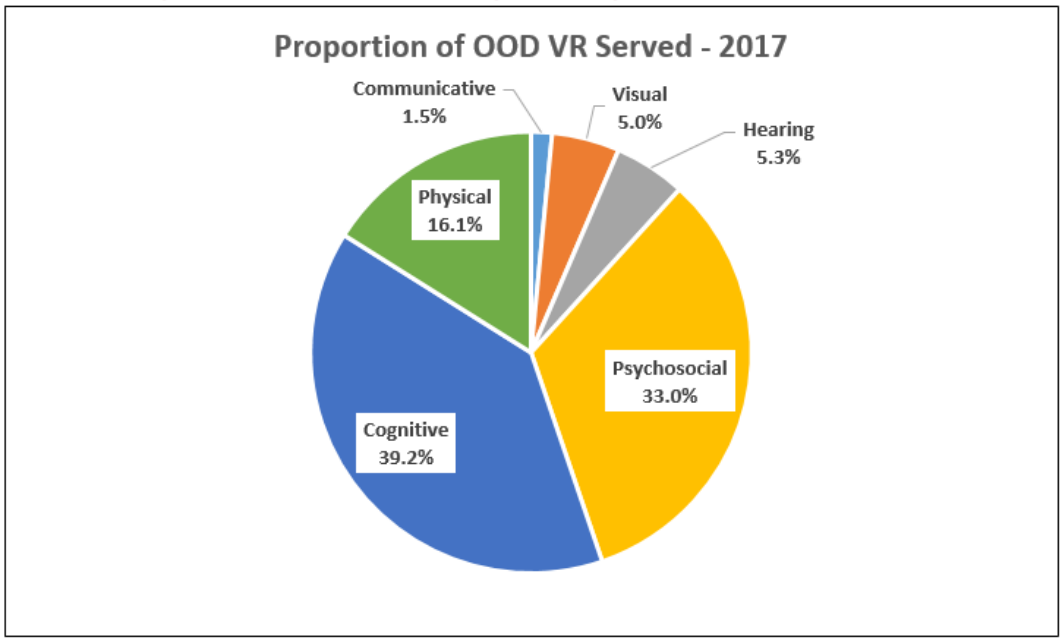


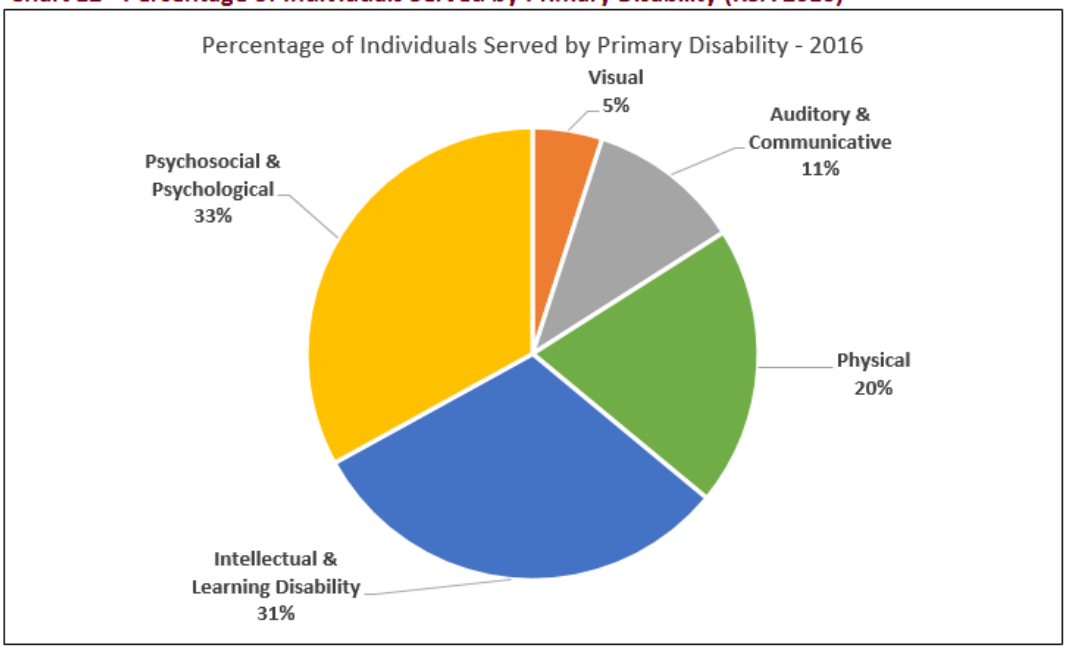
Chart 11 - Proportion of OOD Served - 2017 (n = 28,050)



The calculations summarized in Charts 10 and 11 on the previous page were performed for each of Ohio's 88 counties, yielding balance ratio data for each category of impairment at the county level. These procedures enabled the categorization of service delivery for each impairment in a particular county into one of four groupings: Less than -5.0 percent, -5.0 percent to -0.1 percent, 0.0 percent to 5.0 percent, and Greater than 5.0 percent.

The Rehabilitation Services Administration (RSA) publishes a summary of the national percentages of individuals who exit the VR program in a given year by primary disability. Chart 12 below gives these percentages for individuals who exited VR in 2016. (Rehabilitation Services Administration, 2016) When comparing the breakdown of individuals served by OOD shown in Chart 11 on the previous page with the RSA percentages, there is a high degree of alignment in the Psychosocial, Cognitive (Intellectual & Learning Disability), and Visual categories. The Physical category shows somewhat less alignment, and the most notable difference is in the Hearing and Communicative categories. RSA has combined those categories into one, and when compared to the combined OOD Served percentages there is a 4.2 percentage point difference. In future reports, OOD will seek to align impairment categories with those used by RSA to allow a more direct comparison.

Chart 12 - Percentage of Individuals Served by Primary Disability (RSA 2016)

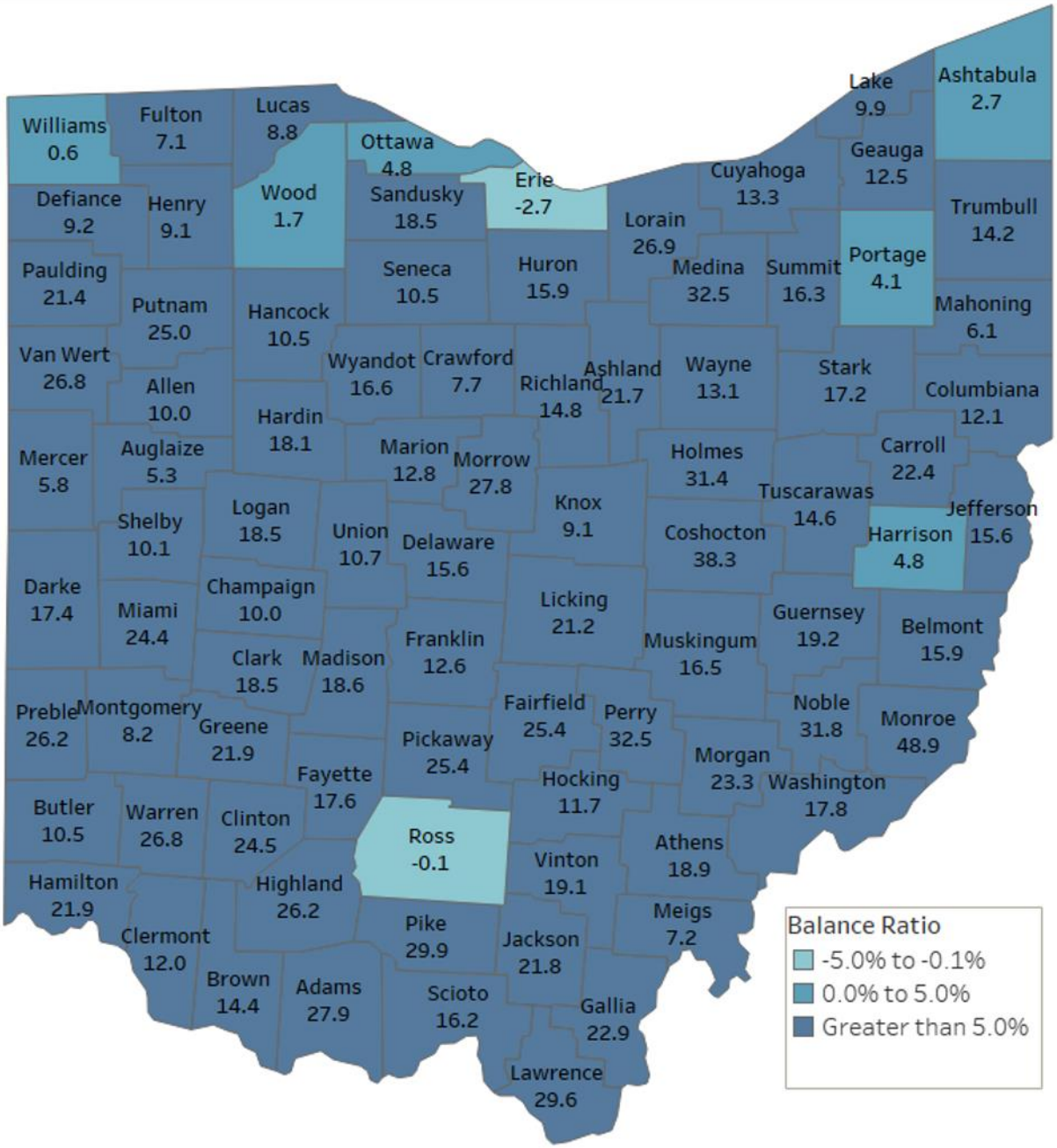


Maps 8 through 13, and supporting data in Table 27, illustrate county classification groupings for each of the six impairment categories. The two middle groupings that range from -5.0 percent to 5.0 percent can be collapsed to form one grouping. If the difference in the proportion

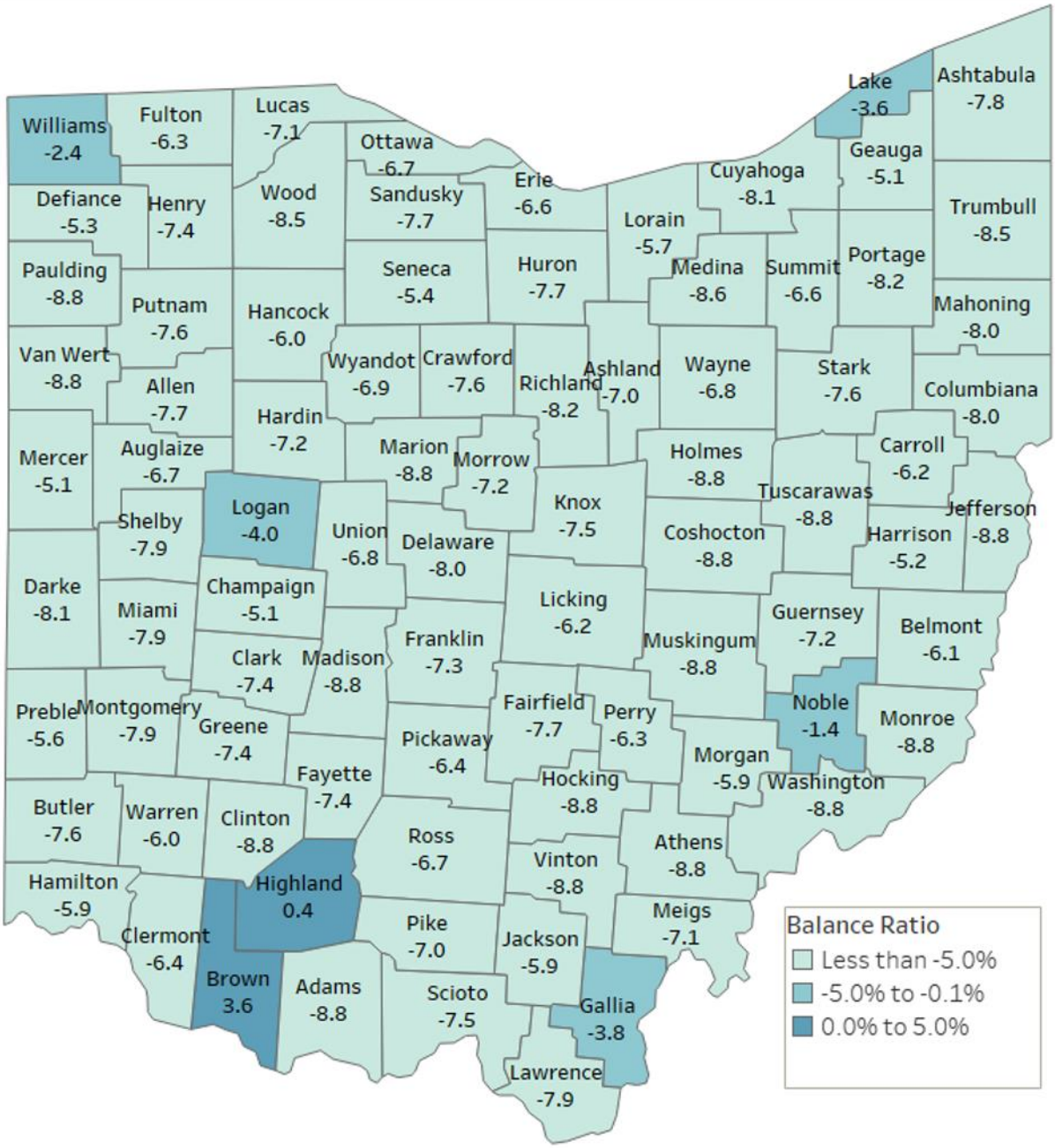
seeking employment to the proportion served at the county level was between -5.0 percent and 5.0 percent, service delivery in that county was considered to be “in balance”. If this difference was less than -5.0 percent, the volume of services delivered was considered to be “out of balance” in a negative direction. If this difference was greater than 5.0 percent, the volume of services delivered was considered to be “out of balance” in a positive direction.

There are two primary implications of balance ratio data. OOD might choose to enhance resources available to counties where differences are negative. OOD could also choose to maintain resources available to counties where differences are -5.0 percent and above. There are multiple options OOD could consider that might result in greater balance in the system statewide. (OOD – AWARE) (U.S. Census – ACS, 2016)

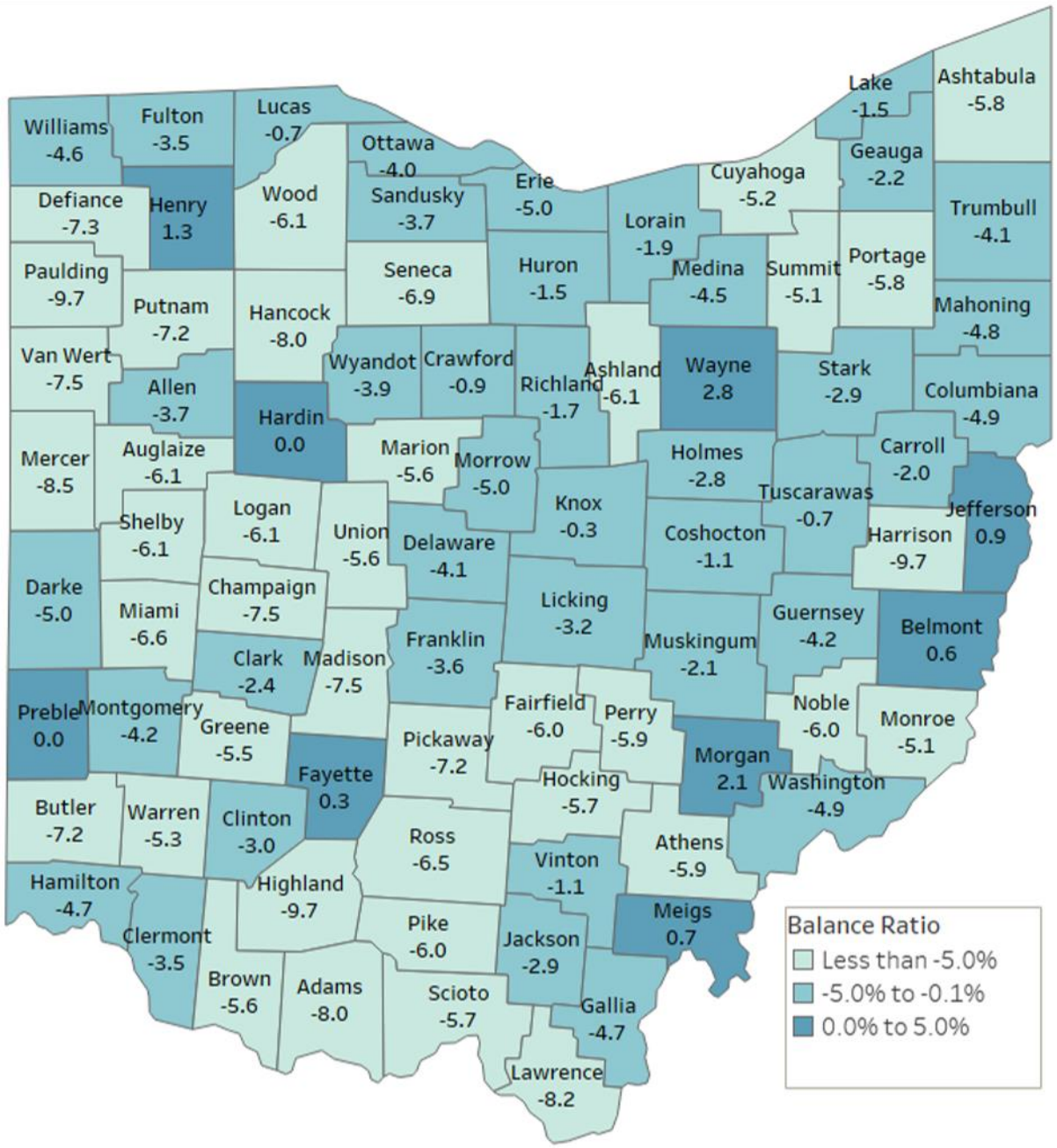
Map 8
Cognitive Impairments – OOD Balance Ratio



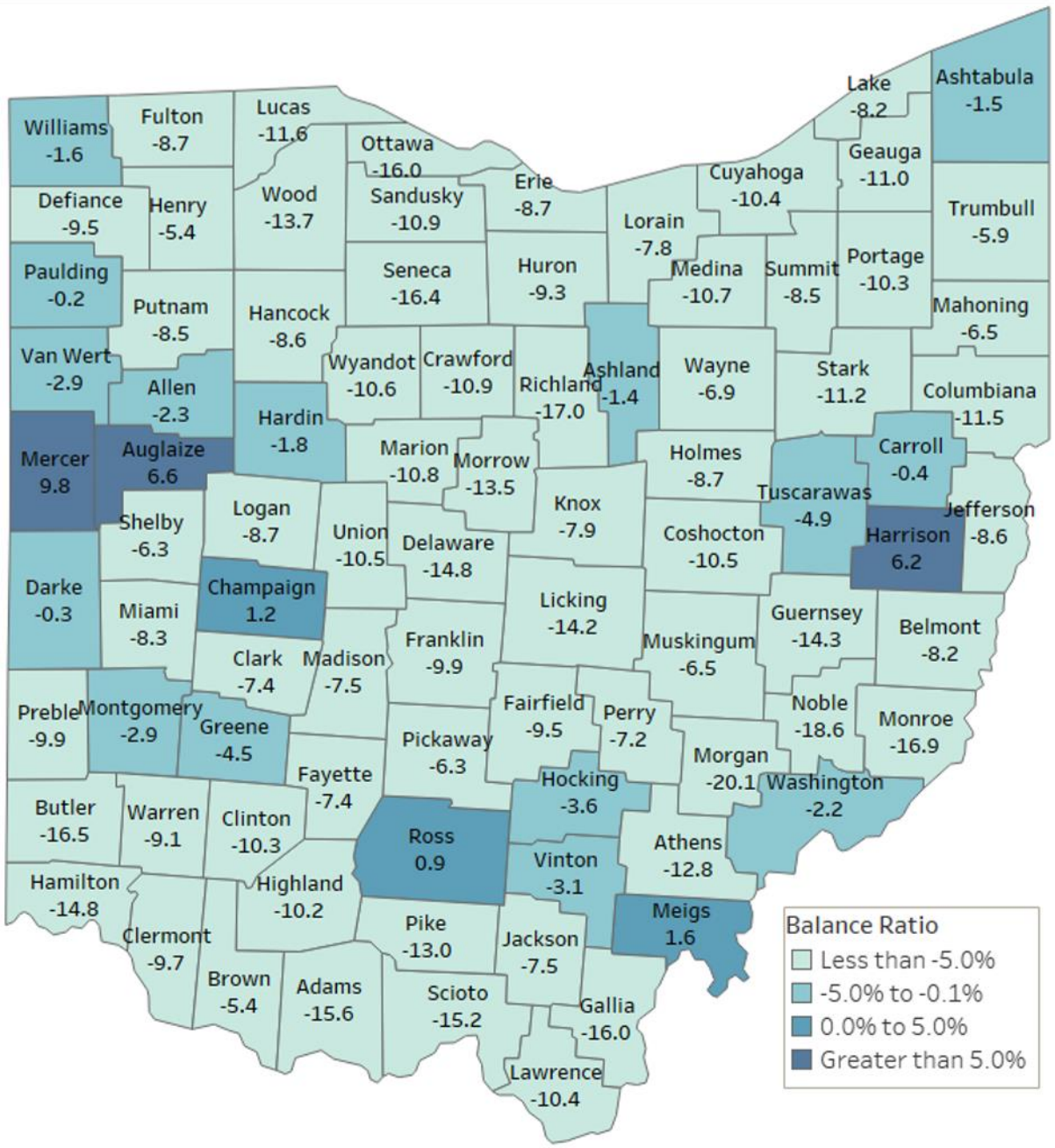
Map 9
Communicative Impairments – OOD Balance Ratio



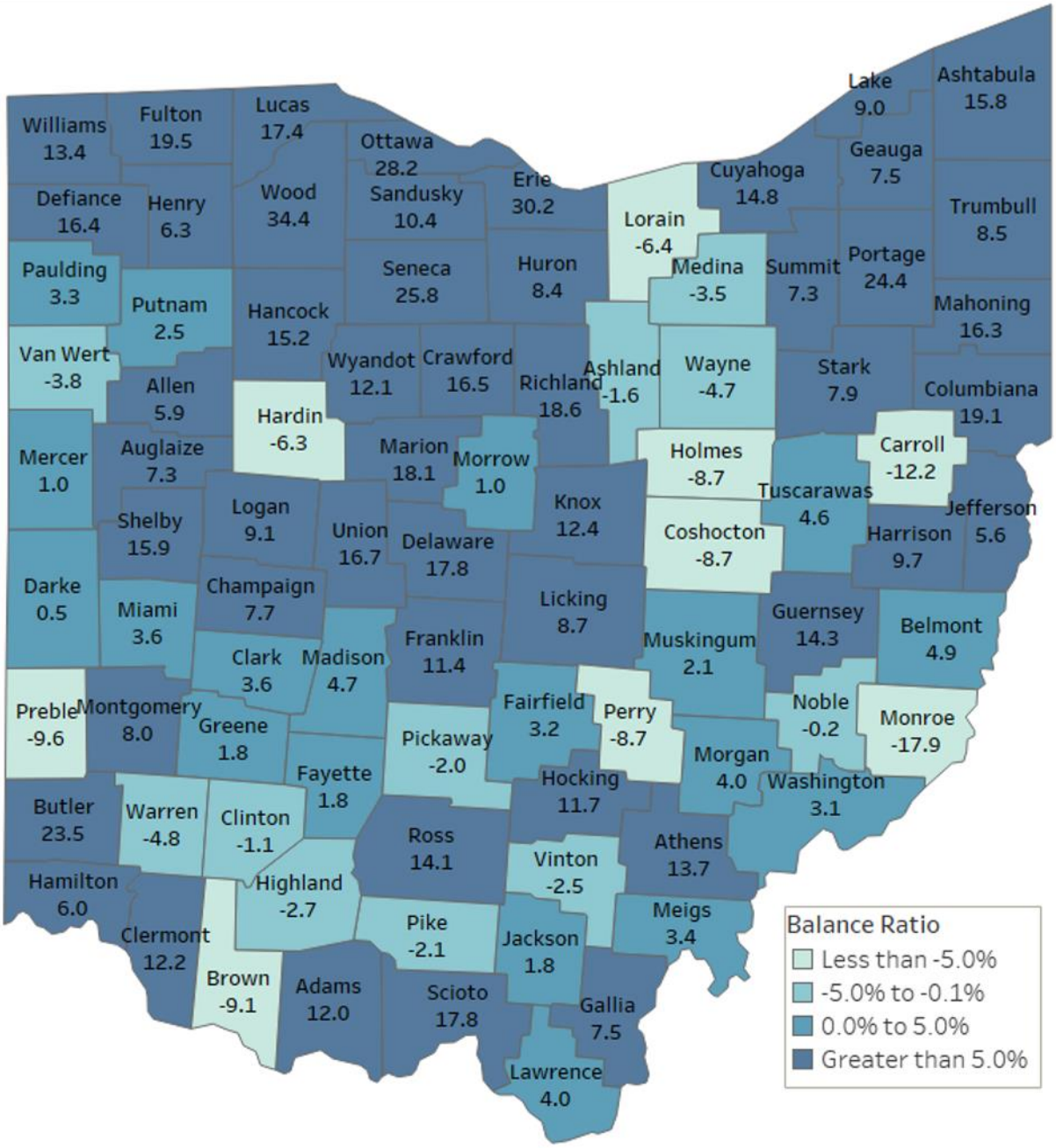
Map 10
Hearing Impairments – OOD Balance Ratio



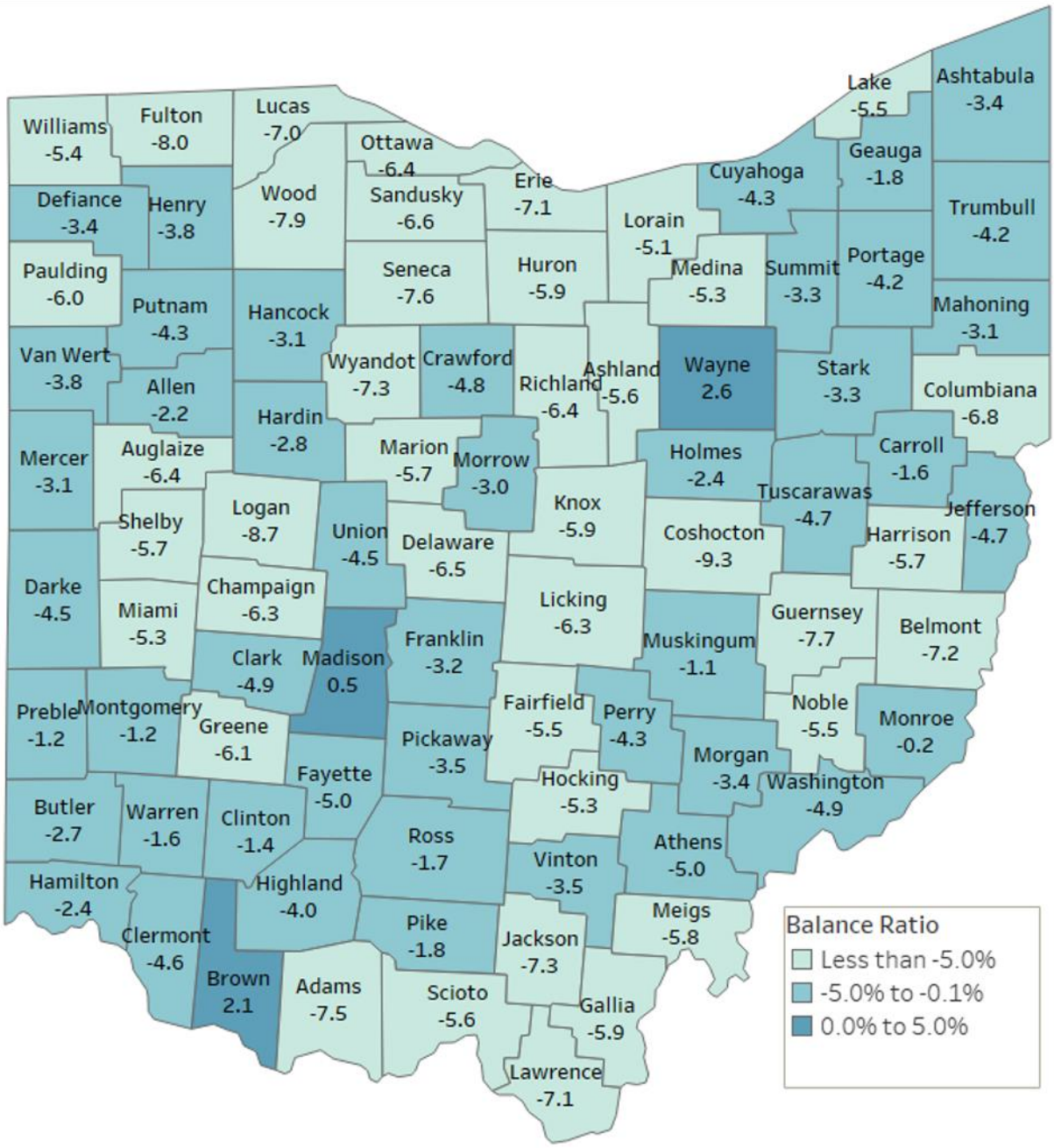
Map 11
Physical Impairments – OOD Balance Ratio



Map 12
Psychosocial Impairments – OOD Balance Ratio



Map 13
Visual Impairments – OOD Balance Ratio



Findings

Analysis of county-level balance ratios results in three findings as follows:

1. Counties with the largest negative and positive differences, as indicated by balance ratios, are summarized in Table 25 below.

Table 25 - Counties with the Largest Negative and Positive Balance Ratio Differences

Impairment	Counties with the Largest Negative Difference	Counties with the Largest Positive Difference
Cognitive	Erie and Ross (only negative counties)	Monroe, Coshocton, Medina, and Perry
Communicative	16 counties at negative 8.8%	Brown and Highland (only positive counties
Hearing	Harrison, Paulding, Highland, and Mercer	Wayne, Morgan, Henry, and Jefferson
Physical	Morgan, Noble, Richland, and Monroe	Mercer, Auglaize, Harrison, and Meigs
Psychosocial	Monroe, Carroll, Preble, and Brown	Wood, Erie, Ottawa, and Seneca
Visual	Coshocton, Logan, Fulton, and Wood	Wayne, Brown, and Madison

2. The distribution of balance ratios by impairment category, as summarized in Table 26 below, suggests that OOD has continued to serve individuals with cognitive and psychosocial impairments at a high rate. However, this occurs in conjunction with significant negative balance ratios for the other four impairment categories, most notably communicative impairments. This reflects OOD's concentration in recent years in providing services to individuals with cognitive and psychosocial impairments through the Employment First partnership interagency agreement with the Ohio Department of Developmental Disabilities and engagement with county behavioral health authorities. Each of these populations has an organized representative presence through established county boards across Ohio.

Table 26 - Number of Counties by Impairment and OOD Service Balance Ratio Difference Range

Range	Cognitive	Communicative	Hearing	Physical	Psychosocial	Visual
Less than -5.0%	0	81	39	67	9	40
-5.0% to -0.1%	2	5	40	15	11	45
0.0% to 5.0%	6	2	9	3	19	3
Greater than 5.0%	80	0	0	3	49	0

3. Table 27 on the following page presents the balance ratio for each category of impairment in each Ohio county.

Table 27 - County Balance Ratio Differences by Impairment - 2017

County	Cognitive	Communi-cative	Hearing	Physical	Psycho-social	Visual	County	Cognitive	Communi-cative	Hearing	Physical	Psycho-social	Visual
Adams	27.9	-8.8	-8.0	-15.6	12.0	-7.5	Licking	21.2	-6.2	-3.2	-14.2	8.7	-6.3
Allen	10.0	-7.7	-3.7	-2.3	5.9	-2.2	Logan	18.5	-4.0	-6.1	-8.7	9.1	-8.7
Ashland	21.7	-7.0	-6.1	-1.4	-1.6	-5.6	Lorain	26.9	-5.7	-1.9	-7.8	-6.4	-5.1
Ashtabula	2.7	-7.8	-5.8	-1.5	15.8	-3.4	Lucas	8.8	-7.1	-0.7	-11.6	17.4	-7.0
Athens	18.9	-8.8	-5.9	-12.8	13.7	-5.0	Madison	18.6	-8.8	-7.5	-7.5	4.7	0.5
Auglaize	5.3	-6.7	-6.1	6.6	7.3	-6.4	Mahoning	6.1	-8.0	-4.8	-6.5	16.3	-3.1
Belmont	15.9	-6.1	0.6	-8.2	4.9	-7.2	Marion	12.8	-8.8	-5.6	-10.8	18.1	-5.7
Brown	14.4	3.6	-5.6	-5.4	-9.1	2.1	Medina	32.5	-8.6	-4.5	-10.7	-3.5	-5.3
Butler	10.5	-7.6	-7.2	-16.5	23.5	-2.7	Meigs	7.2	-7.1	0.7	1.6	3.4	-5.8
Carroll	22.4	-6.2	-2.0	-0.4	-12.2	-1.6	Mercer	5.8	-5.1	-8.5	9.8	1.0	-3.1
Champaign	10.0	-5.1	-7.5	1.2	7.7	-6.3	Miami	24.4	-7.9	-6.6	-8.3	3.6	-5.3
Clark	18.5	-7.4	-2.4	-7.4	3.6	-4.9	Monroe	48.9	-8.8	-5.1	-16.9	-17.9	-0.2
Clermont	12.0	-6.4	-3.5	-9.7	12.2	-4.6	Montgomery	8.2	-7.9	-4.2	-2.9	8.0	-1.2
Clinton	24.5	-8.8	-3.0	-10.3	-1.1	-1.4	Morgan	23.3	-5.9	2.1	-20.1	4.0	-3.4
Columbiana	12.1	-8.0	-4.9	-11.5	19.1	-6.8	Morrow	27.8	-7.2	-5.0	-13.5	1.0	-3.0
Coshocton	38.3	-8.8	-1.1	-10.5	-8.7	-9.3	Muskingum	16.5	-8.8	-2.1	-6.5	2.1	-1.1
Crawford	7.7	-7.6	-0.9	-10.9	16.5	-4.8	Noble	31.8	-1.4	-6.0	-18.6	-0.2	-5.5
Cuyahoga	13.3	-8.1	-5.2	-10.4	14.8	-4.3	Ottawa	4.8	-6.7	-4.0	-16.0	28.2	-6.4
Darke	17.4	-8.1	-5.0	-0.3	0.5	-4.5	Paulding	21.4	-8.8	-9.7	-0.2	3.3	-6.0
Defiance	9.2	-5.3	-7.3	-9.5	16.4	-3.4	Perry	32.5	-6.3	-5.9	-7.2	-8.7	-4.3
Delaware	15.6	-8.0	-4.1	-14.8	17.8	-6.5	Pickaway	25.4	-6.4	-7.2	-6.3	-2.0	-3.5
Erie	-2.7	-6.6	-5.0	-8.7	30.2	-7.1	Pike	29.9	-7.0	-6.0	-13.0	-2.1	-1.8
Fairfield	25.4	-7.7	-6.0	-9.5	3.2	-5.5	Portage	4.1	-8.2	-5.8	-10.3	24.4	-4.2
Fayette	17.6	-7.4	0.3	-7.4	1.8	-5.0	Preble	26.2	-5.6	0.0	-9.9	-9.6	-1.2
Franklin	12.6	-7.3	-3.6	-9.9	11.4	-3.2	Putnam	25.0	-7.6	-7.2	-8.5	2.5	-4.3
Fulton	7.1	-6.3	-3.5	-8.7	19.5	-8.0	Richland	14.8	-8.2	-1.7	-17.0	18.6	-6.4
Gallia	22.9	-3.8	-4.7	-16.0	7.5	-5.9	Ross	-0.1	-6.7	-6.5	0.9	14.1	-1.7
Geauga	12.5	-5.1	-2.2	-11.0	7.5	-1.8	Sandusky	18.5	-7.7	-3.7	-10.9	10.4	-6.6
Greene	21.9	-7.4	-5.5	-4.5	1.8	-6.1	Scioto	16.2	-7.5	-5.7	-15.2	17.8	-5.6
Guernsey	19.2	-7.2	-4.2	-14.3	14.3	-7.7	Seneca	10.5	-5.4	-6.9	-16.4	25.8	-7.6
Hamilton	21.9	-5.9	-4.7	-14.8	6.0	-2.4	Shelby	10.1	-7.9	-6.1	-6.3	15.9	-5.7
Hancock	10.5	-6.0	-8.0	-8.6	15.2	-3.1	Stark	17.2	-7.6	-2.9	-11.2	7.9	-3.3
Hardin	18.1	-7.2	0.0	-1.8	-6.3	-2.8	Summit	16.3	-6.6	-5.1	-8.5	7.3	-3.3
Harrison	4.8	-5.2	-9.7	6.2	9.7	-5.7	Trumbull	14.2	-8.5	-4.1	-5.9	8.5	-4.2
Henry	9.1	-7.4	1.3	-5.4	6.3	-3.8	Tuscarawas	14.6	-8.8	-0.7	-4.9	4.6	-4.7
Highland	26.2	0.4	-9.7	-10.2	-2.7	-4.0	Union	10.7	-6.8	-5.6	-10.5	16.7	-4.5
Hocking	11.7	-8.8	-5.7	-3.6	11.7	-5.3	Van Wert	26.8	-8.8	-7.5	-2.9	-3.8	-3.8
Holmes	31.4	-8.8	-2.8	-8.7	-8.7	-2.4	Vinton	19.1	-8.8	-1.1	-3.1	-2.5	-3.5
Huron	15.9	-7.7	-1.5	-9.3	8.4	-5.9	Warren	26.8	-6.0	-5.3	-9.1	-4.8	-1.6
Jackson	21.8	-5.9	-2.9	-7.5	1.8	-7.3	Washington	17.8	-8.8	-4.9	-2.2	3.1	-4.9
Jefferson	15.6	-8.8	0.9	-8.6	5.6	-4.7	Wayne	13.1	-6.8	2.8	-6.9	-4.7	2.6
Knox	9.1	-7.5	-0.3	-7.9	12.4	-5.9	Williams	0.6	-2.4	-4.6	-1.6	13.4	-5.4
Lake	9.9	-3.6	-1.5	-8.2	9.0	-5.5	Wood	1.7	-8.5	-6.1	-13.7	34.4	-7.9
Lawrence	29.6	-7.9	-8.2	-10.4	4.0	-7.1	Wyandot	16.6	-6.9	-3.9	-10.6	12.1	-7.3
							Ohio	**15.0**	**-7.3**	**-4.3**	**-9.7**	**10.6**	**-4.3**

Section VII.

Students with Disabilities

In alignment with WIOA requirements around services to students with disabilities and funding requirements for pre-employment transition services, OOD provides services to students with disabilities to support their successful transition from school to work. This CSNA addresses these efforts by attempting to answer the following questions:

7. What are the job goals for SYWE participants and what kinds of experiences have been provided?

8. How are SYWE programs distributed geographically and how does that compare with the location of students with SYWE or Summer Youth Career Exploration on their VR plan?

9. What services for students with disabilities are most likely to lead to improved employment outcomes?

10. Is the number of students served by OOD proportionate to the number of students with IEPs in Ohio based on Ohio Department of Education data?

11. What percentage of youth with disabilities in Ohio are enrolled in SSI and how many are removed each year due to age-18 redetermination? How can OOD ensure that youth with disabilities are aware of this information and how can we engage them in VR services to better prepare them for employment and independence?

Job Goals and Work Experiences for SYWE Participants

Job Goals. Summer Youth Work Experiences are intended to be group-based services utilized to teach students with disabilities vocational skills and appropriate work behaviors. SYWE services may be provided on a 1-to-1 (one provider staff to one participant) basis to accommodate disability-related needs or based on a specific employment goal as identified by the VR Counselor. (OOD – VR Provider Manual)

It is understood that SYWE services are focused on development of general vocational skills and work behaviors rather than preparation to enter a specific occupation. Still, OOD sought information describing the extent to which work experiences aligned with the most common job goals among SYWE participants. The job goals of individuals who participated in SYWE services from 2015 through 2018 were extracted from the AWARE case management system to identify the most frequent job goals included on those participants' VR plans. Table 28 on the following page presents a summary of the results.

Table 28 - Top 7 Plan Goals for 2015-2018 SYWE Participants

Job Goal	Count	% of Total
Personal Care and Service Workers, All Other	948	12.4%
Stock Clerks, Sales Floor	661	8.6%
Stock Clerks and Order Fillers	374	4.9%
Combined Food Preparation and Serving Workers, Including Fast Food	341	4.5%
Customer Service Representatives	322	4.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	309	4.0%
Retail Salespersons	270	3.5%
All Other Goals	4,431	57.9%
Total	7,656	100.0%

The job goal of Personal Care and Service Workers, All Other appears as the most frequent goal among SYWE participants in each year from 2015 to 2018. Stock Clerks, Sales Floor appears as the second most frequent goal in each year. The remaining job goals listed appear in the top 10 each year in various positions, but combined across years these goals comprise the top seven overall, representing approximately 42 percent of all goals.

Work Experiences. Providers of Summer Youth Work Experiences offer a variety of opportunities for participants to learn general vocational skills and work behaviors. These opportunities encompass multiple types of employment in diverse settings. Table 29 below presents a summary of data provided by VR Program Specialists regarding the types of work experiences offered during the SYWE program in 2018. (OOD - 2018 SYWE Site Collection Tool)

Table 29 - Summer Youth Work Experience Job Types - 2018

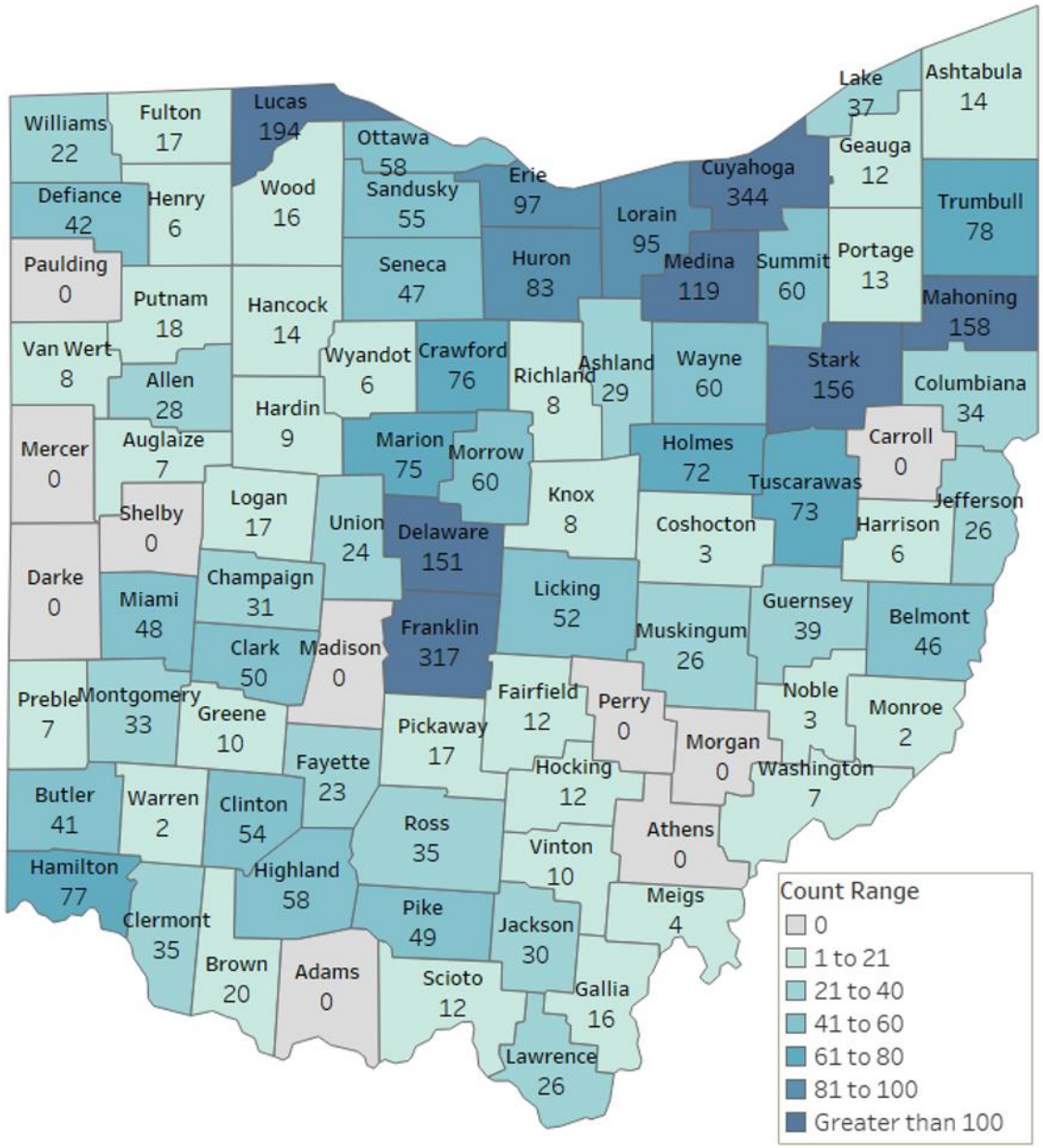
Job Type	Count	% of Total
Sorting/Stocking/Cleaning	379	29.0%
Custodial	192	14.7%
General Duties	135	10.3%
Food Prep/Kitchen	125	9.6%
Landscaping	106	8.1%
Housekeeping/Laundry	100	7.7%
Animal Care	46	3.5%
Customer Service	35	2.7%
Clerical	35	2.7%
Grocery Bagging/Cart Collection	33	2.5%
All Other Jobs	121	9.3%
Total	1307	100.0%

Although SYWE services are not necessarily intended to prepare participants for work in any specific occupation, there appears to be some alignment between participant job goals and the types of work experiences provided. For example, the top work experience offered (by count of openings) involves sorting and stocking duties. This is closely aligned with the second and third most frequent job goals of SYWE participants. There is also alignment in the areas of food

preparation, customer service representatives, and janitorial/custodial work.

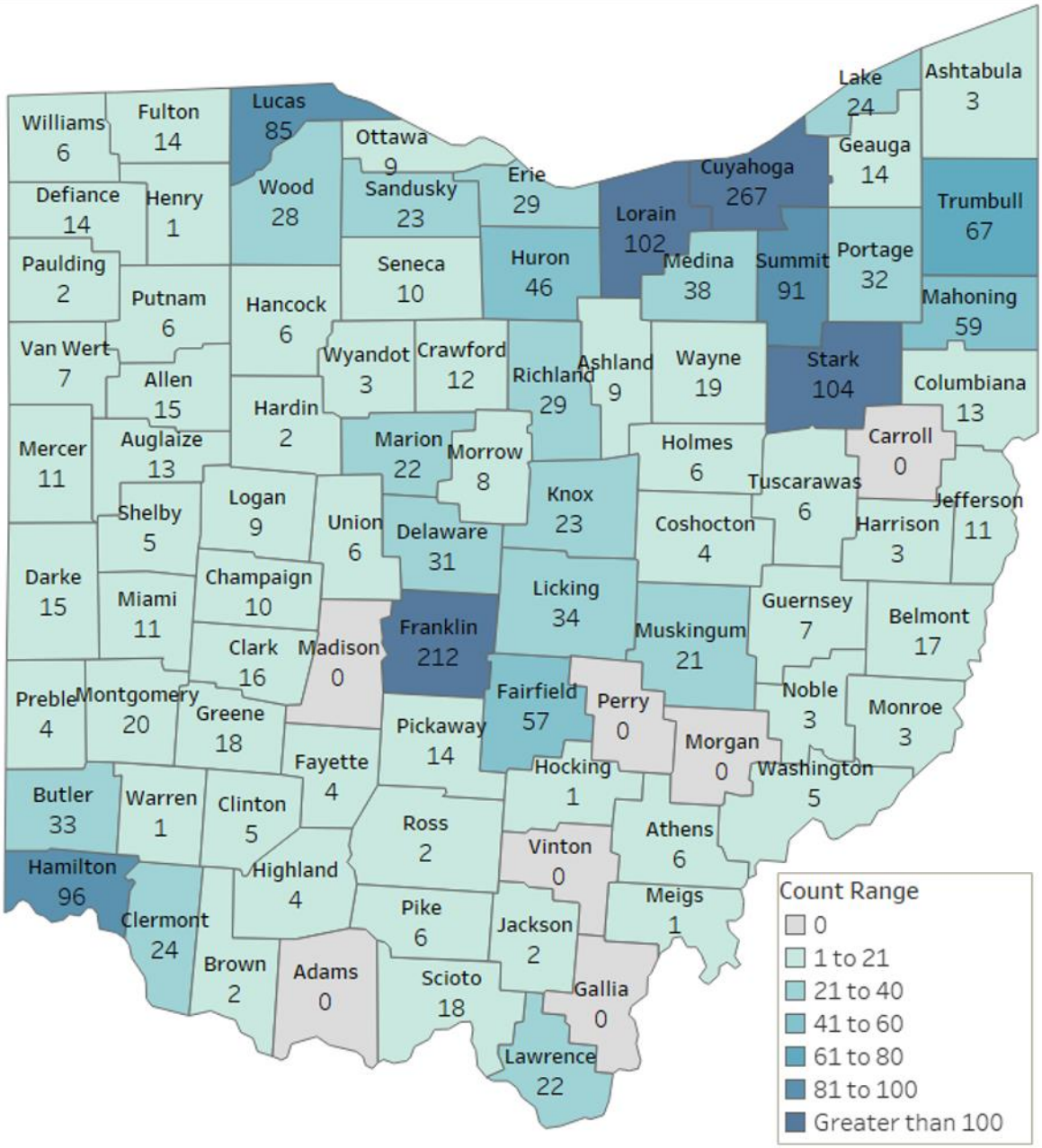
Geographic Distribution. Summer Youth Work Experiences were offered in 78 of Ohio's 88 counties in 2018. Map 14 below shows the count of SYWE openings offered in each county. Openings tend to be concentrated in the larger urban areas of the state, most notably Cuyahoga County (Cleveland) and Franklin County (Columbus).

Map 14
Summer Youth Work Experience Openings - 2018



2018 Summer Youth Work Experience participants reside in 81 of Ohio's 88 counties. Map 15 below shows the count of SYWE participants by county of residence. Consistent with the general distribution of the Ohio population, SYWE participants tend to be concentrated in the larger urban areas of the state, most notably Cuyahoga county (Cleveland) and Franklin county (Columbus).

Map 15
Summer Youth Work Experience Participant Locations - 2018



Geographic Balance Ratio. Combining the SYWE openings data with the participant county of residence data allows the development of balance ratios describing the geographic alignment of opportunities with the demand for services. The number of openings in each county was divided into the total number of openings statewide to determine each county's percentage of total openings. The same method was used to determine each county's percentage of total participants. The difference between the opening percentage and participant percentage determines each county's balance ratio, as shown in Map 16 below and in Table 30 on the following page.

Map 16
Summer Youth Work Experience Balance Ratios - 2018

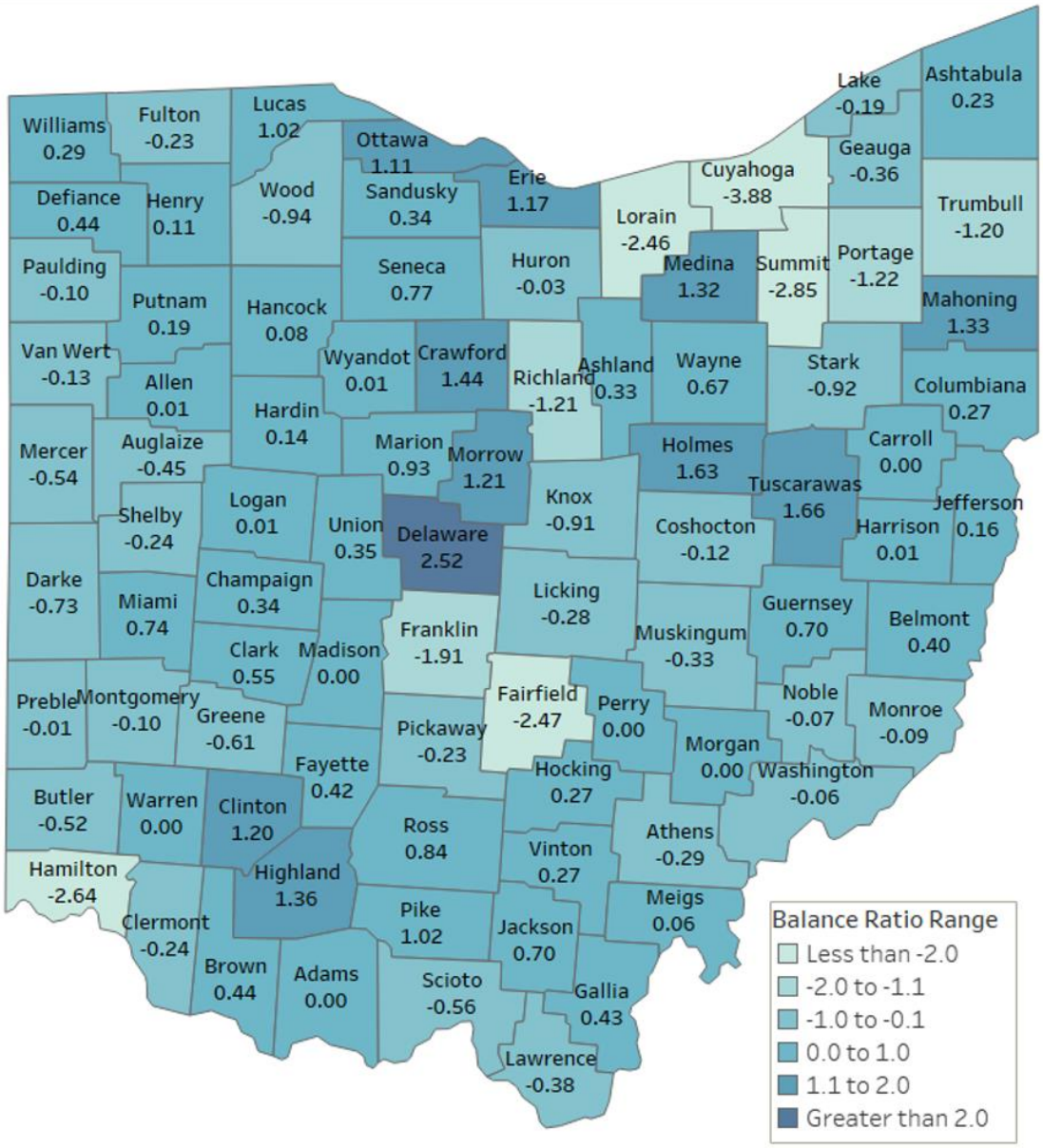


Table 30 - Balance Ratios for Summer Youth Work Experience Services by County - 2018

County	Balance Ratio	County	Balance Ratio	County	Balance Ratio	County	Balance Ratio
Adams	0	Fairfield	-2.47	Licking	-0.28	Portage	-1.22
Allen	0.01	Fayette	0.42	Logan	0.01	Preble	-0.01
Ashland	0.33	Franklin	-1.91	Lorain	-2.46	Putnam	0.19
Ashtabula	0.23	Fulton	-0.23	Lucas	1.02	Richland	-1.21
Athens	-0.29	Gallia	0.43	Madison	0	Ross	0.84
Auglaize	-0.45	Geauga	-0.36	Mahoning	1.33	Sandusky	0.34
Belmont	0.4	Greene	-0.61	Marion	0.93	Scioto	-0.56
Brown	0.44	Guernsey	0.7	Medina	1.32	Seneca	0.77
Butler	-0.52	Hamilton	-2.64	Meigs	0.06	Shelby	-0.24
Carroll	0	Hancock	0.08	Mercer	-0.54	Stark	-0.92
Champaign	0.34	Hardin	0.14	Miami	0.74	Summit	-2.85
Clark	0.55	Harrison	0.01	Monroe	-0.09	Trumbull	-1.2
Clermont	-0.24	Henry	0.11	Montgomery	-0.1	Tuscarawas	1.66
Clinton	1.2	Highland	1.36	Morgan	0	Union	0.35
Columbiana	0.27	Hocking	0.27	Morrow	1.21	Van Wert	-0.13
Coshocton	-0.12	Holmes	1.63	Muskingum	-0.33	Vinton	0.27
Crawford	1.44	Huron	-0.03	Noble	-0.07	Warren	0
Cuyahoga	-3.88	Jackson	0.7	Ottawa	1.11	Washington	-0.06
Darke	-0.73	Jefferson	0.16	Paulding	-0.1	Wayne	0.67
Defiance	0.44	Knox	-0.91	Perry	0	Williams	0.29
Delaware	2.52	Lake	-0.19	Pickaway	-0.23	Wood	-0.94
Erie	1.17	Lawrence	-0.38	Pike	1.02	Wyandot	0.01

A balance ratio of 0.0 indicates that the percentage of participants is in exact proportion to the percentage of openings for the selected county. A negative value indicates that the percentage of participants is lower than the percentage of openings. A positive value indicates that the percentage of participants is higher than the percentage of openings. As shown in Table 31 below, only five counties have a balance ratio less than -2.0, and 66 counties are within one percent of perfect balance. This indicates that there is an excellent balance statewide of Summer Youth Work Experience openings to the number of participants seeking that service.

Table 31 - Number of Counties by Balance Ratio of Summer Youth Work Experience Services - 2018

Balance Ratio	Number of Counties
Less than -2.0	5
-2.0 to -1.1	4
-1.0 to -0.1	28
0.0 to 1.0	38
1.1 to 2.0	12
Greater than 2.0	1

Services to Students and Employment Outcomes

In 2015, OOD formalized a progressive career development path for students with disabilities who applied for VR services through its Transition Services procedure (80-VR-11-12). Progressive career development services are designed to support a student with a disability to successfully transition from school to work. The services are intended to be delivered sequentially to help a student move from basic developmental activities to those requiring more skills and increased independence. Typical services provided include Summer Youth - Career Exploration, Summer Youth Work Experiences and Non-permanent Job Development (services to facilitate after-school or summer employment opportunities for students with disabilities), all of which align with the newly-defined pre-employment transition services.

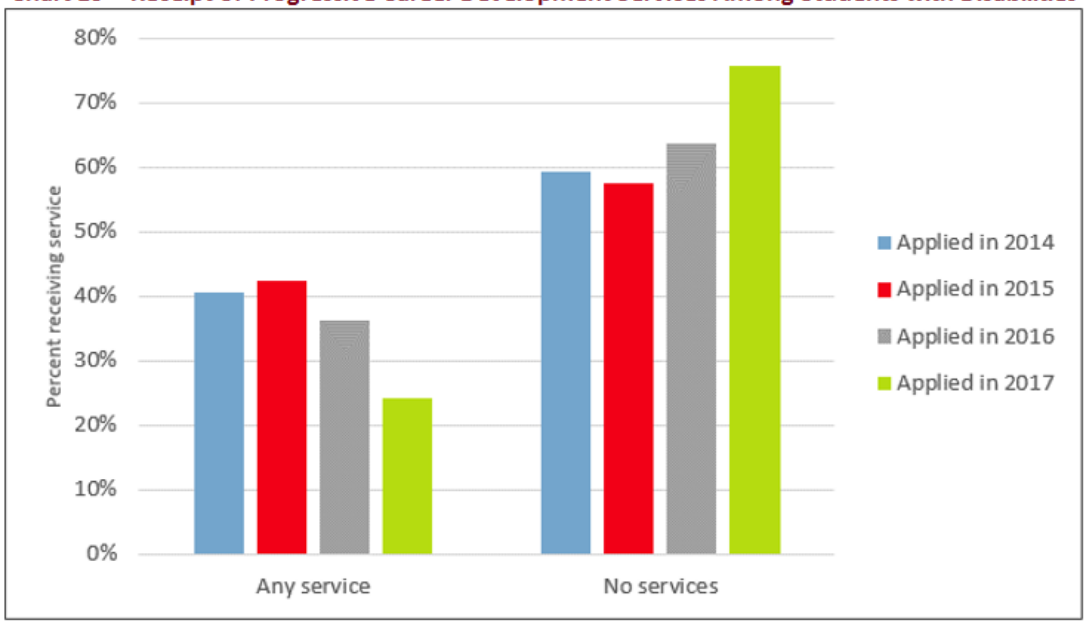
Mathematica Policy Research on Progressive Career Development Services. In 2017, OOD partnered with Mathematica Policy Research to specifically address the following questions related to its Transition Services procedure:

1. The extent to which students with disabilities are receiving progressive career development services; and
2. Whether progressive career development services improve outcomes for students with disabilities.

To conduct this analysis, Mathematica examined service receipt and case status data among students with disabilities who applied for OOD services during federal fiscal years 2014 to 2017 and signed an Individualized Plan for Employment. Mathematica utilized the VR Program Evaluation Coach, a statistical analysis tool, to compare outcomes between students with disabilities who received one or more of the progressive career development services (treatment group) and students with disabilities who did not receive one or more of the progressive career development services (comparison group) to determine if the service resulted in improved outcomes. In this analysis, the improved outcome was defined as continued engagement with VR.

Service data was limited to include only purchased services. OOD also provided non-purchased services to students, and these services are not reflected in the data. While many students received one or more purchased progressive career development services, a majority had not received any of these services. Chart 13 below illustrates the receipt of any progressive career development service among OOD participants with an IPE that were students with disabilities at application.

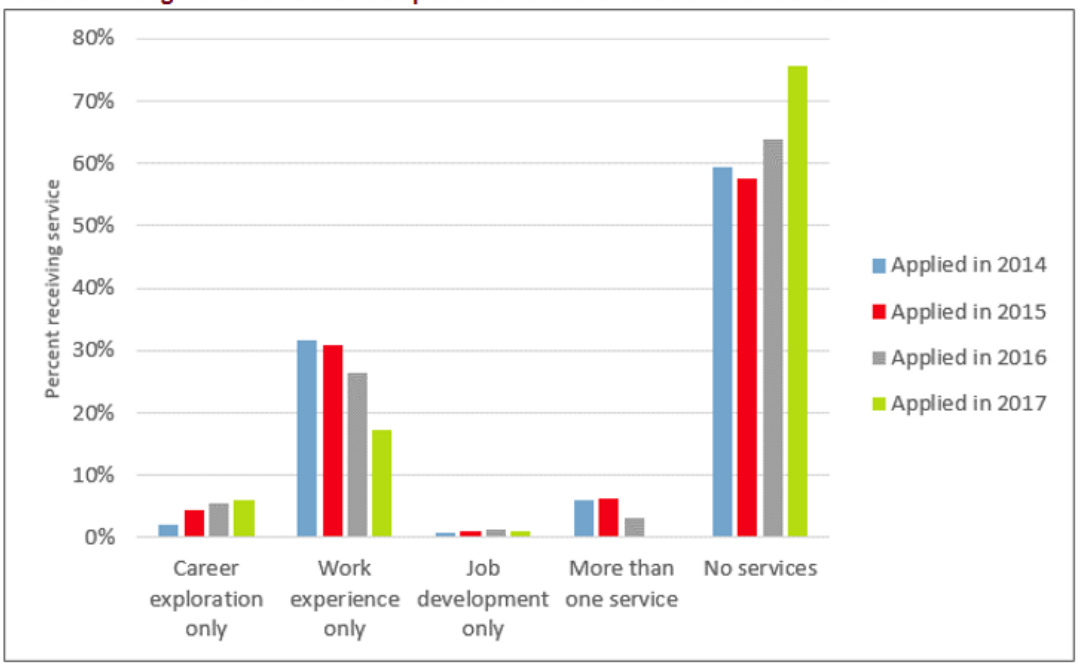
Chart 13 - Receipt of Progressive Career Development Services Among Students with Disabilities



The rate of receipt fluctuates by application year, partly reflecting the roll-out of progressive career development in 2015 but also highlighting that more recent applicants have not had open cases for as long; as of the date of this analysis most still had open cases (22 percent of 2014 applicants, 47 percent of 2015 applicants, 80 percent of 2016 applicants, and 99 percent of 2017 applicants). Among 2017 applicants, 24 percent had received at least one service.

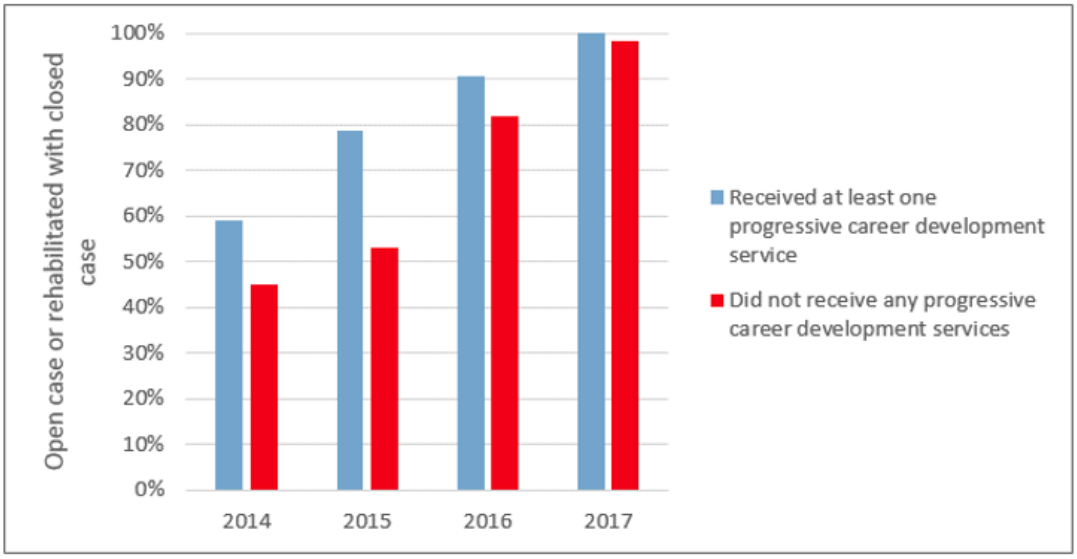
Just over 30 percent of 2014 and 2015 applicants with an IPE received only a summer youth work experience, as shown on Chart 14 on the following page. While career exploration was authorized much less frequently, receipt is higher among more recent applicants. Non-permanent job development was authorized the least and about 5 percent of students received more than one of the three services.

Chart 14 - Progressive Career Development Services for Students with Disabilities



A comparison of case status in September 2017 suggests that students who received at least one of the services are more likely to continue engagement with VR, even for those who applied as early as 2014. That is, they are less likely to have their case closed for reasons other than rehabilitation and are more likely to still be receiving services or have closed rehabilitated. Chart 15 below illustrates the percentages of cases, by year of application, which were open as of September 2017 or had closed with a successful rehabilitation outcome. (Mathematica, 2018)

Chart 15 - Percent of Participants with Open Cases or Rehabilitated with Closed Cases in September 2017, by Receipt of Any Summer Youth Transition Services



VR Program Evaluation Coach – Service Analysis. The CSNA team conducted a secondary analysis utilizing the VR Program Evaluation Coach to determine if a specific transition service or services have an increased probability of leading to job readiness, placement in employment or a successful closure. The CSNA team compared outcomes between students with disabilities who received the specific transition service (treatment group) and students with disabilities who did not receive the specific transition service (comparison group) to determine if the service resulted in a greater probability of one of the three outcomes.

The program evaluation used a matched comparison design. Students in both the treatment and comparison groups had similar observable characteristics, controlling for age at application, whether the student was receiving services under an Individualized Education Program (IEP), disability priority category (Most Significant Disability, Significant Disability, and Disability), gender and race. The population in both groups was limited to only those students whose cases had closed prior to the evaluation. The team tested four transition-specific services: Summer Youth - Career Exploration, Summer Youth Work Experience, School-based Job Readiness Training and Non-permanent Job Development.

Summer Youth Work Experience services are intended to help students with disabilities become job ready by assisting them to obtain vocational skills, learn appropriate work behaviors and communication and interpersonal skills. The team tested whether receipt of the service increased the probability that the student achieved job readiness or started employment as compared to students with disabilities who did not receive the service. Results indicate there is a 12 percent probability that receipt of this service has an impact on these outcomes.

Two of the four services - Summer Youth Work Experience and Summer Youth Career Exploration, did not appear to have a correlation with the student obtaining an employment outcome. The team also evaluated whether multiple summer youth work experiences increased the likelihood of an employment outcome and found a 21 percent probability that receiving more than one summer youth work experience improved employment outcomes.

By comparison, School-based Job Readiness Training and Non-permanent Job Development resulted in 100 percent and 98 percent probability, respectively, that receipt of these services did have a positive impact on increasing employment outcomes.

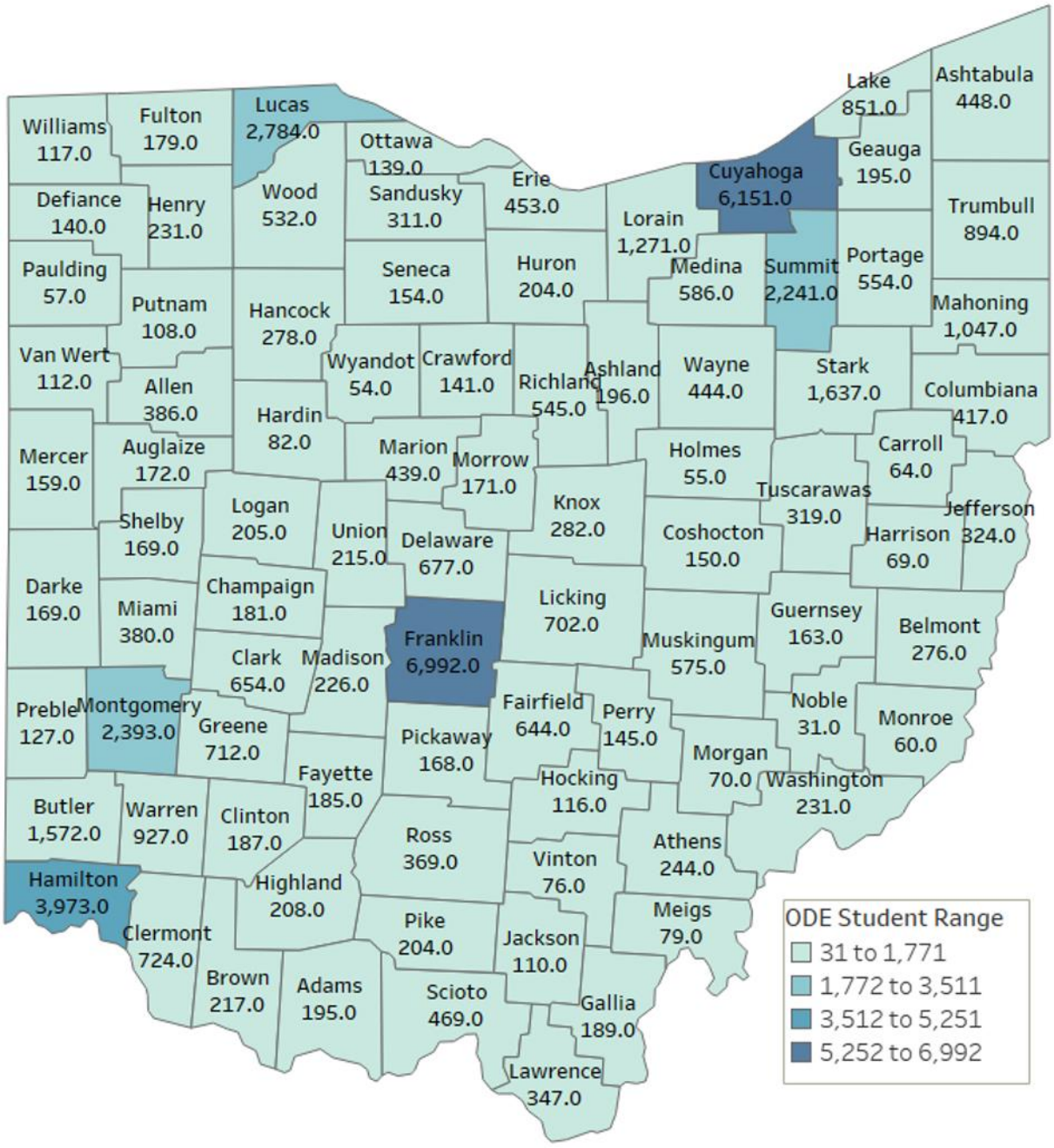
School-based Job Readiness Training is a series of several short-term rotations or internships that take place at a host business and are intended to prepare participants to be job ready and to secure permanent employment. Non-permanent Job Development is a service to help a student with a disability obtain summer or after-school employment, typical of jobs that students without disabilities may experience. One explanation for this result could be that the two services with a greater probability of increasing employment outcomes more closely resemble the workplace, include direct involvement with an employer, and allow for more independent completion of work activities.

Balance Ratio of OOD Services to the Ohio Student Population

In serving students with disabilities, OOD seeks to allocate resources in a manner that reflects the distribution of individuals in need of services. One way to measure OOD's effectiveness in doing so is to examine the balance between the number of students with disabilities in each Ohio county and the number of students with disabilities who are being served by OOD in each county. If OOD has distributed resources appropriately, the percentage of students served in each county as a proportion of the total number of students served statewide should approximate the percentage of students with disabilities in each county as a proportion of the total number of students with disabilities statewide.

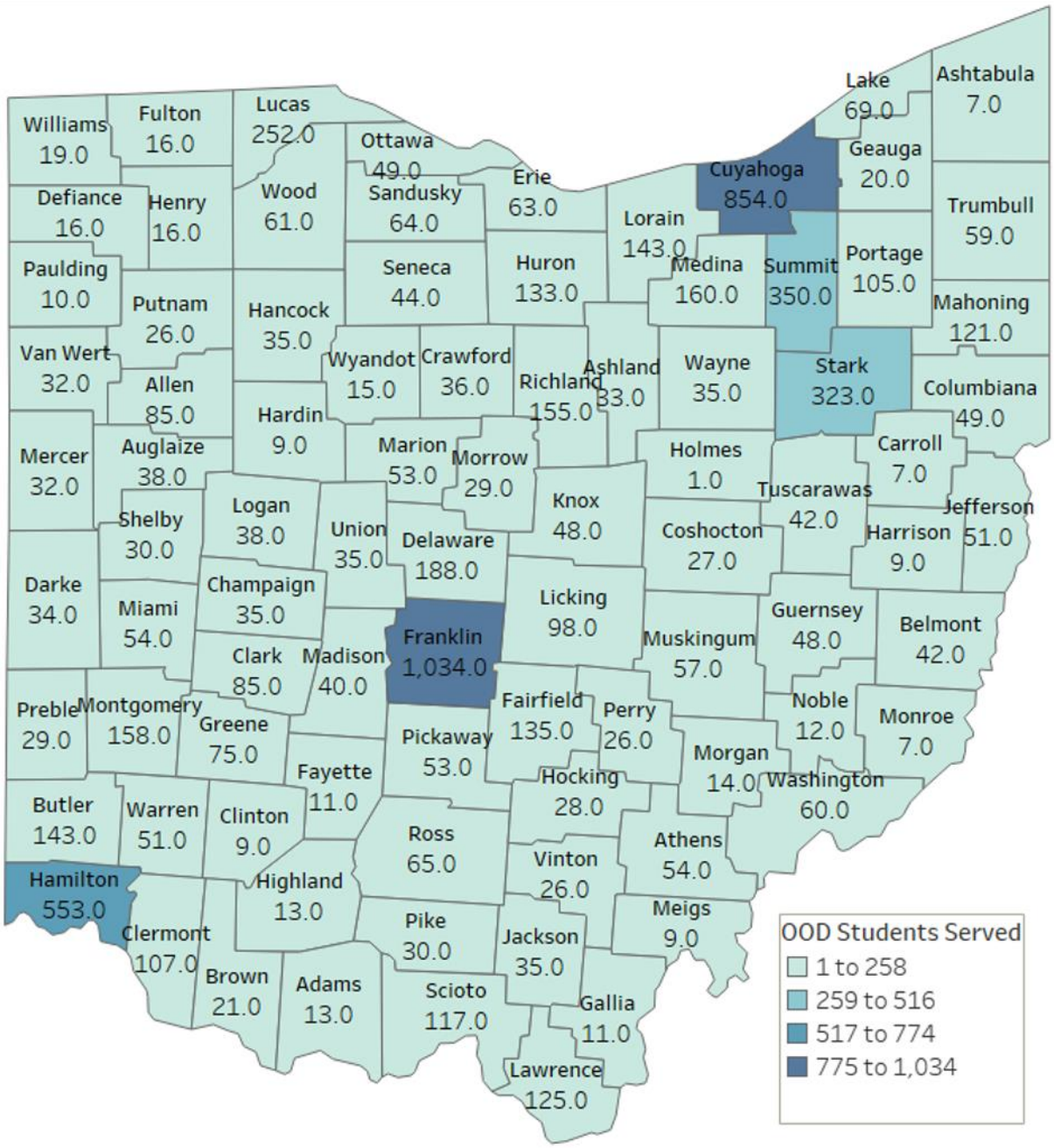
ODE Student Counts. To measure this balance, OOD obtained data from the Ohio Department of Education (ODE) regarding the number of students with disabilities that reside in each Ohio county. The total statewide number of students with disabilities reported by ODE for the 2015 – 2016 school year was 52,695. Map 17 on the following page presents the number of students with disabilities in each county during that school year. As expected, this data shows the highest concentration of students with disabilities in large urban centers, most notably Franklin County (Columbus) and Cuyahoga County (Cleveland). (Ohio Department of Education, 2017).

Map 17
ODE Students with Disabilities - 2016



Students Served by OOD. The number of students with disabilities served by OOD as of June 30, 2016 was extracted from the AWARE case management system. For this analysis, a student with a disability was defined as an individual who was at least 14 years of age and not yet 22 years of age at the time they applied for OOD services; entered service status prior to June 30, 2016; was being served on an open case as of June 30, 2016 and under an Individualized Education Program (IEP); and had an open education goal (below master's level education) prior to the date on which the individual turned 22 years of age. In total, 7,609 individuals were identified as students with disabilities being served by OOD as of June 30, 2016. Map 18 on the following page presents the number of students with disabilities served by OOD in each county. The distribution of students served by OOD is consistent with the distribution of the students with disabilities population, with concentrations in large urban centers. (OOD – AWARE)

Map 18
OOD Students Served - 2016



Balance Ratios for Students with Disabilities. To determine the extent to which OOD service delivery to students with disabilities is in balance with the statewide distribution of students with disabilities, balance ratios were calculated for each of Ohio's 88 counties. Map 19 below and supporting Table 32 on the following page presents the balance ratio for each county.

Map 19
Students with Disabilities Balance Ratios - 2016

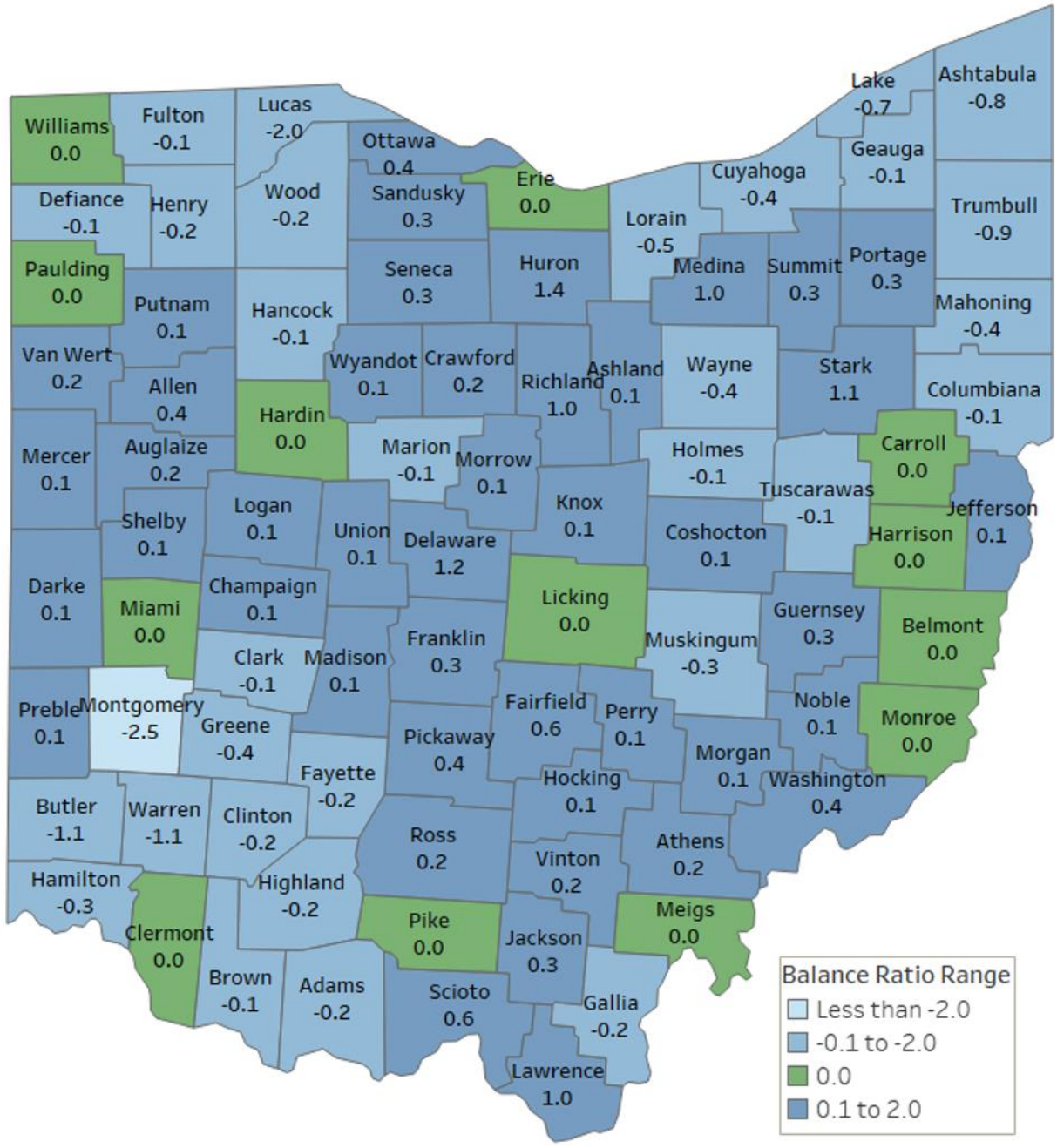


Table 32 - Balance Ratios for Services to Students with Disabilities by County - 2016

County	Balance Ratio	County	Balance Ratio	County	Balance Ratio	County	Balance Ratio
Adams	-0.2	Fairfield	0.6	Licking	0.0	Portage	0.3
Allen	0.4	Fayette	-0.2	Logan	0.1	Preble	0.1
Ashland	0.1	Franklin	0.3	Lorain	-0.5	Putnam	0.1
Ashtabula	-0.8	Fulton	-0.1	Lucas	-2.0	Richland	1.0
Athens	0.2	Gallia	-0.2	Madison	0.1	Ross	0.2
Auglaize	0.2	Geauga	-0.1	Mahoning	-0.4	Sandusky	0.3
Belmont	0.0	Greene	-0.4	Marion	-0.1	Scioto	0.6
Brown	-0.1	Guernsey	0.3	Medina	1.0	Seneca	0.3
Butler	-1.1	Hamilton	-0.3	Meigs	0.0	Shelby	0.1
Carroll	0.0	Hancock	-0.1	Mercer	0.1	Stark	1.1
Champaign	0.1	Hardin	0.0	Miami	0.0	Summit	0.3
Clark	-0.1	Harrison	0.0	Monroe	0.0	Trumbull	-0.9
Clermont	0.0	Henry	-0.2	Montgomery	-2.5	Tuscarawas	-0.1
Clinton	-0.2	Highland	-0.2	Morgan	0.1	Union	0.1
Columbiana	-0.1	Hocking	0.1	Morrow	0.1	Van Wert	0.2
Coshocton	0.1	Holmes	-0.1	Muskingum	-0.3	Vinton	0.2
Crawford	0.2	Huron	1.4	Noble	0.1	Warren	-1.1
Cuyahoga	-0.4	Jackson	0.3	Ottawa	0.4	Washington	0.4
Darke	0.1	Jefferson	0.1	Paulding	0.0	Wayne	-0.4
Defiance	-0.1	Knox	0.1	Perry	0.1	Williams	0.0
Delaware	1.2	Lake	-0.7	Pickaway	0.4	Wood	-0.2
Erie	0.0	Lawrence	1.0	Pike	0.0	Wyandot	0.1

OOD's allocation of resources to serve students with disabilities appears to be well balanced with respect to where students with disabilities reside in Ohio. A ratio of 0.0 represents perfect balance between the percentage of the statewide total of students served by OOD and the percentage of the statewide students with disabilities as reported by ODE. Only one county, Montgomery, has a balance ratio greater than 2 percentage points from 0.0 at -2.5. The remaining 87 counties are within 2 percentage points, indicating a high degree of balance across the state. Table 33 below summarizes the number of counties within each balance ratio range.

Table 33 - Number of Counties by Balance Ratio of Services to Students with Disabilities - 2016

Balance Ratio	Number of Counties
Less than -2.0	1
-2.0 to -0.1	30
0.0	13
0.1 to 2.0	44

Youth with Disabilities and Supplemental Security Income

It is OOD's mission to provide individuals with disabilities opportunities to achieve quality employment and to live independently. In many cases, the individuals receiving services through the VR program are also recipients of Supplemental Security Income (SSI) from the Social Security Administration (SSA), and may have come to rely on those resources as a means of supporting themselves and their families financially. According to SSA data, there were 310,318 SSI recipients in Ohio in December 2016. (Social Security Administration, Table 7.B1, 2018) Of those recipients, 45,434 were under the age of 18. (Social Security Administration, Table 7.B8, 2018) According to the U.S. Census 5-year population projections for 2016, there were 129,502 individuals with disabilities in Ohio under the age of 18, indicating that approximately 35 percent of youth with disabilities in Ohio receive SSI.

Reliance on SSI, however, may not be a guaranteed strategy for long-term financial support. When a child SSI recipient reaches age 18, SSA requires that their claim be re-determined under the rules that pertain to adult disability determinations. The adult rules can differ significantly from those that apply to child claims, potentially disqualifying the individual from receiving continued SSI payments. According to SSA, between 1998 and 2008, 47.8 percent of child recipients of SSI experienced a cessation of benefits upon redetermination at age 18. (Hemmeter & Stegman Bailey, 2015) Applying this percentage to the figures cited above, approximately 21,717 of the youth who received SSI in 2016 will experience a cessation of benefits upon age-18 redetermination. Because they may not be prepared for employment when benefits are ceased, approximately half of child SSI recipients are left with no means to support themselves in adulthood, with 9.4 percent returning to SSI within 10 years. (Hemmeter & Stegman Bailey, 2015)

OOD's VR program has the potential to affect change in this environment, enabling youth recipients of SSI and their families to become better prepared for life without those benefits. One path to improved outcomes may be through postsecondary education. In 2007, SSA conducted a study in cooperation with the National Technical Institute for the Deaf (NTID) examining the outcomes achieved by SSI youth who applied for postsecondary education at NTID. The results of this study indicate that SSI students do have a lower probability of graduation than non-SSI students, suggesting that postsecondary retention programs developed specifically for SSI youth may be an effective intervention. SSI youth who do graduate achieve higher earnings than those who do not graduate and receive adult SSI for a shorter period of time.

Perhaps the most compelling result of this study addresses the outcomes achieved by graduates in comparison to those who did not attend NTID at all. The study authors noted that "[c]ompared with SSI children who were accepted to NTID but chose not to attend, SSI children who graduated from NTID left the SSI program 19 months earlier, were less likely to reenter the program, and at age 30 had increased their earnings by an estimated 49 percent." (Weathers, et al, 2007) Those differences are significant and strongly suggest that a potential strategy for reducing dependence on SSI among youth recipients is to emphasize postsecondary education as a path to employment.

Outreach and information efforts may form another path to improving employment outcomes among youth recipients of SSI. As authorized by WIOA, VR is now able to deliver Pre-Employment Transition Services (Pre-ETS) to students with disabilities who are *potentially eligible* for VR services. This includes delivering additional authorized activities related to disseminating information, as suggested in OOD's proposed demonstration project between the Division of Disability Determination and VR to permit provision of VR program information to SSI recipients as part of the age-18 redetermination process. Additional authorized services under Pre-ETS also encourage coordination with local education agencies, and building upon existing partnerships with the Ohio Department of Education could provide a framework under which OOD can increase involvement with youth recipients of SSI. When ready, the youth can then be engaged in more formal VR services related to job development and placement.

Findings

Findings related to services to youth and students with disabilities are as follows:

1. Despite the fact that SYWE services are not intended to prepare participants for work in any specific occupation, there appears to be some alignment between participant job goals and the types of work experiences provided, particularly in the areas of sorting/stocking jobs, food preparation, customer service representatives, and janitorial/custodial work.

2. In evaluating the geographic distribution of SYWE services, only five counties have a balance ratio less than -2.0, and 66 counties are within one percent of perfect balance. This indicates that there is an excellent balance statewide of Summer Youth Work Experience openings to the number and location of participants seeking that service.

3. Services for students with disabilities that include experiences that closely resemble the workplace are more closely correlated with the

achievement of an employment outcome. Students who receive School-based Job Readiness Training and Non-permanent Job Development services are shown to have a very high probability, 100 percent and 98 percent, respectively, of increasing the likelihood of an employment outcome.

4. OOD's allocation of resources to serve students with disabilities appears to be well balanced with respect to where students with disabilities reside in Ohio. Eighty-seven of Ohio's 88 counties are within 2 percentage points, indicating a high degree of balance across the state.

5. Approximately 35 percent of youth with disabilities in Ohio receive SSI. In the 10-year period from 1998 to 2008, approximately 47.8 percent of youth recipients experienced a cessation of benefits upon age-18 redetermination.

Section VIII.

Industry Growth and Employer Engagement

WIOA now requires VR programs to expand the scope of their efforts to include services targeted toward increasing employer engagement with the disability population. OOD has addressed these requirements through a number of initiatives, including the establishment of the Business Relations Unit.

With the goal of creating opportunities for employment in competitive integrated settings and fostering long-term success for individuals with disabilities, Business Relations Specialists (BRSs) attempt to identify businesses who are likely to have job openings either in the form of replacing existing employees as they leave or in the form of additional job growth as the business expands. To the extent that these activities can be anticipated, BRSs can target their efforts toward employers who are likely to generate sustainable employment opportunities for individuals with disabilities. The CSNA seeks to inform this effort by addressing the following questions:

12. What industry sectors exhibit the most growth potential in Ohio?

13. What are the gaps in alignment of VR participant job goals with growth industries?

14. What services are most needed by businesses in relation to staff education and awareness of disability issues, and to support retention of employees with disabilities?

Industry Growth

The CSNA Team conducted an analysis of projected industry growth across Ohio to determine which industries have the potential to provide the most jobs for Ohioans in the future, and compared them to current OOD participants' IPE goals to identify how they align or misalign with growth. The purpose of this analysis is to provide tools and resources that can assist counselors and participants to select employment goals that have the greatest likelihood for success, and to inform decisions about business partnership development.

Method. Industry growth data were collected from the Ohio Department of Job and Family Services' Office of Workforce Development, Bureau of Labor Market Information, and grouped by the six JobsOhio regions. Each of the JobsOhio regions are anchored by a major Ohio city and grouped by economic co-dependency of adjacent counties.

Data Presentation. The data are presented in two ways: "job opportunities," which consists of annual newly-created jobs plus annual replacements; and "job growth," which consists of newly-created jobs only. Both presentations of data are useful in different ways. Job opportunities include those sectors with more entry-level

jobs that exhibit higher turn-over, which may be a factor for job seekers who are interested in obtaining employment more quickly. Job growth represents job creation and these jobs may require a higher level of skill or education to attain. These factors may be considered for students who are enrolled in secondary school, where career development, as opposed to immediate employment, is the primary focus.

Analysis. When considering job growth, health care represents the largest industry by far, with multiple occupations within the sector identified as having the greatest potential for job creation: Home Health Aides, Registered Nurses, Nursing Assistants, Medical Secretaries and Licensed Practical and Licensed Vocational Nurses, topping the list. The growth for this industry represents nearly 44 percent of all new jobs with nearly 12,000 projected to be created in the next year. Other industry sectors with high growth include Professional, Scientific and Technical Services with more than 15 percent of all new jobs (4,199 jobs), primarily in computer systems and software development; Food Service at nearly 11 percent of all new jobs (2,946 jobs); and Transportation and Warehousing with more than 7 percent (1973 jobs), primarily in Laborers/Freight/Stock/Material Movers and Truck Drivers.

Map 20 on the following page shows the total number of new jobs projected each year in each JobsOhio region through 2024. Table 34 provides the top five occupations by projected job growth in each region.

Map 20
Annual Occupation Growth by JobsOhio Region Through 2024

Table 34 - Top 5 Occupations by Projected Job Growth and JobsOhio Region Through 2024

Occupation	Annual New Jobs
Northwest Region	
Home Health Aides	219
Registered Nurses	192
Nursing Assistants	111
Combined Food Prep & Service Workers, incl. Fast Food	110
Medical Secretaries	86
West Region	
Registered Nurses	216
Nursing Assistants	122
Combined Food Prep & Service Workers, incl. Fast Food	107
Medical Secretaries	83
Licenses Practical and Licensed Vocational Nurses	82
Southwest Region	
Home Health Aides	285
Registered Nurses	278
Combined Food Prep & Service Workers, incl. Fast Food	212
Nursing Assistants	208
Customer Service Representatives	132
Central Region	
Home Health Aides	648
Registered Nurses	388
Customer Service Representatives	206
Combined Food Prep & Service Workers, incl. Fast Food	205
Nursing Assistants	179
Northeast Region	
Home Health Aides	1,071
Registered Nurses	732
Nursing Assistants	413
Combined Food Prep & Service Workers, incl. Fast Food	345
Medical Secretaries	309
Southeast Region	
Home Health Aides	283
Registered Nurses	125
Nursing Assistants	75
Combined Food Prep & Service Workers, incl. Fast Food	65
Retail Salespersons	59

When considering job opportunities (new jobs plus replacements), a different set of occupations rises to the top. These include Combined Food Prep & Service Workers, including Fast Food; Retail Salespersons; Cashiers; Waiters and Waitresses; and Registered Nurses. Together, these occupations are expected to generate 26,953 open positions annually. Map 21 on the following page shows the total number of new jobs plus replacements projected each year in each JobsOhio region through 2024. Table 35 provides the top five occupations by projected job growth plus replacements in each region.

Map 21
Annual Occupation Growth + Replacements by JobsOhio Region Through 2024

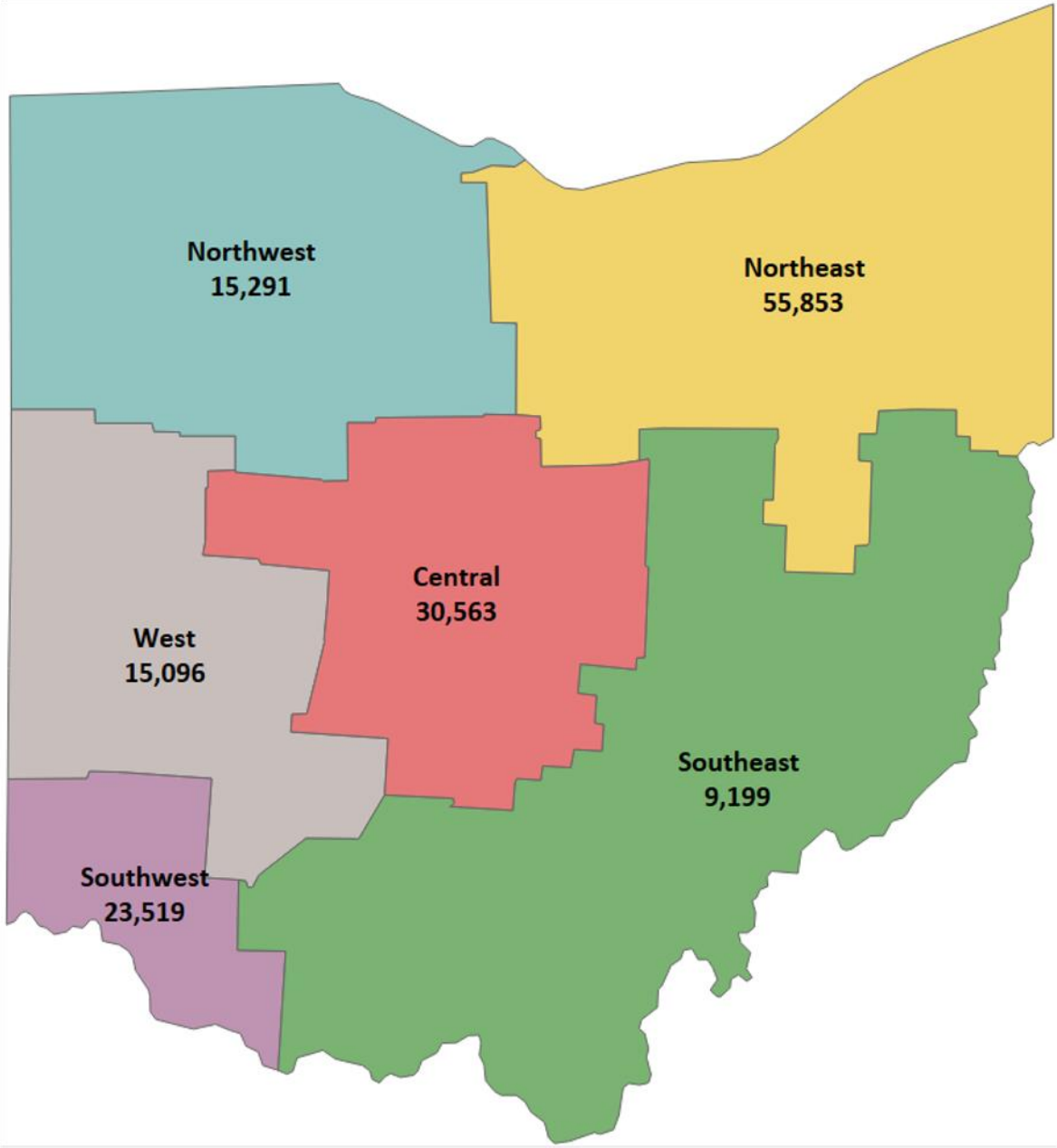


Table 35 - Top 5 Occupations by Projected Job Growth + Replacements and JobsOhio Region Through 2024

Occupation	Annual Opportunities
Northwest Region	
Combined Food Prep & Service Workers, incl. Fast Food	690
Retail Salespersons	629
Cashiers	526
Waiters and Waitresses	519
Registered Nurses	488
West Region	
Combined Food Prep & Service Workers, incl. Fast Food	667
Retail Salespersons	616
Cashiers	566
Registered Nurses	516
Waiters and Waitresses	485
Southwest Region	
Combined Food Prep & Service Workers, incl. Fast Food	928
Retail Salespersons	837
Waiters and Waitresses	760
Registered Nurses	728
Cashiers	698
Central Region	
Combined Food Prep & Service Workers, incl. Fast Food	1,257
Retail Salespersons	1,092
Waiters and Waitresses	1,011
Home Health Aides	993
Registered Nurses	964
Northeast Region	
Retail Salespersons	2,264
Combined Food Prep & Service Workers, incl. Fast Food	2,211
Cashiers	1,904
Registered Nurses	1,898
Home Health Aids	1,696
Southeast Region	
Cashiers	451
Home Health Aides	428
Retail Salespersons	425
Combined Food Prep & Service Workers, incl. Fast Food	387
Registered Nurses	319

VR Participant Job Goal Alignment With Projected Industry Growth. The CSNA team then compared goals on OOD participants' Individualized Plans for Employment to the industries with the greatest potential for growth to identify possible alignment or misalignment. The most significant area of misalignment includes the health care industry with only approximately 5.52 percent of IPEs with a goal in that field, compared to a projected growth of nearly 44 percent of all new jobs created. Another area of misalignment includes Professional, Scientific and Technical Services, with approximately 5.54 percent of IPEs with a goal in that field, compared to a projected growth of 15.42 percent of new jobs. OOD participants' job goals aligned comparably with industry growth projections in Food Service at 11.6 percent of job goals compared to 10.82 percent of all new jobs created.

These comparisons can also be stated in terms of balance ratios comparing the percent of total growth in a given industry sector to the percent of total job goals in that sector. Table 36 below provides the industry sectors with the highest and lowest balance ratios. Balance ratios closer to 0.0 represent more equal distributions of annual job growth and plan goal percentages. Balance ratios above zero represent industries where job goals exceed new job openings. Those below zero represent industries where job openings exceed job goals.

Table 36 - Highest and Lowest Plan Goal-to-Projected Industry Growth Balance Ratios

NAICS Industry	Count of Annual New Jobs	Count of Plan Goals	Industry Balance Ratio
Administrative and Support	432	1,965	23.20
Manufacturing	-1,296	531	11.46
Retail Trade	1,340	1,021	7.96
Other Services	2,355	1,206	6.56
Transportation and Warehousing	1,926	914	4.46
Construction	1,643	149	-4.15
Educational Services	1,673	137	-4.42
Professional, Scientific and Technical Services	3,869	439	-8.67
Health Care and Social Assistance	12,068	438	-38.79

When comparing participants' job goals to industry growth projection, the most significant areas of oversaturation include Administrative and Support, Manufacturing, Retail Trade, Other Services, and Transportation and Warehousing. In each of these areas, the percentage of participants' IPEs with a job goal in that industry significantly outstrips the percentage of new jobs projected to be created.

When drilling down to occupations within the Administrative and Support industry, nearly 600 OOD participants have a goal of Customer

Service Representative on their IPE; 470 have a goal of Janitors and Cleaners, and 284 have a goal of Office Clerks, General. New job creation projections for those occupations are 519, 351 and 185, respectively. Another area where OOD participants' job goals significantly outstrip potential new job opportunities is in Personal Care and Service Workers, All Other. There are more than 400 OOD participants with this job goal, but only 2 new jobs expected to be created in the next year. According to the Bureau of Labor Statistics, the workforce is comprised of approximately 3.7 percent of workers with disabilities. Given this ratio, it appears unlikely that all or even most OOD participants with these job goals will be successful in obtaining employment in their chosen field. Table 37 below provides the occupations with five highest balance ratios in comparison to projected industry growth.

Table 37 - Five Highest Plan Goal-to-Projected Growth Balance Ratios

Job Description	Count of Annual New Jobs	Count of Plan Goals	Job Balance Ratio
Stock Clerks and Order Fillers	138	882	10.62
Customer Service Representatives	519	599	5.65
Personal Care and Service Workers, All Other	2	405	5.10
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	351	470	4.64
Office Clerks, General	185	284	2.90
Total	**1,195**	**2,640**	

At the other end of the balance ratio spectrum are occupations for which projected growth far outstrips participant plan goals. These are dominated by occupations in the health care industry, as is suggested by the industry analysis above. The occupations with the five lowest balance ratios comparing job goals to projected industry growth are shown on the following page in Table 38. These may represent the industries and occupations that the Business Relations Unit should target to create employer partnerships and establish sustainable employment opportunities for individuals served by VR.

Table 38 - Five Lowest Plan Goal-to-Projected Growth Balance Ratios

Job Description	Count of Annual New Jobs	Count of Plan Goals	Job Balance Ratio
Licensed Practical and Licensed Vocational Nurses	713	22	-2.34
Medical Secretaries	798	4	-2.88
Nursing Assistants	1,108	63	-3.27
Registered Nurses	1,931	25	-6.78
Home Health Aides	2,506	20	-8.95
Total	**7,056**	**134**	

Findings

Findings derived from the Industry Analysis data presented above include:

1. Industries that are projected to grow the most in terms of new job creation in Ohio are Health Care and Social Assistance; Professional, Scientific, and Technical Services; and Accommodation and Food Services. Approximately 18,916 new jobs will be created in these industries each year.

2. When considering new job creation plus replacement opportunities, the occupations that are projected to have the most annual openings include Combined Food Prep & Service Workers, including Fast Food; Retail Salespersons; Cashiers; Waiters and Waitresses; and Registered Nurses. Together, these occupations are expected to generate 26,953 open positions annually.

3. It is unlikely that a high rate of success will be achieved by individuals pursuing occupations in industries with high balance ratios, regardless of the total volume of opportunities created. High balance ratios represent occupations for which there are significantly more job seekers than opportunities, creating a highly competitive placement scenario among the individuals served by OOD, let alone the members of the general public who are also seeking employment in those occupations.

Services to Employers. Another element to engagement with employers consists of the services that OOD can offer to employers beyond recruitment. Business Relations Specialists are able to provide training and resources to help employers foster a culture of inclusion in the workplace for individuals with disabilities. Understanding employer needs in this area can help OOD deliver those services in the most effective manner possible. To gain insight into employer needs, OOD obtained the results of a survey conducted among members of Disability: IN Ohio, formerly the Ohio Business Leadership Network. The results of this survey are summarized in the following section of the CSNA.

Section IX.

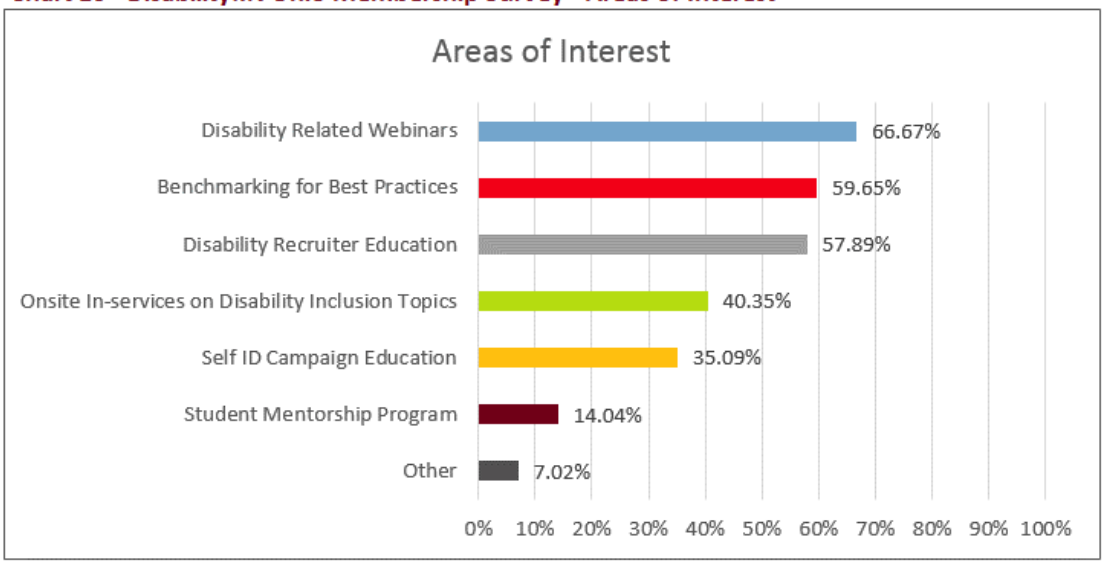
Survey Results

The results of two surveys conducted by external groups are included in this CSNA to further inform the findings and recommendations. One survey was conducted in 2018 by Disability: IN Ohio, formerly known as the Ohio Business Leadership Network, regarding the services most needed by member businesses in relation to staff education and awareness of disability issues, including the retention of employees with disabilities. The second survey, the Survey for Disability and Employment, was conducted in 2014 by Mathematica Policy Research and the Kessler Foundation regarding the barriers and facilitators to employment experienced by applicants to state VR agencies. A follow-up to this survey was conducted in 2017 to link survey data to state earnings data to identify factors correlated with positive employment outcomes. The results of each survey are summarized in the following pages.

Disability: IN Ohio (formerly Ohio Business Leadership Network) Member Survey

The Disability: IN organization, formerly known as the U.S. Business Leadership Network, pursues a mission "to promote the full inclusion of people with disabilities, to inspire accessible innovation for all, and to foster cultures of inclusion." (https://disabilityin.org) The Ohio chapter, Disability: IN Ohio, conducted a member survey in 2018 that included questions relating to the services of greatest interest and the most pressing challenges in relation to individuals with disabilities. The survey asked respondents to identify the aspects of membership to the organization that are or would be the most valuable to them. Member companies responded as shown in Chart 16 below.

Chart 16 - Disability:IN Ohio Membership Survey - Areas of Interest

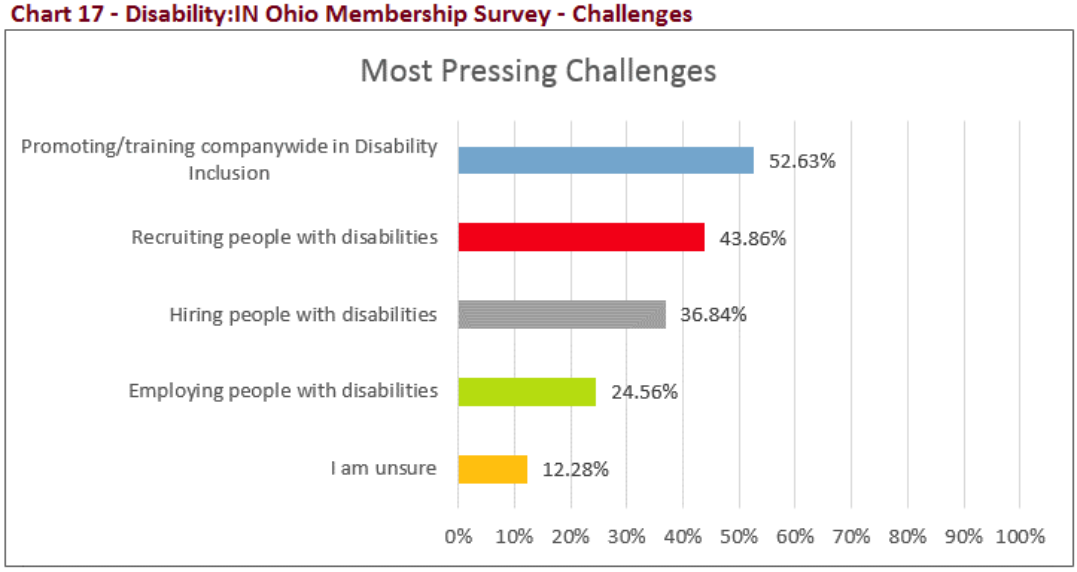


The most common response, indicated by 38 out of 57 respondents, identified Disability Related Webinars as an area of interest. This includes educational opportunities related to disability etiquette,

worksite accessibility, workplace accommodations and the Americans with Disabilities Act accommodations. Respondents also showed interest in benchmarking for best practices as it relates to inclusion of individuals with disabilities (34 out of 57 responses), and education for employment recruiters related to hiring individuals with disabilities (33 out of 57 responses).

Disability: IN Ohio members were then asked to identify the most pressing challenges for their companies in relation to inclusion of individuals with disabilities. As summarized in Chart 17 below, respondents indicated that the most pressing challenge (30 out of 57 responses) was in promoting a companywide culture of Disability Inclusion and in training employees accordingly. This was closely followed by the challenge of recruiting people with disabilities (25 out of 57 responses) and hiring people with disabilities (21 out of 57 responses).

Chart 17 - Disability:IN Ohio Membership Survey - Challenges



The responses to these two survey questions highlight the real-world complications faced by employers who are actively engaged in building cultures of inclusion among their workforce. Their most pressing challenge relates to educating existing employees and creating an atmosphere where people with disabilities are valued and respected, and they have indicated interest in receiving training related to those topics. Assistance is also needed in techniques or resources related to recruiting and hiring individuals with disabilities to meet both the workforce needs of the business and provide opportunities to qualified individuals who may otherwise be overlooked. There is opportunity for OOD to deliver services tailored to these employer needs while also facilitating the placement of individuals with disabilities into competitive integrated employment.

Survey for Disability and Employment Results

In 2014, Ohio participated in the Survey for Disability and Employment (SDE), which was a partnership between Mathematica Policy Research and the Kessler Foundation, funded by the National Institute on Disability and Rehabilitation Research (NIDRR). The purpose of the study was to learn about the barriers and facilitators to employment experienced by applicants to state vocational rehabilitation agencies. In 2017, Mathematica conducted a follow-up study, linking the survey data from SDE with state earnings data to learn what factors are strongly correlated with positive employment outcomes. The results of this study may help counselors understand what participants are at risk for poor outcomes and intervene earlier and tailor VR services to better address barriers to employment and improve the chances for success.

The study's findings suggest several correlations between an applicant's characteristics and circumstances with VR outcomes. These include length of separation from the labor market, attitudes about employment, and personal and family attitudes toward employment.

The study analyzed a sample of 932 working-age (25-64) Ohioans with disabilities who applied for VR services between August and December 2014. These individuals were interviewed for the SDE between November 2014 and May 2015. The survey captured information about the applicants' backgrounds and needs at the time they applied for services. This data was linked to employment outcome data using wage records within 18 to 24 months of application to examine four sets of baseline characteristics: demographics characteristics (gender, age, marital status, education level and race); functional limitations; employment perceptions and work history; and reasons for not working.

Gender and Age did not play a significant role in determining outcomes. A higher share of men exited with an employment outcome than did women (28 percent versus 21 percent) but average earnings between the two groups were not statistically significant. Age did not play a major factor in outcomes and the pattern of average monthly earnings across age groups was consistent with the typical age-earnings profile (lower earnings among the youngest, rising with age).

The other characteristics, marital status, education level and race were all statistically significant factors. Married and cohabitating applicants had the highest rates of exiting with employment and had significantly higher earnings compared to those who were widowed, divorced, separated or never married. Forty percent of those with a bachelor's degree exited the VR program with employment, compared to just 16 percent of those with a high school diploma. Caucasians had a

successful closure rate of 30 percent, significantly higher than the 14 percent rate for African Americans.

Except for those with sensory impairments (hearing, vision or speech), applicants who identified having a particular functional limitation (e.g. difficultly walking or climbing stairs, concentrating, making decisions, dressing, bathing, etc.) were less likely to exit the VR program with an employment outcome. Also of note, more than half of all respondents (56.5 percent) reported that they were currently experiencing chronic pain. These respondents were closed without employment at a rate of nearly 76 percent.

More so than any other characteristics, employment perceptions and work history were consistently strong and statistically significant predictors of leaving the VR program with employment. For example, more than 26 percent of those who said work was very or extremely important exited with employment compared to 14 percent for those who responded somewhat important and 8 percent who said work was not at all important. Those who responded not important at all were also substantially more likely to exit VR services before signing an IPE (74 percent).

Length of separation from the job market was also associated with closure outcomes. Those employed or self-employed at application had the highest rates of employment (35 percent) compared with those who had not worked five or more years ago at 13 percent.

The strongest predictor of exiting the VR program without employment was discouragement from family and friends. Fifty-eight percent of these respondents exited before IPE, 30 percent exited after IPE but without employment and 11 percent exited with employment.

Many of the demographic characteristics findings are not surprising. For example, the greater an individual's educational attainment, the more likely the individual was to exit the program with an employment outcome. Individuals whose perception of employment was very or extremely important, and individuals who were employed at application or who had recently been employed were also more likely to exit with employment.

The strongest predictor of closure without an employment outcome, which is associated with lack of support or discouragement from family and friends, seems to be a particularly important factor for VR counselors to learn as they may be able to provide additional resources to overcome this barrier. (Mathematica, 2017)

Findings

Findings highlighted by the surveys summarized above include the following:

1. The most pressing challenge faced by Disability: IN Ohio members is in the promotion of a culture of inclusion and in training employees to treat individuals with disabilities as valued members of the workforce, including using appropriate disability etiquette and providing accommodations when necessary to help those individuals integrate into the employee population.

2. Disability: IN Ohio members have expressed a need for assistance in the recruitment and hiring of individuals with disabilities.

3. Based on the Survey for Disability and Employment, there are several correlations between an applicant's characteristics and circumstances and VR outcomes. These include length of separation from the labor market, attitudes about employment, and personal and family attitudes toward employment.

4. The Survey for Disability and Employment also found that individuals who were employed or self-employed at application had the highest rates of employment (35 percent) compared with those who had not worked five or more years ago at 13 percent.

5. According to the Survey for Disability and Employment, the strongest predictor of exiting the VR program without employment was discouragement from family and friends. Fifty-eight percent of these respondents exited before IPE, 30 percent exited after IPE but without employment and 11 percent exited with employment.

Section X.

Recommendations

The following Vocational Rehabilitation 2018 Comprehensive Statewide Needs Assessment recommendations are supported by the analysis and findings presented in this report.

1. **Increase outreach to individuals with hearing and visual impairments to increase services to these populations.** As a result of recommendations made by Governor Kasich's Workforce Integration Taskforce, OOD has implemented a number of programs to expand services to individuals with hearing and visual impairments in the last three years. However, service rate: need ratios and balance ratios still highlight the need for additional engagement with these populations. OOD should engage the Community Centers for the Deaf, Sight Centers, and other organizations focused on serving individuals with hearing and visual impairments to identify additional opportunities in this regard.
   Sources:
   Section V. Prevalence and Service Rate: Need Ratio Projections of Unmet Need
   Section VI. Balance Ratios: Comparison of Needs to Service Provision

2. **Explore opportunities to expand access to assistive technology resources to support individuals with disabilities to be more independent.** OOD should consider allocation of resources for assistive technology resources for individuals with disabilities, particularly those disabilities with a lower service rate: need ratio (e.g. hearing, visual and physical impairments). This could include expansion of BlindSquare installations at appropriate locations throughout the state and other resource allocations to support Ohio's Technology First Initiative.
   Sources:
   Section V. Prevalence and Service Rate: Need Ratio Projections of Unmet Need
   Section VI. Balance Ratios: Comparison of Needs to Service Provision

3. **Explore the potential causes of service deficits in counties with low balance ratios to identify strategies that might provide greater service delivery rates in those areas.** The balance ratio analysis highlighted a number of counties with very low balance ratios, particularly with regard to services for individuals with communicative, hearing, physical, and visual impairments. OOD should explore the causes behind these service deficits and devise strategies to enhance service delivery where needed.

Sources:
Section VI. Balance Ratios: Comparison of Needs to Service Provision

4. **Explore opportunities to increase the availability of work experiences for students with disabilities that more closely resemble the adult workplace through expanded business partnerships.** Services provided to students with disabilities with a business partnership focus and that more closely resemble the adult work environment appear to have a substantial correlation to achieving an employment outcome.
   Sources:
   Section VII. Youth and Students with Disabilities

5. **Expand outreach and information services to youth with disabilities receiving Supplemental Security Income (SSI) and their parents or other support structures regarding the potential for cessation of benefits at age-18 redetermination of disability and access to VR services.** Statistics indicate that nearly half of youth with disabilities (47.8%) who receive SSI will experience a cessation of benefits upon age-18 redetermination during the Continuing Disability Review. In many cases, these youth and their families are not prepared for this loss of income and are unable to quickly transition to other means of generating financial support. In addition to the proposed demonstration project that has been submitted to the Social Security Administration, OOD should explore opportunities under the auspices of additional authorized Pre-Employment Transition Services to expand outreach and information services to these individuals.
   Sources:
   Section VII. Youth and Students with Disabilities

6. **Increase outreach efforts to colleges and universities to encourage students with disabilities who could benefit from VR services to apply.** Students with disabilities enrolled in post-secondary education may benefit from many VR services while pursuing their degree, including career counseling, rehabilitation technology, work experiences, internships, job development services and on-the-job supports. Research indicates that SSI recipients who participate in postsecondary education have access to better employment opportunities and reduced dependence on SSI.
   Sources:
   Section VII. Youth and Students with Disabilities

7. **Expand the menu of services to business, such as consultation about accommodations, job task analyses and worksite accessibility.** By providing these services, OOD can better meet the needs of its dual customer, the employer, and increase opportunities for individuals with disabilities to obtain and maintain employment.
   Sources:
   Section VIII. Industry Growth and Employer Engagement

8. **Pursue business relationships within those industry sectors that are projected to experience the highest growth.** Nearly 19,000 new jobs are projected to be created in the following industries each year: Health Care and Social Assistance; Professional, Scientific, and Technical Services; and Accommodation and Food Services.
   Sources:
   Section VIII. Industry Growth and Employer Engagement

9. **Provide VR counselors with training and resources about industries with the largest potential for growth.** The industries with the largest potential for growth include Health Care and Social Assistance and Professional, Scientific, and Technical Services, yet very few OOD participants have a goal on their IPE for an occupation in one of those industries. As part of informed choice, it is recommended that VR counselors review these industry growth projections with participants and where appropriate, focus job goals and training toward these.
   Sources:
   Section VIII. Industry Growth and Employer Engagement

10. **Consider strategies to assist VR Counselors in serving OOD participants with barriers such as long separations from the job market and employment perceptions.** Research from Mathematica indicates that long separations from the workplace and little to no expressed interest in working results in poor employment outcomes for VR participants. Arming counselors with strategies to address these barriers earlier in the process may allow them to offer interventions that lead to better outcomes.
    Sources:
    Section IX. Survey Results

Section XI.

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Section XII.

Tables, Charts and Maps

The lists below identify the tables, charts, and maps found throughout the CSNA report.

Tables

Charts

Maps