



What Are the Trends in Employment Outcomes of Youth with Autism: 2006–2010?

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Introduction

In recent years, the number of children with a diagnosis of autism has substantially increased (Baio, 2012). There is a growing interest, therefore, in knowing more about their transition to employment as they reach adulthood. To address this question, we examined the national and state data from the vocational rehabilitation (VR) program for the years 2006 to 2010.

The VR program is one of the largest federal programs available to job seekers with disabilities in the 50 states, the District of Columbia, and the U.S. territories.

The program is administered by the Rehabilitation Services Administration (RSA), Office of Special Education and Rehabilitative Services (OSERS), U.S. Department of Education.

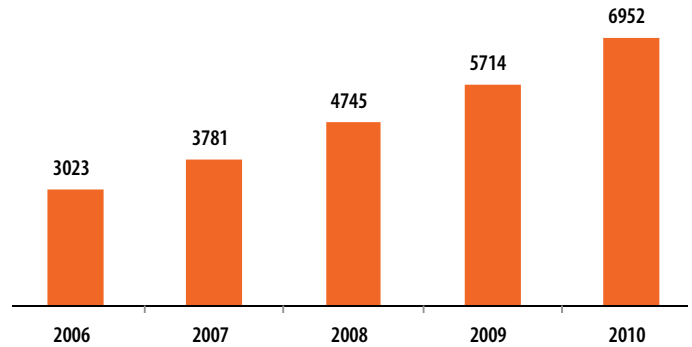
In this brief we focused on people with autism who exited the VR program in the fiscal years from 2006 to 2010, they were 16 to 26 years old at application, and they did not have integrated employment at application.

Focusing on people with autism who were 16 to 26 years old and unemployed, we set out to describe how many of them sought VR services, received services, and then gained integrated employment. We also looked at earnings and work hours of those employed. To provide some context, we compared the findings for youth with autism with the findings for youth with other disabilities. Moreover, we investigated the data at both the national and state level. For the state-level data, we reported the average across the five years.

Number of people with autism who sought services: trends over time

As Figure 1 shows, the number of youth with autism who sought VR services more than doubled in recent years: from 3,023 in 2006 to 6,952 in 2010 (+3,929; +130%). In contrast, the corresponding figure for youth with intellectual disabilities declined from 31,191 in 2006 to 28,127 in 2010 (-3,064; -10%). The similarity between the increase in the number of youth with autism and the decrease in the number of youth with intellectual disabilities is noteworthy. Although it might be just a

Figure 1. Number of youth with autism seeking services



coincidence, it is also possible that new diagnostic standards were responsible for differentiating youth with autism from those with intellectual disabilities. Finally, the number of people with other disabilities who sought services increased by 11%, from 131,937 in 2006 to 146,703 in 2010.

At the state level, the number of youth with autism seeking services was small, compared with the corresponding number of youth with other disabilities. It reached a maximum of 356 in CA, while the minimum was reported in ND (seven) and the District of Columbia (two). As a percentage of the total number of youth who sought services, youth with autism represented a minimum of 1.8% in FL and a maximum of 8.9% in OR on average across the five years.

What percentage of youth with autism received services?

Upon receiving job seekers' applications, rehabilitation counselors examine each case to determine eligibility, develop an individual plan for employment, and recommend services that lead to employment. Whether a person receives services provides an important perspective on progress through the rehabilitation process. In 2010, about 58% of the youth with autism who exited the VR program nationally received services. This figure was similar to the figure reported for youth with other disabilities (57%), but slightly smaller compared to youth with intellectual disabilities (64%). In 2006, slightly higher percentages of youth received services: 61% of youth with autism, 61% of youth with other disabilities, and 70% of youth with intellectual disabilities.

For the state-level analysis, this and the following sections will be limited to states that reported at least 100 youth with autism exiting the program on average across the five years.

The percentage of youth with autism who received services varied substantially across the 19 states examined, ranging from 38% in MO to an almost twice as large figure in PA (73%)—average across the five years. As with the national data, these figures declined in most states. The greatest declines were reported by NC (from 80% in 2006 to 62% in 2010) and OR (from 57% in 2006 to 40% in 2010). Seven states, however, reported increases in the percentage of youth who received services. These ranged from +1% in PA (from 69% in 2006 to 70% in 2010) to +12% in both MI (from 65% in 2006 to 77% in 2010) and GA (from 47% in 2006 to 59% in 2010).

For youth with other disabilities, the percentages of those who received services also varied substantially across states, ranging from 37% in MO to almost twice as much in PA (71%)—average across the five years. As with the data about youth with intellectual disabilities, most states reported declines in the percentage of youth with other disabilities who received services. The greatest decline was reported by Indiana (22% decline, from 66% in 2006 to 44% in 2010). Only three states reported increased percentages of youth with other disabilities who received services, ranging from +1% in Wisconsin (from 45% in 2006 to 46% in 2010) to +10% in Illinois (from 44% in 2006 to 54% in 2010).

We found a considerable correlation between the percentage of youth with autism who received services and the corresponding figure for youth with other disabilities (Pearson correlation $r = .77$; explained variance = 59%). This correlation showed that states that provided rehabilitation services to a higher percentage of youth with other disabilities were also more likely to provide services to youth with autism.

We focused on states that reported at least 100 youth with autism exiting the program. Smaller numbers of youth exiting the program are a concern because—if used as denominators in the analyses—they would generate volatile results. We chose the threshold of 100 because the definition of a percentage is the number of instances that occur over 100 cases.

Data from the following 19 states were included in the analyses: California (CA), Florida (FL), Georgia (GA), Illinois (IL), Indiana (IN), Maryland (MD), Michigan (MI), Minnesota (MN), Missouri (MO), North Carolina (NC), New Jersey (NJ), New York (NY), Ohio (OH), Oregon (OR), Pennsylvania (PA), Texas (TX), Virginia (VA), Washington (WA), and Wisconsin (WI).

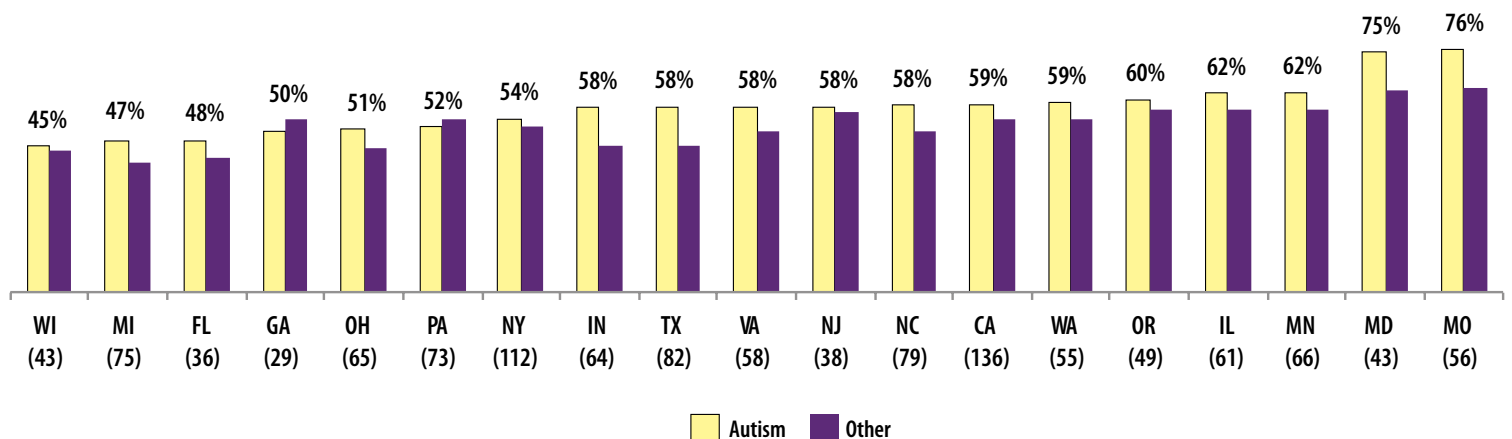
What was the rehabilitation rate?

The rehabilitation rate is defined as the number of people who gained integrated employment out of the total number of people who received services. In 2010, the rehabilitation rate of youth with autism was slightly greater (50%) compared to the figures reported for their peers with intellectual disabilities (44%) and their peers with other disabilities (46%), nationally. These figures, however, declined across all disability groups over the period studied. In 2006, the rehabilitation rate was 58% for youth with autism, 52% for youth with intellectual disabilities, and 55% for youth with other disabilities.

As Figure 2 shows, the rehabilitation rate varied substantially across states. The figure for youth with autism ranged from 45% in WI to 76% in MO (yellow bars). For youth with other disabilities, the rehabilitation rate ranged from 34% in FL to 63% in MO (violet bars)—average across the five years.

Figure 2 also shows that as the rehabilitation rate of youth with other disabilities grew from the left to the right side of the chart, so did the rehabilitation rate of youth with autism. This relationship was confirmed by a large

Figure 2. State rehabilitation rates: average 2006–2010



Note. In parentheses the average number of youth with autism who gained integrated employment.

Typically, applicants who exit the vocational rehabilitation program report one of the following types of closures: services received but no employment outcome, services received and employment outcome, or no services received. Some of the reasons reported for not receiving services include ineligibility, inability to locate applicants, and refusal or lack of cooperation.

coefficient of correlation between the states' rehabilitation rates of youth with other disabilities and the corresponding figures for youth with autism (Pearson coefficient of correlation = 0.83; explained variance = 69%). This relationship shows that states that did better in finding integrated employment

for youth with other disabilities also did better in finding jobs for youth with autism. Therefore, types of disabilities were not major predictors of higher rehabilitation rates.

We also checked whether there were any relationships between the rehabilitation rate and the percentage of youth who received services. We found a large inverse correlation between these two variables, both for youth with autism (Pearson coefficient of correlation = -0.66, explained variance = 44%) and for youth with other disabilities (Pearson coefficient of correlation = -0.56, explained variance = 31%). This means that states reporting higher rehabilitation rates tended to report fewer people who received services. Therefore, states' higher rehabilitation rates were not necessarily a sign of greater employment outcomes, because youth in those states might have been less likely to receive services in the first place.

Finally, we checked whether the states' rehabilitation rates in 2010 were correlated with the states' unemployment rates of the population without disabilities (www.bls.gov/lau/lastrk10.htm). We found only a small inverse correlation between these two variables, regardless of types of disabilities. For youth with autism, the Pearson

coefficient of correlation was -0.33 (explained variance = 11%), whereas the Pearson coefficient of correlation for youth with other disabilities was -0.29 (explained variance = 9%). The small sizes of these correlation coefficients showed that the socio-economic environments in which state VR programs operated were not major predictors of rehabilitation rates when examined at a specific point in time.

What were the earnings and work hours?

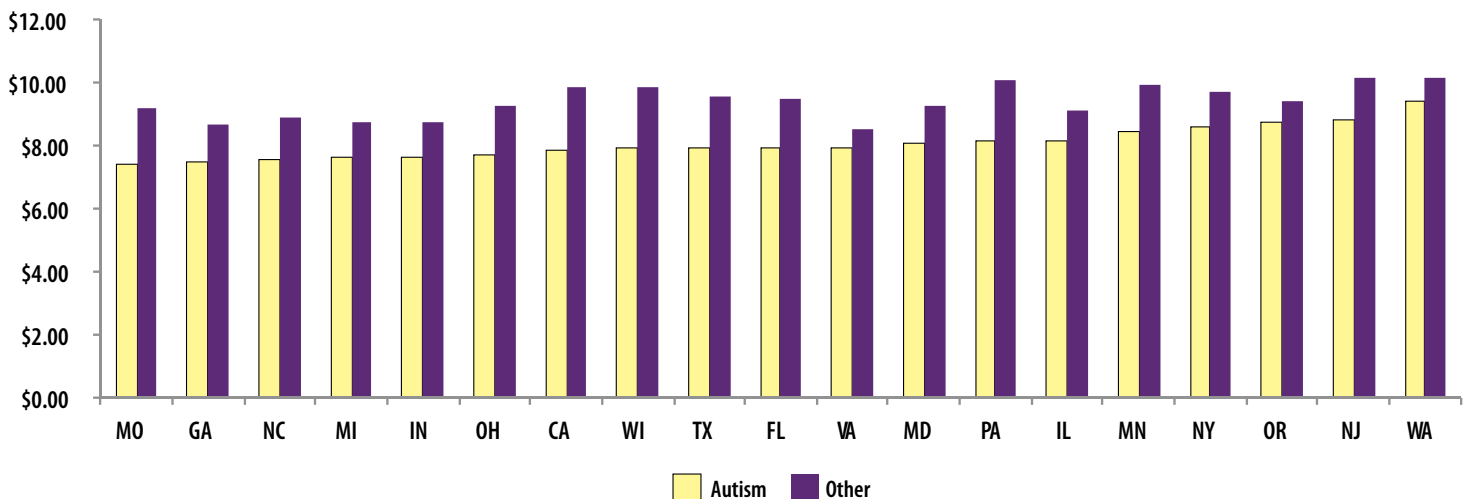
In 2010 youth with autism in integrated employment earned \$8.39 per hour, on average nationally, a figure slightly higher compared to the earnings of their peers with intellectual disabilities (\$7.99), but lower compared to the figure reported by youth with other disabilities (\$9.96).

Over time, earnings of youth with autism increased by \$0.63, from \$7.76 in 2006 to \$8.39 in 2010, an increase similar to the one reported by youth with intellectual disabilities: +\$0.65 from \$7.34 in 2006 to \$7.99 in 2010. In contrast, youth with other disabilities did not report any substantial change in earnings (all figures expressed in 2010 dollar value to account for inflation, www.bls.gov/data/inflation_calculator.htm).

As Figure 3 shows, earnings of youth with autism showed limited variability across states, ranging from \$7.45 in MO to \$9.42 in WA—average across the five years. Similar to the national figures, but with the exception of NJ, all states reported modest increased earnings for youth with autism during the period examined.

Figure 3 also shows that the earnings of youth with other disabilities were slightly higher compared to the corresponding figures reported by their peers with autism. We observed limited variation, however, across states, ranging from \$9.82 in VA to \$10.17 in NJ. Over the years examined, eleven states reported modest increases in earnings of youth with other disabilities, with the highest

Figure 3. Hourly earnings: average 2006–2010



increase reported in WA: +\$0.94 (from \$9.72 in 2006 to \$10.66 in 2010). In contrast, eight states reported decreased earnings, with the largest decrease being -\$0.31 in both VA (from \$8.78 in 2006 to \$8.47 in 2010) and WI (from \$10.05 in 2006 to \$9.74 in 2010).

We found a borderline large positive correlation between state reported earnings of youth with autism and the corresponding figures for youth with other disabilities (Pearson correlation $r = .68$; explained variance = 46%). In contrast, we found only a small correlation between the state reported earnings of youth with autism and the median income of people without disabilities in these states (Pearson coefficient $r = 0.19$; explained variance = 4%). This limited correlation indicated that states' economic environments were not major factors in explaining the earnings of youth with autism when examining the data at a specific point in time.

Next, we checked how many hours per week youth worked. Youth with autism reported 22 hours of work per week on average, nationally, in 2010. This figure was slightly lower compared to 23 hours per week reported in 2006. Youth with intellectual disabilities reported a similar figure in 2010 (24 hours), but a slightly higher one in 2006: 26 hours. Youth with other disabilities reported the highest number of work hours: 31 hours in 2010 and 33 hours in 2006.

At the state level, MN reported the highest number of weekly work hours of youth with autism (26 hours), whereas NC and WI reported the lowest figure (20 hours)—average across the five years. As with the national figures, work hours of youth with autism decreased in most states. The greatest decline was -4 hours in TX (from 24 in 2006 to 20 in 2010), whereas the largest increase was +3 hours in IN (from 19 in 2006 to 22 in 2010).

In the case of youth with other disabilities, we found a slightly greater variation of work hours across states, ranging from 24 hours in WA to 33 in GA—average across the five years. Similar to the national-level findings, work hours reported by youth with other disabilities declined in all states, with the only exception being IN. The greatest decline was -3 hours in TX (from 33 in 2006 to 30 in 2010), and the lowest decline was -1 hour in MN (from 31 in 2006 to 30 in 2010).

What are the implications?

The purpose of this study was to improve our understanding about the transition to employment of youth with autism. We found that (a) an increasing number of youth with autism sought VR services, although their number was relatively small compared to youth with other disabilities; (b) only about half of youth with autism who exited the VR program received services, and the figure declined; (c) of the youth with autism who received

services, only about half gained integrated employment, and the figure declined; (d) hourly earnings increased enough to compensate for inflation, but overall remained modest whereas work hours were low and declining; and (e) all outcomes varied considerably from state to state regardless of disability types, and with only minor influence from the states' socio-economic environments.

Based on these findings, we recommend that attention be paid to state differences in the implementation of services, and the relationship between engagement in services and outcomes. States have much to learn from one another, especially given that employment outcomes varied substantially across states without necessarily reflecting the job seekers' types of disabilities and the states' socio-economic environments.

One way to improve support strategies is by ensuring that support professionals master customized strategies such as exploring job seekers' individual preferences and support needs, increasing emphasis on finding jobs that fit these preferences and support needs, negotiating job descriptions if job openings are not available, and promoting natural supports (Callahan, Griffin, & Hammis, 2011; Griffin, Hammis, & Geary, 2007; Hoff, Gandolfo, Gold, & Jordan, 2000; Luecking, Fabian, & Tilson, 2004). An advantage of adopting a customized approach to support job seekers is that it will help address the specific needs of youth with autism, as well as of people with other types of disabilities.

Finally, we recommend prioritizing jobs that yield better earnings and entail more work hours. Although earnings increased enough between 2006 and 2010 to compensate for inflation, earnings and work hours were not sufficient to narrow the gap that separates people with disabilities from economic self-sufficiency. One way to improve earnings is to ensure that work incentive planning is offered to job seekers. Work incentive planning limits the financial impact that higher earnings might have on disability benefits. Fear about loss of benefits often causes support professionals and family members to prefer entry-level jobs that yield lower pay and hours for people with disabilities.

The increasing number of children diagnosed with autism has generated a growing interest about their transition outcomes as adults, in comparison to their peers with other disabilities. By examining data from the VR program, we found that youth with autism achieved similar employment outcomes compared to their peers with other disabilities. However, these outcomes were modest and substantially different across states. There is a need, therefore, for policy, practice, and research to invest more resources in supporting youth with autism and other disabilities in achieving economic self-sufficiency and social inclusion.

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