

Research In Focus: A Weekly Digest of New Research from the NIDILRR Community

For People Who are Blind or Visually Impaired, Managing Transportation May be Key for Employment Success

A study funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR).

People who are blind or visually impaired have lower employment rates than people without disabilities. Many people with visual impairment are unable to drive. As a result, they may face additional challenges in finding reliable transportation to get to and from work, which can limit their options for employment. Orientation and mobility (O&M) instructors can teach children and adults who are blind or visually impaired to travel safely on foot and to use public transportation. However, some individuals who are blind or visually impaired may not receive high-quality services like O&M training, and they may not always develop confidence in using the transportation options available in their community. Transportation self-efficacy is a person's confidence in their ability to find and use reliable transportation. People with higher transportation self-efficacy may have more confidence in arranging transportation to and from work, which can broaden their job options. In a recent NIDILRR-funded study, researchers looked at the connection between transportation self-efficacy and employment for people who are blind or visually impaired. The researchers wanted to find out if people with higher transportation self-efficacy were more likely to be employed full-time than people with lower transportation self-efficacy, and whether or not this connection depended on the person's age or how long they had been blind or visually impaired. The researchers also wanted to find out what other factors were also related to successful employment for people who are blind or visually impaired.

Researchers at the [Rehabilitation Research and Training Center on Employment Outcomes for Individuals who are Blind or Visually Impaired](#) sent surveys to 503 people who are blind or visually impaired throughout the United States (US). Three hundred and twenty-seven people responded to the survey. The participants were 18-65 years old, not yet retired, and all were unable to drive a car.

The participants answered a question about their employment status, and they were classified as being "employed full-time" if they reported working at least 35 hours per week either in a conventional job or in self-employment. To measure transportation self-efficacy, the participants indicated how confident they felt in their ability to handle 12 transportation-related tasks. Examples included using a public bus or shuttle; arranging a ride with a coworker or someone working at a nearby business; hiring a driver; and giving a driver directions to their desired destination. The participants rated their confidence with each task on a scale from 0 (no confidence at all) to 10 (completely confident). Finally, the participants answered questions about their background, including their age, level of education, the age when they became blind or visually impaired, what region of the country they lived in, severity of their vision loss,

and their ability to read regular print. The researchers grouped participants into four vision categories: “totally blind”; “profound vision loss” (able to see some things, but unable to read print with assistive devices); “moderate/severe vision loss” (able to read print, but only with assistive devices); or “mild vision loss” (able to read print without assistive devices).

The researchers found that about 46% of the participants were employed full-time when they completed the survey. When the researchers looked at the connections between transportation self-efficacy and full-time employment, they found that:

Overall, the participants had fairly high transportation self-efficacy. The participants felt most confident about riding public buses or shuttles, asking for assistance, and giving directions to a driver. However, they felt least confident about arranging rides with coworkers or people working at nearby businesses and hiring drivers privately.

Transportation self-efficacy was related to employment. The participants who were employed full-time had average transportation self-efficacy scores 17% higher than the participants who were not employed full-time.

Transportation self-efficacy was most strongly connected to employment for the younger participants, and the participants who became blind or visually impaired more recently.

When the researchers looked at other factors related to being employed full-time, they found that the participants with higher levels of education were more likely to be employed full-time than the participants with less education. The participants who lived in the Midwestern and Southern regions of the US were more likely to be employed full-time than the participants living in the Northeastern and Western regions. Finally, the participants with mild vision loss were more likely to be employed full-time than the participants who had moderate/severe or profound vision loss or those who were totally blind. However, the participants with moderate/severe or profound vision loss were no more likely to be employed full-time than the participants who were totally blind.

The authors noted that the relationship between educational and regional factors and full-time employment were similar to that found in employment rates for Americans without disabilities in general. For example, at the time of the survey, overall full-time employment rates were higher in the Midwestern US than in the Northeastern and Western US. Level of vision loss was also related to employment. In this study, people with mild vision loss had higher employment rates than those with more severe vision loss who either need assistive devices to read print or may not be able to read print at all. People with more severe vision loss may need extra support to obtain full-time employment. According to the authors, transportation self-efficacy may play an important role in giving people who are blind or visually impaired the confidence to make needed transportation arrangements when securing a job. Transportation self-efficacy may be especially important for young adults who are finding their first jobs and deciding where to live, as well as for people who have recently become blind or visually

impaired. The authors suggested that youth and young adults who are blind or visually impaired may benefit from increased availability of O&M services. The authors noted that O&M services may not include instruction or support in planning transportation to work, and vocational rehabilitation counselors may not focus on transportation as part of their program. O&M professionals may wish to collaborate with vocational rehabilitation professionals to help clients who are blind or visually impaired develop transportation plans to get to work.

To Learn More

The Center offers [several resources to support safe and successful transportation](#) for people who are blind or visually impaired including:

- A Transportation Guide for Persons who are Blind or Have Low Vision that contains helpful information about finding and using transportation options and is designed for persons with vision impairments or those who serve them.
- Customized Transportation Plan which is meant to generate conversation between counselor and consumer regarding the consumer's transportation situation. The questions guide the conversation through various transportation routes, the consumer's transportation history, and the consumer's transportation options.

The Sendero Group has developed an array of accessible navigation products under NIDILRR's Small Business Innovation Research and Field Initiated Research programs. The Global Access Information Navigator includes transit information for more than 95 cities in the US and around the world.

<http://www.senderogroup.com/products/GPS/allgps.html>

To Learn More About this Study

Cmar, J. L., McDonnall, M. C., & Crudden, A. (2018). Transportation self-efficacy and employment among individuals with visual impairments. *Journal of Vocational Rehabilitation*, 48 (2), 257-268. This article is available from NARIC under accession number J78407 and [free of charge from the Center's website](#).

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