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Job Retention and Career Advancement:

A Survey of Persons who are Blind or Have Low Vision

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Abstract

A national survey investigated job retention and career advancement among 388 persons with blindness or low vision and employment experience. Most participants received state vocational rehabilitation (VR) agency services and were employed. Employed participants reported that assistive technology was the most helpful VR service. Most were satisfied with their jobs but were interested in career advancement. Employed participants were likely to have positive experiences changing jobs. People who lost vision while employed had difficulty retaining the same level of efficiency and ability to perform their job duties. Slightly over half of unemployed persons said it was not their choice to stop working.

Job Retention and Career Advancement:

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The reauthorization of the Rehabilitation Act, Workforce Innovation and Opportunity Act of 2014 (WIOA, P. L. 113-128) renewed attention to job retention and career advancement of persons with disabilities who seek vocational rehabilitation (VR) services. This emphasis is particularly important to persons with blindness or low vision (BLV), who continue to have employment participation rates well below persons without disabilities (McDonnall & Sui, 2019). Current information about how persons with BLV fare in their efforts to retain or advance in their careers is limited, particularly research from the perspective of the person with BLV. This national survey of persons who have BLV and an employment history provides new information regarding these relevant topics. It presents previously unavailable data about what people regard as obstacles to retaining employment after BLV, and perspectives of persons with BLV regarding their employment status and potential for advancement.

Vocational Rehabilitation Services

The Rehabilitation Act Amendments of 1992 stated that job retention services could be provided and documented in the Individualized Written Rehabilitation Plan and that VR and community rehabilitation programs could provide career advancement services (Rehabilitation Act Amendments of 1992, P. L. 102-569). The Act included a provision to identify and implement incentives to achieve “high quality placements for individuals with the most severe disabilities.” The Act did not, however, provide definitions for these services (Hope & Rice, 1995).

WIOA supports persons with disabilities in their efforts to secure and advance in jobs that provide “family-sustaining wages” and “economic self-sufficiency” to increase prosperity among

workers and to improve the quality of the workforce by increasing the credentials of persons with disabilities (2014). WIOA extended VR services to include providing training and technical assistance to employers to support hiring or retaining persons with disabilities, including training employees with disabilities (U. S. Department of Education, 2016). The Rehabilitation Services Administration (RSA, 2014) alerted VR agencies that career advancement could include support for graduate education, particularly in science, technology, engineering, and mathematics.

The overall mission of the state-federal VR program is to maximize the "employment, independence, and integration" of people with disabilities in the workforce and the community (U. S. Department of Education, 2017). WIOA supports this mission with its attention to job retention and career advancement. WIOA also provides guidelines for state VR agencies that may help reduce inconsistencies regarding how the states offer services, a concern expressed by VR stakeholders and partners (Martin, 2017) and perhaps influenced by the lack of specific definitions for the services.

Job Retention and Career Advancement

Early exit from the labor force robs workers with disabilities of opportunities to advance in their careers. It also increases their risk of being economically disadvantaged in senior years (Wu & Hyde, 2019). Previous studies document that persons with rheumatoid arthritis (Hammond, et al., 2017), multiple sclerosis (Uccelli, Specchia, Battaglia, & Miller, 2009), and diabetes (Chiu, et al., 2015) tend to exit the workforce earlier than their peers without disabilities. Despite a well-articulated plan to retain employees with disabilities, the federal government reported these employees are three times as likely to leave employment as those without disabilities (U. S. Office of Personnel Management, n.d.). However, it is challenging to determine how the research regarding job retention and career advancement among people with

other disabilities applies to persons with BLV because people with BLV face unique rehabilitation and employment challenges. Time to adjust to BLV and to learn new skills may influence job retention for people with recent onset of BLV. One study found that people with BLV may not want to return to work for up to two years after their vision loss, and those who retired early regretted having done so (Bruce & Baker, 2005).

People with BLV continue to be less likely to be employed (McDonnall & Sui, 2019) and to earn less than people without disabilities (Yang & Tan, 2017). Almost one-third of applicants for VR services with BLV were employed at application, based on VR data from the fiscal year 2015 (Crudden, Giesen, & Sui, 2018). Most (84.2%) employed people with BLV who applied for VR services did retain or advance in their jobs (Crudden, McDonnall, & Sui, 2018). In general, employed VR applicants with BLV were more likely to be white non-Hispanic, more highly educated, older, were less likely to receive Social Security benefits, and generally were in better health than unemployed applicants (Crudden, Giesen, & Sui, 2018).

A survey of 322 VR applicants with BLV who were working or who had worked, including 58% with additional disabilities, found that just over one-quarter were no longer employed (McKnight, et al. 2021). In another study, employed applicants with BLV who did not retain their jobs after VR services tended to be female, had secondary disabilities, held part-time employment, and had received VR services previously without being employed (Crudden, McDonnall, & Sui, 2018).

In one qualitative study, employed participants with BLV reported that technology and support from family and friends improved their job retention efforts (Crudden, 2002). Participants reported stress associated with negative feedback from coworkers and attempting to produce at the same pace as sighted colleagues, but most said their employers were supportive.

Participants with BLV and work experience in the 2014 Survey of Disability and Employment were more likely to continue employment if they received support from friends, spouses, family, or professionals; additional sources of support were linked to higher odds of employment (McKnight, et al. 2021).

The cited studies illustrate that people with BLV have difficulty retaining and advancing in employment, yet we know little about factors influencing these difficulties. Much of the previous research relies on VR case service data, thus limiting analyses to data in the VR records and the subject pool to VR applicants. We conducted this national survey of people with BLV and an employment history, which includes persons who received VR services and those who did not, to gather information about their characteristics and experiences regarding job retention and career advancement.

Method

Survey Development

The Job Retention and Career Advancement Survey was developed based on a review of the literature, input from persons with BLV and a national advisory council that includes people with BLV, and responses from the Job Retention and Career Advancement Vocational Rehabilitation Agency survey (see Crudden & Steverson, 2018, for more). The survey included a combination of open and close-ended questions. Survey items included demographics and the onset of vision loss and the effect it had on employment, VR services received, employment, unemployment, and career advancement. Responses to questions determined the subsequent items; all participants did not receive the same set of questions. For example, only participants who received VR services received questions concerning those services and only unemployed participants received questions about their unemployment. The survey also included the adapted

five-item Brief Job Satisfaction Measure II (Judge, Locke, Durham, & Kluger, 1998), which assessed the participants' agreement with statements concerning interest and job satisfaction on a scale of 1 *(Strongly Disagree)* to 7 *(Strongly Agree)*. The Brief Job Satisfaction Measure II has high reliability (.88) and good convergent validity (.89) (Judge et al. 1998).

Researchers conducted multiple rounds of pilot testing with persons with BLV. The University Institutional Review Board for the Protection of Human Subjects approved the study.

Procedure

Survey data was collected between November 2018 and August 2019. Participants were recruited from the National Research and Training Center on Blindness and Low Vision participant registry, which includes contact information for volunteers who have agreed to consider participating in research projects concerning BLV. We also utilized social media, organizations for professionals or persons with BLV, contacts with our national advisory council, and personal contacts to aid in recruitment. Persons who completed the survey were encouraged to share the recruitment information with others. We restricted eligibility to only include U. S. residents with BLV born between 1950 and 1991 who had at least some competitive employment experience after completing their formal education.

Participants could complete the survey via an online survey platform or phone. The phone interviews were recorded so researchers could review responses as needed. Participants completed the electronic survey in approximately one hour. Participants had the option to enter a drawing for one of four $100 gift cards.

Thirty-five participants completed the survey via phone and 652 online for a total of 687 responses. Researchers eliminated participants who completed less than 30% of the survey

(N=269), duplicate responses (N=21), and those who indicated no vision loss (N=9). Thus, the final sample included 388 participants.

Descriptive statistics were computed using SAS 9.4 to report the initial survey findings. Two researchers independently coded open-ended responses and categorized responses into themes. Inconsistencies in coding were discussed and recoded by mutual agreement.

Results

Participants received only questions relevant to their situation, and some participants did not respond to all questions posed to them. Consequently, the *N* after the percentages represents the number of people who answered that item, not the number of people who answered yes to the item.

Participant Characteristics

Table 1 presents demographic information about the sample. Females (61.1%) and whites (80.4%) were overrepresented, and the average respondent age was 50.52 years (*SD* = 11.74). Nearly two-thirds of the sample were either totally blind (42.7%) or legally blind with minimal functional vision (22.8%). Over half of 356 (57.6%) participants were unable to read standard print before age 13, and most did not have additional disabilities. Over 70% of participants had at least an undergraduate degree, and the approximate median income was $40,000 to $49,999. Twenty-seven percent (*N* = 330) earned under $20,000, and 18% (*N* = 324) limited their income to keep Social Security Disability Insurance.

Employment Information

Table 2 provides information related to the participants' most recent employment. Of 344 responses, 35.5% required a bachelor's degree, and 26.5% a high school diploma or certificate. Fewer required a graduate degree (23%), some college (6.7%), or a degree from a two-year

college (3.2%). A little over 3% of the respondents mentioned other educational requirements, such as job experience. Only 2% of respondents said their job had no educational requirement. Of the 16% of respondents (*N*=377) ever employed at an Ability One program, 37 continue that employment, and 11 were interested in a job in another setting.

Most respondents disclosed their visual disability on a resume, application, or at the initial interview; only four respondents reported disclosing their disability when offered the job. One-third (33.1%) of 351 of respondents believed they need additional training to be employed again or retain their current positions, with the most frequently identified needs as computer training and further education. Of 173 persons who had a mentor, 46.2% reported that their mentor helped them get a job. The majority (73.7%, *N* = 354) of respondents were unable to work from home rather than the physical job site. The Brief Job Satisfaction Measure II (Judge et al. 1998) generated a mean score of 5.47, indicating that the 339 persons who responded were reasonably satisfied with their employment.

Vocational Rehabilitation Services

Table 3 includes information about VR services. Nearly 90% of 379 respondents reported receiving services from a state VR agency. The most frequently referenced services were training associated with a visual disability (89.9%, *N* = 335), purchasing assistive hardware or software (86.3%, *N* = 336), training in the use of computers or assistive devices (71.8%, *N* = 337), and funding for community or undergraduate college (63.6%, *N* = 332).

Responses to a question about the most helpful thing VR provided to support getting or retaining a job (*N* = 329) were coded into themes. Respondents sometimes named more than one service and identified the following: purchasing equipment (37.4%), training about blindness skills (29.8%), paying for college expenses (21.3%), providing job leads (6.4%), paying for other

education (4.9%), working with their employer (2.7%), and other (10.9%) such as relocation assistance.

Almost half (46.5%, *N* = 338) of respondents believed their VR counselor helped them get a job at their skill or education level, but 44.7% said VR did not, and 8.9% were unsure. Reasons respondents did not believe their employment was at their skill or educational level were coded into the themes in Table 3. Just over 68% (*N* = 336) of respondents reported receiving VR services promptly; almost 18% (*N* = 338) said they were denied VR services. Reasons respondents were denied services (*N* = 58) included ineligibility for services (55.2%), financial issues (5.2%), an order of selection was in place (1.7%), and other (25.9%), which included assistance with pursuing advanced degrees or getting updated equipment.

Respondents typically met with their VR counselor at the rehabilitation facility or counselor's office (57.4%, *N* = 336). While receiving services, almost 27% (*N* = 338) had to take time from work to receive services, and 19% (*N* = 91) said taking that time to receive services caused problems at work

Employed

Most (72.2%, *N* = 377) respondents retained employment. Employed respondents identified the following assistive technology and equipment as the most helpful in retaining or advancing in their jobs: JAWS or some other screen reader (45.5%, *N* = 255); computer, laptop, or smartphone (25.1%), braille display or notetaker (17.7%), screen magnification (15.3%), other magnification tools such as CCTVs and large monitors (14.5%), and other (11.8%). For the 272 employed VR recipients, the most helpful thing VR did to assist in getting or keeping a job included purchasing equipment (27.6%,), training in blindness skills (11.4%), paying for other

education (5.2%), working with respondents' employers (2.9%), paying for college expenses (1.8%), and other (7.4%).

Of 238 employed VR recipients, 25.2% indicated that VR worked with someone at their job site (i.e., a supervisor, human resources, a technology person, or someone else), and most thought those interactions were helpful. Eighty-eight persons identified VR services that would help them retain or advance in their employment; responses were coded into the following categories of needed services: job development and help with job search skills (27.3%), new assistive technology (18.2%), counseling and support (17.1%), technology training (14.8%), education and/or certification (11.4%), blindness skills training (8.0%), transportation (4.6%), new computer or laptop or general technology (4.6%), and other (30.7%), such as the salary for a reader and childcare expenses.

Of 262 employed respondents, 80.2% reported changing employers. From a list of potential reasons for changing employers, respondents selected better job opportunities at a new job (59.5%, $N = 210$), followed by difficulty with a supervisor or management (29.1%), relocation required a job change (23.3%), inability to perform the job because of their visual disability (20.5%), difficulty with colleagues (4.8%), and other (32.4%). Of 60 respondents reporting difficulty with supervisors or colleagues, over half (55.0%) said the problem was not due to vision loss. The majority (90.4 %, $N = 208$) of those who changed employers experienced a positive outcome. Only 52 people reported receiving help from VR with the change. Of those, 51 identified the most helpful VR services received, which were coded into these categories: provided equipment (29.4%), assisted with additional training (27.5%), helped with transportation including relocation (17.7%), paid for additional education (7.8%), talked with an employer (3.9%), and other (17.7%).

Unemployed

Information about those who did not retain employment is available in Table 4. Nearly 28% (*N* = 377) of the total sample did not retain employment. Over half (52.5%, *N* = 101) of unemployed participants said it was not their choice to stop working. Almost 38% (*N* = 103) would like to return to work full-time, and another 35% would like to return to part-time work. Nearly 40% (*N* =101) of the unemployed respondents had looked for work in the past four weeks, which included contacting someone about an interview, submitting a resume, or filling out an application. Almost a quarter (24.8%, *N* =101) thought they would be employed within six months.

Some unemployed respondents receiving SSDI (56.3%, *N* = 32) limited their incomes when working to remain eligible for SSDI benefits. Forty-six percent (*N* =100) of unemployed respondents receiving SSDI would like to restrict future employment earnings if they return to work so they can continue to receive SSDI benefits.

Over half (56.0%, *N* = 100) of the unemployed respondents did not believe that VR services could help them return to the workforce. Respondents who did believe VR could assist with their return to the workforce reported needing the following services, grouped into themes: additional training (50%, *N* = 42), job leads (40.5%), equipment (33.3%), additional education (11.9%), job search skills (11.9%), help with their employer (9.5%), transportation (9.5%), and other (19.1%).

Vision Loss Onset and Employment

Most respondents (77.2%, *N* = 377) had BLV before their first job earning at least minimum wage. Participants who had BLV after their first job earning minimum wage (22.8%), reported how their visual disability affected their work. Employed participants who lost vision

tended to discuss their vision loss with their supervisors. See Table 5 for additional information. Of 57 respondents who lost their vision after their first job and spoke to someone at work about it, only 22.8% said that the person they spoke with assisted them in learning about job accommodations.

Most persons (66.3%) who lost their vision while employed could not retain employment with that employer. Respondents (N = 45) provided reasons for their inability to maintain employment that were coded into the following categories: job could not be modified (37.8%), termination or employer attitudes or unwillingness (31.1%), unaware of accommodations (20.0%), need for training in blindness skills (11.1%), technology was unavailable (8.9%), inability to keep up with the pace of work (8.9%), and other (8.9%).

Twenty-eight respondents who retained employment with the same employer after vision loss reported what helped them the most to keep their jobs; responses were coded into the following themes: assistive technology and computer equipment (32.1%), employer cooperation (28.6%), training in blindness skills (10.7%), coworker and peer support (10.7%), modifications to the work environment (10.7%), relocation or a new position (7.1%), family support (7.1%), reduced hours (3.6%), and other (28.6%), such as assistance from VR.

Respondents who were employed when they lost their vision (N = 84) reported that personal adjustment to that loss made it difficult to retain their jobs. Seventy-three percent (N = 86) experienced a gap in their work history. Reasons for the gap in their work history were coded into themes and are in Table 5. The majority (96.7%, N = 60) of respondents with a gap in their work history returned to work with a different employer.

Career Advancement

Table 6 provides information about career advancement. Of 264 employed respondents, nearly half (48.9%) were willing to relocate to move upward or advance their careers. The 102 who believed VR could help them advance identified the following needed services: financial support for other education (35.3%), training about blindness skills (34.3%), purchase equipment (27.5%), financial assistance for college expenses (22.6%), assistance working with their employer (8.8%), and other (25.5%). Only 15.6% (N = 238) of employed VR recipients believed VR previously assisted them in career advancement. Those who said VR did help with career advancement (N = 35), reported receiving the following services grouped into themes: purchased equipment (51.4%), trained about blindness skills (22.9%), paid for college expenses (20.0%) or other education (17.1%), worked with their employer (8.6%), and other (14.3%).

Discussion

Although the difficulty people with BLV have retaining and advancing in employment has received renewed attention due to the passage of WIOA, we continue to have limited information about those issues from people with BLV, particularly persons who did not apply for or receive VR services. Because WIOA did not go into effect until 2016, most survey participants have not yet had the opportunity to benefit from these provisions. This survey is the first regarding the perspectives of persons who have BLV and an employment history after completing their education regarding their job retention and career advancement experiences. It provides information for policymakers and service providers regarding needed services and policies to support job retention and career advancement.

Achieving a sample for this project was challenging as we relied on volunteers who learned about the survey directly from the researchers and the advisory council or indirectly from other participants. The NRTC is located in the south. Potentially, more people in the south are

aware of our work and, consequently, more likely to participate in our projects. Though we provided opportunities to participate in the survey by phone, persons without internet access were perhaps less likely to learn about the survey. The Pew Research Center (2019) reported that racial minorities are less likely to use the internet, which may partially account for why the survey had low minority participation. Our survey also had more women, which is consistent with a previous NRTC survey (Crudden, McDonnall, & Hierholzer, 2015).

Over 70% of respondents had at least an undergraduate degree, and just over 40% earned over $50,000 per year. It is not surprising that survey participants with a work history had high educational levels as that factor has repeatedly been associated with positive employment outcomes for people with BLV (Lund & Cmar, 2019a, 2019b). However, incomes do not appear commensurate with their educational levels. U. S. median income for 2018 was $63,179 (Rothbaum & Edwards, 2019). This data indicates that although our sample tended to be educated and employed, their incomes remained below national averages.

Most of the respondents (89.4%) received services from a state VR agency. Participants reported that the most valuable service VR provided was getting equipment, followed by training in how to do things as a person with BLV, and assistance with their education. Their reported reasons for the initial application for VR corresponded reasonably well with what they regarded as the most helpful thing VR did to help them get or keep a job, except getting equipment, which was not typically a motivating factor for the application. Potentially respondents did not fully understand the availability or value of that equipment at application. These responses suggest that VR is responding to applicants' needs and that program participants recognize the importance of the VR services received. However, a small number of VR recipients reported that taking time from their job sites to receive VR services caused them problems at work. VR

providers may consider evaluating agency procedures to determine if this issue can be addressed, as most states reported the ability to provide many VR services at the job site (Crudden & Steverson, 2018).

Slightly over half of the employed participants believed there was potential to advance in their current jobs, and most were interested in opportunities to advance in their careers. Many were willing to change employers (66.5%), but fewer were interested (48.9%) in relocating to advance in their careers, and only 41.5% thought VR would be of assistance in helping them advance. Less than half (46.5%) believed that VR helped them get a job commensurate with their educational and skill levels, and 17.5% reported being denied VR services because they were employed. These factors, along with almost one-third (30.3%) of the respondents reporting that they have been underemployed, indicate there is a need for VR services to support persons with BLV in advancing in their careers. Career advancement services may provide employed persons the supports they need to get their incomes closer to their peers without disabilities.

Thirty-seven of the 60 people with a history of working at Ability One programs remained employed there, and less than one-third wanted to find a job in another setting. This lack of interest in changing jobs indicates that for most of these respondents, Ability One is a meaningful employment experience that appears to meet their needs. However, those who prefer other employment might benefit from career advancement services while employed to transition into integrated employment. In fiscal year 2019, 5,982 persons were employed at National Industries for the Blind through the Ability One program (National Industries for the Blind, n.d.). Ability One employees who desire other employment may be unaware that VR can provide eligible employed persons with career advancement services, and efforts to reach out to these employees appear indicated.

Our results demonstrate that job retention is problematic for persons who acquire BLV after employment, who appear to face obstacles distinct from persons with earlier onset of BLV. After BLV onset, almost two-thirds reported being unable to continue performing the same job, even with job site modifications, and even more (75%) were unable to produce at their previous level of efficiency. Given these concerns, it is not surprising that two-thirds of this group were unable to retain employment with the same employer, and most (73.3%) had a gap in work history after BLV. Taking a break from working after BLV usually resulted in the person working for a different employer, if they returned to work at all. Respondents who did not return to work after vision loss tended to report the inability to find a job (43.7%), though most would like to work. Adult-onset BLV is typically traumatic, and workers need time to adjust to it. Early VR services that encourage job retention efforts by providing necessary assistive technology and adjustment support, working with employers, and providing essential training in blindness skills at times that accommodate work schedules, may promote the potential of increasing successful job retention.

This survey provides additional evidence that participants approach disability disclosure in several ways. The majority of participants informed the employer about their BLV before the initial interview, most frequently on the job application or resume. This finding is consistent with previous work, which indicates that disability disclosure decisions are typically regarded as individual decisions based on personal preferences and the job (von Schrader, Malzer, & Bruyere, 2014).

One strategy to encourage employment is mentoring programs for people with BLV (Cervenka, 2020; Peret, 2018). Almost half of the respondents (45.9%) reported getting support or assistance about employment from a mentor, and of those, 46.2% said the mentor helped them

get a job. Although we do not know if the relationship with the mentor occurred through a program or emerged through other social, educational, or work-associated connections, this is an indicator that mentoring can help promote employment. Previous research (McKnight, et al. 2021) found that multiple sources of social support were instrumental in increasing employment among persons with BLV.

Overall, survey respondents tended to be satisfied with their employment, believing that their supervisors accepted them, treated them the same as other employees, and understood their work accommodation needs. Most also had the equipment necessary to perform their jobs, and work materials were typically accessible. However, some participants indicated that with additional education, blindness training, equipment, or other supports, they could move upward or advance in their jobs.

We continue to need additional information about the job retention and career advancement needs of persons who have BLV, as well as how the VR system responds to those needs. Further research about the positive impacts of mentoring programs appears indicated, including whether formal mentoring programs yield different outcomes from naturally occurring mentoring relationships. Additional information about those who leave the workforce would also be helpful so that VR providers can identify persons at risk of losing their jobs and potential strategies for keeping them in the workforce. Further research is necessary to examine why employed and educated persons with BLV continue to earn less than their peers without BLV. Additionally, future researchers are advised to make efforts to recruit minority populations to get more representative samples.

Limitations

This survey represents responses from 388 persons concerning their experiences retaining and advancing in their employment. One limitation of the sample is that it used nonprobability sampling strategies. Participants were volunteers recruited through various techniques, including snowball sampling. Although we offered the option to complete the survey by telephone, most responded electronically, indicating that the participants were somewhat skilled with technology. Participants' familiarity with technology may have resulted in increased accuracy in the data. Conversely, persons less skilled in technology, or those who stopped the survey due to its length, contributed to the number who did not complete at least 30% of the items.

Over 40% of the participants were from the south. There may be regional issues that influenced these results. Participants were also more likely to be female, White, better educated, and to have lost their vision at an early age. Our survey was also limited to persons born between 1950 and 1991. Consequently, use caution in attempting to generalize this information to other persons with BLV.

Conclusion

Passage of WIOA reinforces the VR mission to support job retention and career advancement of persons with BLV and to promote employment in occupations in careers that offer the potential for economic independence. Employed participants were generally satisfied with VR services and their jobs, yet many appear to be unemployed or underpaid and interested in advancing in their careers. Some participants who were unemployed, or who were employed in Ability One programs, would like to engage in full or part-time competitive employment. However, persons who lost vision after employment tended to need time off work to learn new skills, get additional education, or to adjust to their vision loss. Many employed participants want to advance in their careers and are willing to obtain further education or relocate to do so. Results

support that technology remains an essential factor influencing employment among persons with BLV, indicating that opportunities to get training with and practice using technology are critical to the VR process. Opportunities to engage in post-secondary and graduate education may provide access to careers with increased economic potential and offer time to become more skilled in technology and blindness-related skills. VR administrators are urged to examine agency policies to support job retention and career advancement to ensure that all VR applicants promptly receive the appropriate services to support their job retention and career advancement efforts. VR agencies are encouraged to recruit applicants for job retention services so that persons who sustain vision loss after employment do not prematurely leave their jobs. Further, VR agencies should consider recruiting persons with BLV who are employed to make them aware of the services available for career advancement.

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Table 1: *Participant Characteristics*

Variable	*N*	%
Gender - Female	388	
Female		61.1
Male		35.8
Other/Missing		3.1
Race		
White		80.4
African American/Black		8.8
Asian		1.8
Two or more races/other		6.4
Missing		2.6
Age (28-69 years)		
28-39		22.9
40-49		21.4
50-59		27.6
60-69		28.1
Level of Vision Loss	377	
Totally blind		42.7
Legally blind with minimal functional vision		22.8
Legally blind with some functional vision		30.8
Low vision		2.4
Other visual impairment		1.3
Age No Longer Able to Read Standard Print	356	
Infant (birth-1)		35.7
Toddler (2-3)		6.2
Preschool – Elementary school (4-12)		15.7
Middle school – College (13-24)		14.9
Younger adults (25-40)		14.9
Older adults (41-59)		12.6
Presence of other disabilities - Yes	377	19.1
Education Level	378	
No high school diploma		0.5
High school diploma/certificate		5.8
Some college		13.2
Associate degree/other tech degree		8.2
Bachelor degree		32.3
Graduate degree		40.0
Income	330	
Under $20,000		27.0
$20,000 - $49,999		32.7
$50,000 - $80,000		23.9
Over $80,000		16.4

Receive SSI/SSDI (choose all that apply)	344	
None		57.9
SSDI		36.9
SSI		7.9
Census Regions	374	
South		42.0
Midwest		20.9
West		20.6
Northeast		16.6

Table 2: *Employment Information*

Variable	***N***	**%**
Age at first job - $\bar{\bar{X}}$ = 22.44 (*5.12*)	373	
Employed - Yes	377	72.2
Underemployed - No	353	69.7
Hours worked per week - $\bar{\bar{X}}$ = 37.06 (*12.06*)	344	
Ever worked at Ability One - No	377	84.1
Earn at least minimum wage - Yes	347	97.1
Disclosed disability	351	
On resume or application		33.3
At initial interview		23.4
Employer already knew		13.1
When interview was scheduled		12.3
When vision loss interfered with job duties		7.7
By another person, such as a rehabilitation counselor		6.3
Other/Did not disclose		4.0
Equipment Used	350	
Smartphone or electronic tablet		81.7
Screen reader (JAWS, NVDA)		75.1
Apps to access visual information		53.7
Optical character recognition program		44.3
Braille writer/notetaker		35.4
Refreshable braille display		34.3
Magnification software		33.7
Braille labeler		31.4
Handheld or portable magnifier		26.9
Video magnifier or CCTV		25.1
Dictation software		17.7
Bioptic device		3.4
None of the above		1.1
Have equipment needed to perform job - Yes	348	84.8
Workplace documents accessible - Yes		77.9
Supervisor understands work accommodation needs	346	
Yes		76.3
No		13.6
Don’t know		10.1
Supervisor acceptance – Yes	344	84.6
Treated equally by supervisor – Yes	334	79.3
Brief Job Satisfaction Measure (*R* 1-7); $\bar{\bar{X}}$= 5.47 (*1.47*)	339	
Have a mentor – Yes	381	45.9
Additional training needs	114	
Computer skills (including coding)		34.2
Advanced degree/More education		21.1
Job-specific		19.3

Assistive technology		18.4
Blindness skills		8.8
Technology unspecified		7.0
Other		9.7

Table 3: *Vocational Rehabilitation*

Variable	*N*	%
VR Services - Yes	379	89.4
Training associated w/visual disability	335	89.9
Purchasing assistive hardware/software	336	86.3
Training in use of computers or assistive devices	337	71.8
Community/undergraduate college expenses	332	63.6
Transportation	335	48.4
Providing job leads	335	40.6
Helping determine how to perform job duties/ accommodations	335	32.8
Graduate school/advanced professional education	334	31.1
Working with employer to get/keep job	335	31.0
On-the-job training	332	30.1
Medical treatment	330	26.1
Help advancing career	333	18.3
Occupational/vocational training	329	17.9
Obtaining a license/certificate for job	328	16.5
Training to use smartphone/tablet	335	12.2
Purchasing smartphone/tablet for use on job	331	11.2
Reasons VR counselor did not help get job at skill/education level	134	
VR refused/did not help, lack efficiency		42.5
Not needed (found own job; employed; school)		35.1
Conflict between counselor and participant about job goals		20.2
Other		5.2
Place typically met VR counselor	336	
Rehabilitation facility/counselor’s office		57.4
Your home		24.1
Your own workplace		6.6
Other		11.9

Table 4: *Unemployment*

Variable	***N***	**%**
Reasons not working (check all that apply)	103	
Inability to find a job		43.7
Transportation problems		37.9
Retired		29.1
Vision loss made it difficult for me to do my job		27.2
Concern about losing benefits		26.2
Health issues, other than those associated with vision loss		21.4
Stress associated with loss of vision		21.4
Termination by employer		18.5
Caring for others, such as children or parents		15.5
Employer bias		5.8
Other		13.6
Length of unemployment	101	
Less than 2 years		23.8
More than 2 but less than 4 years		24.8
4 or more years		51.5
Willing to relocate to get a job - Yes		26.7
Currently using VR services - Yes		27.7
Received SSI/SSDI while working	100	
No		50.0
SSDI		36.0
SSI		16.0

Table 5: *Vision Loss After Employment*

Variable	*N*	%
Retained with same employer after vision loss - No	86	66.3
Discussed vision loss at job site (check all that apply)		
Supervisor		61.6
Human resources		32.6
No one		27.9
Computer or technical support staff		12.8
Other		11.6
Able to continue same job duties - No	84	63.1
Same level of efficiency - No		75.0
Reasons for gap in work history	60	
Left for training in blindness skills		33.3
Additional education		26.7
Unemployed/unable to find employment		16.7
Laid off/company closed		13.3
Needed time to psychologically adjust		11.7
Employer not willing to work with me		10.0
Not right fit		8.3
Getting disability		6.7
Had other medical problems		6.7
Providing childcare		5.0
Other		18.3

Table 6: *Career Advancement*

Variable	*N*	%
Same opportunities for professional development	340	
Yes		75.0
Not sure		8.2
Same opportunities to be considered for promotion	332	
Yes		61.8
Not sure		18.4
Potential for advancement with current employer - Yes	266	51.1
Desire to advance in your career - Yes	263	74.5
Consider changing employers to advance - Yes	266	66.5
Believe VR could help with advancement - Yes	265	41.5