The published version of this document can be found at
https://doi.org/10.1177/0145482X221108902.

Beyond Employment Rates: Social Security Disability Benefit Receipt and Work Among People with Visual Impairments

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Conflicts of Interest and Source of Funding: The authors declare that they have no conflicts of interest. The contents of this manuscript were developed under a grant from the U.S. Department of Health and Human Services, NIDILRR grant 90RTEM0007. However, these contents do not necessarily represent the policy of the Department of Health and Human Services and should not indicate endorsement by the Federal Government.

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The Social Security Disability Insurance (SSDI) program, which originated with the 1954 amendments to the Social Security Act, provides monthly income to beneficiaries with disabilities who are unable to work, based on taxes paid on previous earnings. It was meant to provide an economic safety net to workers with disabilities and their families, emphasizing rehabilitation to help beneficiaries return to employment (Social Security Administration, 2020). To qualify for SSDI benefits, a person must have earned enough work credits, have a disability as defined by the Social Security Administration (SSA) expected to last a year or more, and, if working, not earn more than the substantial gainful activity (SGA) level.

Legal blindness, also referred to as statutory blindness by SSA, has an automatic assumption of eligibility for SSDI benefits. People who qualify for SSDI benefits because of legal blindness also have several advantages over people who qualify for other reasons, including a significantly higher monthly SGA level (i.e., $2,190 versus $1,310 in 2021) and special work incentives, in addition to the work incentives available to all beneficiaries. These provisions allow people who are legally blind to work and earn more while still receiving SSDI benefits.

The percentage of people with visual impairments (those who are blind, legally blind, or have low vision) who receive SSDI benefits is unknown, but several studies have provided estimates. Kirchner and Peterson (1981), citing a 1980 National Society to Prevent Blindness report, stated that more than one-half of working-age people who are legally blind received SSDI, Supplemental Security Income (SSI), or both benefits. Houtenville (2003), using National Health Interview Survey data from the 1990s, documented that 37.4% of men and 47.9% of women who were blind and 7.7% of men and 13.5% of women with other visual impairments received SSA benefits (SSDI, SSI, or both). Based on a national survey of 1,153 participants

with visual impairments, Bell and Silverman (2018) reported that 38.7% of their sample received SSDI benefits.

People with visual impairments have identified SSDI receipt as a barrier to employment, as it discourages seeking employment due to concerns about losing benefits (Silverman et al., 2019; Steverson, 2020). Research has supported an association between disability benefit receipt and not working for people with visual impairments. Across several studies, lower odds of competitive employment among vocational rehabilitation (VR) consumers who receive benefits have been documented (Lund & Cmar, 2019, 2020). Government disability benefit receipt was a very strong predictor of not working among VR applicants with visual impairments – disability benefit recipients were 52.6 times more likely to stop working after disability onset than non-recipients (McKnight et al., 2021). In a 4-year longitudinal analysis, only receiving disability benefits differentiated people with visual impairments who worked continuously (part- or full-time) from those who worked part of the time or didn't work at all (McDonnall, 2020). This effect was large – people who didn't work at all had 35.8 times higher odds of receiving disability benefits than those who worked continuously.

Although the intent of the SSDI program was to promote rehabilitation and re-employment of workers with disabilities, few beneficiaries discontinue benefits due to earnings from employment – less than 0.7% terminated benefits due to work in 2019 (Social Security Administration, 2020). Benefits termination was higher in longitudinal research (3.7%), although one-quarter of beneficiaries who left the disability rolls returned to the rolls during the 10 years of the study (Liu & Stapleton, 2011). However, some SSDI beneficiaries do work. Levels differ based on years, from 15% of SSDI-only beneficiaries in 2007 (Mamun et al., 2011) to 11.4% in 2011, during the Great Recession (Mann et al., 2015). In the only investigation of SSDI-

beneficiary employment by disability type, SSDI-only beneficiaries with visual impairments had higher employment rates and earnings than people with most other types of impairments (Mann et al., 2015). Beneficiaries with visual impairments had the second-highest employment rate (18.1%) and the third-highest average annual earnings ($11,955). Although average earnings were well below the SGA level for people who are blind, 2.1% of SSDI recipients with visual impairments earned above the SGA level.

While researchers have conducted many studies investigating SSDI receipt and employment, only Mann et al. (2015) provided data for beneficiaries with visual impairments. We have little specific information about SSDI beneficiaries with visual impairments, including their overall income. A few studies have presented income data for people with visual impairments, but none provided income data for SSDI beneficiaries (Bell & Silverman, 2018; Houtenville, 2003; Kirchner & Peterson, 1981).

Because SSDI and employment are interrelated, and SSDI benefit receipt is a documented barrier to employment, SSDI receipt and work is an integral topic for this ongoing series on the employment status of people with visual impairments. The purpose of this study is to investigate SSDI receipt among people with visual impairments, and employment and income among SSDI recipients and non-recipients with visual impairments. We investigated the following research questions:

1. What percentage of people with visual impairments receive SSDI?
2. What is the average annual amount of SSDI benefit received?
3. How do the employment rates of SSDI recipients with visual impairments compare to the employment rates of non-recipients?
4. How do the work hours of employed people with visual impairments who receive

SSDI compare to the work hours of employed non-recipients?

5. How does the overall income of people with visual impairments who receive SSDI compare to the income of non-recipients, including those who are employed and not employed?

Method

Data Sources

This study involved secondary analysis of data from two ongoing nationwide surveys: the American Community Survey (ACS) and the Survey of Income and Program Participation (SIPP). Both surveys are administered by the U.S. Census Bureau and provide data for nationally representative samples of U.S. residents.

ACS

The ACS gathers demographic, social, housing, and economic information from about 3.5 million households each year and pools the data across 12 months to produce annual estimates for areas with 65,000 or more residents (U.S. Census Bureau, 2020). We analyzed person-level data from the 2019 Public Use Microdata Sample (PUMS) file for this study, which includes de-identified data for about two-thirds of ACS respondents and represents approximately 1% of the U.S. population (U.S. Census Bureau, 2021). We restricted the analysis sample to individuals in the civilian, non-institutionalized population who were 18 to 65 years old and had a visual impairment (i.e., reported serious difficulty seeing even when wearing glasses). Applying these criteria resulted in an ACS sample size of 39,934 respondents who represented 4,093,503 Americans with visual impairments in the population.

SIPP

SIPP provides longitudinal data about government benefit receipt, income, and labor

force participation for the civilian, non-institutionalized U.S. population (Smith et al., 2020). Each panel of SIPP comprises a sample of households that participate in interviews over multiple years. SIPP compiles monthly data for each reference year, resulting in 12 annual records per respondent. For this study, we analyzed data from Wave 1 of the 2018 SIPP Panel, for which 2017 was the reference year. We limited the analysis sample to respondents who were 18 to 65 years old and reported a visual impairment (i.e., had serious difficulty seeing even when wearing glasses). The SIPP sample comprised 1,438 respondents (with 17,169 monthly observations) who represented 6,810,749 individuals with visual impairments in the United States.

Variables

SSDI receipt was a dichotomous variable that indicated whether the respondent received Social Security benefits any time within the past 12 months (0 = *no*, 1 = *yes*). For SIPP respondents, this variable referred specifically to Social Security benefit receipt due to disability. For ACS respondents, it could have also included Social Security retirement benefits or Railroad Retirement benefits for a small proportion of respondents. *SSDI amount* was a continuous variable that represented the total benefit amount received over the past 12 months. To characterize respondents' recent work history, we used two dichotomous variables (0 = *no*, 1 = *yes*). *Employment* was defined as working any time in the past 12 months (ACS) or at least 1 week of the reference year (SIPP). *Full-year employment* was defined as working 50 to 52 weeks in the past 12 months (ACS) or all 12 months of the reference year (SIPP). *Work hours* was a continuous variable, defined as respondents' usual number of hours worked per week over the past 12 months (ACS) or their average weekly work hours across the past 12 months (SIPP). *Income*, also a continuous variable, included respondents' total income received from all sources during the past 12 months.

Data Analysis

We used SAS version 9.4 to analyze the data using survey analysis procedures to account for survey design effects. We computed descriptive statistics for (a) SSDI receipt, (b) SSDI recipients' annual benefit amount, (c) employment rates by SSDI receipt, (d) work hours by SSDI receipt, and (e) income by SSDI receipt and employment status. To investigate the association between employment rates and SSDI receipt, we conducted a Rao-Scott chi-square test. We compared confidence intervals (CI) for (a) work hours of SSDI recipients and non-recipients and (b) income of SSDI recipients and non-recipients by employment status to determine whether these variables differed significantly across these groups. We applied sampling weights and replicate weights to produce adjusted standard errors and nationally representative estimates for all analyses.

Results

Demographic information for the ACS and SIPP samples, by SSDI receipt, is provided in Table 1. Almost one-fifth of people with visual impairments received SSDI, based on estimates from ACS (19.8%, *SE* = 0.24) and SIPP (19.3%, *SE* = 1.0). For the ACS sample, employment rates for SSDI recipients who worked at any time during the year were 12.4% (*SE* = 0.45) compared to 58.8% (*SE* = 0.37) for non-recipients (Rao-Scott $\chi^2(1, N=39{,}934) = 3860.32$, $p < .0001$). For the SIPP sample, employment rates for SSDI recipients who worked at any time during the year were 7.6% (*SE* = 1.59) compared to 56.8% (*SE* = 1.69) for non-recipients (Rao-Scott $\chi^2(1, N=1{,}438) = 197.98$, $p < .0001$). Few SSDI recipients worked all year: 6.8% (*SE* = 0.37) of the ACS sample and 4.6% (*SE* = 1.25) of the SIPP sample.

Among employed SSDI recipients, average weekly number of hours worked was 26.05 [95% CI: 24.75, 27.35] for ACS and 22.52 [95% CI: 16.67, 28.37] for SIPP. Among employed

non-recipients, average weekly number of hours worked was 38.26 [95% CI: 38.00, 38.53] for ACS and 37.50 [95% CI: 36.38, 38.62] for SIPP. Table 2 presents estimates for average annual SSDI benefit amount and income by SSDI receipt.

Discussion

This study focused on SSDI receipt, employment, and income of individuals with visual impairments. We used data from two U.S. surveys (ACS and SIPP) to produce nationally representative estimates. Our analyses indicated that 19-20% of people with visual impairments received SSDI. Compared to non-recipients, SSDI recipients were older, had lower levels of education, and a smaller percentage were Hispanic or Latino. Our SIPP analyses indicated higher mean and median annual SSDI benefit amounts than the ACS analyses. This discrepancy could relate to the inability to remove ACS respondents who were not SSDI recipients from the dataset. Still, both estimates were lower than the 2019 average annual benefit amount for all SSDI beneficiaries of $15,096 (Social Security Administration, 2020), which may relate to survey respondents' tendencies to underreport these figures (Meyer et al., 2015).

A substantially smaller percentage of SSDI recipients worked in the past year compared to non-recipients. The employment rate for SSDI recipients in this study was 7.6% based on SIPP data and 12.4% based on ACS data, with estimates considerably lower for working the entire year. These estimates are lower than the employment rate of 18.1% for SSDI beneficiaries with a primary disability of visual impairment from 2011 (Mann et al., 2015) when the U.S. economy was recovering from the Great Recession. VR services may greatly increase the likelihood of employment for SSDI beneficiaries with visual impairments, as 45.4% of SSDI-beneficiary consumers achieved competitive employment after receiving VR services (Giesen & Hierholzer, 2016). Differences in sample characteristics, primary disability category, and data

sources (i.e., survey vs. administrative data) may explain these employment rate discrepancies.

The work hours of employed people differed significantly by SSDI receipt, with SSDI recipients working fewer hours than non-recipients. On average, SSDI recipients worked part-time whereas non-recipients worked full-time. This finding coincides with research indicating that, despite the potential for higher earnings and fringe benefits from full-time work (Taylor & Blackburn, 2020), only 8.9% of SSDI beneficiaries worked full-time and 32.4% reported working fewer hours or earning less than they could (Social Security Administration, 2018). In several studies, SSDI beneficiaries reported keeping their earnings low to avoid jeopardizing the stable income from SSDI and the associated health care coverage (Olney & Lyle, 2011; Taylor & Blackburn, 2020).

SSDI recipients had lower average annual income than non-recipients; however, median income did not differ significantly by SSDI receipt. Different, yet unsurprising, patterns emerged when comparing income by employment status. Employed SSDI recipients had lower average annual income than employed non-recipients, which corresponds with our findings regarding work hours and the SGA requirements for SSDI beneficiaries. In contrast, unemployed SSDI recipients had higher average annual income than unemployed non-recipients, as expected considering their extra income from SSDI. Findings were similar for median income, although SIPP estimates of median income of employed SSDI recipients and non-recipients did not differ significantly.

Several study limitations are important to consider when interpreting our findings. Both data sources are national surveys; therefore, all estimates in this study are based on self-report. Self-reported SSDI and income amounts may be subject to measurement error and are less precise than estimates from administrative data sources. Due to the phrasing of the survey

questions, SSDI recipients in the ACS sample may include a small proportion of individuals who were receiving early Social Security retirement or railroad retirement benefits.

Despite these limitations, this study provides current information about SSDI receipt and work for people with visual impairments that is not available in other publications. It would be useful to analyze SSA administrative data to produce more precise SSDI estimates and confirm the accuracy of our findings. Still, using ACS and SIPP data was advantageous because it allowed for comparisons between SSDI recipients and non-recipients that would not be possible with SSA data. Additional research is needed to examine household income and poverty rates of employed and unemployed SSDI beneficiaries.

References

Bell, E. C., & Silverman, A. M. (2018). Rehabilitation and employment outcomes for adults who are blind or visually impaired: An updated report. *Journal of Blindness Innovation & Research*, *8*(1). https://doi.org/10.5241/8-148

Giesen, J. M., & Hierholzer, A. (2016). Vocational rehabilitation services and employment for SSDI beneficiaries with visual impairments. *Journal of Vocational Rehabilitation*, *44*(2), 175–189. https://doi.org/10.3233/JVR-150789

Houtenville, A. J. (2003). A comparison of the economic status of working-age persons with visual impairments and those of other groups. *Journal of Visual Impairment & Blindness*, *97*(3), 133–148.

Kirchner, C., & Peterson, R. (1981). Trends and latest policy changes in Social Security programs for blind persons. *Journal of Visual Impairment & Blindness*, *75*(9), 381–381.

Liu, S., & Stapleton, D. C. (2011). Longitudinal statistics on work activity and use of employment supports for new Social Security Disability Insurance beneficiaries. *Social Security Bulletin*, *71*(3), 35–59.

Lund, E. M., & Cmar, J. L. (2019). Factors related to employment outcomes in vocational rehabilitation consumers with visual impairments: A systematic review. *Journal of Visual Impairment & Blindness*, *113*(6), 518–537. https://doi.org/10.1177/0145482X19885277

Lund, E. M., & Cmar, J. L. (2020). A systematic review of factors related to employment in transition-age youth with visual impairments. *Rehabilitation Psychology*, *65*(2), 122–136. https://doi.org/10.1037/rep0000303

Mamun, A., Leary, P. O., Gregory, J., & Wittenburg, D. C. (2011). Employment among Social Security disability program beneficiaries, 1996 – 2007. *Social Security Bulletin*, *71*(3), 11–34.

Mann, D. R., Mamun, A., & Hemmeter, J. (2015). Employment, earnings, and primary impairments among beneficiaries of Social Security Disability programs. *Social Security Bulletin*, *75*(2), 19–40.

McDonnall, M. C. (2020). Multinomial logistic regression analyses of 2014-2018 SIPP data. Unpublished data analyses.

McKnight, Z. S., Crudden, A., & McDonnall, M. C. (2021). Personal characteristics associated with working after disability onset for people with visual impairments. *Journal of Visual Impairment & Blindness*, *115*(2), 95–105. https://doi.org/10.1177/0145482x211000960

Meyer, B. D., Mok, W. K. C., & Sullivan, J. X. (2015). *The under-reporting of transfers in*

household surveys: Its nature and consequences. https://harris.uchicago.edu/files/underreporting.pdf

Olney, M. F., & Lyle, C. (2011). The benefits trap: Barriers to employment experienced by SSA beneficiaries. *Rehabilitation Counseling Bulletin*, *54*(4), 197–209. https://doi.org/10.1177/0034355211400209

Silverman, A. M., Bell, E. C., & Mendez, M. A. (2019). Understanding the employment experiences of Americans who are legally blind. *Journal of Rehabilitation, 85*(1), 44–52.

Smith, A., Irving, S., & Gomez, M. (2020). *2018 Survey of Income and Program Participation users' guide*. U.S. Department of Commerce, Economic and Statistics Administration, U.S. Census Bureau. https://www.census.gov/programs-surveys/sipp/guidance/users-guide.html

Social Security Administration. (2018). *National beneficiary survey: Disability statistics, 2015*. https://www.ssa.gov/policy/docs/statcomps/nbs/index.html

Social Security Administration. (2020). *Social Security Annual Statistical Report on the Social Security Disability Insurance Program, 2019*. https://www.ssa.gov/policy/docs/statcomps/ssi_asr/

Steverson, A. (2020). Relationship of employment barriers to age of onset of vision loss. *Journal of Visual Impairment & Blindness, 114*(1), 63–69. https://doi.org/10.1177/0145482X20901382

Taylor, A. B., & Blackburn, N. (2020). "It makes me feel part of the society ": Return-to-work decisions of SSDI beneficiaries. *Journal of Vocational Rehabilitation, 53*, 319–333. https://doi.org/10.3233/JVR-201108

U.S. Census Bureau. (2020). *Understanding and using American Community Survey data: What all data users need to know*. https://www.census.gov/programs-surveys/acs/guidance/handbooks/general.html

U.S. Census Bureau. (2021). *Understanding and using the American Community Survey public use microdata sample files: What data users need to know*. https://www.census.gov/programs-surveys/acs/microdata.html

Table 1

Sample Demographic Information

Variable	ACS				SIPP			
	SSDI		No SSDI		SSDI		No SSDI	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Gender								
Male	403,405	49.7	1,628,054	49.6	569,504	43.5	2,273,750	41.3
Female	407,755	50.3	1,654,289	50.4	741,051	56.5	3,226,444	58.7
Hispanic or Latino	107,866	13.3	657,781	20.0	134,054	10.2	1,048,402	19.1
Race								
White only	559,459	69.0	2,192,692	66.8	966,972	73.8	3,981,702	72.4
Black only	162,576	20.0	605,864	18.5	226,360	17.3	927,895	16.9
Other races	89,125	11.0	483,787	14.7	117,223	8.9	590,597	10.7
Education								
Less than high school (HS)	201,254	24.8	664,089	20.2	228,095	17.4	1,006,178	18.3
HS diploma or equivalent	300,683	37.1	1,050,521	32.0	546,378	41.7	1,859,288	33.8
Some college	226,878	28.0	1,024,897	31.2	392,065	29.9	1,652,919	30.1
Bachelor's or higher degree	82,345	10.2	542,836	16.5	144,017	11.0	981,810	17.9
Age[a]	54.84	0.19	44.66	0.10	54.54	0.65	46.61	0.43

Note. SSDI = Social Security Disability Insurance. Data from American Community Survey (ACS) 2019 1-year Public Use Microdata Sample and Survey of Income and Program Participation (SIPP) 2018 Panel, Wave 1. All estimates are weighted to be nationally representative.

[a]Values represent means and standard errors.

Table 2

Social Security Disability Insurance (SSDI) Benefit and Personal Income for People with Visual Impairments

Variable	Mean [95% CI]		Median [95% CI]	
	SSDI	No SSDI	SSDI	No SSDI
	American Community Survey (ACS)			
Benefit amount	11,051 [10,851, 11,250]	NA	10,312 [10,015, 10,609]	NA
Income - All	18,975 [18,456, 19,494]	28,492 [27,923, 29,062]	13,123 [12,816, 13,430]	14,142 [13,311, 14,973]
Employed	34,391 [31,501, 37,281]	42,901 [42,081, 43,721]	23,678 [21,938, 25,417]	30,237 [29,641, 30,832]
Not employed	16,796 [16,267, 17,325]	7,911 [7,548, 8,274]	12,286 [11,955, 12,618]	2,417 [1,796, 3,039]
	Survey of Income and Program Participation (SIPP)			
Benefit amount	14,006 [13,203, 14,809]	NA	13,355 [12,653, 14,057]	NA
Income - All	20,631 [18,542, 22,719]	29,252 [26,085, 32,418]	16,361 [14,901, 17,821]	13,613 [11,188, 16,037]
Employed	26,257 [21,458, 31,056]	45,860 [41,002, 50,717]	23,841 [19,537, 28,145]	30,169 [28,029, 32,310]
Not employed	20,167 [17,924, 22,411]	7,262 [5,887, 8,637]	15,725 [14,275, 17,174]	2,419 [1,421, 3,417]

Note. CI = confidence interval. Weighted estimates from ACS 2019 1-year Public Use Microdata Sample and SIPP 2018 Panel, Wave 1. All numbers are rounded to represent U.S. dollars ($).