

SOCIAL SECURITY BULLETIN Vol. 81, No. 2, 2021

IN THIS ISSUE: **▶ Social Security Administration Disability Programs and Individuals Facing Homelessness ▶** Changing Stays? Duration of Supplemental **Security Income Participation by First-**Time Child Awardees and the Role of **Continuing Disability Reviews**

The Social Security Bulletin (ISSN 1937-4666) is published quarterly by the Social Security Administration, 250 E Street SW, 8th Floor, Washington, DC 20254.

The *Bulletin* is prepared in the Office of Retirement and Disability Policy, Office of Research, Evaluation, and Statistics. Suggestions or comments concerning the *Bulletin* should be sent to the Office of Research, Evaluation, and Statistics at the above address. Comments may also be sent by e-mail to ssb@ssa.gov.

Note: Contents of this publication are not copyrighted; any items may be reprinted, but citation of the *Social Security Bulletin* as the source is requested. The *Bulletin* is available on the web at https://www.ssa.gov/policy/docs/ssb/.

Errata Policy: If errors that impair data interpretation are found after publication, corrections will be posted as errata on the web at https://www.ssa.gov/policy/docs/ssb/v81n2/index.html.

The findings and conclusions presented in the *Bulletin* are those of the authors and do not necessarily represent the views of the Social Security Administration.

SSA Publication No. 13-11700

Produced and published at U.S. taxpayer expense

Andrew Saul

Commissioner of Social Security

Kilolo Kijakazi

Deputy Commissioner

for Retirement and Disability Policy

Katherine N. Bent Acting Associate Commissioner for Research, Evaluation, and Statistics

Office of Dissemination

Margaret F. Jones, Director

Staff

Jessie Ann Dalrymple Benjamin Pitkin Wanda Sivak

Perspectives Editor

Michael Leonesio

Social Security Bulletin

Volume 81 • Number 2 • 2021

Articles

1 Social Security Administration Disability Programs and Individuals Facing Homelessness by Joyce Nicholas and Thomas W. Hale

This article examines the geographic, demographic, socioeconomic, and program-participation characteristics of initial Supplemental Security Income (SSI) and Social Security Disability Insurance (DI) applicants who faced homelessness during 2007–2017. Using Social Security Administration data, the authors chart the distribution of homeless SSI/DI applicants and beneficiaries across county-equivalent areas in the contiguous United States. They also use a text-mining method to identify 162,536 potentially homeless disability-program applicants, in addition to the 647,790 applicants identified using the standard homeless-status indicators in the administrative data. They find that homelessness among disability-program applicants was largely an urban phenomenon, with almost half (42.1 percent) of applicants living in one of 25 urban areas. Relative to their domiciled counterparts, homeless disability-program applicants were far more likely to be male, aged 18-64, and without a high school or general equivalency diploma.

17 Changing Stavs? Duration of Supplemental Security Income Participation by First-Time Child Awardees and the Role of Continuing Disability Reviews

by Jeffrey Hemmeter, Michael Levere, Pragya Singh, and David C. Wittenburg

This article provides new evidence of the changing role of the Supplemental Security Income (SSI) program for low-income children since 1997. The authors use administrative records from the Social Security Administration to identify new SSI awardees and track their histories in SSI and in the Social Security Disability Insurance program. SSI participation lasted much longer for 2007 and 2012 awardees than for their 1997 counterparts. However, the authors also find that the volume of continuing disability reviews, which determine continuation or cessation of SSI eligibility and were conducted more frequently for 1997 awardees than for subsequent cohorts, strongly affects length of program participation. The trend toward longer periods of program participation therefore might not continue, given that the number of continuing disability reviews has risen substantially since 2015.

Social Security Administration Disability Programs and Individuals Facing Homelessness

by Joyce Nicholas and Thomas W. Hale*

This article examines the geographic, demographic, socioeconomic, and program-participation characteristics of initial Supplemental Security Income (SSI) and Social Security Disability Insurance (DI) applicants who faced homelessness during 2007–2017. Using Social Security Administration data, we chart the distribution of homeless SSI/DI applicants and beneficiaries across county-equivalent areas in the contiguous United States. We also use a text-mining method to identify 162,536 potentially homeless disability-program applicants, in addition to the 647,790 applicants identified using the standard homeless-status indicators in the administrative data. We find that homelessness among disability-program applicants was largely an urban phenomenon, with almost half (42.1 percent) of applicants living in one of 25 urban areas. Relative to their domiciled counterparts, homeless disability-program applicants were far more likely to be male, aged 18–64, and without a high school or general equivalency diploma. Allowance rates varied among studied applicants differentiated by program, mortality status, and primary impairment.

Introduction

This study provides new quantitative information about individuals who applied for Supplemental Security Income (SSI) and Social Security Disability Insurance (DI) disability benefits when they were experiencing or at risk of homelessness. The Social Security Administration (SSA) places great importance on identifying homeless disability-program applicants because their unmet housing needs, along with their health challenges, make it harder for them to navigate the application process. By understanding the geographic distribution of homeless disability-program applicants across SSA's service areas, and their demographic, socioeconomic, and program-participation characteristics, SSA can improve its efforts to ensure that homeless applicants receive needed supports.

For this article, we supplement structured data from SSA disability-benefit applicant intake forms with text mined from the "residential address" and "note" fields of those forms to identify individuals who were experiencing or at risk of homelessness.¹ Our primary

purpose is to provide an overview of the prevalence of homelessness among SSA's service population. We identify 810,326 individuals experiencing homelessness who submitted an initial SSI/DI disability-benefit application during the years 2007 through 2017 and had a medical decision made by a state Disability Determination Service (DDS) after September 2007.² This study is the first to examine the distribution of homeless SSI/DI applicants and beneficiaries across county-equivalent areas in the contiguous United States.³

Selected Abbreviations

DDS Disability Determination Service

DI Disability Insurance

EDCS Electronic Disability Collect System
HUD Department of Housing and Urban

Development

ISM in-kind support and maintenance

Note: Contents of this publication are not copyrighted; any items may be reprinted, but citation of the Social Security Bulletin as the source is requested. The Bulletin is available on the web at https://www.ssa.gov/policy/docs/ssb/. The findings and conclusions presented in the Bulletin are those of the authors and do not necessarily represent the views of the Social Security Administration.

^{*} Joyce Nicholas is a social science research analyst in the Office of Retirement and Disability Policy (ORDP), Social Security Administration (SSA). When this article was written, Thomas Hale was an economist with ORDP, SSA.

Selected Abbreviations—Continued

MSSICS Modernized Supplemental Security Income

Claims System

SSA Social Security Administration SSI Supplemental Security Income

USICH U.S. Interagency Council on Homelessness

To compile our count of homeless disability-program applicants, we began by identifying the individuals who were recorded as experiencing homelessness in one of two ways in the administrative records. The first is the "homeless flag," which an SSA field officer activates in the DI or SSI applicant's file to alert other SSA and DDS staff to follow the special case-processing procedures required in cases involving homelessness. The second is the "transient indicator," which is attached to an SSI applicant's file for the same purpose as the homeless flag but is also used in postentitlement inkind support and maintenance (ISM) evaluations.⁴ To the count of individuals identified by the homeless flag and the transient indicator, we added applicants that we identified as experiencing homelessness by mining the text in "residential address" and "administrative note" fields in those application files. With the textmining experiment, this article explores whether SSA's processes and mechanisms for recording homeless and transient status potentially miss any disability-program applicants who face housing instability.

Background

In administering the SSI and DI programs, SSA provides income stability for individuals with disabilities who meet the program requirements and are experiencing homelessness. SSI and DI, in concert with other programs, can help individuals transition from homelessness toward stable and permanent housing. SSA promotes and seeks to improve collaboration with government and nonprofit stakeholders who serve individuals experiencing homelessness and can assist that population during both the initial SSI/ DI application and the medical determination process.⁵ SSA is one of 19 agencies participating in the U.S. Interagency Council on Homelessness (USICH), which oversees and coordinates the federal response to homelessness.⁶ In addition to this study, SSA has conducted various data analyses to inform USICH efforts. For example, in 2014, SSA evaluated the outcomes of Social Security disability applications submitted through the Benefits Entitlement Services Team

(BEST) demonstration project to determine if the project successfully increased access to SSI/DI benefits for individuals experiencing homelessness (Kennedy and King 2014). SSA also conducted and evaluated the Homeless with Schizophrenia Presumptive Disability pilot. The evaluation found that providing support during the application process for homeless individuals with a serious mental illness led to higher allowance rates at the initial adjudication level, fewer requests for consultative examinations, and reduced time to allowance (Bailey, Engler, and Hemmeter 2016).

SSA Disability Programs

The SSI program makes payments to individuals with a qualifying disability and limited income and resources; the DI program provides benefits to disabled workers who are insured (based on their earnings records) and, in some cases, to their eligible family members. Section 223 of the Social Security Act defines disability as "the inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months." For both programs, individuals must meet that definition of disability. The SSI program is means-tested; qualifying applicants must have income and assets below certain levels. To qualify for DI benefits, individuals must have accrued sufficient work credits based on their earnings histories.

The disability determination process begins when the individual applies for SSI, DI, or both and submits the application(s) to an SSA field office, where a staff member first verifies nonmedical eligibility by determining whether the applicant is engaged in substantial gainful activity, as indicated by an annually adjusted earnings threshold.⁸ If so, the field office denies the application; otherwise, the field office sends the case to a state DDS office.

In both programs, the DDS determines disability based on vocational and medical evidence from the applicant's medical or behavioral care providers or from a consultative examination—that is, a physical or mental examination or test purchased by SSA. If the DDS determines that the applicant is not disabled, the applicant may request reconsideration, in which the DDS thoroughly reexamines all evidence used in the initial determination and any additional evidence or information submitted with the reconsideration appeal. If the DDS denies the application at the reconsideration level, the claimant may request an appeal hearing

before an administrative law judge (ALJ). If the claim is denied at the ALJ level, the applicant can then bring the case to the SSA Appeals Council; if the Council denies the claim or decides not to review the case, the applicant can appeal to federal district court.⁹

SSA Definitions of Housing Instability

SSA uses two definitions of housing instability in its disability programs. The first definition is the one that must be met to activate the homeless flag. It therefore applies to both the SSI and DI programs, and it has two components, one reflecting current status and the other reflecting prospective risk. SSA defines a disability-program applicant as "homeless" if he or she (1) does not have a fixed, regular, and adequate nighttime residence; or (2) is at risk of losing or is expected to lose his or her current accommodations within 14 days and will not have a fixed, regular, and adequate nighttime residence (SSA 2014a). SSA uses this definition to flag disability-program applications for special expedited processing so that individuals who face homelessness and meet the eligibility criteria can begin to receive stable income sooner. If an applicant meets this definition, SSA policy requires field office staff to activate the homeless flag manually in the agency's Electronic Disability Collect System (EDCS). Thus, we use the EDCS homeless flag to identify applicants meeting this first definition.

The second definition applies only to the SSI program. SSA defines an applicant as "transient" if he or she has no permanent living arrangement or fixed place of residence. A member of a household or a resident of an institution is not considered transient: an individual who is homeless, or who stays with a succession of friends or relatives with no permanent arrangement, is considered transient (SSA 2005). SSA operational policy instructs field office staff to apply a "transient" indicator in the Modernized SSI Claims System (MSSICS) to record SSI applicants and recipients experiencing current housing instability.¹⁰ SSA uses this information primarily to determine the applicant's living-arrangement category (which may affect SSI payment amounts) and to help account for ISM (such as food or shelter received from family or friends) at the time of application or, if SSI payments have begun, at the time of an ISM evaluation (Nicholas 2014). SSA operational policy also instructs field office staff to activate the EDCS homeless flag on any pending disability-program application for a claimant whose SSI living arrangement is flagged as transient. We use the MSSICS transient indicator to

identify applicants meeting this second definition of homelessness.

For this study, we also apply a third definition of homelessness, which more closely aligns with the Department of Housing and Urban Development (HUD) definition adopted by USICH. That definition identifies an individual as chronically homeless if he or she can be diagnosed with a physical or mental disability, is (or was) without a home, and experienced housing instability for at least 12 months either consecutively or during at least four separate occasions within the last 3 years (HUD 2015). For this study, we use the HUD/USICH homeless definition, which we identify in SSA records via text mining, to detect members of the SSI/DI population who may be experiencing homelessness but do not have a homeless flag or transient indicator on their record.¹¹ Specifically, for applicants either filing an SSI/DI claim or undergoing an SSI ISM evaluation, we search the content of the residential-address and administrative-note fields in their records for terms and phrases that reflect similarities with the USICH definition of homelessness.¹² This approach is broad, but it represents a first step toward understanding whether the homeless flag and transient indicator alone might undercount the homeless population.

Data and Methods

We used administrative data available from four SSA sources as of August 16, 2017. First, we used the Disability Analysis Support Hub (DASH) for programmatic information and ZIP Codes for all initial SSI/ DI applications transferred from an SSA field office to a state DDS where a medical decision occurred after September 2007. We also used the DASH to detect the use of the homeless flag and transient indicator, and to provide the address and note field contents needed to identify homeless applicants via text mining. Second, we used the 2017 release of the Disability Research File (DRF) to obtain a 10-year view of SSI/DI application and payment information.¹³ Third, we used the 2015 version of the Disability Analysis File to obtain 2015 earnings data and any additional or more current SSI and DI payment data. We concluded our analysis using death records available as of December 31, 2018 from the restricted-access Death Master File.

Several data limitations influenced the parameters of our study. First, the reference periods of available data sources permitted us to study only homeless individuals who submitted an initial application during calendar years 2007 through 2017 and had a medical

decision rendered by a DDS after September 2007. Second, the limited availability of recent and accurate annual income data at the time of writing prevented us from examining earnings data for years since 2015.

Identification of Study Group

We applied the three methods of detecting homeless status to identify the subset of 2007–2017 disability-program applicants we sought to include in our study. We selected DI applicants who had a homeless flag or text in the residential-address or administrative-note field indicating that they were homeless when they filed their application. We chose SSI applicants who had a homeless flag, transient indicator, or text in the residential-address or administrative-note field specifying that they were homeless at the time of either an SSI application or a subsequent ISM evaluation.

Many applicants experiencing homelessness may not complete the SSI/DI application process or may have their applications denied because they lack supporting documentation of medical impairments (Bailey, Engler, and Hemmeter 2016). As such, many individuals apply for benefits multiple times. To support a person-level analysis and to avoid double counting, we limited our study to the administrative records for only the *most recent* application of each homeless disability-program applicant whose *initial* application was received by SSA during 2007–2017. We examined

Table 1.
Disability-program applicants experiencing homelessness, by method of identifying homeless status, 2007–2017

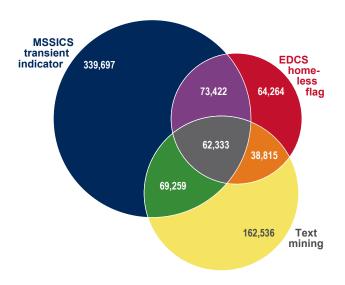
Measure	Number	Percent
Total	810,326	100.0
One method only	566,497	69.9
EDCS homeless flag	64,264	7.9
MSSICS transient indicator	339,697	41.9
Text mining	162,536	20.1
Two methods	181,496	22.4
EDCS homeless flag and MSSICS transient indicator	73,422	9.1
EDCS homeless flag and text mining	38,815	4.8
MSSICS transient indicator and text mining	69,259	8.5
All three methods	62,333	7.7

SOURCE: Authors' calculations using administrative data from SSA.

data from the last application filed before an allowance or denial decision in which an SSA staff member identified the applicant as homeless.^{15,16} Likewise, to avoid double counting members of our comparison group of domiciled disability-program applicants, we applied the same selection criteria and methodology.

The study group is composed of 810,326 individuals, hereafter referred to as "homeless disability applicants." Of these, we identified 64,264 cases (7.9 percent) with an EDCS homeless flag but no transient indicator or text-mining results indicating homelessness; 339,697 cases (41.9 percent) with an MSSICS transient indicator but no homeless flag or text-mining results indicating homelessness; and 162,536 cases (20.1 percent) of homelessness indicated by only the text-mining method (Table 1 and Chart 1). We also identified 181,496 applicants (22.4 percent) by any combination of two of the three methods, as well as 62,333 applicants (7.7 percent) whose file met all three definitions. The 162,536 applicants who were identified by text mining alone—20.1 percent of the total group—would have been excluded from the study if we had used only the SSI transient indicator and SSI/DI homeless flag to identify homeless disability applicants. This outcome confirms that our text-mining method, using the HUD definition of homelessness, greatly increases the number of disability applicants identified as experiencing homelessness.

Chart 1.
Disability-program applicants experiencing homelessness, by method of identifying homeless status, 2007–2017



SOURCE: Authors' calculations using administrative data from SSA.

Before conducting our geospatial analysis, we assessed how frequently field office staff applied the EDCS homeless flag and the MSSICS transient indicator. The activation of the MSSICS transient indicator requires the activation of the EDCS homeless flag but only at the time an active SSI application is available for expedited processing (SSA 2005, 2014b, 2014c). As a result, for SSI allowances, we were unable to determine whether SSA staff had applied the MSSICS transient indicator at the time of application or during a postentitlement ISM evaluation. Therefore, we assessed the use of the EDCS homeless flag and the MSSICS transient indicator by focusing on SSI denials because it is certain that field office staff applied the MSSICS transient indicator for this subgroup only at the time of application, and not for a postentitlement ISM evaluation.

About one-quarter (25.6 percent) of denied SSI applications had neither an EDCS homeless flag nor an MSSICS transient indicator; we identified the applicants as homeless using text mining (Table 2). Another 13.7 percent of denied SSI applications were identified with only an EDCS homeless flag. The remaining 60.7 percent of SSI denials had an MSSICS transient indicator; and although this entire subgroup should have had an EDCS homeless flag activated as well, only about one out of four had one.

Among all 439,422 denied SSI/DI applications, we found that only 28.3 percent had an EDCS homeless flag activated for them and received expedited processing of their disability claims because of homelessness; however, there are many other reasons for which SSA may flag claims for expedited processing.¹⁷ Despite the limits of our study data, the analysis of denied applications begins to illuminate how frequently field office staff use the homeless flag and transient indicator for individuals facing disability and homelessness.

Geospatial Analysis

Although our study group consists of 810,326 homeless disability applicants in SSA's entire domestic service area, we focused our geospatial analysis on applicants in the 48 contiguous states. We anchored our geospatial analysis on the ZIP Codes of homeless disability applicants with a mailing address. We used Public Use Microdata Areas, developed for the Census Bureau's American Community Survey, to provide the conversion factors needed to generate county-based statistics from ZIP Code-level data. Our study covers 2,274 county-equivalent areas across the lower 48 states. 18,19 Of the full study group, about 82.6 percent (669,298) had ZIP Code data indicating residence in the lower 48 states.²⁰ Another 7.6 percent had ZIP Code data indicating residence in Alaska, Hawaii, or U.S. territories such as Guam and Puerto Rico. The remaining 9.8 percent of studied homeless disability applicants had no recorded ZIP Code.

Findings

We present our findings from three perspectives. First, we examine the geographic distribution of the homeless disability applicants. Second, we consider their demographic and socioeconomic characteristics. Third, we look at the differences (or similarities) between DI and SSI homeless disability applicants.

Geospatial Distribution of Homeless Disability Applicants

Charts 2–4 are maps of the contiguous United States respectively showing homeless disability applicants per 50,000 residents, homeless disability beneficiaries per 50,000 residents, and the 25 metropolitan areas²¹ with the highest numbers of homeless disability applicants, all for the period 2007–2017. These maps

Table 2.

Denied disability-benefit applications from individuals experiencing homelessness, by program and method of identifying homeless status, 2007–2017

	Total		DIo	nly	SSI ^a	
Method	Number	Percent	Number	Percent	Number	Percent
All	439,422	100.0	27,507	100.0	411,915	100.0
EDCS homeless flag only	62,003	14.1	5,375	19.5	56,628	13.7
MSSICS transient indicator only	194,326	44.2	6,022	21.9	188,304	45.7
Both homeless flag and transient indicator	62,361	14.2	586	2.1	61,775	15.0
Text mining only	120,732	27.5	15,524	56.5	105,208	25.6

a. Includes individuals who applied for concurrent SSI and DI benefits.

Chart 2. Homeless disability applicants per 50,000 residents, by county-equivalent area, 2007–2017



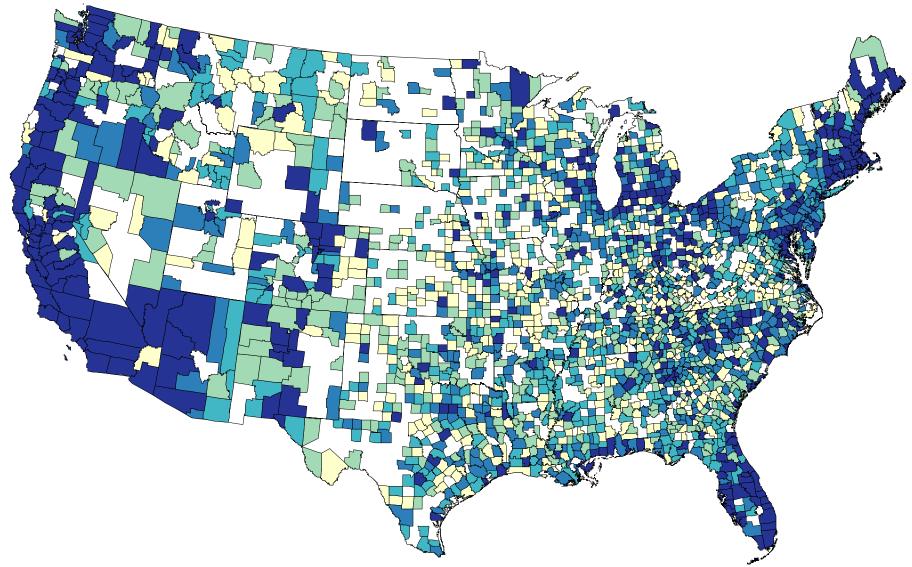


Chart 3. Homeless disability beneficiaries per 50,000 residents, by county-equivalent area, 2007–2017

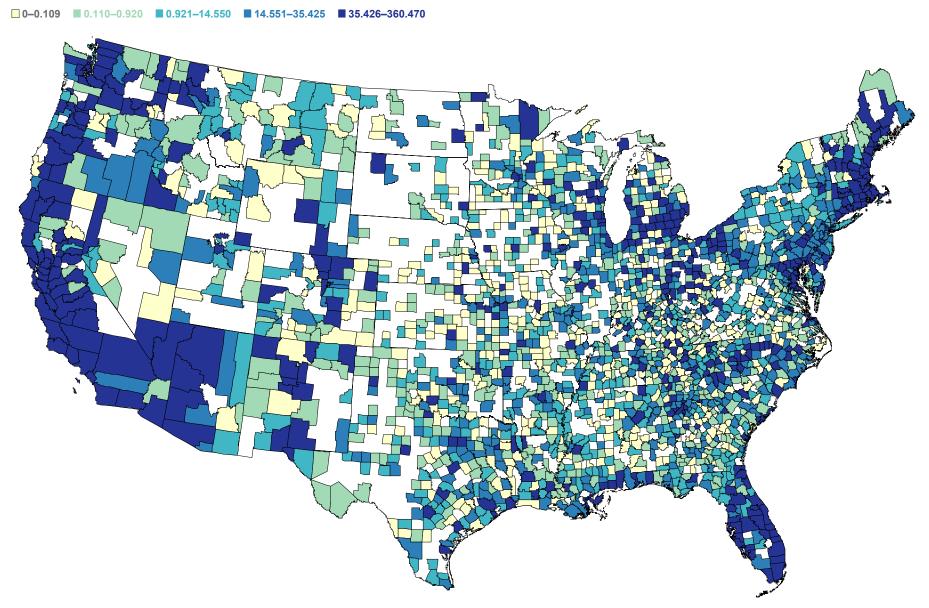
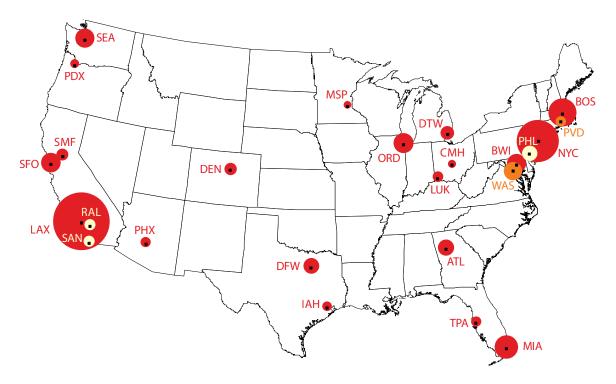


Chart 4. Twenty-five core-based statistical areas with the most homeless disability applicants, 2007–2017



SOURCE: Authors' calculations using administrative data from SSA and Office of Management and Budget.

NOTES: Core-based statistical areas are identified by airport code.

See Table 3 for the number of homeless disability applicants in each area.

provide four main takeaways. First, across the lower 48 states, the most prominent clusters of homeless disability applicants appeared along the West Coast and the northeastern Interstate 95 corridor, in the Great Lakes region, and in Florida (Chart 2). Second, the geographic distributions of homeless disability applicants and beneficiaries were similar, based on a visual comparison of Charts 2 and 3. Third, most clusters of homeless disability applicants occurred in urban counties with at least 50,000 residents; about 9.8 percent of homeless disability applicants lived in either the Los Angeles or the New York City metropolitan area and an additional 32.3 percent lived in 23 other urban areas (Chart 4 and Table 3). Fourth, less than 1 percent of homeless disability applicants resided in a band of counties in the central states running continuously from North Dakota through western Texas (Chart 2). Our geospatial analysis revealed that 98 percent of our study group in the lower 48 states resided in county-equivalent areas with at least 50,000 inhabitants and that homelessness among disability applicants is largely an urban phenomenon. This finding is consistent with HUD's point-in-time estimates of the

population experiencing homelessness, which indicate that California and New York have the largest numbers of homeless individuals (driven by Los Angeles and New York City), followed by Florida (HUD 2017). By contrast, the share of the entire U.S. population that lived in urban areas at the end of our study period was 80 percent (Census Bureau 2017).

Demographic and Socioeconomic Characteristics

Relative to domiciled disability applicants (that is, those not identified as homeless), homeless disability applicants were more likely to be men, of working age (18–64), and without a high school diploma or equivalent (Table 4). They were also more likely to have died as of December 31, 2018.

Among the homeless disability applicants, 47,178 (5.8 percent) worked during 2015.²² Some earnings-related statistics, not shown in Table 4, provide interesting perspectives on the applicants we identify as homeless. For example, those who worked had median annual earnings of \$3,261. Furthermore, those whose applications were denied had median earnings

Table 3.

Twenty-five core-based statistical areas ranked by largest homeless disability applicant population in the period 2007–2017

		Homeless disab	ility applicants
	Airport code		As a percentage of
Rank and core-based statistical area	identifier	Number	study group ^a
1. Los Angeles-Long Beach-Anaheim, CA	LAX	46,135	5.7
2. New York-Newark-Jersey City, NY-NJ-PA	NYC	33,525	4.1
3. Boston-Cambridge-Newton, MA-NH	BOS	22,446	2.8
4. Miami-Fort Lauderdale-West Palm Beach, FL	MIA	18,420	2.3
5. Chicago-Naperville-Elgin, IL-IN-WI	ORD	15,769	1.9
6. San Francisco-Oakland-Hayward, CA	SFO	15,677	1.9
7. Seattle-Tacoma-Bellevue, WA	SEA	15,228	1.9
8. Baltimore-Columbia-Towson, MD	BWI	14,905	1.8
9. Washington-Arlington-Alexandria, DC-VA-MD-WV	WAS	14,489	1.8
10. Atlanta-Sandy Springs-Roswell, GA	ATL	12,611	1.6
11. Dallas-Fort Worth-Arlington, TX	DFW	12,454	1.5
12. Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	PHL	11,906	1.5
13. Detroit-Warren-Dearborn, MI	DTW	10,821	1.3
14. Sacramento-Roseville-Arden-Arcade, CA	SMF	9,765	1.2
15. Denver-Aurora-Lakewood, CO	DEN	9,714	1.2
16. San Diego-Carlsbad, CA	SAN	9,083	1.1
17. Riverside-San Bernardino-Ontario, CA	RAL	8,772	1.1
18. Cincinnati, OH-KY-IN	LUK	8,352	1.0
19. Phoenix-Mesa-Scottsdale, AZ	PHX	8,251	1.0
20. Providence-Warwick, RI-MA	PVD	8,231	1.0
21. Tampa-St. Petersburg-Clearwater, FL	TPA	8,036	1.0
22. Houston-The Woodlands-Sugar Land, TX	IAH	7,458	0.9
23. Portland-Vancouver-Hillsboro, OR-WA	PDX	7,145	0.9
24. Columbus, OH	CMH	6,285	0.8
25. Minneapolis-St. Paul-Bloomington, MN-WI	MSP	6,001	0.7
Top 25 combined		341,479	42.1
Total United States		810,326	100.0

SOURCE: Authors' calculations using administrative data from SSA and Office of Management and Budget.

NOTE: . . . = not applicable.

that nearly doubled those of applicants who were allowed benefits (\$5,273 versus \$2,724). Surprisingly, earners in our study sample had an allowance rate of 72.6 percent, while nonearners had an allowance rate of 44.1 percent. The reasons we see higher allowance rates for earners than for nonearners are unclear.

As of December 31, 2018, the respective death rates of homeless and domiciled individuals who had applied for disability benefits in the period 2007–2017 were 12.9 percent and 11.3 percent; this difference is statistically significant, with a *p*-value of less than 0.01. To account for age differences between the groups, we also analyzed death rates by age group. We found that the age-normalized death rates likewise

were higher for homeless disability applicants than for their domiciled counterparts. These findings are consistent with those in social science and medical literature (O'Connell 2005).

Males and individuals with physical primary impairments were overrepresented among the homeless disability applicants who had died by year-end 2018 (not shown). Males constituted 77.3 percent and 66.5 percent of deceased and living applicants, respectively. Yet the characteristic with the largest difference between the percentages of deceased and living disability applicants is the physical primary impairment (74.1 percent versus 55.6 percent). No statistically

a. "Study group" comprises the total SSA domestic service area rather than only the contiguous United States.

Table 4. Selected characteristics of homeless and domiciled individuals who applied for disability-program benefits during the period 2007–2017

	Homeless	s	Domiciled		
Characteristic	Number	Percent	Number	Percent	
Total	810,326	100.0	21,648,926	100.0	
Sex					
Male	550,335	67.9	11,505,359	53.1	
Female	259,991	32.1	10,143,568	46.9	
Age					
0–17	13,775	1.7	2,879,307	13.3	
18–64	750,362	92.6	16,215,046	74.9	
65 or older	46,189	5.7	2,554,573	11.8	
Educational attainment					
No high school diploma or equivalent	280,065	34.6	4,816,913	22.3	
High school diploma or equivalent	356,614	44.0	8,093,621	37.4	
Some college	112,010	13.8	3,225,254	14.9	
College graduate	34,570	4.3	1,527,840	7.1	
Missing data	27,067	3.3	3,985,299	18.4	
Earnings status in 2015					
Yes	47,178	5.8	а	а	
No	763,148	94.2	а	а	
Vital status on December 31, 2018					
Living	705,908	87.1	19,195,496	88.7	
Deceased	104,418	12.9	2,453,430	11.3	

NOTES: Rounded components of percentage distributions do not necessarily sum to 100.0.

significant differences in educational attainment existed among homeless disability applicants, living or dead.

Program Type

In this section, we examine the SSA disability programs from which homeless applicants sought benefits (SSI, DI, or SSI and DI concurrently). Table 5 shows that more applicants sought only SSI payments (31.2 percent of all homeless disability applicants) than only DI benefits (5.2 percent). The remaining 63.6 percent of the study subjects claimed concurrent SSI and DI benefits on their application records.

Table 6 shows that homeless disability applicants were more likely to have a physical condition than a mental or cognitive one recorded as their primary impairment (58.0 percent versus 42.0 percent).²³ For applicants with a physical impairment, the death rate was slightly more than double that of applicants with a mental/cognitive impairment (16.4 percent versus 8.0 percent).

The allowance rate for homeless disability applicants overall was 45.8 percent (Table 7). Of the applicant subgroups, DI-only applicants had the lowest allowance rate of 34.0 percent, while those filing only an SSI claim had an allowance rate of 46.8 percent. Applicants with a physical primary impairment had an allowance rate of 41.4 percent while those with a mental or cognitive primary impairment had an allowance rate of 51.8 percent.

Among the homeless disability applicant subgroups, one of the highest allowance rates was for those who died after their DDS decision (64.2 percent). This outcome might be attributed to an SSA initiative to expedite processing for certain applications by flagging them as terminal illness (or TERI) cases. SSA and DDS staff expedite the SSI/DI claims of homeless disability applicants who have a terminal illness at the initial step of the disability determination process (Rajnes 2012). In our study, the highest observed allowance rates were for those who died after they began receiving benefits and who belonged

a. We did not obtain earnings data for domiciled disability applicants.

Table 5.
Selected characteristics of individuals experiencing homelessness who applied for disability-program benefits during the period 2007–2017, with distributions by program

			Program					
	Al	I	DI o	nly	SSIc	only	Concurr and S	
Characteristic	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	810,326	100.0	41,698	5.2	252,855	31.2	515,773	63.6
Sex								
Male	550,335	100.0	25,764	4.7	174,862	31.8	349,709	63.5
Female	259,991	100.0	15,934	6.1	77,993	30.0	166,064	63.9
Educational attainment								
No high school diploma or equivalent	280,065	100.0	7,565	2.7	108,789	38.8	163,711	58.5
High school diploma or equivalent	356,614	100.0	18,666	5.2	95,746	26.8	242,202	67.9
Some college	112,010	100.0	9,974	8.9	21,917	19.6	80,119	71.5
College graduate	34,570	100.0	4,819	13.9	5,563	16.1	24,188	70.0
Missing data	27,067	100.0	674	2.5	20,840	77.0	5,553	20.5
Earnings status in 2015								
Yes	47,178	100.0	2,638	5.6	12,424	26.3	32,116	68.1
No	763,148	100.0	39,060	5.1	240,431	31.5	483,657	63.4
Primary impairment type								
Mental or cognitive	340,266	100.0	14,058	4.1	116,503	34.2	209,705	61.6
Physical	470,060	100.0	27,640	5.9	136,352	29.0	306,068	65.1

NOTES: Rounded components of percentage distributions do not necessarily sum to 100.0.

Table 6. Selected characteristics of individuals experiencing homelessness who applied for disability-program benefits during the period 2007–2017, with distributions by type of primary impairment

		Primary impairment type				
	All		Mental or co	gnitive	Physical	
Characteristic	Number	Percent	Number	Percent	Number	Percent
Total	810,326	100.0	340,266	42.0	470,060	58.0
Sex						
Male	550,335	100.0	218,378	39.7	331,957	60.3
Female	259,991	100.0	121,888	46.9	138,103	53.1
Educational attainment						
No high school diploma or equivalent	280,065	100.0	124,702	44.5	155,363	55.5
High school diploma or equivalent	356,614	100.0	144,906	40.6	211,708	59.4
Some college	112,010	100.0	42,411	37.9	69,599	62.1
College graduate	34,570	100.0	14,450	41.8	20,120	58.2
Missing data	27,067	100.0	13,797	51.0	13,270	49.0
Program						
DI only	41,698	100.0	14,058	33.7	27,640	66.3
SSI only	252,855	100.0	116,503	46.1	136,352	53.9
Concurrent DI and SSI	515,773	100.0	209,705	40.7	306,068	59.3
Died as of December 31, 2018						
Number	104,41	8	27,09	4	77,32	4
Death rate	12.9		8.0		16.4	

Table 7.

Selected characteristics of individuals experiencing homelessness who applied for disability-program benefits during the period 2007–2017, with distributions by application outcome

				Application	n decision		
	All		Not allowed ^a		Allowed		
Characteristic	Number	Percent	Number	Percent	Number	Percent	
Total	810,326	100.0	439,422	54.2	370,904	45.8	
Sex							
Male	550,335	100.0	290,684	52.8	259,651	47.2	
Female	259,991	100.0	148,738	57.2	111,253	42.8	
Educational attainment							
No high school diploma or equivalent	280,065	100.0	149,989	53.6	130,076	46.4	
High school diploma or equivalent	356,614	100.0	198,025	55.5	158,589	44.5	
Some college	112,010	100.0	61,784	55.2	50,226	44.8	
College graduate	34,570	100.0	17,389	50.3	17,181	49.7	
Missing data	27,067	100.0	12,235	45.2	14,832	54.8	
Program							
DI only	41,698	100.0	27,511	66.0	14,187	34.0	
SSI only	252,855	100.0	134,643	53.2	118,212	46.8	
Concurrent DI and SSI	515,773	100.0	277,268	53.8	238,505	46.2	
Earnings status in 2015							
Yes	47,178	100.0	12,906	27.4	34,272	72.6	
No	763,148	100.0	426,516	55.9	336,632	44.1	
Vital status on December 31, 2018							
Living	705,908	100.0	402,036	55.8	303,872	42.2	
Deceased	104,418	100.0	37,386	35.8	67,032	64.2	
Primary impairment type							
Mental or cognitive	340,266	100.0	164,128	48.2	176,138	51.8	
Physical	470,060	100.0	275,294	58.6	194,766	41.4	

to diagnostic groups involving many of the descriptors used by SSA and DDS staff to identify a potential TERI case. Examples of diagnostic groups common in TERI cases include various types of malignant neoplasms such as cancers of the esophagus or liver. Subsequently deceased homeless disability applicants with primary impairments involving neoplasms or diseases of the digestive system had allowance rates of 95.4 percent and 76.6 percent, respectively (not shown). However, given the high number of homeless disability applicants with a mental/cognitive or musculoskeletal impairment, not all who died were TERI cases.

Many homeless disability beneficiaries may be unable to manage their SSI and DI payments. SSA appointed a representative payee to manage the SSI/

DI payments received by 24.4 percent of homeless disability beneficiaries in our study (not shown).²⁴ In comparison, during December 2019, an estimated 18.6 percent of all working-age DI/SSI disability beneficiaries had a representative payee who helped them manage their program payments (SSA 2020a, 2020b). Of the homeless disability beneficiaries we identified as having a representative payee, half had their SSI and DI benefits managed by a natural or adoptive parent or an authorized social service agency or custodial institution. Finally, the majority (69.1 percent) of homeless disability beneficiaries with a payee at any point during program participation had a mental or cognitive condition rather than a physical one recorded as their primary impairment, consistent with needing assistance in managing one's benefits.

a. Denied or decision pending.

Summary and Conclusions

This study provides new insights about the SSI and DI programs in the context of homelessness as well as new statistics about the geographic, demographic, socioeconomic, and program-participation characteristics of homeless disability-program applicants. Some highlights of our findings follow.

Homelessness among disability-program applicants was largely an urban phenomenon, involving individuals living within concentrated areas in the contiguous United States. At least 98 percent of homeless SSI/DI applicants in the lower 48 states resided in urban counties, in contrast with 80 percent of the general population (Census Bureau 2017). About 42.1 percent of homeless disability applicants lived in one of 25 urban areas (Chart 4 and Table 3).

Several demographic subgroups were overrepresented among the study group. Relative to their domiciled counterparts, homeless disability applicants were far more likely to be male, aged 18 to 64, and without a high school diploma or equivalent (Table 4).

Allowance rates varied by program, postdecision mortality rate, and primary impairment. The overall allowance rate of homeless disability applicants was 45.8 percent (Table 7). Those who applied for only DI had one of the lowest allowance rates (34.0 percent) of any applicant subgroup while those applying for only SSI had an allowance rate of 46.8 percent. Applicants who subsequently died had one of the highest allowance rates, at 64.2 percent. SSA was more likely to allow SSI/DI benefits for applicants with a mental or cognitive primary impairment than for those with a physical condition (51.8 percent versus 41.4 percent).

Not all homeless disability applicants had an EDCS homeless flag on their files to prompt expedited processing of their applications. We examined the activation of the EDCS homeless flag (along with the MSSICS transient indicator) by focusing on SSI disability applicants facing housing instability whose claims were denied. Under SSA operational policy, field office staff can activate the MSSICS transient indicator only at the time of application and are required to activate the EDCS homeless flag for every applicant with an activated MSSICS transient indicator. Only 28.3 percent of files for denied SSI/DI applications had an EDCS homeless flag activated (with or without an MSSICS transient indicator) and thereby received expedited processing of their disability claim (Table 2). Future studies should explore the specific situations of these cases to

determine whether certain circumstances that we did not observe precluded the need for the homeless flag.

Finally, a significant share of our study sample would not have been identified as homeless if we had relied on only the EDCS homeless flag and the MSSICS transient indicator. About 20 percent of our study group (162,536 claimants) would not have been included in this research if we had used only the homeless flag and transient indicator to identify those experiencing or at risk of homelessness (Chart 1). The application of a text-mining approach, informed by the HUD definition of homelessness, provides additional insight about the subset of disability-program applicants who may be experiencing or at risk of homelessness. Although additional research is needed to validate the current analysis or improve the methods used here, text mining could be a way to identify individuals facing disability and housing instability to ensure that they receive appropriate supports and assistance during the application process.

Appendix A: Text-Mining Search Terms and Phrases

Listed below are the text-mining search terms and phrases we used to identify SSI/DI applicants experiencing homelessness. We searched the residential-address and administrative-note fields of the claimants' files (including those for SSI ISM evaluations) to detect any of the listed terms, which we selected because they align with the HUD/USICH definition of homelessness. We began building the list with a set of search terms and phrases generated by SSA researchers who attempted to identify 2009–2011 disability-program claimants who were experiencing homelessness. Then, we checked and augmented the initial list of search terms and phrases by comparing them with those appearing in the residential-address and administrative-note fields of the files for 6,941 individuals belonging to the treatment group of the Homeless Outreach Projects and Evaluation (HOPE) demonstration from January 2005 through April 2007 (McCoy and others 2007). The HOPE demonstration had targeted chronically homeless individuals who applied for DI and SSI benefits to participate in the project. Validating our terms against the HOPE list further assured the appropriateness of the terms we included; however, we acknowledge that further validation—including checking for false positives—would be necessary prior to any operationalization of this method to inform new policy or service delivery practices.

Search terms and ph	nrases		(70 items)
abandoned airport angels angels watch angel's watch bench bus cardboard box	couch double(d) (up) empty field office forest garage general delivery homeless	no permanent no place to live park park bench pathfinder rescue residing with salvation army	tent tent off train transcient transient transition housing truck under the bridge
cardboard box camping car catholic charities clinic coalition corr fac corr facility correc correction correctional	hotel inn live(s) with (friend or parent or relative or neighbor) metro mission motel motor lodge no address	salvation army shelter skid row sofa SSA FO station stay with staying with staying with friends street temp(orary) housing	undomicile undomiciled undomociled vacant vacant home van vehicle woods YMCA YWCA

Appendix B: Mapping Methods

We executed seven steps before creating the density maps (Charts 2 and 3) of the contiguous United States. First, we assumed that homeless disability applicants who had a recorded ZIP Code were dispersed among the component counties by the same proportions with which the ZIP Code's land area fell within those counties. (The majority of homeless disability applicants in the lower 48 states had a recorded ZIP Code that was contained within a single county.) Second, we summed the number of homeless disability applicants living within each county-equivalent area of the lower 48 states. Third, we extracted Census county-resident counts and divided them by 50,000, the minimum number of residents living in an urban county (Missouri Census Data Center 2016). Fourth, we divided county homeless disability-applicant counts by the factor resulting from our third step to compute homeless disability applicants per 50,000 county residents. Fifth, we sorted county-level records in ascending order of homeless disability applicants per 50,000 residents. Sixth, we divided the records into quintiles and identified the minimum and maximum values for each quintile. Finally, we used those values to assign each county-equivalent into a quintile or density category, shown in Chart 2. We then replicated this procedure for homeless disability beneficiaries, shown in Chart 3.

Notes

Acknowledgments: The authors thank Susan Wilschke, Jeffrey Hemmeter, Joyanne Cobb, Chris Tamborini, Angela Hood, Michael Compson, Hilary Waldron, Bert Kestenbaum, and Sherria Green for their support and thoughtful comments on drafts of this article.

- ¹ Hereafter, our use of the term "experiencing homelessness" should be taken to include individuals at risk of, but not necessarily currently experiencing, homelessness.
- ² We use the acronym "SSI/DI" to refer collectively to three types of disability-program participation: (1) SSI only, (2) DI only, and (3) concurrent SSI and DI.
- ³ The contiguous United States includes the lower 48 continental states, and excludes Alaska, Hawaii, and U.S. territories (Census Bureau 2013).
- ⁴ For information on how SSA uses the homeless flag and the transient indicator, see SSA (2014a) and SSA (2005), respectively.
- ⁵ Homeless-service stakeholders include providers of health care, behavioral health, and social services, as well as faith- and community-based organizations and partners. One example of collaboration is SSA's participation in the Substance Abuse and Mental Health Services Administration's SSI/DI Outreach, Access, and Recovery (SOAR) program. SOAR aims to increase access to SSA disability-program benefits for eligible children and adults who are experiencing or at risk of homelessness and have a serious mental illness, medical

impairment, and/or substance-use disorder (see https://www.samhsa.gov/homelessness-programs-resources/grant-programs-services/soar).

- ⁶ The McKinney-Vento Homeless Assistance Act of 1987 established USICH.
- ⁷ Kennedy and King found that BEST contributed to increased access to disability benefits for applicants. Relative to other disability cases, the BEST cases had high allowance rates and short processing times.
- ⁸ In 2015, for example, SSA considered substantial gainful activity to be indicated by monthly earnings of at least \$1,090 for a nonblind individual and at least \$1,820 for a blind individual.
- ⁹ For detailed information on SSA's sequential disability determination process, see Wixon and Strand (2013).
- ¹⁰ When using non-MSSICS paper records, SSA field office staff note transience in the remarks field.
- ¹¹ SSA field office staff record homeless status only at the time of submission of a disability-program application or, in the case of SSI, a recipient's most recent ISM evaluation. Because the SSA definition of "homeless" focuses on housing status at the time of application, disability-program staff are not required to follow up with applicants recorded as homeless or transient to determine the severity or duration of their housing instability (or to check whether domiciled applicants later become homeless).
- ¹² Appendix A lists all search terms and phrases used to inform our text-mining method for selecting study members. The residential-address and administrative-note fields are associated with application forms SSA-3368 (for DI) and SSA-8000BK (for SSI).
- ¹³ SSA restricts DRF adjudicative data to the first three levels of the SSI/DI disability determination process (initial DDS decision, DDS reconsideration, and administrative law judge hearing) because of data-reporting issues associated with the higher adjudicative levels.
- ¹⁴ Following guidelines in SSA (2006), we included individuals who faced housing instability and met the requirements for Old-Age and Survivor's Insurance (OASI) benefits under the assumption that they had converted from DI to OASI on reaching their full retirement age (or age 55, if they were blind).
- ¹⁵ Examining the last application indicating homelessness may bias allowance rates upward because the likelihood of being allowed benefits increases with the number of applications submitted. However, we used the most recent application because it is more likely to reflect current information for homeless SSI/DI disability applicants.
- ¹⁶ Nearly 28 percent of studied homeless disability applicants submitted multiple disability-program applications and had homelessness indicated on at least one.

- ¹⁷ Quick Disability Determination, Compassionate Allowance, Terminal Illness, Wounded Warrior, and other flags may likewise expedite handling.
- $^{\rm 18}$ Appendix B details the methodology of our geospatial analysis.
- ¹⁹ The federal government describes noncounty administrative or statistical areas that are comparable to counties as "county equivalents" (Census Bureau 2013). Louisiana parishes; the organized boroughs of Alaska and New York City; the District of Columbia; and the independent cities of the states of Virginia, Maryland, Missouri, and Nevada are equivalent to counties for administrative purposes.
- ²⁰ Among the 2,274 county equivalents in the lower 48 states with homeless disability applicants, about 34.7 percent had no more than one applicant per 50,000 residents and 28.3 percent had at least 50 applicants per 50,000 residents. About 40.9 percent of county equivalents with homeless disability applicants had no more than one beneficiary per 50,000 residents and 13.5 percent had at least 50 beneficiaries per 50,000 residents.
- ²¹ We used the Office of Management and Budget corebased statistical areas to define the metropolitan areas.
- ²² For this study, we did not access the earnings data of the 21,648,926 individuals who were domiciled and who submitted at least one disability application from calendar year 2007 through 2017.
- ²³ SSA statistical publications provide statistics by diagnostic group for beneficiaries but not for applicants. The rate of mental/cognitive primary impairments we found among our sample of homeless disability-program beneficiaries (47 percent; not shown) was greater than that of all DI beneficiaries (29 percent) but less than that of all SSI recipients (57 percent; SSA 2017a, 2017c).
- ²⁴ SSA appoints a representative payee for an adult beneficiary who is physically or mentally incapable of managing his or her own funds. In addition, SSA usually appoints a payee to receive benefits on behalf of a child younger than 18 (SSA 2017b).

References

- Bailey, Michelle Stegman, Debra Goetz Engler, and Jeffrey Hemmeter. 2016. "Homeless with Schizophrenia Presumptive Disability Pilot Evaluation." *Social Security Bulletin* 76(1): 1–25.
- Census Bureau. 2013. "County Population Totals: 2010—2012; Datasets. Population, Population Change, and Estimated Components of Population Change: April 1, 2010 to July 1, 2012." https://www.census.gov/data/tables/time-series/demo/popest/2010s-counties-total.html.
- ——. 2017. "One in Five Americans Live in Rural Areas." https://www.census.gov/library/stories/2017/08/rural-america.html.

- [HUD] Department of Housing and Urban Development. 2015. "Homeless Emergency Assistance and Rapid Transition to Housing: Defining 'Chronically Homeless." *Federal Register* 80(233): 75791–75806 (December 4). https://www.gpo.gov/fdsys/pkg/FR-2015-12-04/pdf/2015-30473.pdf.
- ——. 2017. The 2016 Annual Homeless Assessment Report (AHAR) to Congress. Part 1: Point-in-Time Estimates of Homelessness. https://www.hudexchange .info/resources/documents/2016-AHAR-Part-1.pdf.
- Kennedy, Elizabeth, and Laura King. 2014. "Improving Access to Benefits for Persons with Disabilities Who Were Experiencing Homelessness: An Evaluation of the Benefits Entitlement Services Team Demonstration Project." *Social Security Bulletin* 74(4): 45–55.
- McCoy, Marion L., Cynthia S. Robins, James Bethel, Carina Tornow, and William D. Frey. 2007. *Evaluation* of Homeless Outreach Projects and Evaluation (HOPE). Task 6: Final Evaluation Report. Rockville, MD: Westat.
- Missouri Census Data Center. 2016. "Geocorr 2014: Geographic Correspondence Engine." https://mcdc.missouri.edu/applications/geocorr2014.html.
- Nicholas, Joyce. 2014. "Source, Form, and Amount of Inkind Support and Maintenance Received by Supplemental Security Income Applicants and Recipients." *Social Security Bulletin* 74(3): 39–54.
- O'Connell, J. J. 2005. "Premature Mortality in Homeless Populations: A Review of the Literature." Nashville, TN: National Health Care for the Homeless Council.
- Rajnes, David. 2012. "'Fast-Track' Strategies in Long-Term Public Disability Programs Around the World." *Social Security Bulletin* 72(1): 79–108.
- [SSA] Social Security Administration. 2005. "Program Operations Manual System (POMS) SI 00835.060: Transients, Homeless Individuals, and LA/ISM Determinations." https://secure.ssa.gov/apps10/poms.nsf /lnx/0500835060.

- -----. 2006. "Program Operations Manual System (POMS) DI 10105.080: Age Requirement." https://secure.ssa.gov/apps10/poms.nsf/lnx/0410105080.
- ———. 2014a. "Program Operations Manual System (POMS) DI 11005.004: Identifying and Flagging Homeless Cases." https://secure.ssa.gov/apps10/poms.nsf /lnx/0411005004.
- ———. 2014b. "Program Operations Manual System (POMS) DI 81010.080: Alerts, Flags, and Messages in the Electronic Disability Collect System (EDCS)." https://secure.ssa.gov/apps10/poms.nsf/lnx/0481010080.
- ———. 2014c. "Program Operations Manual System (POMS) DI 81020.085: Certified Electronic Folder (CEF) Flags." https://secure.ssa.gov/apps10/poms.nsf /lnx/0481020085.
- ——. 2017a. Annual Statistical Report on the Social Security Disability Insurance Program, 2016. Publication No. 13-11826. Washington, DC: SSA. https://www.ssa.gov/policy/docs/statcomps/di/asr/2016/index.html.
- ——. 2017b. Annual Statistical Supplement to the Social Security Bulletin, 2016. Publication No. 13-11700. Washington, DC: SSA. https://www.ssa.gov/policy/docs/statcomps/supplement/2016/index.html.
- ———. 2017c. SSI Annual Statistical Report, 2016. Publication No. 13-11827. Washington, DC: SSA. https://www.ssa.gov/policy/docs/statcomps/ssi_asr/2016/index.html.
- ——. 2020a. Annual Statistical Report on the Social Security Disability Insurance Program, 2019. Publication No. 13-11826. Washington, DC: SSA. https://www.ssa.gov/policy/docs/statcomps/di_asr/2019/index.html.
- ——. 2020b. SSI Annual Statistical Report, 2019. Publication No. 13-11827. Washington, DC: SSA. https://www.ssa.gov/policy/docs/statcomps/ssi_asr/2019/index.html.
- Wixon, Bernard, and Alexander Strand. 2013. "Identifying SSA's Sequential Disability Determination Steps Using Administrative Data." Research and Statistics Note No. 2013-01. Washington, DC: SSA.

CHANGING STAYS? DURATION OF SUPPLEMENTAL SECURITY INCOME PARTICIPATION BY FIRST-TIME CHILD AWARDEES AND THE ROLE OF CONTINUING DISABILITY REVIEWS

by Jeffrey Hemmeter, Michael Levere, Pragya Singh, and David C. Wittenburg*

This article provides new evidence of the changing role of the Supplemental Security Income (SSI) program for low-income children since 1997. We use administrative records from the Social Security Administration to identify first-time SSI awardees and track their histories in SSI and in the Social Security Disability Insurance program. SSI participation lasted much longer for 2007 and 2012 awardees than for their 1997 counterparts. Therefore, SSI constitutes a larger part of the safety net than it did 20 years ago. However, we also find that the volume of continuing disability reviews, which determine continuation or cessation of SSI eligibility and were conducted more frequently for 1997 awardees than for subsequent cohorts, had a major effect on length of program participation. This latter finding is especially important for considering future SSI program dynamics, given that the number of continuing disability reviews has risen substantially since 2015.

Introduction

The growing long-term role of the Supplemental Security Income (SSI) program in serving children in low-income families has been the subject of intense policy interest (National Academies of Sciences, Engineering, and Medicine 2018). SSI, which is administered by the Social Security Administration (SSA), provides cash payments to eligible low-income children and working-age adults with disabilities—and to aged persons—who meet certain income and asset criteria.

Although program enrollment has declined in recent years, the number of children who receive SSI has risen dramatically since 1996 despite the absence of major changes in eligibility criteria. The demographic, impairment, and geographic characteristics of these children have also changed, signaling a possible shift in how SSI serves children in low-income families. The increase in the SSI child caseload may indicate

a growing role for the program in supporting youths with disabilities, a role potentially magnified by program participation that can continue over long periods. For example, previous studies of earlier cohorts of child SSI awardees show that payment receipt can last well into adulthood (Rupp, Hemmeter, and Davies 2015; Davies, Rupp, and Wittenburg 2009).

A better understanding of the growing role of SSI in supporting children in low-income families depends

Selected Abbreviations

CDR continuing disability review

CPI-W Consumer Price Index for All Urban Workers

DI Disability Insurance

SSA Social Security Administration SSI Supplemental Security Income

Funding for this study was provided by the Rehabilitation Research and Training Center on Disability Statistics and Demographics at the University of New Hampshire, which is funded by the U.S. Department of Education, National Institute on Disability and Rehabilitation Research (Grant No. H133B100015).

Note: Contents of this publication are not copyrighted; any items may be reprinted, but citation of the Social Security Bulletin as the source is requested. The Bulletin is available on the web at https://www.ssa.gov/policy/docs/ssb/. The findings and conclusions presented in the Bulletin are those of the authors and do not necessarily represent the views of the Social Security Administration.

^{*} Jeffrey Hemmeter is the Acting Deputy Associate Commissioner for the Office of Research, Demonstration, and Employment Support, Office of Retirement and Disability Policy, Social Security Administration. Michael Levere is a senior researcher, Pragya Singh is a researcher, and David Wittenburg is the disability business director at Mathematica.

on knowing how the experiences of recent SSI awardees compare with those of previous awardees. Prior research has documented some shifts in length of program participation, but it has not compared cohorts of awardees over this period of large caseload growth.

Another key to understanding SSI's long-term role is to know the extent to which administrative processes might affect the length of program participation. Children must meet strict disability, income, and asset criteria to enroll in SSI and, later, to continue receiving payments. After an SSI award, SSA is required to conduct continuing disability reviews (CDRs) to verify the ongoing eligibility of child recipients. CDRs are meant to occur at varying intervals, depending on the "diary" that SSA creates for the recipient, which is based on the individual's likelihood of medical improvement. If medical improvement is expected, SSA generally conducts a CDR within 6 to 18 months of award. If a child's impairment is considered nonpermanent and medical improvement is deemed possible, SSA generally conducts a CDR every 3 years. For children whose impairment is not expected to improve, SSA is supposed to conduct CDRs at least every 7 years.

Some child recipients receive an SSI award for low birth weight. In those cases, SSA is required to conduct a special low birth weight CDR when the recipient reaches 12 months of age. If SSI eligibility continues after a low birth weight CDR, the child is subject to the other, ongoing childhood CDRs described above. The number of other childhood CDRs SSA conducts varies over time, depending on caseload size, administrative priorities, and budgets.

In addition, eligibility redeterminations are required for all children who are still receiving SSI when they reach age 18. Not surprisingly, children whose eligibility continues into adulthood after an age-18 redetermination have much longer average stays in the program than those whose participation ceases at age 18 (Hemmeter, Mann, and Wittenburg 2017).

Since SSA initiated child CDRs in fiscal year 1994, fluctuations in their annual volumes have been substantial. At times, SSA has focused on conducting CDRs as part of a broader program-integrity initiative. For example, in fiscal year 1999, SSA conducted more than three times as many CDRs (including age-18 redeterminations) as it did in fiscal year 2006. In the last few years, SSA has again substantially increased the number of child CDRs and age-18 redeterminations—particularly since fiscal year 2015,

when the number first exceeded 300,000 per year (SSA 2019a).

This article provides new evidence on the changing role of SSI for children in low-income families since 1997. We present findings for three cohorts of first-time child awardees (1997, 2007, and 2012) for which we have at least 5 years of follow-up data to measure program outcomes; namely, average periods of participation—hereafter, "program stays" or "payment durations"—and average cumulative payment amounts. The 1997 cohort represents the first group of child SSI awardees who were subject to the current SSI eligibility criteria through their entire potential tenure in the program. The 2007 and 2012 cohorts represent SSI child recipients whose awards occurred after the major growth in child caseloads had begun. Hence, comparing these latter cohorts to the 1997 cohort will provide evidence on how compositional changes might affect average program stays. For each cohort, we track outcomes through 2017, and we examine whether payment duration varies by selected demographic, impairment, and program-participation characteristics. We also show how program stays change for youths after their age-18 redetermination to illustrate the experiences of children receiving SSI into adulthood.

We find substantive variation in the paymentduration trends for first-time SSI child awardees. The average durations for the 2007 and 2012 cohorts were much longer than that of the 1997 cohort, underscoring the growing importance of SSI's long-term role for low-income families. Cross-cohort differences in program stays occurred among all demographic and impairment groups, suggesting that changes in cohort composition cannot explain the findings. CDRs conducted during childhood were an important factor in these long-term program dynamics, as members of the 1997 cohort faced CDRs more frequently than the later cohorts did. We find that removing SSI recipients from the rolls at earlier ages because of more frequent CDRs might explain as much as half of the total differences between cohorts. Although program stays have risen over the long term, the recent increases in CDRs, particularly since 2015, might reverse this trend for future cohorts.

Background

This section provides information about SSI eligibility requirements, discusses changes in the SSI caseload, and highlights related literature on children's program stays. This information provides context on the factors that could drive differences in the length of program participation between the awardee cohorts we studied.

Since 1996, the child SSI caseload has grown dramatically despite the absence of changes in eligibility requirements. It reached a peak of over 1.32 million children in 2013, compared with about 880,000 children in 1997. The caseload has since declined, reaching 1.15 million in 2018 (SSA 2019a). Despite the recent decline, the SSI child caseload rose by 30 percent from 1997 to 2018.

The factors driving this growth are not well understood, though there is strong evidence of changes in both the impairment distribution and the geographic composition of the caseload (Government Accountability Office 2012; Aizer, Gordon, and Kearney 2013). Since 1997, the number of youths diagnosed with mental disorders has greatly increased (National Academies of Sciences, Engineering, and Medicine 2015). The growth in the caseload also has varied by state; Wittenburg and others (2015) found that more than half of this growth was concentrated in four large states: Texas, Pennsylvania, Florida, and California. Schmidt and Sevak (2017) found that substantial variations in state-level factors such as poverty rates also might have influenced these trends.

Initial SSI Eligibility Requirements

To qualify for SSI payments, a child must meet eligibility criteria related to disability, income, and assets. To meet the disability criteria, the child must be younger than 18 and have

a medically determinable physical or mental impairment which results in marked and severe functional limitations, and which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months (42 U.S.C. §1382c[C][i]).

The nonmedical criteria consist of limits on total income and assets, including the child's income and any parental income and resources "deemed" to the child (that is, treated as the child's own).

Children who qualify for SSI are eligible for a cash payment. In 2020, the federal maximum SSI payment was \$783 per month, and 23 states provided an optional supplemental payment to children with disabilities.³ Most child SSI recipients are also automatically eligible for Medicaid. In addition, their limited incomes indicate that many of these youths live in families eligible for other means-tested supports, such

as the Supplemental Nutrition Assistance Program (Romig 2017; Bailey and Hemmeter 2015).

Although the SSI medical eligibility requirements for children changed significantly in the years after the program's inception in 1974, there have been no major changes since 1996. Berkowitz and DeWitt (2013) documented the evolution of SSI, noting how several important legislative changes and Supreme Court decisions transformed the eligibility requirements. The most recent major changes were enacted as part of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996. This legislation partially reversed changes to SSI in the early 1990s by establishing the current childhood disability definition, which introduced the concept of "marked and severe functional limitations" to replace individualized functional assessments for determining a child's eligibility. The legislation also required a redetermination of eligibility at age 18 using the adult criteria for disability.

Ongoing Eligibility Requirements: CDRs and Redeterminations

Unlike some other cash supports such as Temporary Assistance for Needy Families (TANF), SSI payments are not time-limited. Recipients can receive payments indefinitely, as long as they continue to meet the eligibility requirements. SSA reassesses the medical eligibility of recipients during CDRs, which are mandatory at 12 months of age in most cases for which low birth weight was a factor in the SSI award and at various regular intervals during the program stay, depending on the recipient's diary type; and during age-18 redeterminations, for all children still receiving SSI at that point. As noted above, in the age-18 redetermination, SSA uses the adult eligibility criteria.⁴

The frequency of childhood CDRs other than those for low birth weight depends on funding availability and other factors. The principal factor is the recipient's likelihood of medical improvement. SSA categorizes cases based on whether medical improvement is expected, possible, or not expected, depending on the type of impairment. SSA prioritizes cases with expected medical improvement for reviews. Unlike the age-18 redetermination—for which SSA assesses the disability anew—CDRs require medical improvement to have occurred since the last favorable eligibility decision before SSA can remove the child from the program for medical reasons.

The number of CDRs SSA conducts has varied substantially since 1996, which may have affected program

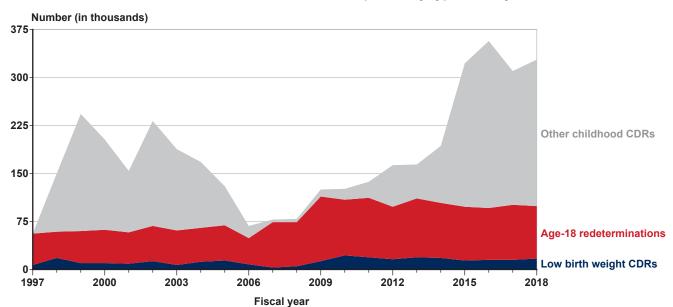


Chart 1.

Number of medical reviews conducted for SSI child recipients, by type, fiscal years 1997–2018

SOURCE: SSA (2019a, Table V.D2).

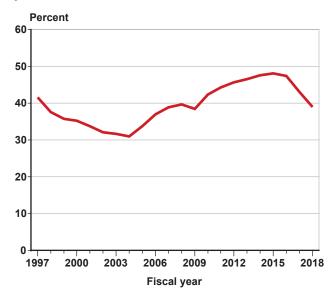
stays. Chart 1 shows large fluctuations in child CDRs, driven primarily by wide swings in the number of other childhood reviews (those not tied to low birth weight or reaching age 18). Notably, from fiscal year 2005 to fiscal year 2014, these CDRs dropped below 100,000 per year, with fewer than 10,000 (representing less than 0.1 percent of children receiving SSI) in fiscal years 2007 and 2008. However, the incidence of other childhood CDRs has recently increased sharply, to more than 200,000 per year since fiscal year 2015, representing about 16 percent of children receiving SSI each year (SSA 2019a). Below, we show that the likelihood of cessation of SSI disability payments after a recipient's first-time award differs meaningfully by the year of award, which could drive cross-cohort differences in the average length of program participation.

Administrative funding levels affect SSA's ability to conduct CDRs. For example, in its fiscal year 2015 annual report on CDRs, SSA (2019b) noted fluctuations in the number of CDRs over time, with the agency completing more cases in recent years because Congress provided additional funding for them. The historical fluctuation in CDRs is notable because although SSA schedules CDRs at regular intervals, the ability to conduct all scheduled CDRs depends on capacity. Times of high demand for administrative staff time, such as periods with increased application volume, can lower that capacity.

The fluctuations in CDRs have important implications for SSA's age-18 redetermination volume and outcomes. Specifically, the number of CDRs that recipients undergo before age 18 can affect the composition of the caseload that remains on the rolls at age 18. With SSA conducting relatively few other childhood CDRs from fiscal year 2005 to fiscal year 2011 (Chart 1), many child SSI recipients in that period did not have their cases reviewed until age 18; correspondingly, the cessation rate resulting from age-18 redeterminations rose over that period (Chart 2).

In addition, a recent proposed policy change could make CDRs even more frequent for some SSI recipients. As mentioned earlier, SSA uses three CDR diary types—Medical Improvement Expected, Medical Improvement Possible, and Medical Improvement Not Expected—to schedule CDRs. In November 2019, SSA proposed adding a new category—Medical Improvement Likely—to this list.⁵ If implemented, this policy change would alter the frequency of CDRs. Recipients in the Medical Improvement Likely category would have reviews scheduled more often than those classified as Medical Improvement Possible or Not Expected, but less often than those classified as Medical Improvement Expected. This policy proposal brings to the forefront the importance of analyzing patterns in CDRs.

Chart 2. Age-18 redetermination cessation rates, fiscal years 1997–2018



SOURCES: SSA (2019b, Table B5; 2020, Table V.D4).

Disability Program Interactions

Another factor that could affect SSI program stays is the possible concurrent receipt of Social Security Disability Insurance (DI) benefits. The DI medical eligibility criteria are the same as those for adult SSI recipients, although DI calculates benefit amounts based on previous covered earnings, with higher earnings leading to higher benefits. A child SSI recipient can receive concurrent DI benefits as the dependent or survivor of a DI beneficiary. In addition, unmarried adults who experience disability onset before age 22 can become eligible for DI as "disabled adult children" if at least one of their parents qualifies for DI or Old-Age and Survivors Insurance benefits, although this is less common.⁶ The potential for concurrent receipt of SSI and DI benefits is important because DI benefits can provide additional income to current and former SSI recipients and, equally important, can provide access to Medicare.

Related Studies on Program Stays

Several papers have examined SSI program stays, with many of them using administrative data from SSA to assess outcomes for different subgroups of awardees. Rupp and Scott (1995, 1998) provided one of the earliest and most comprehensive analyses of length of program participation, examining 1974–1982 first-time SSI awardees. They found that

36 percent of SSI recipients who were aged 0–17 at award stayed continuously on the rolls for at least 10 years after first award. Rupp and Scott also used projections to simulate lifetime program stays for first-time awardees. They estimated that child SSI awardees would remain on the rolls for an average of 27 preretirement-age years.

Davies, Rupp, and Wittenburg (2009) compared program stays for 1980 and 1997 SSI child awardees to examine how durations for those cohorts differed over time. They found substantial differences between the two cohorts, particularly at age 18, which is consistent with the introduction of the age-18 redetermination in 1996. In both cohorts, children who stayed in the program for 5 years were likely to stay on in adulthood. The authors argued that a lifecycle framework is needed to examine the long-term program outcomes of children receiving SSI.

Rupp, Hemmeter, and Davies (2015) extended the previous studies by explicitly modeling the interaction between SSI and DI in accounting for total duration of participation in both programs. Their analysis included cohorts of child SSI awardees from 1980 through 2000. They found that a large share of former child SSI recipients receives either SSI or DI, which the authors classified under a definition of "any disability benefit" receipt. As we describe in more detail below, we adopt that definition for this article.

Rupp, Hemmeter, and Davies (2015) also found that accounting for DI participation is important because it raises the observed rate of participation in either or both of SSA's disability programs, especially as recipients reach adulthood. The authors also found differences in program stays between the cohorts from 1980 through 2000, which likely reflects the major changes to SSI program rules that occurred in 1996 and prior years, noted above. Importantly, a nontrivial portion of child SSI awardees died, although mortality generally decreased across successive cohorts. Rupp, Hemmeter, and Davies found suggestive evidence that program stays initially increased after the 1996 welfare reform. For example, they found that the percentage of 2000 child awardees receiving benefits 10 years after their first award date was higher than that of 1997 awardees (51 percent versus 46 percent).

Besides these studies, several other papers have examined long-term changes in length of program participation stemming from SSA policies. Hemmeter, Mann, and Wittenburg (2017) tracked the outcomes of child SSI recipients from their age-18 redeterminations through age 24. Not surprisingly,

the authors found that the rates of receipt of any SSA disability-program benefits were much lower among recipients whose eligibility ceased after the age-18 redetermination than for continuing recipients (18 percent versus 86 percent). Likewise, Deshpande (2016) used administrative data from SSA to track long-term outcomes (well into adulthood) of former child SSI recipients whose payments ceased after an age-18 redetermination. The author found that most youths who are removed from the SSI rolls have low earnings and minimal earnings growth over time. She projected that an 18-year-old removed from SSI, relative to one who remained on the rolls, would have lower annual SSI payments (by \$7,900), lower annual DI benefits (by \$600), and higher annual earnings (by \$3,000). In addition, Levere (2019) looked at long-term patterns in SSI receipt for cohorts of child SSI awardees who began receiving payments after the 1991 relaxation of medical eligibility rules that stemmed from the 1990 Sullivan v. Zebley Supreme Court decision. He found that those who receive payments for a longer time in childhood have longer periods of SSI receipt during adulthood, suggesting that long-term payment receipt tends to persist over time.

Our article builds on this literature in several ways. First, we include more recent cohorts of child SSI awardees (2007 and 2012), which enables us to observe whether program stays identified in Rupp, Hemmeter, and Davies (2015) continued to change in the period of rapid caseload growth and during the Great Recession. Second, we examine whether the large changes in the number of CDRs affected the duration of payment receipt. This analysis is particularly important for assessing whether the results from previous cohorts could help to predict outcomes for current cohorts. Finally, we estimate program stays by recipient characteristics to assess how changes in the composition of the cohort might affect payment duration overall. We also use regression models to assess whether these changes can explain differences between cohorts.

Data and Methods

We use administrative records from SSA to identify first-time awardees and track their SSI and DI participation histories, including their CDRs and age-18 redeterminations (if applicable). We use SSA's primary systems for tracking benefits: the Supplemental Security Record for SSI payments and the Master Beneficiary Record and Payment History Update System for DI benefits. We track benefit receipt (durations and

total amounts received) for all beneficiaries in this sample until 2017, and we inflation-adjust all amounts to 2017 dollars using the Consumer Price Index for All Urban Workers (CPI-W).

We examine the descriptive patterns in durations and payment amounts over time for three cohorts of first-time SSI child awardees: 1997, 2007, and 2012. For each cohort, we track participation through 2017, which allows a 5-year follow-up for all cohorts and a 10-year follow-up for the 1997 and 2007 cohorts.⁷

The number of first-time SSI child awardees rose across the first three cohorts (Table 1). Growth in the number of child SSI awardees far exceeded growth in the U.S. child population; from 1997 to 2012, the number of new SSI child awards increased by about 60 percent while the U.S. child population rose by 4 percent (Federal Interagency Forum on Child and Family Statistics 2019). Table 1 also includes the 2017 cohort to show how its characteristics compare with those of the earlier cohorts, which is important for assessing whether recent compositional changes might have affected cross-cohort differences. The population of first-time child awardees increased by 42 percent from 1997 to 2007, followed by another 14 percent increase from 2007 to 2012 and a decline of almost 15 percent from 2012 to 2017. The patterns between 2007 and 2017 likely reflect cyclical factors stemming from the Great Recession, such as lower employment and lower wages, which made more families eligible for SSI (Maestas, Mullen, and Strand 2018), and the subsequent economic restabilization.

The composition of the caseload differed across the three study cohorts, which might partly reflect changes in the medical community's use of certain diagnoses over time, such as the increase in autism diagnoses (Shattuck 2006). Compared with the 1997 cohort, the later cohorts included increasing shares of first-time child awardees diagnosed with autistic disorders, developmental disorders, and childhood and adolescent disorders not elsewhere classified. However, from 1997 to 2017, the percentage of first-time child awardees diagnosed with intellectual disability fell by nearly 80 percent, from 26.5 percent to 6.3 percent. The percentages of children with other primary diagnoses remained fairly stable over this period. In addition, the share of first-time child awardees who are male increased slightly, from 61.6 percent to 65.5 percent. In all four cohorts, about two-thirds of the first-time child awardees were younger than 8 at the time of award.

To track the duration and dollar amounts of benefits received for each cohort, we used the definitions for

Table 1. First-time child SSI awardees, by sex, age, impairment, and award cohort (in percent)

Characteristic	1997	2007	2012	2017
Number of recipients	111,542	158,534	180,190	153,697
Sex				
Female	38.4	35.3	34.9	34.5
Male	61.6	64.7	65.1	65.5
Age				
Younger than 8	65.1	63.7	65.2	66.5
Low birth weight, younger than 1	9.4	9.7	8.2	9.4
Other	55.8	54.1	57.1	57.1
8–12	20.9	21.8	21.9	22.2
13–17	14.0	14.5	12.9	11.3
Impairment				
Congenital anomalies	4.9	4.6	4.6	4.8
Endocrine, nutritional, and metabolic disorders	8.0	0.6	0.9	0.8
Infectious and parasitic diseases	0.4	0.1	0.0	0.0
Injuries	8.0	0.7	0.5	0.5
Mental impairments				
Autistic disorders	3.5	8.9	13.7	16.1
Developmental disorders	5.4	14.5	16.1	18.5
Childhood and adolescent disorders not elsewhere classified	8.0	18.6	20.1	18.2
Intellectual disability	26.5	12.3	8.6	6.3
Mood disorders	4.0	6.2	5.3	4.2
Organic mental disorders	3.0	2.2	1.9	1.3
Schizophrenic and other psychotic disorders	1.2	0.9	0.7	0.5
Other mental disorders	3.2	3.7	3.1	3.2
Neoplasms	2.2	1.7	1.6	1.7
Diseases of the—				
Blood and blood-forming organs	1.1	0.8	0.7	0.4
Circulatory system	0.7	0.5	0.4	0.5
Digestive system	0.6	0.9	1.4	2.2
Genitourinary system	0.4	0.3	0.3	0.3
Musculoskeletal system and connective tissue	1.1	0.7	8.0	0.8
Nervous system and sense organs	8.5	6.3	6.0	5.2
Respiratory system	3.4	2.1	2.0	1.2
Skin and subcutaneous tissue	0.1	0.2	0.2	0.1
Other	14.1	11.8	10.2	12.1
Unknown or missing data	6.0	1.5	0.8	1.1

NOTE: Rounded percentages do not necessarily sum to totals.

SSI, DI, and "any disability benefit" used in Rupp, Hemmeter, and Davies (2015). This means we report the SSI and DI benefits actually received by each person in a given month, rather than the amount due, which may vary based on factors that only become known several months or years later. Although we present findings for SSI, DI, and combined SSI and DI (any disability benefit), our analysis focuses on SSI payments. Because our statistics represent the full population of first-time child awardees, we do not present standard errors or significance tests in our descriptive comparisons.

Within each cohort, we examine whether benefit durations and amounts differ by demographic characteristics and impairment. This helps us understand whether differences in the size and make-up of cohorts shown in Table 1 contributed to the aggregate patterns of benefit receipt. Besides providing descriptive statistics, we also estimate regressions that control for the composition of the caseload, as described in our Results section. The dependent variable is either duration of stay or total payment amount, and the independent variables are the demographic and impairment characteristics in Table 1. In addition, we include cohort-specific

dummies that account for differences across cohorts after controlling for demographics and impairments.

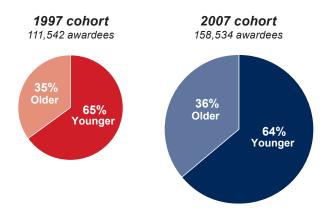
Age-18 redeterminations and CDRs can also play an important role in SSI receipt. Because the redetermination applies only to those who have reached age 18, we split our sample by age. We refer to those who reached 18 within 10 years of benefit award as "older" child recipients, which includes anyone who was aged 8 or older at the time of award, and we refer to those who did not reach age 18 within 10 years of benefit award as "younger" child recipients (aged 0–7 at award). About two-thirds of both cohorts for which we have 10 years of follow-up data are younger awardees (Chart 3).

We stratify the program-stay and benefit-amount trajectories by the result of the low birth weight CDR for younger children and by the result of the age-18 redetermination for older youths. We further divide both the younger and older groups into three subgroups, defined by their status as of the end of the observation period:

- 1. Youths who did not have a low birth weight CDR or an age-18 redetermination because, respectively, low birth weight was not a factor in their award or they left SSI before age 18.
- 2. Youths whose payments continued after the low birth weight CDR or age-18 redetermination.
- 3. Youths whose payments ceased because of the low birth weight CDR or age-18 redetermination.

We define the result of a low birth weight CDR or an age-18 redetermination as the final decision after all levels of appeal were completed. We use data from

Chart 3.
Percentage distribution of SSI child awardees, by age group: 1997 and 2007 award cohorts



SOURCE: Authors' calculations using administrative data from SSA. NOTE: Younger = aged 0–7; older = aged 8–17.

the Office of Continuing Disability Review Support in SSA's Office of Operations to categorize youths into each redetermination-status subgroup.

Results

In this section, we present results related to duration of payments and SSI payment amounts.

2007 and 2012 Cohorts Had Longer Benefit Duration Than 1997 Cohort

Members of the 1997 cohort received SSI payments for a shorter time and had lower total payment amounts in the 5 years after first award than the members of the later cohorts (Table 2). In the 1997 cohort, the average duration of payments among all first-time child SSI awardees was 44.7 months, about 5 months shorter than that of the 2007 cohort (50.1 months) and the 2012 cohort (48.9 months). Similarly, the average cumulative SSI payment amounts were more than \$2,000 lower for members of the 1997 cohort than for those in the 2007 and 2012 cohorts (\$31,911 versus \$34,773 and \$34,156, respectively). This relationship did not change when we added DI benefits to account for all disability-program benefits paid (only a small share of each cohort also receives DI benefits).

The 2007 and 2012 cohorts have similar program stays and cumulative payment amounts, particularly when contrasted with the 1997 cohort, suggesting that the Great Recession did not meaningfully affect patterns of longer-term payment receipt by cohort. Thus, for brevity, the rest of this section focuses on the comparison between the 1997 and 2007 cohorts 10 years after the initial award. For completeness, the appendix presents tabulations showing analogous results for 5 years after award for all three cohorts.

After 10 years, the relative and aggregate differences in payment durations and amounts between the 1997 and 2007 cohorts increased (Table 2). SSI payment duration was 10.5 months shorter for members of the 1997 cohort than for those in the 2007 cohort (74.8 months versus 85.3 months). Furthermore, SSI payment amounts were \$6,714 lower for youths in the 1997 cohort than for those in the 2007 cohort (\$51.397 versus \$58,111). These differences underscore the importance of examining long-term outcomes, given the lengthy program stays of child SSI recipients.9 For example, if the 158,534 awardees in the 2007 cohort had the same SSI payment durations that those in the 1997 cohort did, the total payments over that period would have been about \$1 billion lower $(158,534 \times \$6,714)$.

Table 2.

Mean SSA disability-program benefit durations and amounts for child awardees in the 5 years and 10 years after first SSI award, by award cohort and program

		1997			2007			2012	
Characteristic	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI
Sample size		111,542			158,534			180,190	
	5 years after award								
Duration (months)	45.7	44.7	3.5	51.0	50.1	4.0	49.8	48.9	3.6
Cumulative amount (\$)	33,109	31,911	1,198	36,040	34,773	1,267	35,278	34,156	1,122
				10 ye	ars after a	ward			
Duration (months)	78.3	74.8	8.5	88.6	85.3	9.6			
Cumulative amount (\$)	54,811	51,397	3,414	61,633	58,111	3,522			

NOTES: Benefit amounts are in CPI-W-adjusted 2017 dollars.

The following subsections explore possible reasons for the differences in payment amounts received between cohorts. First, we assess whether the different composition of the cohorts, shown in Table 1, is an important factor. Next, we explore whether the youths in the 1997 cohort were more likely to exit the program before reaching age 18. Finally, we explore the narrower question of whether differences in CDR frequency played a role in the prevalence of youths leaving the program before age 18.

Differences in Payments Received Are Consistent for All Demographics and Impairments

One potential driver of the differences in cumulative per-recipient payments received between cohorts is the differing case mix. As shown in Table 1, the cohorts vary considerably in their demographic and impairment characteristics. Below, we document descriptive patterns for these characteristics then use a regression model to explore whether observable differences in cohort composition can explain the variances in program stays and payment amounts.

Mean SSI payment durations are longer and the amounts received are higher for youths in the 2007 cohort than for those in the 1997 cohort across all age, sex, and impairment subgroups (Table 3). This finding indicates a categorical shift upward in program stays across all groups. ¹⁰ By contrast, there are no notable differences between the 2007 and 2012 cohorts in

average duration or cumulative payments by age, sex, or impairment in the 5-year postaward period available for comparison (Appendix Table A-1).

In Table 3, for both the 1997 and 2007 cohorts, payment receipt patterns differ dramatically by age. Recipients who were younger than age 1 at the time of award have shorter mean durations and lower total payment amounts than awardees of other ages, likely because low birth weight recipients are generally subject to a special CDR by age 1. Youths first awarded at ages 13 to 17 also have relatively shorter program stays, likely because they are subject to an age-18 redetermination relatively sooner after award. Below, we discuss the possible effect of these redeterminations and additional CDRs on the differences in payment receipt between cohorts.

Comparing results by impairment, mean SSI payment durations and amounts for 1997 awardees were highest for those with intellectual disabilities (92.5 months and \$63,906) and autistic disorders (87.8 months and \$56,488). Other impairments with notably long durations include schizophrenic and other psychotic disorders, diseases of the blood and blood-forming organs, and organic mental disorders. The categories with notably shorter durations include neoplasms and "other" impairments.

Even after controlling for variation in cohorts' characteristics, our regression results indicate differences between cohorts in mean length of benefit receipt and

^{... =} not applicable.

Table 3.

Mean SSI payment durations and amounts for child awardees in the 10 years after first award, by sex, age, and impairment: 1997 and 2007 award cohorts

Characteristic (All recipients Sex Female Male Age Younger than 8 Low birth weight, younger than 1 Other 8–12 13–17	74.8 72.8 76.1 73.3 30.1 80.6 83.2 69.5	Cumulative amount (\$) 51,397 49,846 52,364 49,876 19,229 55,027 58,298 48,174	Duration (months) 85.3 82.0 87.1 86.0 35.2 95.1 91.0 73.5	Cumulative amount (\$) 58,111 55,916 59,310 58,201 21,224 64,812 62,613 50,966
All recipients Sex Female Male Age Younger than 8 Low birth weight, younger than 1 Other 8–12 13–17	74.8 72.8 76.1 73.3 30.1 80.6 83.2 69.5	51,397 49,846 52,364 49,876 19,229 55,027 58,298 48,174	85.3 82.0 87.1 86.0 35.2 95.1 91.0	58,111 55,916 59,310 58,201 21,224 64,812 62,613
Sex Female Male Age Younger than 8 Low birth weight, younger than 1 Other 8–12 13–17	72.8 76.1 73.3 30.1 80.6 83.2 69.5	49,846 52,364 49,876 19,229 55,027 58,298 48,174	82.0 87.1 86.0 35.2 95.1 91.0	55,916 59,310 58,201 21,224 64,812 62,613
Female Male Age Younger than 8 Low birth weight, younger than 1 Other 8–12 13–17	76.1 73.3 30.1 80.6 83.2 69.5	52,364 49,876 19,229 55,027 58,298 48,174	86.0 35.2 95.1 91.0	59,310 58,201 21,224 64,812 62,613
Male Age Younger than 8 Low birth weight, younger than 1 Other 8–12 13–17	76.1 73.3 30.1 80.6 83.2 69.5	52,364 49,876 19,229 55,027 58,298 48,174	86.0 35.2 95.1 91.0	59,310 58,201 21,224 64,812 62,613
Age Younger than 8 Low birth weight, younger than 1 Other 8–12 13–17	73.3 30.1 80.6 83.2 69.5	49,876 19,229 55,027 58,298 48,174	86.0 35.2 95.1 91.0	58,201 21,224 64,812 62,613
Younger than 8 Low birth weight, younger than 1 Other 8–12 13–17	30.1 80.6 83.2 69.5	19,229 55,027 58,298 48,174	35.2 95.1 91.0	21,224 64,812 62,613
Low birth weight, younger than 1 Other 8–12 13–17	30.1 80.6 83.2 69.5	19,229 55,027 58,298 48,174	35.2 95.1 91.0	21,224 64,812 62,613
Other 8–12 13–17	80.6 83.2 69.5	55,027 58,298 48,174	95.1 91.0	64,812 62,613
8–12 13–17	83.2 69.5	58,298 48,174	91.0	62,613
13–17	69.5	48,174		•
			73.5	50,966
In a girm out	67.8	4444		
Impairment	67.8	44444		
Congenital anomalies		44,114	81.4	53,893
Endocrine, nutritional, and metabolic disorders	72.7	49,965	80.4	55,546
Infectious and parasitic diseases	80.3	56,001	85.4	58,042
Injuries	73.8	48,123	83.6	55,915
Mental impairments				
Autistic disorders	87.8	56,488	98.8	64,539
Developmental disorders	82.6	57,375	93.2	64,367
Childhood and adolescent disorders not elsewhere classified	79.4	56,275	89.0	62,238
Intellectual disability	92.5	63,906	103.2	71,036
Mood disorders	75.3	53,018	81.9	56,662
Organic mental disorders	85.2	58,538	94.5	64,304
Schizophrenic and other psychotic disorders	87.1	60,418	94.7	65,056
Other mental disorders	84.2	60,039	92.0	64,353
Neoplasms	39.3	25,902	55.9	36,536
Diseases of the—				
Blood and blood-forming organs	86.3	59,301	97.0	66,773
Circulatory system	61.8	41,500	73.1	48,857
Digestive system	60.8	41,520	70.2	46,747
Genitourinary system	74.6	50,212	82.4	55,993
Musculoskeletal system and connective tissue	75.0	52,164	88.1	62,184
Nervous system and sense organs	83.9	55,405	93.4	62,466
Respiratory system	65.6	46,809	82.8	58,958
Skin and subcutaneous tissue	72.8	50,952	88.7	62,909
Other	39.2	25,543	42.9	26,817
Unknown or missing data	59.2	44,184	71.7	49,569

NOTES: Includes recipients of concurrent SSI and DI benefits.

Payment amounts are in CPI-W-adjusted 2017 dollars.

mean cumulative amounts received (Table 4).¹¹ The regression-adjusted differences between cohorts are similar to the unadjusted descriptive statistics; after 10 years, the 2007 cohort had received SSI payments for about 10.6 months longer than the 1997 cohort amounting to \$6,869 more received. Differences in DI receipt were small.

The similarity between the regression-adjusted differences and the descriptive statistics suggests that the case mix did not strongly affect the aggregate differences in payment receipt.¹² This means that something other than differences in recipient characteristics drives the differences in payment receipt over time. We next explore patterns by age, focusing on the role that the low birth weight CDRs and age-18 redeterminations may play.

Longer Periods of SSI Receipt Among Younger Child Awardees Drive Cohort Differences

Younger awardees in the 2007 cohort had persistently longer program stays than their peers in the 1997 cohort, regardless of whether they had a low birth weight CDR (Chart 4, Panel A). For younger awardees who were not subject to a low birth weight CDR, SSI payment duration was 15 percent longer for members of the 2007 cohort than for the 1997 cohort (87.6 months versus 76.2 months). Because younger awardees did not reach age 18 within 10 years of award, those who left SSI must have done so independent of an age-18 redetermination. Most of the younger awardees in both cohorts were not subject to a low birth weight CDR (86.1 percent in 1997 and 86.6 percent in 2007; Table 5). For younger awardees whose low birth weight factored into program entry, we also find patterns of longer participation for the 2007 cohort than for the 1997 cohort.¹³

The patterns for older child awardees also suggest that long-term differences in payment receipt center on youths who leave the SSI rolls before reaching age 18 (Chart 4, Panel B). Among those who left SSI before turning 18, the 2007 cohort received payments for 68.7 months on average, about 18 percent longer than did the 1997 cohort (58.4 months). However, among the older youths who had an age-18 redetermination, the differences between the 1997 and 2007 award cohorts in the duration of payments were much smaller. For example, among the awardees who continued receiving payments after age 18, mean SSI duration for the 2007 cohort was only 2 percent longer than that of the 1997 cohort (110.8 months versus 108.5 months). Therefore, a key factor in the aggregate differences between cohorts is that youths who left the program tended to do so more quickly if they were in the 1997 award cohort.

Further underlying the difference between the cohorts is that a larger share of older youths in the 1997 cohort left SSI before age 18 (46.8 percent) than did so in the 2007 cohort (37.5 percent; Table 6). In comparison, the share of first-time awardees whose payments ceased as the result of an age-18 redetermination, after all appeals, was more than 1.5 times higher in the 2007 cohort than in the 1997 cohort, 31.7 percent versus 19.1 percent.

Taken together, these results indicate that the differences between cohorts in SSI receipt stem mostly from differences in outcomes that occur before reaching age 18. Youths in the 1997 cohort were more likely to leave the rolls—and to leave more quickly—than were those in the 2007 cohort. One reason youths leave the rolls is because of child CDRs; administrative patterns discussed earlier suggest that CDRs were more likely to be initiated for youths in the 1997 cohort than for those in the 2007 cohort. We next explore the effect of those CDRs.

Table 4.

Regression-adjusted SSA disability-program mean benefit duration and amount in the 10 years after first SSI award: How the 2007 child award cohort differs from the 1997 cohort, by program

	Any disabi	lity benefit	S	SI	DI		
Characteristic	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error	
Duration (months)	10.32***	0.14	10.58***	0.15	0.86***	0.11	
Cumulative amount (\$)	6,953***	112	6,869***	113	83	52	

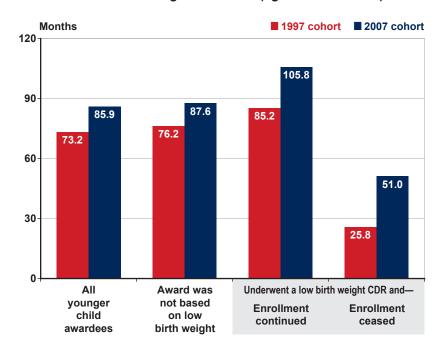
SOURCE: Authors' calculations using administrative records from SSA.

NOTES: Benefit amounts are in CPI-W-adjusted 2017 dollars.

^{* =} statistically significant at the 10 percent level; ** = statistically significant at the 5 percent level; *** = statistically significant at the 1 percent level; two-tailed tests.

Chart 4. Mean SSI payment durations in the 10 years after first award, by age group and selected medical review status: 1997 and 2007 award cohorts

Panel A: Younger awardees (aged 0-7 at award)



Months 120 108.5 110.8 90 77.8 84.2 77.8 84.2 70.5 76.5

Enrollment

ceased

before

age 18

ΑII

older

child

awardees

Panel B: Older awardees (aged 8-17 at award)

SOURCE: Authors' calculations using administrative data from SSA.

NOTE: CDR and redetermination outcomes are after completion of all appeals.

Underwent an age-18 redetermination and-

Enrollment

ceased

Enrollment

continued

Table 5.

Mean SSA disability-program benefit durations and amounts for younger child awardees (aged 0–7) in the 10 years after first SSI award, and percentage of the period on the program rolls: By program, 1997 and 2007 award cohorts

-		1997			2007	
Characteristic	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI
Official	20			hild awardees		
Sample size Percentage of sample		72,274 100.0			100,539 100.0	
Time in program Duration (months) As a percentage of the entire period	76.3 63.6	73.2 61.0	6.8 5.7	89.0 74.2	85.9 71.6	8.1 6.8
Cumulative amount (\$)	52,268	49,817	2,451	60,921	58,155	2,766
		Award v	vas not based	d on low birth	weight	
Percentage of sample		86.1			86.6	
Time in program Duration (months) As a percentage of the entire period	79.2 66.0	76.2 63.5	7.1 5.9	90.8 75.7	87.6 73.0	8.6 7.2
Cumulative amount (\$)	54,491	51,937	2,554	62,359	59,417	2,942
		Und	erwent a low Enrollment	birth weight (CDR	
Percentage of sample		6.8			5.8	
Time in program Duration (months) As a percentage of the entire period	87.5 72.9	85.2 71.0	4.9 4.0	107.3 89.4	105.8 88.1	5.6 4.6
Cumulative amount (\$)	58,166	56,459	1,706	72,680	70,980	1,700
			Enrollmer	nt ceased		
Percentage of sample		7.0			7.6	
Time in program Duration (months) As a percentage of the entire period	30.0 25.0	25.8 21.5	4.9 4.1	54.6 45.5	51.0 42.5	4.6 3.8
Cumulative amount (\$)	19,334	17,425	1,909	35,384	33,809	1,575

NOTES: CDR outcomes are after completion of all appeals.

Benefit amounts are in CPI-W-adjusted 2017 dollars.

Rounded components of percentage distributions do not necessarily sum to 100.0.

Table 6.

Mean SSA disability-program benefit durations and amounts for older child awardees (aged 8–17) in the 10 years after first SSI award, and percentage of the period on the program rolls: By program, 1997 and 2007 award cohorts

		1997			2007		
Characteristic	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI	
	•		All older chi	ld awardees			
Sample size Percentage of sample		39,268 100.0			^a 57,991 100.0		
Time in program Duration (months) As a percentage of the entire period	82.0 68.3	77.8 64.9	11.8 9.8	87.8 73.1	84.2 70.1	12.1 10.1	
Cumulative amount (\$)	59,492	54,305	5,187	62,866	58,035	4,832	
	Enrollment ceased before age 18						
Percentage of sample		46.8			37.5		
Time in program Duration (months) As a percentage of the entire period	65.2 54.3	58.4 48.7		76.1 63.4	68.7 57.2	14.8 12.4	
Cumulative amount (\$)	47,323	41,110	6,213	53,842	46,888	6,954	
		Under	went an age- Enrollment	18 redetermir continued	nation		
Percentage of sample		34.2			30.8		
Time in program Duration (months) As a percentage of the entire period	110.8 92.3	108.5 90.4	12.5 10.4	112.9 94.1	110.8 92.4	14 11.7	
Cumulative amount (\$)	78,964	73,786	5,178	80,234	74,996	5,239	
			Enrollme	nt ceased			
Percentage of sample		19.1			31.7		
Time in program Duration (months) As a percentage of the entire period	71.6 59.7	70.5 58.7	7.8 6.5	77.2 64.3	76.5 63.8	7.1 5.9	
Cumulative amount (\$)	54,455	51,767	2,688	56,659	54,729	1,930	

NOTES: Redetermination outcomes are after completion of all appeals.

Benefit amounts are in CPI-W-adjusted 2017 dollars.

Rounded components of percentage distributions do not necessarily sum to 100.0.

a. Excludes four cohort members who had an age-18 redetermination appeal pending at the time we conducted the analysis.

Timing and Quantity of Other Childhood CDRs Play Major Roles in Program Stays

The frequency and timing of other childhood CDRs (those not related to low birth weight) strongly affect the broad patterns of program payment duration and amounts received over time. For example, a CDR resulting in cessation could occur in the first year after an award for a recipient in one award cohort, and not until 5 years after award for a recipient with a similar impairment in another cohort. Because these differences compound over time, both the timing and the quantity of CDRs have important implications for payment duration, as the comparisons between the 1997 and 2007 cohorts illustrate.

We estimate that CDRs account for about half of the overall difference in SSI payment duration between the 1997 and 2007 cohorts. To generate this estimate, we first calculated the cumulative percentage of youths in each cohort whose payments ceased after a CDR in the 10 years following the initial award; the results appear in Chart 5.15 Similar shares (around 11 or 12 percent) of both the 1997 and 2007 cohorts had had their payments ceased after a CDR by the end of the period, but a much greater share of the cessations occurred earlier for the 1997 cohort. The cessation rate from a child CDR in the first 5 years was more than four times greater for the 1997 cohort than for the 2007 cohort (9.9 percent versus 2.3 percent). These large cessation-rate differences reflect changes over

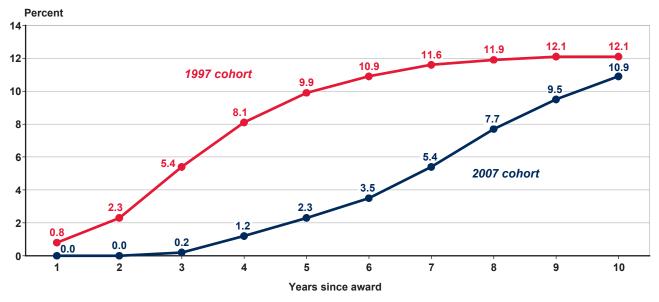
time in the frequency with which SSA conducts other childhood CDRs, as discussed earlier.

Greater cessation rates, particularly in the first years after award, have direct implications for some of the differences between the 1997 and 2007 cohorts in payment duration shown in the preceding tables. To estimate the potential magnitude of these differences, we simulate for each cohort the duration of potential payment receipt that a CDR cessation negates (Chart 6). For example, if SSA ceased a recipient's payments in year 1, we assume that he or she lost 9 potential years of additional payments.¹⁶ This assumption represents an upper bound on potential payment durations, although it is a credible estimate given the long durations shown in Chart 4. Additionally, Hemmeter and Bailey (2015) found that less than 10 percent of children whose participation ceased as the result of a CDR returned to the SSI rolls before age 18, which suggests that reenrollments would not substantially reduce that upper bound.

If the 1997 cohort had experienced the same lower cessation rate that the 2007 cohort did, their average payment duration would have increased substantially. Specifically, over the full 10-year period, the higher rates of early CDR cessations for those in the 1997 cohort might have reduced their average potential payment durations by almost 5.2 months.¹⁷ This potential 5.2-month increase would explain half of the 10.5-month difference between the 1997 and 2007 cohorts in mean SSI payment duration (Table 2).¹⁸

Chart 5.

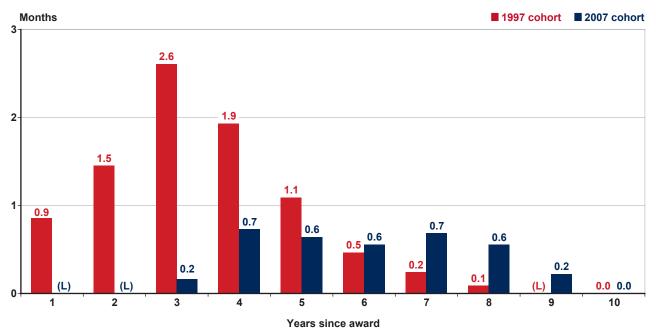
Child SSI recipients with payments ceased because of a CDR within 10 years of award: Cumulative percentages by year, 1997 and 2007 award cohorts



SOURCE: Authors' calculations using administrative data from SSA.

Chart 6.

Mean number of months of potential SSI receipt negated by a child CDR cessation decision, by timing of the CDR: 1997 and 2007 award cohorts



NOTES: Chart illustrates the effect of the different timing of CDRs for the two SSI child award cohorts by plotting mean additional months of hypothetical payments the child would have received had the CDR not taken place.

(L) = less than 0.05.

Our analysis shows that the timing of the cessations differed between the cohorts. For example, cessations in the first 3 years after award were substantially higher for the 1997 cohort than the 2007 cohort. The initial 3-year periods contribute the most to the estimated difference between the two cohorts. These differences persist despite the narrowing of the gap in cessation rates between the two cohorts in years 7 through 10. We estimate that the cumulative difference between the cohorts in payment amounts resulting from CDR cessations might have been more than \$400 million over a 10-year period.¹⁹

Later Cohorts Had Higher Age-18 Redetermination Cessation Rates

Differences in payment receipt and CDR cessations could have important implications for age-18 redetermination volumes and outcomes. Specifically, in the 2007 and 2012 cohorts, payment durations before age 18 increased, and fewer recipients underwent childhood CDRs; this led to compositional changes for the group that undergoes an age-18 redetermination. These changes are reflected in a higher

redetermination cessation rate among older youths in the 2007 cohort (50 percent) than in the 1997 cohort (about 35 percent; not shown). However, the difference between cohorts may be an upper bound; some members of the 2007 cohort may eventually have a cessation overturned on appeal.²⁰ This difference is consistent with previous research finding that youths without a childhood CDR are more likely to have payments ceased during the age-18 redetermination, and those whose payments are ceased in a redetermination are more likely to return to the program within 10 years (Hemmeter and Bailey 2015).

The recent pattern of higher cessations resulting from age-18 redeterminations is consistent with broader trends revealed in administrative records from SSA. Because the number of other childhood CDRs was sharply lower during the period from fiscal year 2005 to fiscal year 2013 (Chart 1), youths reaching age 18 in the early 2010s were less likely to have been subject to a child CDR than those reaching age 18 in the early 2000s had been. Among youths reaching age 18 in the early 2010s, those who had the least severe disabilities—who might have been removed

from the rolls if they had undergone a CDR—would therefore reach age 18 still enrolled. Consistent with this trend, the cessation rate for age-18 redeterminations was much higher in the early 2010s than the early 2000s (Chart 2). Future research could explore whether patterns in the timing and frequency of redeterminations and CDRs (1) only affect the timing of removal for recipients who would otherwise have their payments ceased by age 18 or (2) actually change who is removed from the rolls, which would have longer-term implications for payment receipt.

Robustness Check

We tested whether choosing 1997 as the year to start the analysis drove the observed changes over the study period. We sought to provide a degree of consistency with other research such as Rupp, Hemmeter, and Davies (2015). Because 1997 was the first full year following landmark welfare-reform legislation, which included mandating the age-18 redetermination, its awardee cohort may differ from subsequent cohorts in ways that affect outcomes. Additionally, the 1997 cohort was notably smaller than subsequent cohorts. Comparing the 1997 cohort to later cohorts might therefore lead to misinterpretations of observed changes.

Table 7 shows SSI payment mean durations and cumulative amounts in the 5 years and the 10 years after first award for not only our study cohorts but also the 1999, 2000, 2001, and 2003 cohorts. Payment durations and payment amounts in the 10 years after award increased consistently between the 1997 and 2003 cohorts, indicating that our primary findings are

not an artifact of the choice of 1997 as the base-cohort year. Each successive cohort saw continued growth in the number of new SSI recipients, program stays, and payment amounts. We see similar growth in the 5-year statistics for those cohorts as well as the 2010 cohort. Payment durations and amounts increased between the late 1990s cohorts to early 2010s cohorts. We therefore believe the intrinsic effects of our chosen starting year are minimal.

Discussion

We find evidence that SSI program stays among children are generally longer for more recent award cohorts (2007 and 2012) than for the 1997 cohort. Although the cohorts in our study differed in terms of their demographic and impairment characteristics, our regression results suggest that controlling for these factors does not affect the basic patterns of payment durations. The increase in length of payment receipt for recent cohorts coincided with increases in the size of the child SSI caseload.

We estimate that if the 2007 cohort had had the same mean payment duration as the 1997 cohort, the accumulated SSI amounts paid over 10 years would have been about \$1 billion lower. Whether the amounts to be paid in the coming decade to members of the 2007 award cohort will be larger by similar proportions than the amounts paid to the 1997 cohort remains to be seen. For recipients whose participation continued after an age-18 redetermination, the duration of payment receipt was nearly identical between the two cohorts. This implies that the \$1 billion amount noted above might not expand further.

Table 7.

Mean SSI payment durations and amounts for child awardees in the 5 years and 10 years after first SSI award: Selected award cohorts 1997–2012

Characteristic	1997	1999	2000	2001	2003	2007	2010	2012		
Sample size	111,542	132,200	133,934	144,831	166,088	158,534	192,741	180,190		
		5 years after award								
Duration (months)	44.7	46.2	46.9	47.5	49.4	50.1	49.9	48.9		
Cumulative amount (\$)	31,911	32,783	32,675	33,020	34,003	34,773	35,192	34,156		
				10 years a	fter award					
Duration (months)	74.8	78.6	80.2	81.8	86.5	85.3				
Cumulative amount (\$)	51,397	53,795	54,525	55,612	58,547	58,111				

SOURCE: Authors' calculations using administrative records from SSA.

NOTES: Payment amounts are in CPI-W-adjusted 2017 dollars.

-- = not available; . . . = not applicable.

Although the duration of SSI receipt lengthened over the study period, the recent increase in childhood CDRs might shorten program stays for future SSI award cohorts. We find evidence that ongoing CDRs play a key role in payment duration, possibly explaining about half of the difference in mean duration between the 1997 and 2007 cohorts. Because the frequency of CDRs rose sharply between fiscal years 2015 and 2018 (Chart 1), the trend of increasing mean durations may reverse. Additionally, SSA's proposal to create a new "Medical Improvement Likely" category for disability program participants could, if implemented, increase the frequency of medical CDRs for some SSI recipients.

Mean program stays for future SSI award cohorts might therefore differ from those of the 2007 and 2012 cohorts, particularly because of the large surge in childhood CDRs beginning in fiscal year 2015. Although the major driver of the longer payment durations for the 2007 and 2012 award cohorts was the relatively low number of CDRs SSA conducted during fiscal years 2006–2014, other factors (such as the shifting geography of SSI recipients and the economy) might also have contributed to these trends.²¹

The fluctuations in CDR policy might also affect the number of age-18 redeterminations. Because Congress has authorized and funded SSA to conduct more child CDRs in recent years, the size and composition of future caseloads subject to age-18 redeterminations may change. Hence, it is important to understand how CDR timing and frequency ultimately affect continuation and cessation rates for age-18 redeterminations, particularly when tracking program outcomes. For example, although the cessation rate for age-18 redeterminations increased through fiscal year 2015, the trend

began to reverse in more recent years, and this reversal might continue as discretionary CDRs conducted before age 18 increase; some youths whose participation might have continued until cessation at age 18 could instead be removed from the rolls earlier. It is possible that SSA's proposed changes—including revising the CDR diary types, requiring a medical review after 2 years on the rolls, and mandating reviews at ages 6 and 12—will, if implemented, accelerate any changes in observed patterns of program participation at age 18.

This article cannot address how changes to patterns of SSI receipt affect youth outcomes. Earlier research indicates that the income sources of former SSI recipients tend to be unstable after the cessation of program payments (Deshpande 2016; Hemmeter, Kauff, and Wittenburg 2009; Hemmeter 2011). Given the large fluctuations in program stays, it is especially important to understand how well families are prepared for CDRs and the age-18 redetermination and, for those whose participation ceases, how able they are to replace the SSI payment.

For youths who exit SSI following a CDR or redetermination, outcomes—such as employment or connections to other programs—are an important consideration. Additional research looking into the efficiency of CDRs in identifying youths who can engage in substantial gainful activity, and whether observed patterns change, could reveal ways to serve youths as they leave SSI. SSA's fiscal year 2021 budget proposes a project identifying the services and supports needed to improve the self-sufficiency of individuals who exit DI because of a medical CDR. Evidence from that study might also provide suggestions about the needs of former child SSI recipients.

Appendix A

Table A-1.

Mean SSI payment durations and amounts for child awardees in the 5 years after first award, by sex, age, and impairment: 1997, 2007, and 2012 award cohorts

	19	997	20	07	2012	
	Duration	Cumulative	Duration	Cumulative	Duration	Cumulative
Characteristic	(months)	amount (\$)	(months)	amount (\$)	(months)	amount (\$)
All recipients	44.7	31,911	50.1	34,773	48.9	34,156
Sex						
Female	43.5	30,868	48.7	33,734	47.3	32,943
Male	45.5	32,562	50.9	35,339	49.8	34,808
Age						
Younger than 8	43.5	30,607	49.5	33,945	48.4	33,546
Low birth weight, younger than 1	22.0	13,929	29.8	17,556	23.9	13,908
Other	47.1	33,408	53.1	36,875	51.9	36,353
8–12	49.4	36,339	53.6	37,900	52.2	37,020
13–17	43.2	31,382	47.4	33,713	45.9	32,370
Impairment						
Congenital anomalies	40.7	27,147	46.5	31,028	43.8	29,058
Endocrine, nutritional, and metabolic disorders	44.5	31,906	48.7	34,823	48.6	34,573
Infectious and parasitic diseases	46.4	34,745	50.5	36,016	49.1	35,759
Injuries	43.2	29,026	47.4	32,269	47.0	31,599
Mental impairments						
Autistic disorders	48.6	32,256	53.1	35,161	52.7	35,240
Developmental disorders	49.9	36,118	54.3	38,307	52.8	37,656
Childhood and adolescent disorders not						
elsewhere classified	48.6	36,138	53.4	38,385	52.9	38,413
Intellectual disability	52.2	37,502	55.5	39,180	55.2	38,821
Mood disorders	46.0	33,812	50.1	35,505	47.9	34,048
Organic mental disorders	49.3	35,420	53.2	37,255	52.4	36,711
Schizophrenic and other psychotic disorders	49.4	35,808	53.2	37,476	50.9	36,222
Other mental disorders	49.3	36,791	53.3	38,367	51.9	37,550
Neoplasms	31.5	20,920	39.5	25,896	36.1	23,765
Diseases of the—						
Blood and blood-forming organs	49.3	35,296	53.1	37,677	52.4	37,464
Circulatory system	39.6	27,496	44.6	30,186	42.2	28,647
Digestive system	40.0	27,997	44.5	29,796	41.2	27,425
Genitourinary system	45.2	31,014	48.6	33,944	47.4	32,242
Musculoskeletal system and connective	45.0	20.040	54.0	07.040	40.0	04 744
tissue	45.3	32,946	51.3	37,313	48.0	34,711
Nervous system and sense organs	47.6	32,579	51.8	35,291	50.5	34,723
Respiratory system Skin and subcutaneous tissue	45.5	33,588	51.6	37,893	48.6	35,238
Other	44.8 27.0	32,720	51.8 33.1	38,099 20,307	49.8 28.7	35,973
Unknown or missing data	38.3	17,735 30,870	44.6	20,307 31,687	28.7 44.2	17,784 32,096
	30.3	30,670	44.0	31,007	44.2	32,090

SOURCE: Authors' calculations using administrative records from SSA.

NOTES: Includes recipients of concurrent SSI and DI benefits.

Rounded percentages do not necessarily sum to totals.

Table A-2.

Regression-adjusted SSA disability-program mean benefit duration and amount in the 5 years after first SSI award: How the 2007 and 2012 child award cohorts differ from the 1997 cohort, by program

	Any disabi	lity benefit	S	SI)
Characteristic	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
2007 cohort Duration (months) Cumulative amount (\$)	5.02*** 2,736***	0.06 55	5.14*** 2,696***	0.06 56	0.33*** 40*	0.05 22
2012 cohort Duration (months) Cumulative amount (\$)	3.39*** 1,755***	0.06 54	3.54*** 1,842***	0.06 56	0.03 -88***	0.05 21

NOTES: Benefit amounts are in CPI-W-adjusted 2017 dollars.

Table A-3.

Mean SSA disability-program benefit durations and amounts for younger child awardees (aged 0–7) in the 10 years after first SSI award, and percentage of the period on the program rolls: By program, 1997 and 2007 award cohorts, excluding low birth weight awardees

		1997		2007				
Characteristic	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI		
Sample size		101,511			145,106			
Time in program Duration (months) As a percentage of the entire period	80.3 66.9	76.8 64.0	8.9 7.4	89.6 74.6	86.2 71.9	10.0 8.3		
Cumulative amount (\$)	56,426	52,853	3,573	62,562	58,865	3,697		

SOURCE: Authors' calculations using administrative records from SSA.

NOTE: Benefit amounts are in CPI-W-adjusted 2017 dollars.

^{* =} statistically significant at the 10 percent level; *** = statistically significant at the 1 percent level; two-tailed tests.

Table A-4. Mean SSA disability-program benefit durations and amounts for younger child awardees (aged 0–7) in the 5 years after first SSI award, and percentage of the period on the program rolls: By program, 1997, 2007, and 2012 award cohorts

		1997			2007		2012		
Characteristic	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI
				All young	er child a	wardees			
Sample size Percentage of sample		95,671 100.0			135,183 100.0			156,694 100.0	
Time in program Duration (months) As a percentage of the entire	45.7	44.7	3.5	51.0	50.1	4.0	49.8	48.9	3.6
period	76.2	74.5	5.9	85.0	83.5	6.6	83.0	81.6	6.1
Cumulative amount (\$)	33,109	31,911	1,198	36,040	34,773	1,267	35,278	34,156	1,122
			Award	was not b	ased on	low birth	weight		
Percentage of sample		89.6			91.3			91.5	
Time in program Duration (months) As a percentage of the entire	46.8	45.9	3.3	51.5	50.7	3.8	50.8	50.0	3.5
period	78.1	76.6	5.5	85.9	84.4	6.4	84.7	83.3	5.8
Cumulative amount (\$)	33,929	32,879	1,051	36,325	35,174	1,150	36,027	35,009	1,018
			Un	derwent a Enrolli	low birth ment cont	_	DR		
Percentage of sample		5.1			4.1			4.0	
Time in program Duration (months) As a percentage of the entire	52.6	52.3	1.3	57.9	57.7	1.6	55.9	55.7	1.5
period	87.6	87.1	2.1	96.5	96.2	2.6	93.2	92.8	2.5
Cumulative amount (\$)	35,390	35,006	384	38,916	38,525	391	37,563	37,217	346
				Enro	llment cea	ased			
Percentage of sample		5.2			4.5			4.5	
Time in program Duration (months) As a percentage of the entire	21.4	20.3	1.4	42.5	41.9	1.3	31.9	31.1	1.3
period	35.7	33.9	2.3	70.9	69.8	2.2	53.2	51.8	2.2
Cumulative amount (\$)	14,290	13,763	526	27,478	27,111	367	20,347	19,970	377

NOTES: CDR outcomes are after completion of all appeals.

Benefit amounts are in CPI-W-adjusted 2017 dollars.

Rounded components of percentage distributions do not necessarily sum to 100.0.

Table A-5.

Mean SSA disability-program benefit durations and amounts for older child awardees (aged 13–17) in the 5 years after first SSI award, and percentage of the period on the program rolls: By program, 1997, 2007, and 2012 award cohorts

		1997			2007		2012		
Characteristic	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI	Any disability benefit	SSI	DI
				All older	r child aw	ardees	•	•	
Sample size Percentage of sample		15,871 100.0			23,351 100.0			23,496 100.0	
Time in program Duration (months) As a percentage of the entire	45.0	43.3	6.0	48.8	47.4	6.0	47.4	45.9	5.8
period	75.0	72.1	10.0	81.4	79.0	10.0	78.9	76.6	9.7
Cumulative amount (\$)	33,888	31,432	2,456	36,084	33,752	2,332	34,589	32,401	2,188
			En	rollment c	eased be	fore age	18		
Percentage of sample		40.4			39.3			39.4	
Time in program Duration (months) As a percentage of the entire	36.4	33.1	7.2	43.9	41.2	7.2	43.7	40.9	7.0
period	60.7	55.1	12.0	73.2	68.7	12.0	72.8	68.2	11.7
Cumulative amount (\$)	27,660	24,390	3,270	32,632	29,468	3,164	32,008	29,068	2,940
			Unde	erwent an a Enrollr	age-18 re nent cont		ation		
Percentage of sample		39.4			36.3			34.8	
Time in program Duration (months) As a percentage of the entire	56.8	56.1	5.6	57.6	57.0	6.0	57.3	56.6	6.1
period	94.6	93.4	9.3	95.9	94.9	10.0	95.6	94.4	10.2
Cumulative amount (\$)	41,531	39,394	2,137	41,730	39,528	2,202	40,898	38,704	2,195
				Enrol	llment cea	sed			
Percentage of sample		20.1			24.5			25.8	
Time in program Duration (months) As a percentage of the entire	39.4	38.8	4.5	43.7	43.3	4.0	39.5	39.2	3.7
period	65.6	64.6	7.5	72.8	72.2	6.7	65.9	65.3	6.2
Cumulative amount (\$)	31,437	29,990	1,447	33,258	32,071	1,187	30,028	28,996	1,033

NOTES: Redetermination outcomes are after completion of all appeals.

Benefit amounts are in CPI-W-adjusted 2017 dollars.

Rounded components of percentage distributions do not necessarily sum to 100.0.

Table A-6. Mean SSA disability-program benefit durations and amounts for younger child awardees (aged 0–7) in the 5 years after first SSI award, and percentage of the period on the program rolls: By program, 1997, 2007, and 2012 award cohorts, excluding low birth weight cases

		1997			2007			2012	
Characteristic	Any disability benefit	SSI	DI	Any disability benefit		DI	Any disability benefit	SSI	DI
Sample size		101,627			146,812			166,859	
Time in program Duration (months) As a percentage of the entire period	46.5 77.6	45.5 75.9	3.7 6.2	51.1 85.2	50.2 83.6	4.2 6.9	50.3 83.9	49.4 82.4	3.8 6.3
Cumulative amount (\$)	33,923	32,653	1,270	36,286	34,948	1,338	35,825	34,642	1,183

NOTE: Benefit amounts are in CPI-W-adjusted 2017 dollars.

Notes

Acknowledgments: We are grateful to Joy Cobb, Jackson Costa, and Lucie Schmidt for valuable feedback.

- ¹ In this article, we use "other childhood CDRs" to refer to the ongoing CDRs that do not involve low birth weight. In most years, other childhood CDRs far outnumber low birth weight CDRs.
- ² For SSA's policies on conducting CDRs, see https://www.ssa.gov/ssi/text-cdrs-ussi.htm.
- ³ The Policy Surveillance Program provides details on state supplemental payments for child and adult SSI recipients at http://lawatlas.org/datasets/supplemental-security-income-for-children-with-disabilities.
- ⁴ Unlike the child SSI eligibility criteria, the adult criteria rely on a work-focused disability definition; specifically, the inability to engage in substantial gainful activity, which in 2020 was designated as monthly earnings of more than \$1,260. The adult criteria also do not include any deeming of parental income. In its age-18 redeterminations, SSA uses the same medical, income, and asset criteria it uses in adult application decisions. Most children receiving SSI have a redetermination at age 18 (82 percent), although the redeterminations for some recipients occur after age 18 for various reasons (Hemmeter and Bailey 2015).
- ⁵ For details, see https://www.federalregister.gov/documents/2019/11/18/2019-24700/rules-regarding-the-frequency-and-notice-of-continuing-disability-reviews.
- ⁶ The parent must qualify based on his or her own earnings (that is, not through a relationship, such as a former spouse). Additionally, a child might qualify if one of his or her parents is deceased and was insured for Old-Age and Survivors Insurance benefits at the time of death.

- ⁷ Although we limit our study samples to first-time SSI awardees, some sample members previously could have received DI or Old-Age and Survivors Insurance benefits as a minor child. Because prior benefit receipt is possible, the apparent share of the period in which a person received any benefits can exceed 100 percent.
- ⁸ The similarities between the 2007 and 2012 cohorts include the patterns of payment receipt by demographic and impairment characteristics.
- ⁹ About 24 percent of SSI recipients aged 18 to 65 first became eligible for SSI before age 18 (SSA 2019b).
- ¹⁰ We are not aware of any major legislative or regulatory changes that would account for this shift.
- ¹¹ Appendix Table A-2 presents summary 5-year results. Additionally, regression coefficients for each characteristic included as a control variable in the regression (that is, all the characteristics in Table 3) are available on request (mlevere@mathematica-mpr.com).
- ¹² Rupp, Hemmeter, and Davies (2015) also found that differences in the caseload do not play a major role in disability-benefit receipt trends.
- ¹³ Because SSI receipt tends to be much shorter among youths whose payments ceased following a low birth weight CDR, we conducted a robustness check to generate aggregate-cohort statistics that exclude people with a low birth weight–related award. Appendix Table A-3 shows that persistent cross-cohort differences remained after excluding the low birth weight awardees.
- ¹⁴ Appendix Tables A-4, A-5, and A-6 present analogous results for the 5 years after first award, respectively for younger awardees, for older awardees who reached age 18 within 5 years of award, and for younger awardees excluding low birth weight cases. All three tables show results

for the 1997, 2007, and 2012 award cohorts. As discussed earlier, the results for the 2007 and 2012 cohorts are similar enough to allow us to focus our analysis on differences between the 1997 and 2007 cohorts.

¹⁵ Although we compared durations across cohorts by the result of an age-18 redetermination and a low birth weight CDR, a similar comparison by the result of a childhood CDR not related to low birth weight would not lead to meaningful results. The timing of these other childhood CDRs differed for the 1997 and 2007 cohorts, as shown in Chart 5. Therefore, any differences in program stays across cohorts would be due to the differences in CDR timing. Additionally, because the share of recipients subject to CDRs differed over time, the differing distributions of youths among each group (not having a CDR, having a CDR cessation, or having a continuation) would raise selection concerns.

¹⁶ We used the values plotted in Chart 5 to calculate the per-recipient values shown in Chart 6. For example, in the 1997 cohort, Chart 5 shows that 2.3 percent of recipients had payments ceased within 2 years of award and 5.4 percent had payments ceased within 3 years of award; therefore, 3.1 percent had payments cease in year 3. By multiplying 3.1 percent by the additional 84 months (7 years) of payments the youth would have received if payments had continued for all 10 years, we get the 2.6-month estimate shown in Chart 6 for the 1997 cohort 3 years after the SSI award.

¹⁷ In Chart 6, the sum of the potential months of payments negated by a CDR cessation for each year since award is about 8.7 for the 1997 cohort and about 3.6 for the 2007 cohort; the difference, after accounting for rounding, is nearly 5.2 months.

¹⁸ We also examined patterns in cessations resulting from CDRs occurring within the first 5 years after award for the 1997, 2007, and 2012 cohorts. The 2012 cohort had more CDR cessations in that period than the 2007 cohort and fewer CDR cessations than the 1997 cohort. The patterns in overall program stays presented in Table 2, with the 2012 cohort having shorter durations than the 2007 cohort and longer durations than the 1997 cohort, are therefore consistent with the patterns for cases with CDR cessations.

¹⁹ We estimate this \$400 million difference using the numbers shown in Table 2. Average monthly payments received are \$687 (dividing the cumulative SSI payment amount of \$51,397 by the average duration of 74.8 months). We then multiply \$687 by the 5.2 months of potential payments negated by the 1997 cohort's higher cessation rates, then multiply that result by the 111,542 people in the cohort sample; the product is approximately \$400 million. This simple back-of-the-envelope calculation does not reflect that some people whose payments ceased might have subsequently reapplied and returned to SSI.

²⁰ Although the cessation rate could yet decline for the 2007 cohort, it seems unlikely to fall to the level of the 1997 cohort. In a typical year, up to 10 percent of initial cessations are eventually overturned on appeal. However,

because appeals rarely last longer than 3 years, only youths who reached age 18 after 2014 (or, those aged 8 to 11 at the time of award) could have their redetermination decision overturned. The total reduction in the cessation rate is therefore likely to be well below 10 percent.

²¹ Besides CDRs, a variety of factors not explored in this article could also contribute to the cross-cohort differences in payment receipt. For example, variation in SSI receipt between states could be important; if SSI recipients in the states that have driven program growth tend to remain on the rolls longer, shifts in the geographic distribution of the caseload could be a critical factor (Wittenburg and others 2015). Alternatively, economic conditions might play a key role; the Great Recession and its ensuing adverse effects on incomes may have lowered the number of 2007 awardees whose parents' income might otherwise have increased enough for them to exit SSI. (Note, though, that we do not find meaningful compositional differences between the 2007 cohort and the postrecession 2012 cohort.) Finally, the availability of alternative assistance programs and other income sources might also influence SSI participation decisions (Floyd 2020).

References

Aizer, Anna, Nora E. Gordon, and Melissa S. Kearney.
2013. "Exploring the Growth of the Child SSI Caseload."
NBER Disability Research Center Paper No. NB13-02.
Cambridge, MA: National Bureau of Economic Research.

Bailey, Michelle Stegman, and Jeffrey Hemmeter. 2015. "Characteristics of Noninstitutionalized DI and SSI Program Participants, 2013 Update." Research and Statistics Note No. 2015-02. Washington, DC: SSA.

Berkowitz, Edward D., and Larry DeWitt. 2013. *The Other Welfare: Supplemental Security Income and U.S. Social Policy.* Ithaca, NY: Cornell University Press.

Davies, Paul S., Kalman Rupp, and David Wittenburg. 2009. "A Life-Cycle Perspective on the Transition to Adulthood Among Children Receiving Supplemental Security Income Payments." *Journal of Vocational Rehabilitation* 30(3): 133–151.

Deshpande, Manasi. 2016. "Does Welfare Inhibit Success? The Long-Term Effects of Removing Low-Income Youth from the Disability Rolls." *American Economic Review* 106(11): 3300–3330.

Federal Interagency Forum on Child and Family Statistics. 2019. "Child Population: Number of Children (in Millions) Ages 0–17 in the United States by Age, 1950–2019 and Projected 2020–2050." https://www.childstats.gov/americaschildren/tables/popl.asp.

Floyd, Ife. 2020. *Cash Assistance Should Reach Millions More Families*. Washington, DC: Center for Budget and Policy Priorities.

- Government Accountability Office. 2012. Supplemental Security Income: Better Management Oversight Needed for Children's Benefits. GAO-12-497. Washington, DC: GAO.
- Hemmeter, Jeffrey. 2011. "Health-Related Unmet Needs of Supplemental Security Income Youth After the Age-18 Redetermination." *Health Services Research* 46(4): 1224–1242.
- Hemmeter, Jeffrey, and Michelle Stegman Bailey. 2015. "Childhood Continuing Disability Reviews and Age-18 Redeterminations for Supplemental Security Income Recipients: Outcomes and Subsequent Program Participation." Research and Statistics Note No. 2015-03. Washington, DC: SSA.
- Hemmeter, Jeffrey, Jacqueline Kauff, and David Wittenburg. 2009. "Changing Circumstances: Experiences of Child SSI Recipients Before and After Their Age-18 Redetermination for Adult Benefits." *Journal of Vocational Rehabilitation* 30(3): 201–221.
- Hemmeter, Jeffrey, David R. Mann, and David C. Wittenburg. 2017. "Supplemental Security Income and the Transition to Adulthood in the United States: State Variations in Outcomes Following the Age-18 Redetermination." *Social Service Review* 91(1): 106–133.
- Levere, Michael. 2019. "The Labor Market Consequences of Receiving Disability Benefits During Childhood." Journal of Human Resources, print version forthcoming.
- Maestas, Nicole, Kathleen J. Mullen, and Alexander Strand. 2018. "The Effect of Economic Conditions on the Disability Insurance Program: Evidence from the Great Recession." NBER Working Paper No. 25338. Cambridge, MA: National Bureau of Economic Research.
- National Academies of Sciences, Engineering, and Medicine. 2015. *Mental Disorders and Disabilities Among Low-Income Children*. Washington, DC: National Academies Press. https://www.nap.edu/catalog/21780/mental-disorders-and-disabilities-among-low-income-children.
- ———. 2018. Opportunities for Improving Programs and Services for Children with Disabilities. Washington, DC: National Academies Press.
- Romig, Kathleen. 2017. SSI: A Lifeline for Children with Disabilities. Washington, DC: Center on Budget and Policy Priorities.

- Rupp, Kalman, Jeffrey Hemmeter, and Paul S. Davies. 2015. "Longitudinal Patterns of Disability Program Participation and Mortality Across Childhood SSI Award Cohorts." *Social Security Bulletin* 75(1): 35–64.
- Rupp, Kalman, and Charles G. Scott. 1995. "Length of Stay in the Supplemental Security Income Disability Program." *Social Security Bulletin* 58(1): 29–47. https://www.ssa.gov/policy/docs/ssb/v58n1/v58n1p29.pdf.
- ——. 1998. "Determinants of Duration on the Disability Rolls and Program Trends." In *Growth in Disability Benefits: Explanations and Policy Implications*, edited by Kalman Rupp and David C. Stapleton (139–176). Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.
- Schmidt, Lucie, and Purvi Sevak. 2017. "Child Participation in Supplemental Security Income: Cross- and Within-State Determinants of Caseload Growth." *Journal of Disability Policy Studies* 28(3): 131–140.
- Shattuck, Paul T. 2006. "The Contribution of Diagnostic Substitution to the Growing Administrative Prevalence of Autism in U.S. Special Education." *Pediatrics* 117(4): 1028–1037.
- [SSA] Social Security Administration. 2019a. 2019 Annual Report of the Supplemental Security Income Program. Baltimore, MD: SSA. https://www.ssa.gov/OACT/ssir/SSI19/ssi2019.pdf.
- ——. 2019b. Annual Report on Medical Continuing Disability Reviews: Fiscal Year 2015. Baltimore, MD: SSA. https://www.ssa.gov/legislation/FY%202015%20 CDR%20Report.pdf.
- ——. 2020. 2020 Annual Report of the Supplemental Security Income Program. Baltimore, MD: SSA. https://www.ssa.gov/OACT/ssir/SSI20/ssi2020.pdf.
- Wittenburg, David, John Tambornino, Elizabeth Brown, Gretchen Rowe, Mason DeCamillis, and Gilbert Crouse. 2015. "The Child SSI Program and the Changing Safety Net." ASPE Research Brief. Washington, DC: Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. https://aspe.hhs.gov/system/files/pdf/139261/rb_ChildSSInet.pdf.