THE ROLE OF CONTINUING DISABILITY REVIEWS
IN CHILD SSI PARTICIPATION PATTERNS

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Abstract

We examined descriptive patterns in the frequency of medical continuing disability reviews (CDRs) for child Supplemental Security Income (SSI) recipients. These CDRs are designed to determine whether children continue to meet the disability criteria required to qualify for SSI. Benefits cease for children who no longer meet the disability criteria. The frequency with which children face CDRs is intended to reflect the likelihood of medical improvement. However, in practice, this frequency has varied based on funding availability, which impacts staff and caseloads. Our research aimed to summarize longitudinal patterns of which child SSI recipients had benefits ceased over time and their subsequent outcomes, as well as quantify the extent to which CDR cessation patterns contributed to caseload dynamics over time.

The paper found that:

- CDR cessations influenced child SSI participation patterns substantively. Because of budget shortfalls, relatively few children's benefits ceased from 2003 to 2013; many more had benefits ceased from 2014 to 2017 as the Social Security Administration (SSA) processed a backlog of CDRs. Our analyses indicate that CDR cessations can typically explain three-fifths to two-thirds of the overall changes in the number of children receiving SSI, both during periods of program growth (2002 to 2013) and subsequent caseload declines (2013 to 2021).

- Despite variation in the frequency with which children faced cessation from CDRs, the children's characteristics were mostly stable. For example, children whom SSA expected to experience medical improvement were always disproportionately more likely to have benefits ceased, as were children living in areas with high socioeconomic deprivation.

- Relatively few children returned to SSI in the five years after cessation. For children ceased in 2011 and later, fewer than 6 percent returned within five years. These children often faced important challenges, as evidenced by fairly limited early-adult earnings outcomes. (We can measure earnings only among children 16 and older.)

The policy implications of the findings are:

- The recent funding for CDRs through a special "program integrity" budget has stabilized

childhood CDR workloads. Minimizing these fluctuations could help children and families plan for the potential loss of benefits following a CDR. Other research suggests few families anticipate that benefits might be ceased when children reach age 18; presumably, anticipation of these less-frequent childhood CDRs would be even lower. (During our study period, CDRs rarely occurred on schedule, as SSA worked through a backlog.) However, research from other tests of extensive services and counseling has not led to improved early adult outcomes. Alternative approaches to preparing youth and families for the possible loss of benefits, including increased connections with other programs, might be necessary.

- Equity considerations can play an important role in determining the targeting of CDRs. Though youth from areas with high socioeconomic deprivation make up a large share of child SSI recipients, they are disproportionately more likely to have benefits ceased following a CDR. Importantly, this happens not because of differences in the rates of appeals, which we had hypothesized would be more frequent for youth from higher-resourced areas. Further understanding what drives this finding is important to ensuring equitable participation in SSI.

Introduction

The number of child Supplemental Security Income (SSI) recipients has declined since 2013, falling by more than 25 percent through December 2023. The number of medical continuing disability reviews (CDRs)[1] during this period increased substantially, particularly since 2015, perhaps playing a role in the aggregate decline in participation. Recent research suggests the increase in CDRs might have reduced the duration of benefits for the SSI awardee cohorts affected (Hemmeter et al. 2021). However, the effects of the increased CDRs on the overall caseload, benefit receipt, and other outcomes are not well understood.

In this paper, we analyze what happened to children who were removed from benefits during the recent uptick in CDRs and the role CDRs play in explaining trends in the number of SSI recipients. Though previous analyses have provided insights into outcomes for children and families following a cessation from a CDR (Deshpande 2016b; Hemmeter and Bailey 2015), they have not considered the substantial increase in CDRs since 2015, when the Social Security Administration (SSA) began working through a substantial backlog of cases. As of 2002, there was no backlog of cases. CDRs began declining in 2003 because of funding shortfalls and priority shifts, resulting in a growing backlog. By the start of 2015, the backlog had grown to nearly 350,000 cases.[2]

Our analyses address three research questions: (1) What are the characteristics of children whose benefits are ceased following a CDR?; (2) What happens in the years following a cessation?; and (3) How do CDR cessation patterns contribute to caseload dynamics over time? To answer these questions, we relied primarily on descriptive data analyses of patterns using SSA program data. To answer the first research question, we compared the characteristics of children with benefits ceased to the overall child SSI population. To answer the second question, we looked at rates of return to SSI and at patterns of earnings in the years following cessation. For both questions, we focused on pattern shifts as the frequency of CDRs changed. To answer the third question, we conducted a policy simulation exercise to predict the likelihood that each child would have had benefits ceased following a CDR based on their

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[1] We use the term CDRs to refer to ongoing assessments of medical eligibility, excluding low birth weight CDRs (typically conducted at age 1) and age 18 redeterminations. We also are not referring to work CDRs in the Disability Insurance program.

[2] If an SSI recipient's benefits are ceased when an overdue CDR is eventually conducted, the fact that it was overdue has no bearing on the benefits paid while the CDR was overdue. Even while a case is in the backlog, payments continue and are not considered overpayments.

characteristics, holding fixed the CDR cessation pattern in a given year. This simulation also accounted for whether the child might have returned to SSI following a cessation. We compared CDR cessation patterns from 2008 and 2017: 2008 represented a "low cessation" pattern due to budget level, priority shifts leading to fewer reviews, and a growing backlog. In contrast, 2017 represented a "stable cessation" pattern, showcasing the SSA's regularized review efforts after managing the backlog to uphold program integrity. This distinction enabled us to assess the differential contribution of CDR cessations to overall caseload dynamics. We then compared the trends in predicted child SSI receipt over this period using this policy simulation to the actual trend in child SSI receipt.

We found the characteristics of ceased beneficiaries stayed constant over time (except for age), irrespective of the frequency of cessations. This suggests that, regardless of the volume of CDRs conducted, the profiles of youth most at risk of losing benefits stayed largely the same, with only the number of youth affected fluctuating with the rate of reviews. Children expected to improve medically, those living in high socioeconomic deprivation areas, and those with certain primary diagnoses such as developmental or respiratory disorders were disproportionately likely to experience benefit cessation in all years. One notable shift over time was by age – from 2003 to 2008, children who were ages 1 to 5 at the time of the CDR were frequently ceased from a CDR, whereas from 2011 to 2017 they became less likely than average to have benefits ceased. Children ages 11 to 13 became more likely to have benefits ceased in these later years.

Among those who had benefits ceased, returns to SSI were infrequent and earnings potential was limited, indicating the many challenges these children faced (including challenges that occur when they become adults). On average, about 8 percent of those who had benefits ceased returned to SSI within five years following cessation. These patterns differ somewhat by year of cessation – slightly more than 10 percent among those ceased from 2003 to 2008 returned whereas about 6 percent among those ceased from 2011 to 2017 returned. Earnings outcomes were also universally limited. For example, in the fifth year after cessation (the year with the highest earnings outcomes), only about 60 percent of children who were working age (16 or older at time of earnings measurement) had any earnings, and average annual earnings were less than $7,000. These findings suggest that children whose benefits were ceased might have struggled to achieve economic self-sufficiency because they could not rely on the benefits they

previously received and did not earn much money.[3] This evidence is consistent with findings from Hemmeter et al. (2009), Deshpande (2016b), and Deshpande and Mueller-Smith (2022).

Finally, our policy simulations indicated that CDR cessation patterns play an important role in the overall dynamics of the child SSI caseload trajectory over time. From 2003 to 2013, the caseload grew by about 365,000 children. By comparing the patterns between the stable and low cessation cohorts, a stable pattern of cessations may have led to slightly more than 220,000 additional cessations. Thus, CDRs can explain about sixty percent of the program growth during that period. Subsequently, from 2014 to 2021, CDRs explain about two-thirds of the observed program decline: the caseload fell by 283,000, while the differential between stable and low cessations was about 194,000.[4] Notably, in the low or stable pattern of cessations, childhood SSI participation would have been more consistent over time. Given that special program integrity funding (i.e., funding for stewardship activities such as medical CDRs, work CDRs, SSI redeterminations, and fraud investigations and prosecutions) has been included in SSA annual budgets, these results have potential implications for policy moving forward.

Institutional Context

SSI offers monthly cash benefits to children with disabilities with low income and low resources. To qualify as having a disability, a child must have a "medically determinable physical or mental impairment or impairments which result in marked and severe functional limitations." These limitations must come from an impairment that is expected to last at least 12 months or to result in death. Children must also meet a means test, with a percentage of parents' income and resources considered available to the child. If resources available to the child exceed $2,000 (after accounting for certain exemptions, such as the value of a residential home), then the child is ineligible for SSI. SSI benefits are offset by $1 for every $2 in earned income available to the child above $65 and $1 for every $1 in unearned income above $20, with many

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[3] It is challenging to make a reliable comparison to a broader population because so many people at these ages are full-time students. However, among those with benefits ceased, average earnings among those who worked five years later was about $11,500. In contrast, median weekly earnings for those ages 16 to 24 is $734 (see data from the Bureau of Labor Statistics), which, assuming 48 weeks of work per year, translates to an annual salary of over $35,000, more than triple the average for ceased SSI recipients.

[4] We also considered both 2003 and 2019 as the stable cessation cohort to assess the sensitivity of these estimates to the selection of 2017 as the stable cessation cohort. Though the percent of the changes that can be explained would decline (to roughly sixty percent when treating 2019 as the stable cessation cohort and roughly forty-five percent when treating 2003 as the stable cessation cohort), the share that can be explained is still substantial.

exclusions. If the benefit amount due is $0, the child does not receive an SSI payment that month. In 2024, the maximum monthly SSI cash payment for a child is $943.[5]

SSA conducts a CDR every few years to ensure that the SSI recipient still meets the disability criteria for SSI. A state's disability determination services (DDS) office, which is the same office that determines whether new applicants have a disability that meets SSA's eligibility criteria, conducts the CDR. If a child's medical condition has improved to the point that they no longer are considered to have a "marked and severe functional limitation" and if they no longer meet the definition of disability based on any other impairments the child has, the child's benefits are ceased. If the DDS determines that a child's medical condition has not improved to that level (or has stayed the same or worsened), or if the child is considered to have a disability based on other impairments, the child's benefits are continued.[6] Families of children whose benefits are ceased can appeal the initial decision.

The frequency of CDRs depends on the expectation of medical improvement, which is assigned at the time of initial award or a prior CDR.[7] For children expected to experience medical improvement, CDRs typically occur after six to 18 months. For children for whom medical improvement is possible, CDRs typically occur after three years. For children for whom medical improvement is not expected, CDRs typically occur after seven years, though in practice SSA typically does not conduct CDRs for children in this group until their age-18 redetermination. These "medical diaries," or assessments of how likely a child's medical condition is to improve, enable SSA to review millions of beneficiaries' eligibility status efficiently. The majority of children are categorized as having medical improvement possible: from 2003 to 2017, the share of child SSI recipients for whom medical improvement was possible was about 70 percent, while roughly 15 percent were expected to experience medical improvement and 15 percent were not expected to experience medical improvement.

Differences in the availability of program integrity funding have led to substantial variation over time in the number of CDRs processed annually (Figure 1). From 1998 to 2002,

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[5] Some states supplement the SSI payment. In many states, SSI recipients automatically qualify for Medicaid.
[6] For more detail on this process, see https://secure.ssa.gov/apps10/poms.nsf/lnx/0428005030.
[7] The regulations describing CDRs are detailed at https://secure.ssa.gov/poms.NSF/lnx/0428001020. These CDRs differ from mandatory redeterminations conducted at age 18 for all child SSI recipients and at age 1 for low birthweight awardees. Those redeterminations look at continuing SSI eligibility under different medical and nonmedical rules relative to the initial allowance. They are required by law and offer much less variation in frequency.

SSA processed an average of 134,934 CDRs per year. Starting in 2003, SSA conducted substantially fewer CDRs, with a backlog of overdue CDRs starting to build. From 2006 to 2010, SSA initiated only 11,169 CDRs per year, on average, fewer than a tenth as many as the period from 1998 to 2002. Starting in 2015, it began to process the backlog of CDRs (nearly 350,000 cases as of 2014), eliminating it by the end of 2018.[8] Cessations followed a similar pattern of a decline after 2003, with particularly low numbers from 2006 to 2010, followed by an increase thereafter. Typically, initial CDR cessations are about 35 percent higher than final CDR cessations, indicating a substantive share of children appeal their cessation successfully. Deshpande (2016a) exploits these changes in program funding to estimate the effects of a child's removal from SSI on parents' subsequent earnings.

Figure 1. *Child Continuing Disability Review Patterns, 1998 to 2020*
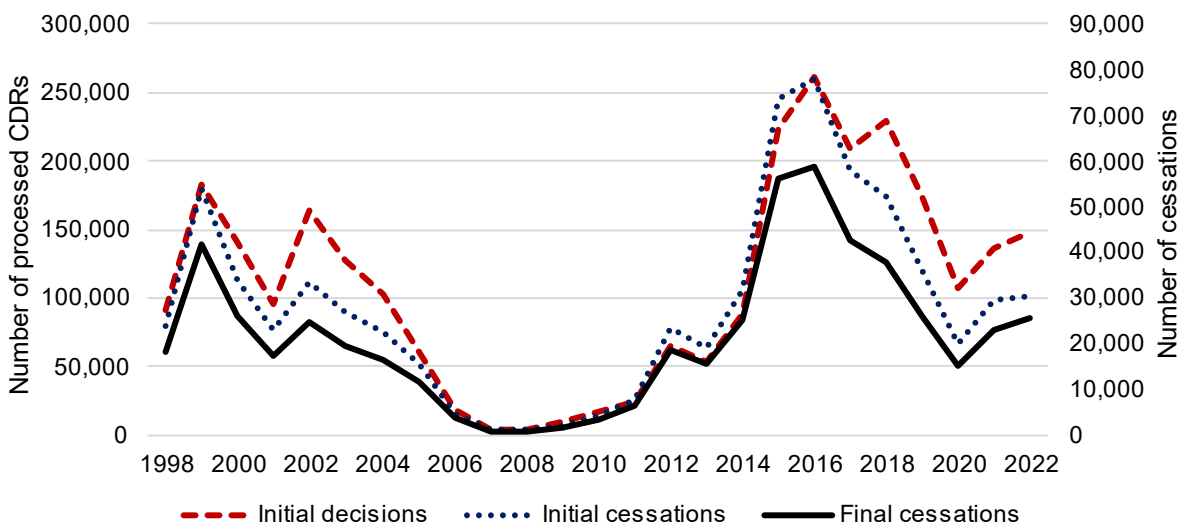
Source: SSA (2023b).

Child SSI participation increased most from the start of the program through 2013, with a dip in the late 1990s, and has since declined (Figure 2). Contributors to program growth include the 1990 *Zebley* decision, which loosened the criteria for children – particularly those with mental disorders – to qualify as having a disability (Levere 2021). The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 reversed some of the changes made a result of the *Zebley* decision, resulting in more restrictive disability and CDR rules for children. SSA

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[8] See SSA Annual Data for Periodic CDR Processed and Backlog.

implemented these rules in 1997 and finalized them in 2000. Contributors also likely include a weakening economy near the Great Recession (Schmidt and Sevak 2017). The decline in program participation since 2013 was unanticipated and has been largely unstudied. During the COVID-19 pandemic, there was a differentially larger decline in participation (Levere et al. 2023a), with patterns in school closures potentially explaining a substantial share of the decline (Levere et al. 2023b).

Figure 2. *Child SSI Participation, 1974 to 2021*
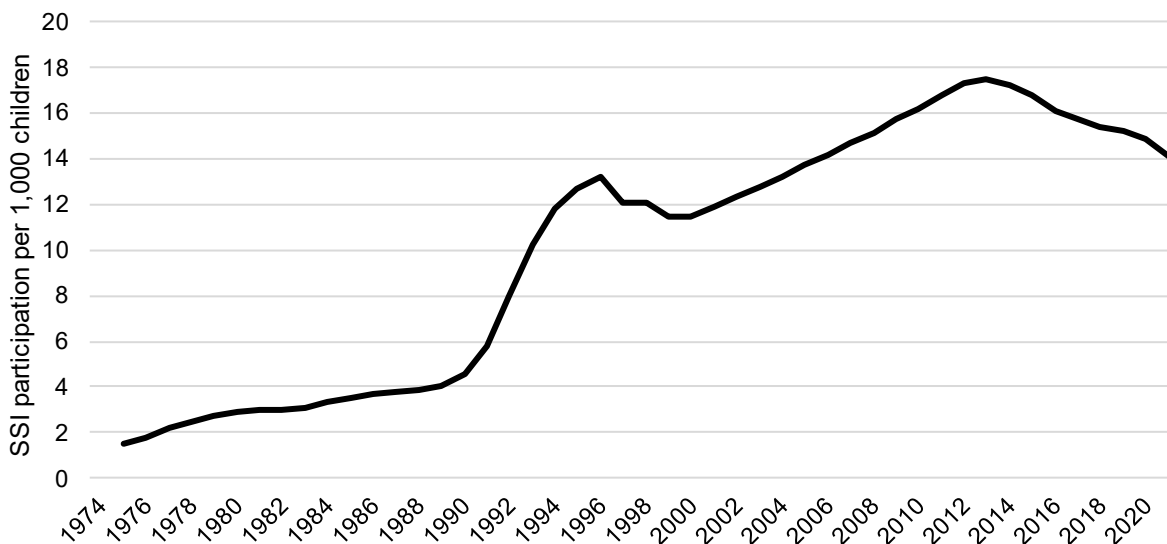
Source: SSA (2023b).

Recent program declines have led to dedicated outreach for children and families. A concern that SSI was not reaching all eligible children emerged as the number of children receiving SSI began to decline after 2013 (Wu and Boat 2015). During the COVID-19 pandemic, SSA increased SSI outreach efforts and created the position of vulnerable population liaison in field and regional offices to help potentially eligible people apply for benefits.[9] Such efforts might be most effective in narrow geographic areas where sociodemographic or health claims data indicate many children who are eligible for SSI might not be receiving benefits (Levere et al. 2022; Levere and Wittenburg 2024).

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[9] For more details on these outreach efforts, see https://www.ssa.gov/thirdparty/groups/vulnerable-populations.html.

A key goal of our research was to identify the extent to which patterns in the frequency of CDRs (and accompanying cessations) might have contributed to broader changes in child SSI participation. Simple correlational patterns indicate that CDRs might play an important role in changes to child SSI participation. For example, though the number of new child SSI awards declined each year from 2004 to 2007 (before the Great Recession), the number of child SSI recipients grew by 9 percent from 2004 to 2007 (SSA 2023a). This finding corresponds to the years when the backlog of CDRs started to grow, which resulted in fewer exits from the program. Similarly, as SSA processed the backlog of CDRs from 2015 to 2018, the number of child SSI recipients declined by about 10 percent. Our previous research showed the prevalence with which certain award year cohorts face CDRs might explain a substantial share of the difference in program participation across those cohorts (Hemmeter et al. 2021).

Data

Our analysis used a mix of SSA program and earnings data to examine the outcomes of children whose SSI benefits were ceased following a medical CDR. First, we identified the population of children whose SSI benefits were ceased following a CDR between 2003 and 2021[10] using the CDR Waterfall File. We then used the Disability Analysis File (DAF) to obtain these children's characteristics, such as age, date of first SSI receipt, medical diary category, primary diagnosis, zip code, and county of residence. The Disability Research File provides information on subsequent returns to benefits in the first five years after cessation, while the Master Earnings File provides data on earnings in the first five calendar years following cessation. For earnings, we included observations only for people who were at least 16 years old; therefore, the earnings analyses did not include anyone ceased before age 11.

We used the date of final decision, rather than the date of the initial CDR decision, to classify the year a child was ceased. This resulted in slight differences in the number of cessations relative to the numbers published in the SSI Annual Report (SSA 2023b; Figure 3). In particular, Figure 3 shows that in recent years, when cessations increased, this approach led to a slight lag in reporting. Classifying cessations by the year in which benefits were officially ceased more closely aligns with the actual changes in the caseload, which is particularly important for our simulation exercise.

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[10] We base our analyses on calendar year data rather than fiscal year data.

Figure 3. *Cessations from CDR, by Source of Analysis*
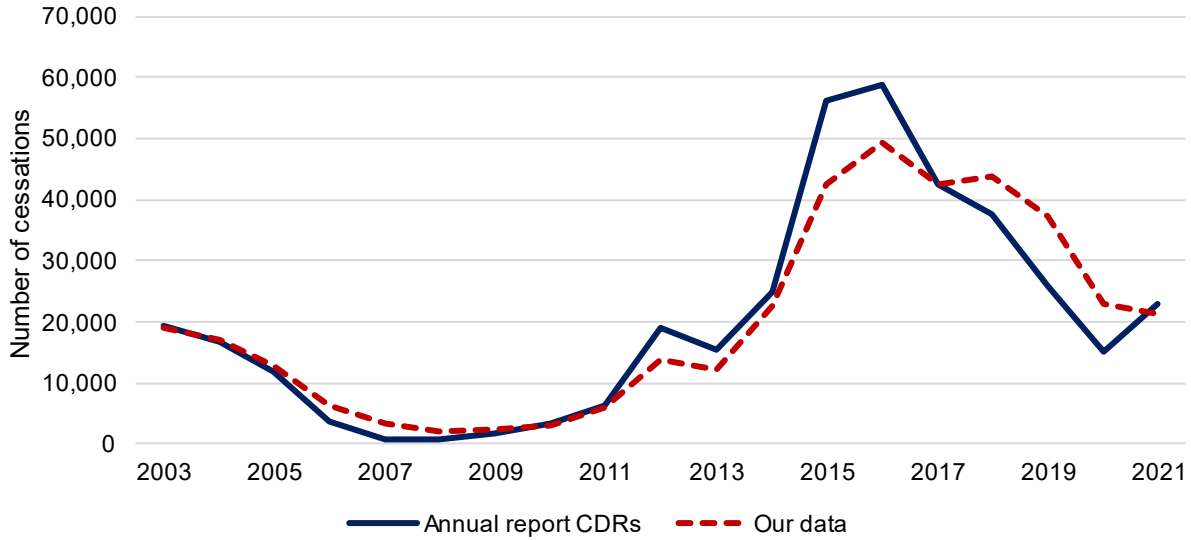
Source: Author's calculations using Social Security administrative records and SSA (2023b).

To identify the overall child SSI recipient population, we used the DAF. We considered anyone who did not have their SSI benefits terminated an SSI recipient. We collected similar information on all SSI recipients as we did for those with benefits ceased – age, date they first received SSI, medical diary category, primary diagnosis, zip code, and county. These data are necessary for two purposes. First, we compared these characteristics of ceased SSI recipients to non-ceased SSI recipients to gauge whether recipients with certain characteristics differentially face cessation. Second, our policy simulations relied on estimating a probability of cessation and a probability of continued receipt based on these characteristics for all current SSI recipients.

Finally, we used data from the American Community Survey on zip code and county-level socioeconomic factors. Specifically, we gathered data from the five-year estimates for 2015–2019 on all the inputs to the Area Deprivation Index and followed the process described in Singh (2003) to estimate a level of deprivation at the zip code and county levels.[11] Deprivation

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[11] These characteristics include measures of educational attainment (the percentage with less than nine years and the percentage with a high school diploma or more), employment status (the percentage employed in a white-collar job [management, business, science, and arts occupations] and the percentage unemployed), housing characteristics (the percentage who are homeowners, the percentage with more than one person per room in the household, as well as standardized measures of the median monthly mortgage, median gross rent, and median home value), income and poverty characteristics (a standardized measure of median family income, the ratio of people with income of less than $15,000 to people with income greater than $75,000, the family poverty rate, and the percentage of people with earnings of less than 150 percent of the federal poverty limit), and several other characteristics (the percentage of the

is expressed as a percentile between 1 and 100 that we divided into quartiles; in this context, it represents a single indicator of the various disadvantages a community faced. This process mirrored our approach in Levere et al. (2022). In addition, we measured the distribution of race and ethnicity for each zip code or county from the same five-year estimates.

Methodology

We structured our methodological approach to address the three research questions established in the introduction. We began by addressing the question of who has benefits ceased following a CDR by examining the demographic and socioeconomic profiles of children whose benefits were ceased following a CDR between 2003 and 2017. We created annual cohorts based on the calendar year of cessation. For example, these analyses included the percentage of ceased children with a particular diagnosis. Examining longitudinal patterns in these characteristics enabled us to show how the characteristics of ceased children have changed as program funding and the frequency of CDRs have changed. However, we also benchmarked the characteristics of the ceased population to the overall nonterminated child SSI population each year; this accounted for the fact that the underlying population of SSI recipients might have changed over time, as well.[12] We therefore divided the share of ceased children with a particular characteristic by the share of the SSI population with that characteristic. These descriptive analyses therefore indicate whether certain groups were disproportionately likely to be ceased over time.

Next, our analysis shifted toward answering the second question of what happens to the outcomes of children in the years following cessation. We investigated the proportion of children with benefits ceased who return to benefits and delved into earnings outcomes for each annual cessation cohort. These earnings outcomes included annual earnings, any positive annual earnings, and an indicator for having substantive earnings above the nonblind annualized substantial gainful activity amount of $16,200 in 2023. This part of our analysis is pivotal for understanding the economic and social ramifications of cessation for the children and their families, providing insights into their post-cessation well-being and financial stability.

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population who are single parents with children under age 18, the percentage with no motor vehicle, the percentage with no telephone, and the percentage of occupied housing units without complete plumbing).

[12] For example, the percentage with intellectual disabilities declined from 27 percent in 2003 to 11 percent in 2017, while the percentage with autism spectrum disorder increased from 6 percent in 2003 to 16 percent in 2017.

Finally, answering the question of how CDR patterns contribute to caseload dynamics over time, we employed policy simulations to explore the hypothetical impacts of applying consistent CDR patterns across the study period. Selecting 2008 and 2017 as our base years for analysis, we assessed the influence of different CDR cessation rates on the overall trends of child SSI recipients. This comparison revealed the potential effects of varying frequencies of CDRs on caseload fluctuations, offering critical perspectives on the policy and programmatic implications of these administrative actions. From the model, we estimated both the number of children who would have had benefits ceased following a CDR and the number of previously ceased children who would have returned to benefits.

Our estimation procedure considered all years from 2003 to 2017, but the results focus on 2008 and 2017 as the base years. The stable cessation cohort (2017) most closely approximates what might happen in a year with no backlog and enabled us to observe post-cessation outcomes for at least five years.[13] The low cessation cohort (2008) offers an interesting contrast because few CDRs were conducted – only 4,707 initial decisions with 921 final cessations. In contrast, 2017 had 208,500 initial decisions and 42,402 final cessations.

The actual caseload evolves from year to year based on continuations, cessations, and new applicants (Figure 4, Panel A). The children receiving SSI at the start of the year could either continue receiving SSI at the start of next year or exit benefits. We distinguished cessations from a CDR from other program exits – including aging out of the program as well as other types of cessations, including those due to excess resources or income. In addition, new awardees who had not been on SSI at the start of the year could start to receive benefits and thus newly be on the rolls at the start of the next year. To understand the role CDRs play, our estimation procedure held fixed the cessation from CDR component by applying a base year's CDR cessation patterns.

[13] Though some backlog was processed in 2017, it was only 6.7 percent of the total CDRs conducted in that year (14,052 out of 208,500 CDRs; see SSA Annual Data for Periodic CDR Processed and Backlog). The backlog reached 0 after 2018, so 2019 is the first year that represents what might happen in a typical year. Yet we can observe returns to SSI in only the subsequent three years, which might not be enough to identify all returns.

Figure 4. *Year-to-Year Patterns of Continuations and Cessations*

Panel A. Observed Patterns
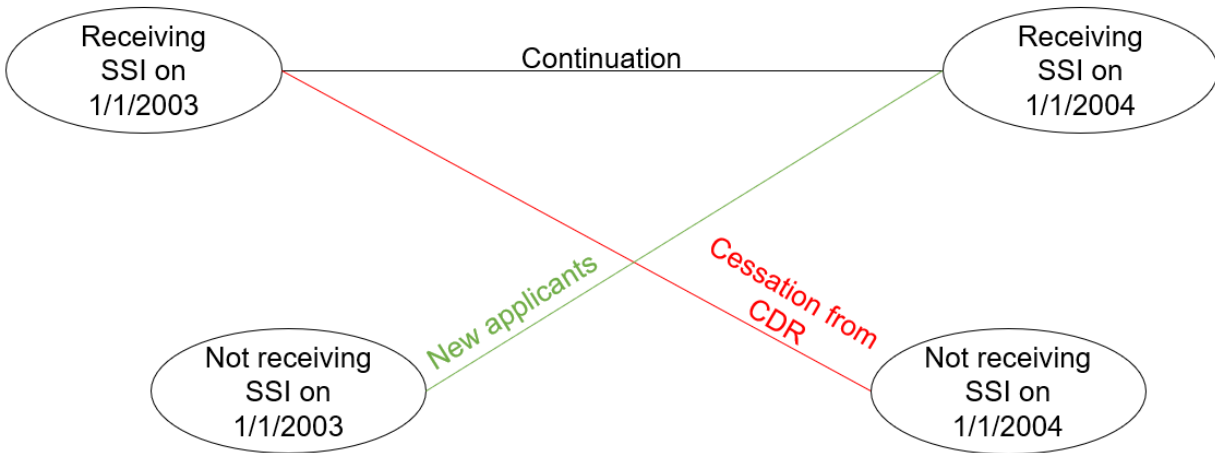
Panel B. Probabilistic Patterns
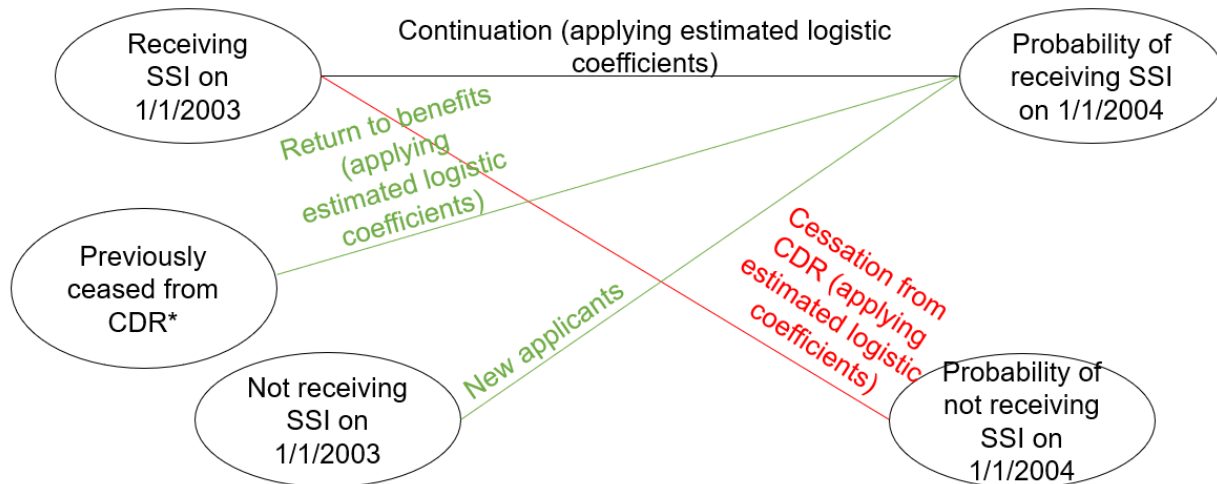
Notes: Those whose benefits were ceased for reasons other than CDR also were not receiving benefits in January 2004. They were treated differently in the policy simulations and are therefore not included in the figure (though they are accounted for in the model).
* "Previously ceased from CDR" did not apply in 2003 (because we have not yet estimated a probability of not receiving SSI). However, it is included for illustrative purposes as it is relevant in all subsequent years.

Rather than using the observed patterns, our simulation model estimates a likelihood of cessation from a CDR in each year, assuming the rate SSA ceased children from CDRs remained consistent over time. Using the children who were not terminated from SSI at the start of the base year, we estimate a logistic regression predicting the likelihood of cessation in that year based on demographic characteristics. As we will discuss, we subsequently applied these coefficients to all future years to estimate the probability of cessation holding fixed the cessation

trends. Equation (1) shows the regression equation. The outcome is an indicator variable that is equal to 1 if the child has benefits ceased from a CDR and equal to 0 otherwise. We controlled for sex, age, age of initial SSI entry, duration of SSI receipt, medical diary category, and a child's primary disability diagnosis in X_i. With a logistic regression, the predicted value of the outcome based on the coefficients – which represents the probability of cessation – is guaranteed to fall between 0 and 1. This offers an important advantage (relative to a linear probability model where the predicted value need not fall between 0 and 1) because these predicted values are essential to our model.

$$CDR\ cessation_i = \alpha + \beta X_i + \varepsilon_i. \qquad (1)$$

We then initiated our policy simulation by starting with the sample of nonterminated child SSI recipients in January 2003 and estimating the probability of cessation from CDR in 2003 (Figure 4, Panel B). To estimate the probability of cessation, we applied the coefficients from Equation (1), estimated among the base year population, to the people who were not terminated in 2003. By applying the same coefficients from the base year model, the analysis thus assumes constant CDR cessation patterns over time. The total number of estimated cessations is the sum of the probabilities of cessation across all these people. For example, if 1,000 people each have a probability of cessation of 0.03, we would expect 30 cessations among that group. Importantly, we remain agnostic as to exactly which 30 people would be removed. The likelihood of continuation into 2004 is one minus the probability of cessation.

To identify the set of children receiving SSI at the start of 2004, we then added newly awarded children and removed children who stopped receiving SSI benefits for non-CDR reasons during 2003. Thus, for every person who had been receiving SSI at the beginning of 2003, we now have the probability that they were receiving SSI at the start of 2004.[14]

Finally, we iteratively applied the same procedure in all subsequent years to estimate the number of cessations. Thus, we applied coefficients from Equation (1) estimated in the base year to the people who were not terminated in 2004 – increasing age and duration by one year relative to what they had been at the start of 2003 – to estimate the probability of cessation in 2004 and the probability of continuation into 2005. We then removed people who exited for

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[14] For children who stopped receiving SSI benefits for non-CDR reasons during the year, we set the probability equal to 0 to indicate that they were no longer receiving benefits.

reasons other than a CDR and added in new awardees. The probability of receiving SSI at the start of 2005 is therefore the probability of SSI receipt at the start of 2004 (described in the previous paragraph) multiplied by this probability of continuation into 2005. This procedure, which accounts for the probability of continuation at the beginning of each year, is critical to reliably estimating the number of cessations: the dynamic nature of CDR patterns mean that the caseload at the beginning of each year might have shifted had CDR cessation patterns been consistent. For example, if the patterns had followed a 2017 pattern of more frequent cessations, more people would have been ceased in earlier years, meaning they would not have potentially faced cessation in later years. Estimating the flow of cessations each year therefore requires knowing how many people could have faced a cessation at the start of the year – that is, the probability of benefit receipt. We repeated this procedure each year to estimate the probability of benefit receipt at the start of each year from 2006 to 2018.

Some people who were ceased from a CDR could have returned to SSI in subsequent years; however, our model accounts for this complicating factor (Figure 4, Panel B). Specifically, among people ceased in the base year, we estimated a separate logistic regression using Equation (2), which is identical to Equation (1) but changes the outcome to be an indicator for returning to SSI at any point in the five subsequent years following cessation.

$$CDR\ return_i = \alpha + \beta X_i + \varepsilon_i. \qquad (2)$$

The controls included the same demographic characteristics, measured at the time of cessation. We can therefore apply the coefficients to estimate the probability of returning to SSI each year conditional on benefits being ceased.[15] We can then sum these probabilities across the population to estimate the total number of people who previously had benefits ceased who would have returned to benefits in each year. Thus, the probability of being a recipient at the start of each year is the sum of (1) the probability of having been a recipient at the start of that year and

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[15] Because we assumed a uniform probability of return in each year, multiplying the likelihood of return at any point in the five subsequent years by one-fifth gave us the likelihood of returning in each year. This assumption did not exactly match the data, and likely led to an overestimate of the likelihood of return to SSI after being ceased following a CDR (because the same uniform probability extends out after five years, whereas most returns happen in the first couple of years post-cessation). For example, Hemmeter and Bailey (2015) found that nearly 10 percent of children with benefits ceased from a CDR return to SSI within 10 years before reaching age 18, with two-thirds of these returns happening within five years. However, this assumption is necessary to make the math behind the simulation tractable. As a result, our simulation likely *overestimated* returns to the program, meaning we *underestimated* the role CDRs play in caseload dynamics.

benefits being continued (discussed in the prior paragraph) and (2) the probability of having previously been ceased from a CDR and returning to benefits in that year.

We then used these estimates to create a counterfactual caseload. First, we calculated the net reduction in the caseload from CDRs in each year from the model, which is the total number of cessations minus the total number of returns. Next, we calculated the actual net reduction in the caseload from CDR cessations. To estimate the counterfactual caseload under a given model, we modified the year-to-year change in actual child SSI participation by replacing the actual net reduction from CDRs with the model-based net reduction from CDRs.[16] This process isolates the role of CDRs from all other programmatic factors contributing to changes in the caseload (new applications, other cessations, and other factors): it holds fixed the year-to-year change in the caseload other than the contributions from CDRs.

In addition, the differential pattern between the 2008 cohort (the low cessation cohort) and the 2017 cohort (the stable cessation cohort) enabled us to estimate the share of caseload dynamics stemming from CDR cessation patterns. The gap in net cessations between these two models represents how many CDRs can be attributed to the gap in CDR policies. Benchmarking these percentages to the total change in the caseload each year or over a period of time indicates how much CDR cessations alone might have contributed to caseload dynamics.

One limitation of this approach is that our analysis does not control for or otherwise incorporate economic, sociocultural, environmental, medical, or other factors. As a result, we do not predict non-CDR-related changes in program participation, such as those stemming from outreach efforts or the overall decline in childhood poverty in recent years.

Results

Who Has Benefits Ceased from a CDR?

The medical diary category is an important predictor of cessation (Figure 5, Panel A). In most years from 2003 to 2021, medical improvement was possible for about two of three ceased

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[16] For example, from 2003 to 2004, child SSI participation increased by 33,748. The net reduction from CDRs in 2004 was -16,474: 17,113 children were ceased in 2004 while 639 children who had been ceased from 2003 onwards returned. Our 2017 model predicted that in 2004, the net reduction from CDRs would have been -20,836. Thus, if we replaced the actual net reduction with the model-based net reduction, we would have seen an additional decline of 4,362 children (-20,836 minus -16,474), or the caseload would have grown by only 29,386 (33,748 minus 4,362). We then calculated a new number for the caseload for 2004, and used this in iterating the same process forward.

beneficiaries; about one of three were expected to experience medical improvement expected, and a negligible number were not expected to experience medical improvement (Figure 5, Panel A). The share of youth ceased expected to experience medical improvement was elevated from 2012 to 2014, coinciding with the initial increase in CDR frequency (see Figure 1).

When we benchmark these trends versus the share of child SSI recipients in each medical diary category, it becomes evident that those expected to experience medical improvement are disproportionately ceased from benefits each year (Figure 5, Panel B). As noted earlier, about 15 percent of children are expected to experience medical improvement. Thus, with such children making up 30 percent of annual cessation, these children are twice as likely to be ceased as the average child SSI recipient. In contrast, the share of beneficiaries with medical improvement possible who are ceased aligns closely with their representation in the child SSI recipient population. Given an expectation of medical improvement, it is predictable that the rates of cessation from a CDR are differentially higher among this group, especially because they face more frequent CDRs. All subsequent figures show the benchmarked version of the graph that divides the cessation share by the population share. Figures for the cessation share on its own are available from the authors upon request.

Figure 5. *Cessation Characteristics, by Medical Diary Category*

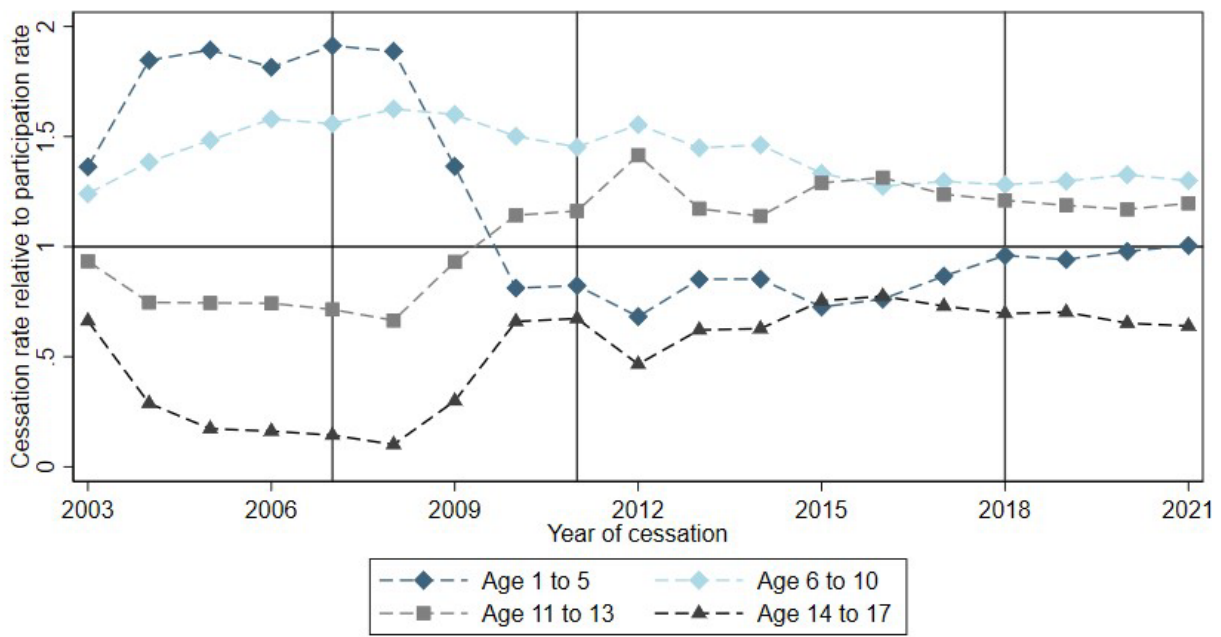**Panel A. Percentage of Cessations**
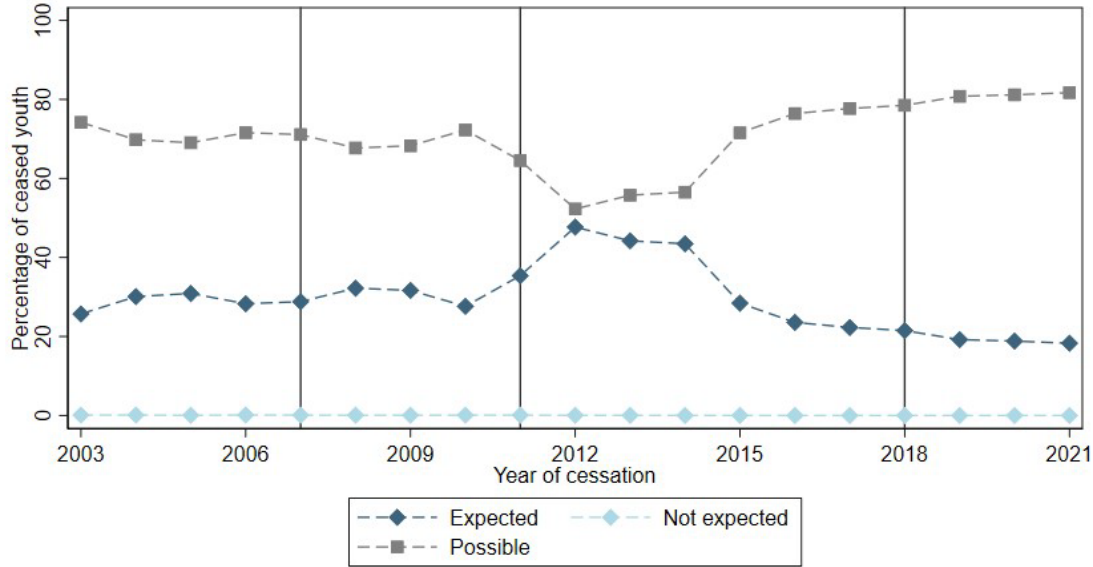
Panel B. Cessation Share Relative to Recipient Share
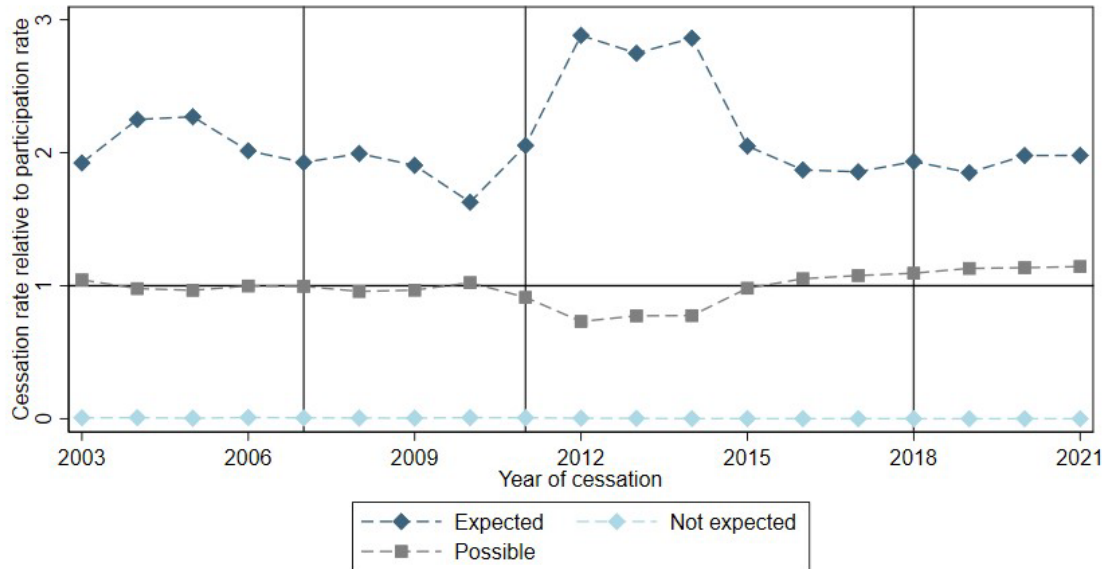
Notes: Panel B divides the share of cessations with that characteristic (i.e., the number of cessations with medical improvement expected divided by the number of total cessations) by the share of SSI recipients with that characteristic (i.e., the number of recipients with medical improvement expected divided by the total number of SSI recipients). Vertical lines at 2007, 2011, and 2018 represent the point at which (1) CDR frequencies declined to nearly zero, (2) CDR frequencies started to increase again, and (3) the CDR backlog was fully processed. *Source:* Author's calculations using Social Security administrative records.

Age patterns in cessation are mostly stable since 2010, despite the large increase in frequency of CDRs during the later period (Figure 6). The youngest (ages 1 to 5) and oldest children (ages 14 to 17) are least likely to be ceased, while children ages 6 to 10 and 11 to 13 face differentially higher rates of cessation in all years after 2010. In the early part of the period, children ages 1 to 5 were disproportionately the most likely age group to be ceased. However, this pattern began changing in 2009.

Figure 6. *Cessations Characteristics, by Age at Time of Cessation*

Notes: Divides the share of cessations with that characteristic (i.e., the number of children with cessations who are ages 1 to 5 divided by the number of total cessations) by the share of SSI recipients with that characteristic (i.e., the number of recipients who are ages 1 to 5 divided by the total number of SSI recipients). Vertical lines at 2007, 2011, and 2018 represent the point at which (1) CDR frequencies declined to nearly zero, (2) CDR frequencies started to increase again, and (3) the CDR backlog was fully processed.
Source: Author's calculations using Social Security administrative records.

Children with certain primary diagnoses are much more likely to face cessation than others (Figure 7).[17] Among children with mental disorders, those with developmental disabilities

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[17] Figure 7 shows the four most prevalent diagnosis codes among children with mental diagnoses and other diagnoses in 2017. Thus, the figures do not include children with mental diagnoses that fall into the categories of childhood and adolescent disorders not elsewhere classified; depressive, bipolar, and related disorders;

were consistently more likely to be ceased prior to 2019. Those with intellectual disabilities and autism spectrum disorder were less likely to be ceased from a CDR. In the past few years, the pattern has slightly shifted, with children with other mental disorders[18] now slightly more likely than children with developmental disorders[19] to be ceased. Among other disorders, children with respiratory system disorders are more likely to be ceased while children with nervous and sense organ disorders are less likely to be ceased.

Finally, children with benefits ceased from a CDR disproportionately live in areas of high socioeconomic deprivation (Figure 8). For example, 36.8 percent of children ceased in 2017 lived in zip codes in the fourth quartile of socioeconomic deprivation (indicating worse economic outcomes). Yet just 30.7 percent of child SSI recipients lived in such zip codes. The relative cessation rate is 1.2 for the fourth quartile in 2017. In contrast, 14.1 percent of children ceased in 2017 lived in zip codes in the first quartile of socioeconomic deprivation, smaller than the 19.4 percent of child SSI recipients living in these zip codes. The general patterns hold true whether measuring socioeconomic deprivation at the zip code or county level.[20] We explored whether appeals might play a role in this finding: in theory, one might expect that children in areas with lower socioeconomic deprivation might be more likely to appeal an initial cessation because of greater knowledge of the appeal process or greater resources to go through the appeal process. However, we found that the share that appeal is roughly equal to the share of the overall SSI population for each of the four socioeconomic deprivation quartiles (results available upon request).

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neurocognitive disorders; and schizophrenia spectrum and other psychotic disorders. Statistics for all primary diagnosis codes, age at entry, duration of SSI receipt, and level of initial award (initial allowance, reconsideration, administrative law judge, or other) are available on request.

[18] The diagnoses included in other mental disorders include things like anxiety and obsessive-compulsive disorders, personality disorder, trauma- and stress-related disorders, and attention-deficit hyperactivity disorder.

[19] The diagnoses included in developmental disorders include things like learning disorders, speech and language impairments, and developmental disorders in infants and toddlers. Autism spectrum disorder is treated as a separate category from developmental disorders.
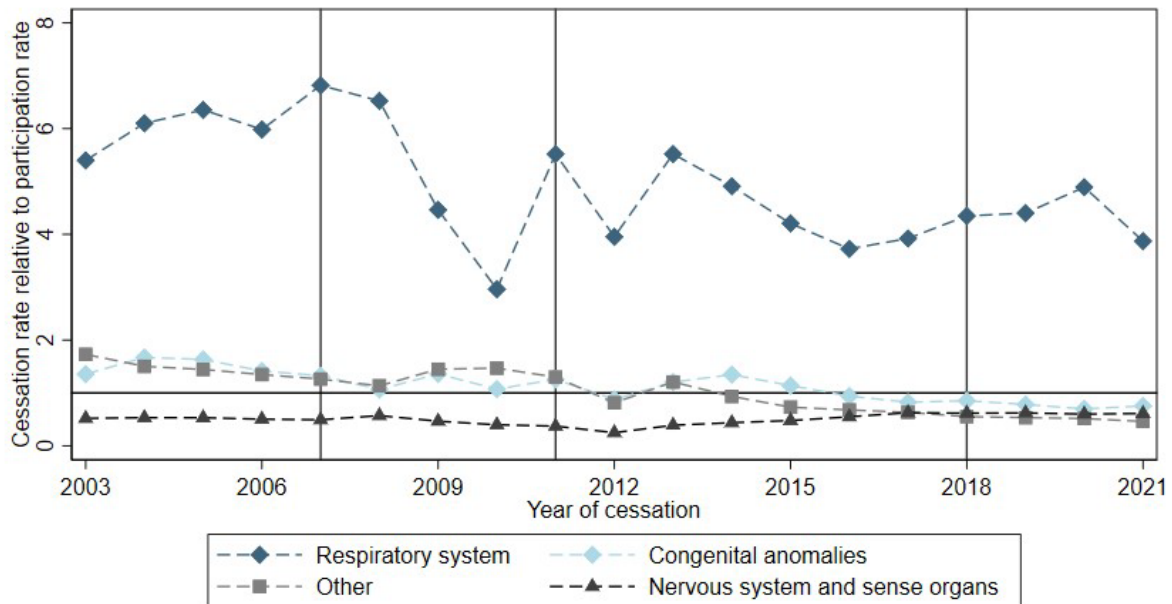
[20] Importantly, socioeconomic deprivation is measured for all cessation years using 2015–2019 American Community Survey data. Thus, especially in earlier years, the actual level of socioeconomic deprivation may differ somewhat.

Figure 7. *Cessations Characteristics, By Primary Diagnosis*

Panel A. Selected Mental Disorders
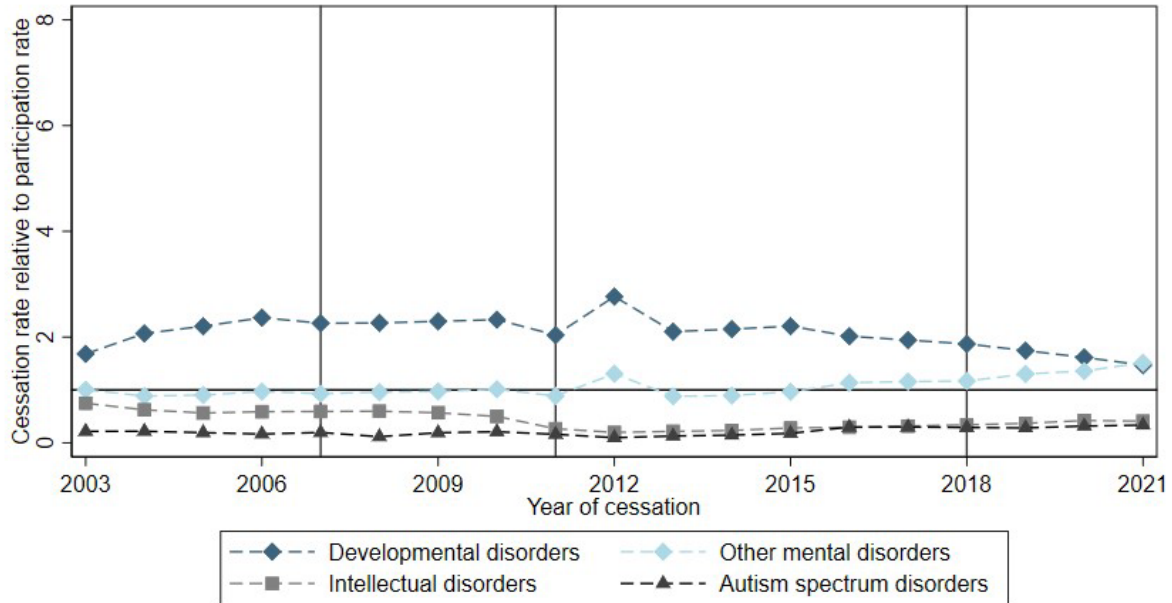
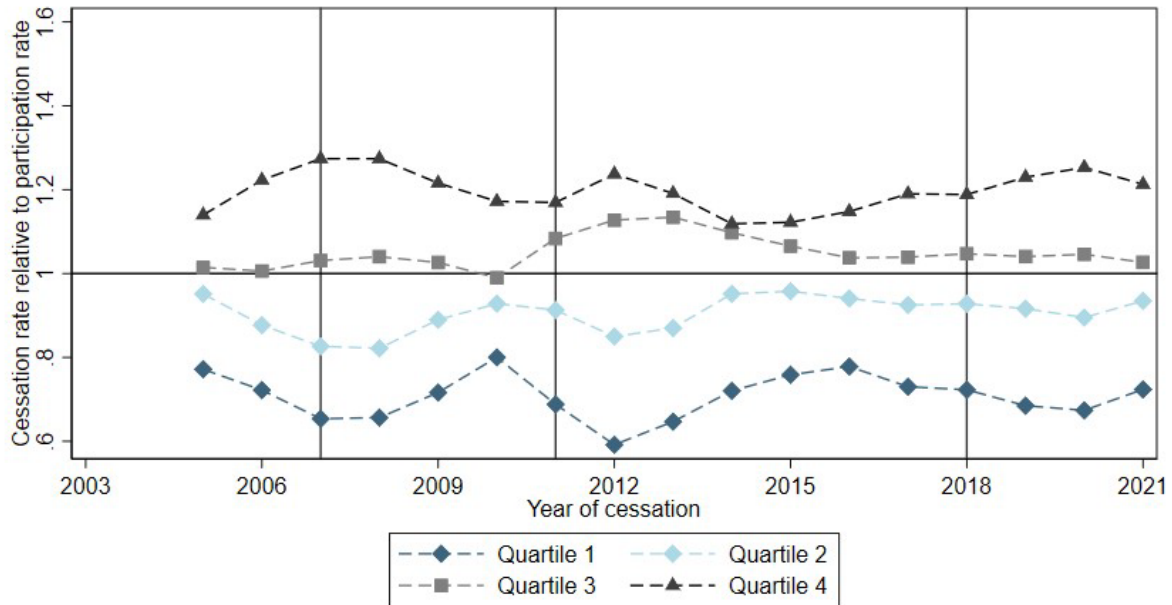**Panel B. Selected Other Disorders**

Notes: Divides the share of cessations with that characteristic (i.e., the number of cessations for children with autism spectrum disorder divided by the number of total cessations) by the share of SSI recipients with that characteristic (i.e., the number of recipients with autism spectrum disorder divided by the total number of SSI recipients). Vertical lines at 2007, 2011, and 2018 represent the point at which (1) CDR frequencies declined to nearly zero, (2) CDR frequencies started to increase again, and (3) the CDR backlog was fully processed.
Source: Author's calculations using Social Security administrative records.

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Figure 8. *Cessations Characteristics, by Socioeconomic Deprivation*

Panel A. Zip-code Level

Panel B. County Level

Notes: Divides the share of cessations with that characteristic (i.e., the number of cessations for children in the first quartile of deprivation divided by the number of total cessations) by the share of SSI recipients with that characteristic (i.e., the number of recipients in the first quartile of deprivation divided by the total number of SSI recipients). Vertical lines at 2007, 2011, and 2018 represent the point at which (1) CDR frequencies declined to nearly zero, (2) CDR frequencies started to increase again, and (3) the CDR backlog was fully processed.
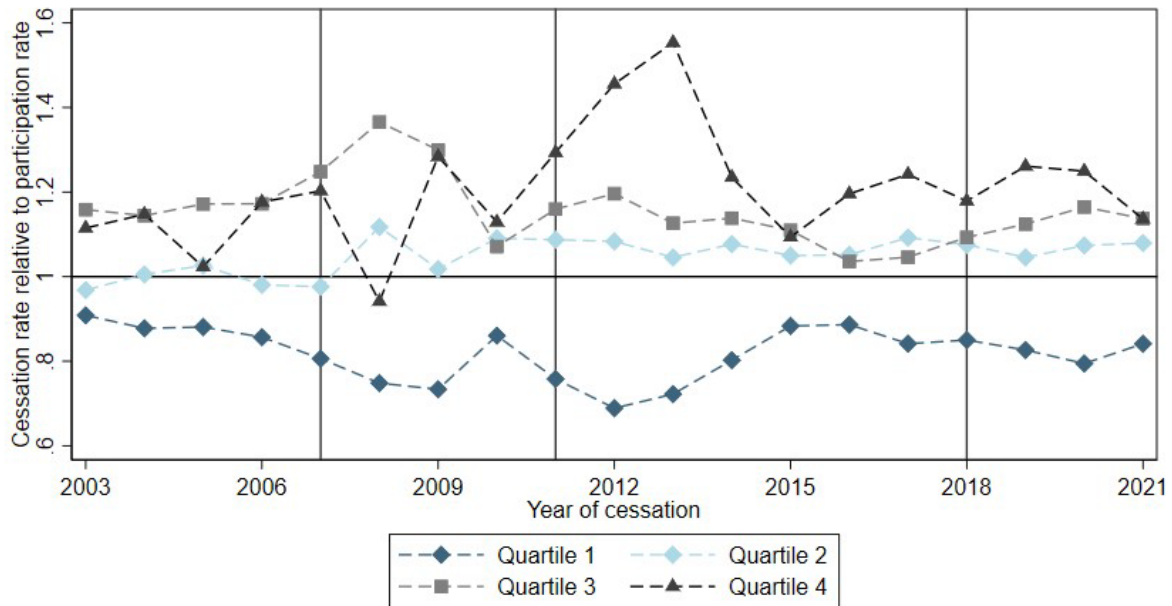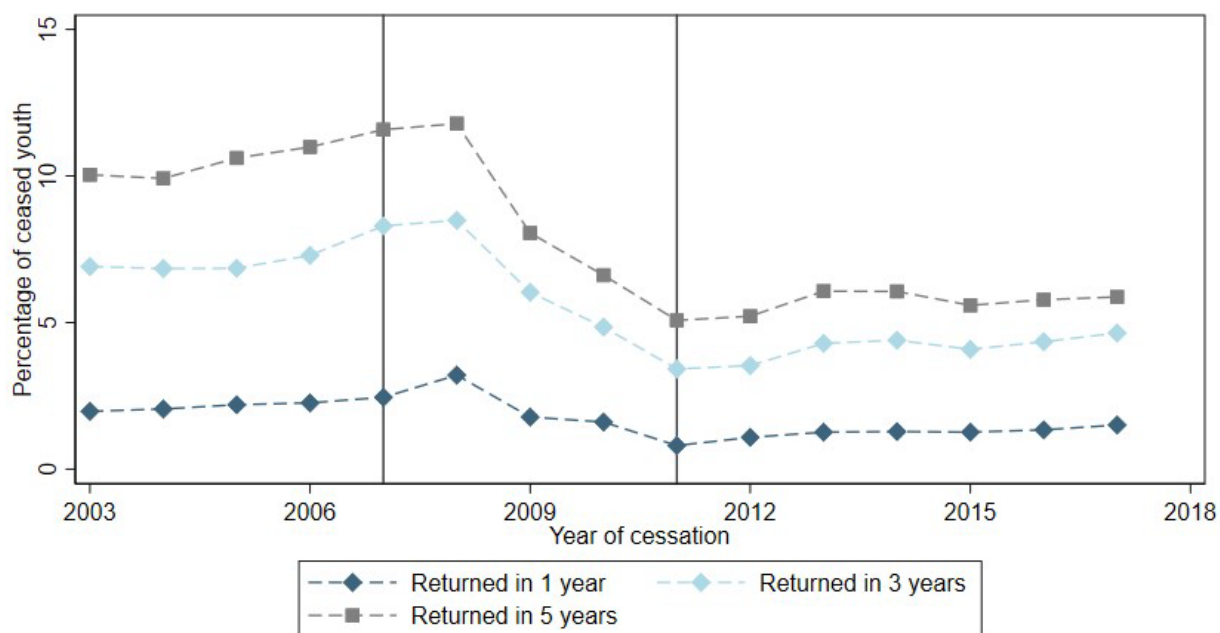*Source:* Author's calculations using Social Security administrative records and American Community Survey data.

What Happens in the Years Following Cessation?

Among children who were ceased, a modest percentage returned to SSI within the first five years (Figure 9).[21] On average, 1.7 percent returned to SSI in the first year after a cessation, 5.6 percent return to SSI in the first three years, and 8.0 percent returned to SSI in the first five years. The rates of return fell starting with the 2009 cessation cohort: for cohorts ceased in 2011 and later, the average rates of return are 1.2 percent after 1 year, 4.1 percent after three years, and 5.7 percent after five years.[22] Interestingly, even as the frequency of CDRs substantially increased starting in 2015, the rates of return to SSI did not change noticeably.

Figure 9. *Return to SSI Following Cessation from CDR, by Year of Cessation*

Note: Vertical lines at 2007 and 2011 represent the point at which (1) CDR frequencies declined to nearly zero, and (2) CDR frequencies started to increase again.
Source: Author's calculations using Social Security administrative records.

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[21] Because nearly all returns to benefits are to SSI (more than 95 percent), we show statistics only on returns to SSI. We do not show subsequent enrollment in Social Security Disability Insurance, which are extremely rare.
[22] The declining share that return to SSI can explain some of the differences we find relative to Hemmeter and Bailey (2015). Averaging across the 1998 to 2006 cessation cohorts (the groups that were observed for a period of at least five years), Hemmeter and Bailey's analogous rates of return are 2.6, 6.6, and 9.3 percent, which are similar to the numbers we found in the earliest cohorts considered.

Our analysis of post-cessation earnings focused exclusively on children who had reached working age, specifically those who were at least 16 years old at the time of measurement. This analysis thus helps to understand the economic outcomes of former child SSI recipients as they transition into the workforce. Given the natural progression of career development, we anticipate an increase in earnings as these youths age, particularly when comparing earnings five years after cessation with earnings in the first year.

Earnings increased in the years following cessation, but suggested earnings potential for former child SSI recipients is fairly limited (Figure 10). For the 2017 cessation cohort, average annual earnings increased by about 3.5 times from $2,716 in the calendar year after cessation to $9,607 five years after cessation. Correspondingly, the shares with positive earnings and substantive earnings (more than $16,200, or the annualized substantial gainful activity amount) also increased in the years following cessation. The impact of the Great Recession is evident: earnings three years after cessation were lowest for the 2007 and 2008 cohorts, while earnings five years after cessation were lowest for the 2005 and 2006 cohorts – aligning with calendar years 2010 and 2011. Interestingly, it seems the COVID-19 pandemic had minimal effect on these cohort-based patterns, as 2020 calendar year earnings align closely with adjacent years.

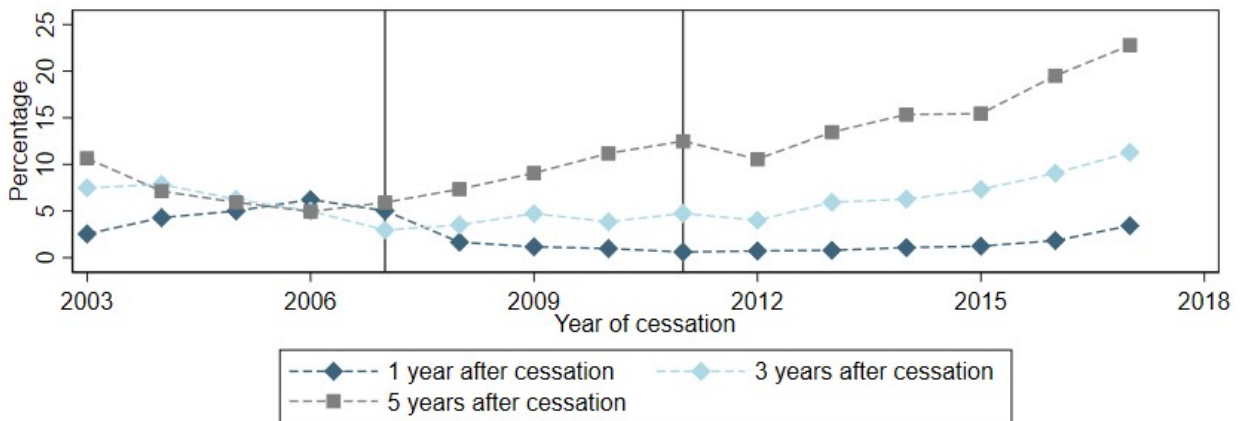Figure 10. *Earnings Following Cessation from CDR, by Year of Cessation*

Panel A. Earnings
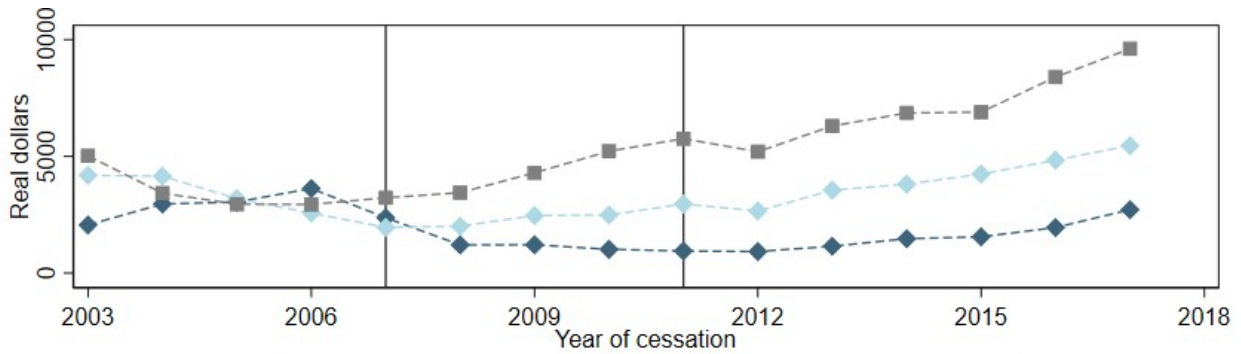
Panel B. Positive Earnings
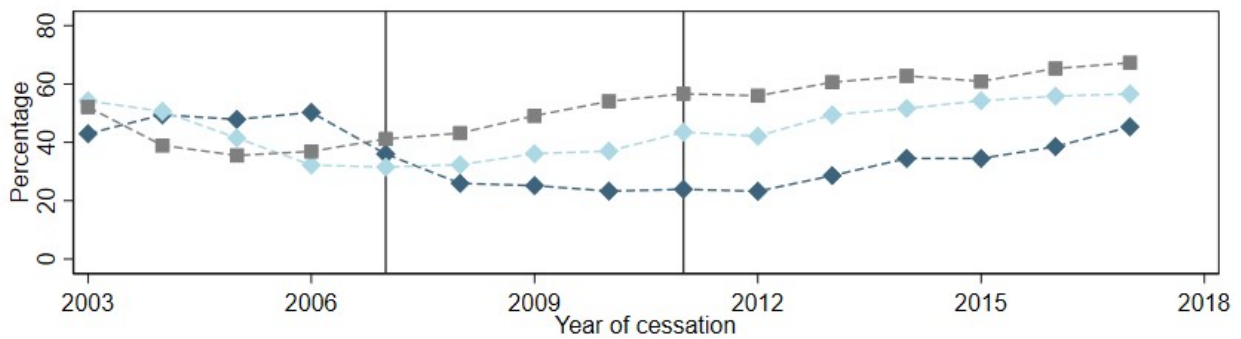
Panel C. Substantive Earnings

Legend:
--- 1 year after cessation --- 3 years after cessation
--- 5 years after cessation

Notes: All earnings are converted to real 2022 dollars. Earnings are included only for people in the calendar year in which they are at least age 16. Panel A shows average earnings, Panel B shows the percentage who had earnings greater than $0, and Panel C shows the percentage who had earnings greater than $16,200, which represents the annualized substantial gainful earnings amount for non-blind beneficiaries in 2022 ($1,350 per month times 12 months). Vertical lines at 2007 and 2011 represent the point at which (1) CDR frequencies declined to nearly zero, and (2) CDR frequencies started to increase again.
Source: Author's calculations using Social Security administrative records.

*How Much Do CDR Patterns Contribute to Caseload Dynamics Over Time?*

We followed the process we describe in Section IV to estimate the counterfactual caseload over time. At a high level, for each child SSI recipient in each year, we estimated the likelihood that the child would have had benefits ceased following a CDR. Then, conditional on their having had benefits ceased, we estimated the likelihood that they would return to SSI. By summing these probabilities, we estimated the number of total cessations and returns that would have occurred in each calendar year had the cessation and return probabilities followed the patterns of an individual annual cessation cohort over time – namely, if the number of CDR cessations had been constant (rather than the variation with very few CDRs around the Great Recession and frequent CDRs as SSA processed the backlog starting in 2014). Finally, to obtain the counterfactual caseload, we replaced the observed net reduction from CDRs in each year (cessations minus returns) with the model-based prediction.

The cessation cohort has substantial implications for the likelihood of being removed from benefits because of a CDR (Figure 11). The solid black line in each panel shows the actual rate of cessation for each medical diary category group. Children expected to experience medical improvement had the highest rates of cessation, followed by children for whom medical improvement was possible. Almost no one who was not expected to experience medical improvement had benefits ceased in any year, consistent with SSA generally not conducting CDRs for this population. Patterns over time match the frequency of child CDRs shown above in Figure 3, with peaks in the years before and after the Great Recession, and almost no cessations from 2007 to 2010. The predicted probability smooths this empirical trend by essentially replicating the observed rate of cessation for the base year cohort in all other years. For example, the blue dashed line represents the predicted probability of cessation using the 2017 cohort as the base year (stable cessations). These probabilities are consistently higher than the red dashed line representing the predicted probability of cessation using the 2008 cohort as the base year (low cessations).

The cessation cohort is not as important when assessing the likelihood of returning to SSI conditional on having benefits ceased from a CDR (Figure 12). Return rates were slightly higher for children not expected to experience medical improvement. This group also had noisier observed rates of return because of the small sample of children in this group who had benefits ceased. However, return rates are more stable than cessation rates – both in the actual rates of

return over time and in the difference between the patterns using the 2008 and 2017 cessation cohorts as the base year.

Figure 11. *Predicted and Actual Cessation Rates, by Medical Diary Category*
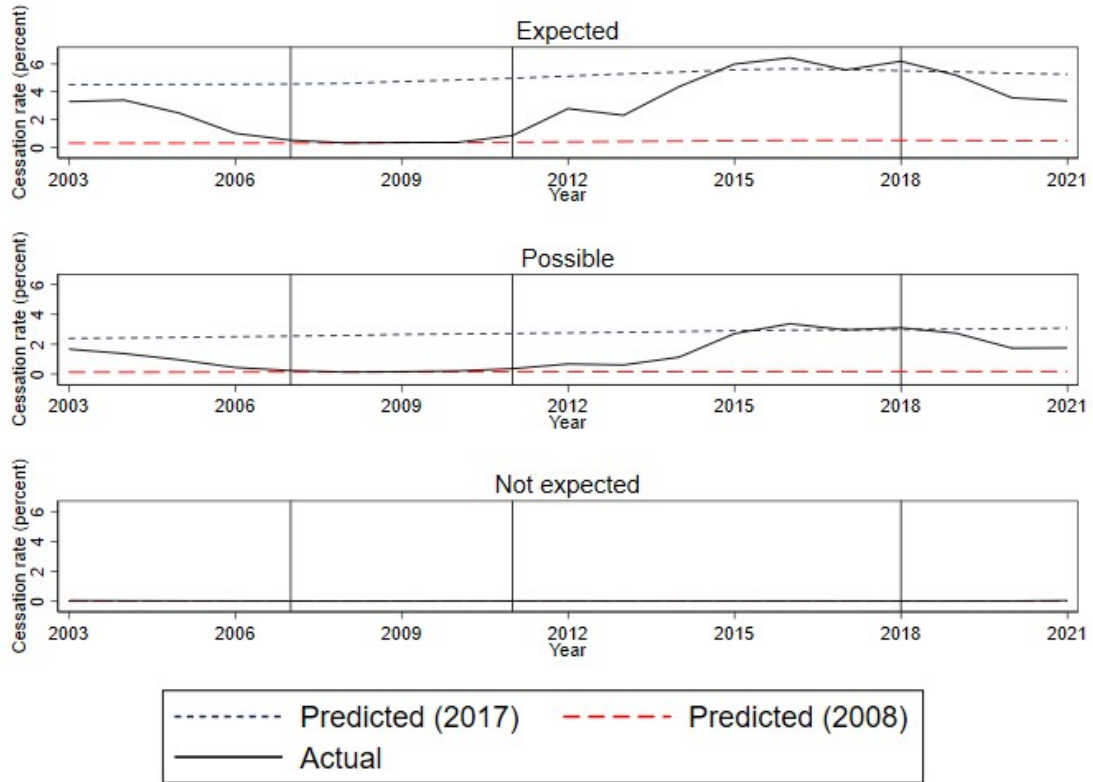
Notes: We do not report on the sample whose medical diary category is missing, which falls as a share of child SSI recipients from 33.9 percent in 2003 to 15 percent in 2017. Vertical lines at 2007, 2011, and 2018 represent the point at which (1) CDR frequencies declined to nearly zero, (2) CDR frequencies started to increase again, and (3) the CDR backlog was fully processed.
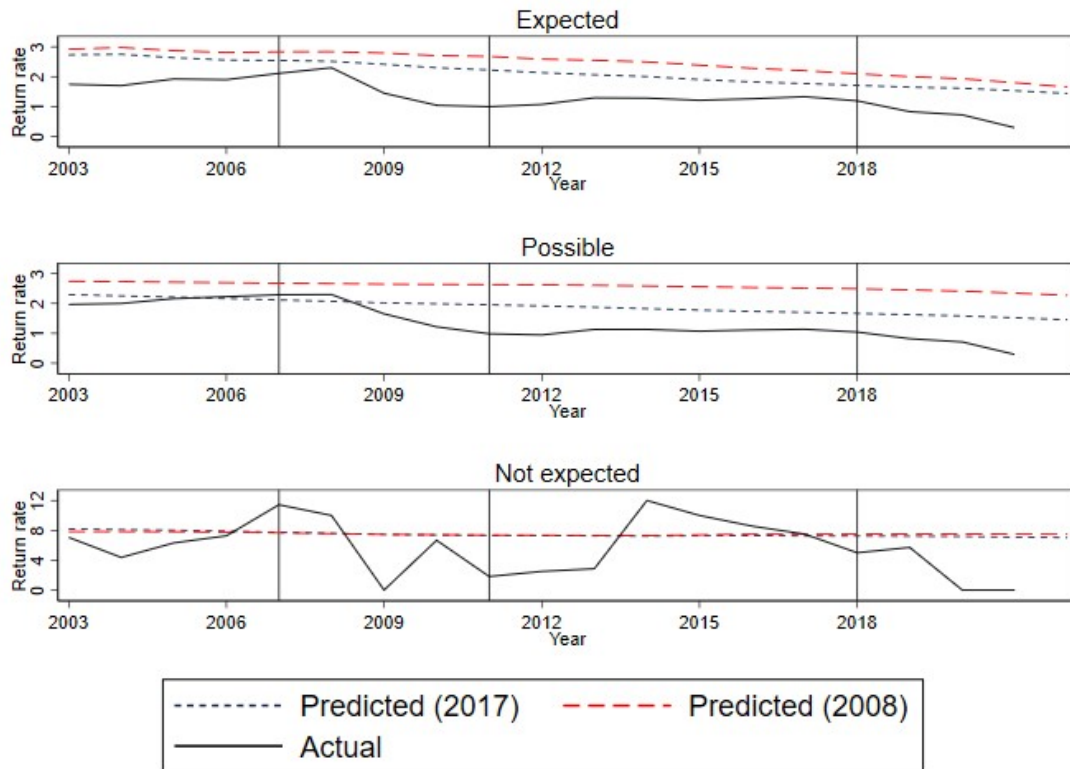*Source:* Author's calculations using Social Security administrative records.

Figure 12. *Predicted and Actual Return Rates, by Medical Diary Category*

Notes: We do not report on the sample whose medical diary category is missing, which falls as a share of child SSI recipients from 33.9 percent in 2003 to 15 percent in 2017. Vertical lines at 2007, 2011, and 2018 represent the point at which (1) CDR frequencies declined to nearly zero, (2) CDR frequencies started to increase again, and (3) the CDR backlog was fully processed. The scale for the "Not expected" group is wider because the number of children ceased from this group is very small (partially because of SSA policies to typically not review cases for such children, see Figure 11). This in turn leads to noisier estimates for this group.
Source: Author's calculations using Social Security administrative records.

The net contribution to the caseload from CDRs depends heavily on the selected model, though with a consistent policy it would follow a stable pattern (Figure 13). Under a low cessation model, there would be few cessations and thus few returns (red dashed line). Under a stable cessation model, there would be many more cessations – roughly 25,000 to 30,000 per year (blue dotted line). Both models offer substantially less fluctuation than the observed patterns. One reason the 2017 model leads to a smaller (in magnitude) net reduction from CDRs than the actual net reduction in 2017 is that many children would have had benefits ceased earlier, thus leading to a lower caseload. The negative numbers indicate CDRs on net contribute to a reduction in the caseload; there are always more people whose benefits have ceased than people who returned to receiving benefits following a previous cessation.

Figure 13. *Net Reduction in Childhood SSI Caseload from CDRs*
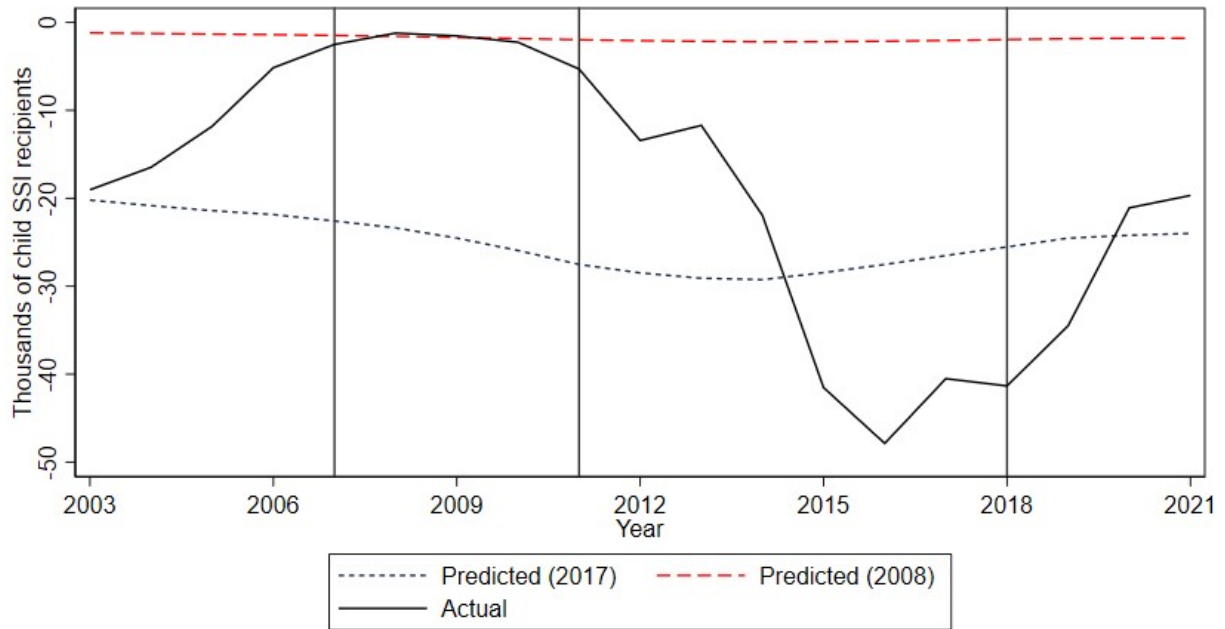
Notes: The net reduction is measured as the number of cessations from CDRs minus the number of returns to benefits among people who previously had benefits ceased from a CDR. Vertical lines at 2007, 2011, and 2018 represent the point at which (1) CDR frequencies declined to nearly zero, (2) CDR frequencies started to increase again, and (3) the CDR backlog was fully processed.
Source: Author's calculations using Social Security administrative records

Taken together, the policy simulations suggest CDR cessation patterns play an important role in the overall dynamic of the SSI caseload over time (Figure 14). The actual caseload in 2021 was around 1.04 million, which reflects the varying CDR policies during this period. If a stable cessation policy had been applied consistently, the caseload in 2021 might have only been 0.92 million children. If a low cessation policy had been applied consistently, the caseload in 2021 might have been 1.36 million children. Thus, the net difference in the caseload from a low cessation policy versus a stable cessation policy amounts to a difference in the number of SSI recipients of roughly 400,000 children.

Figure 14. *Policy Simulations for SSI Caseload Over Time*
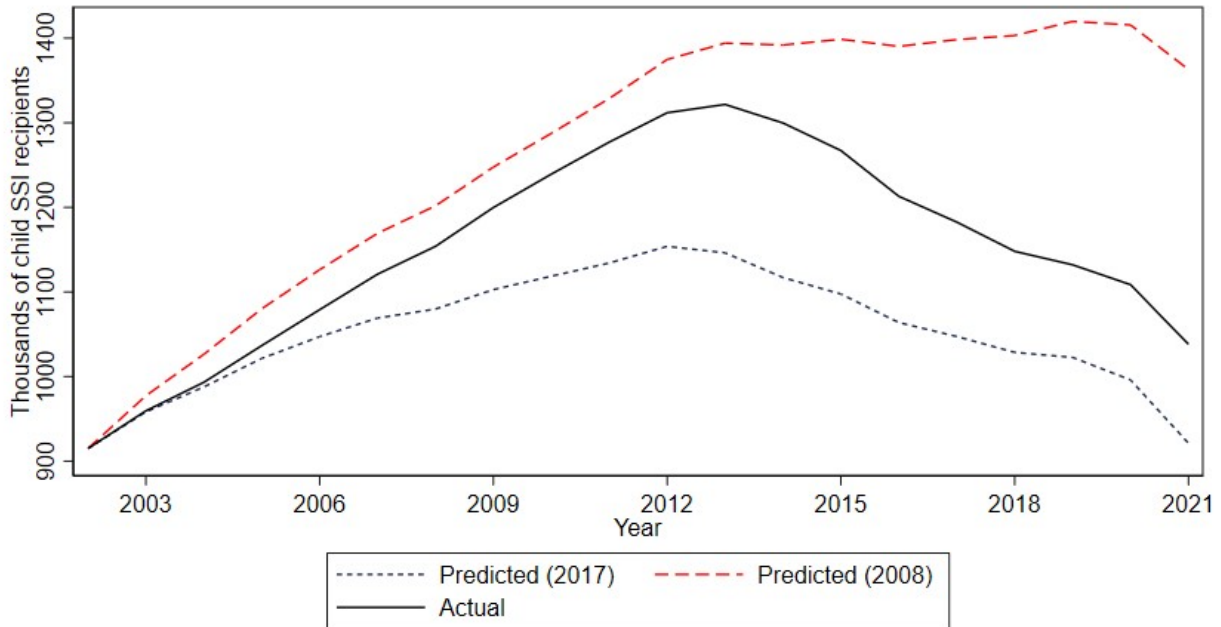
Source: Author's calculations using Social Security administrative records.

Though the impact of CDRs in any single year is relatively minor, cumulated over an extend period, CDRs can explain an important share of the variation in the child SSI caseload. For example, from 2002 to 2013, the number of children receiving SSI increased by about 406,000. Comparing the patterns between the stable and low cessation model patterns, we estimated that a stable cessation pattern might have led to nearly 250,000 more net cessations. Thus, CDRs can explain about 60 percent of the program growth from 2002 to 2013.[23] During the subsequent period of program decline from 2013 to 2021, CDRs can explain about two-thirds of the program declines: the caseload fell by 283,000, while the differential between stable and low CDRs is about 194,000.

Interestingly, the return probability plays a minimal role in these simulations. For both base year cohorts, had we not adjusted for the return probability, the estimated value in the final year (which allows for the greatest number of possible returns over time) would essentially be

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[23] The difference between the two models represents our best estimate of the share of the caseload change that can be explained by differential cessation patterns. In reality, there were periods of somewhat more frequent and somewhat less frequent cessations. By comparing two model-based estimates, we can isolate the differential net reduction in the caseload stemming from CDR policies. For the most part, from 2002 to 2013, the caseload pattern mimicked the "low cessation" projection because this period had very few cessations. From 2014 to 2021, the caseload pattern mimicked the "stable cessation" projection because this period had relatively more cessations.

unchanged. For example, the estimated number of SSI recipients shown in Figure 14 in 2021 from the low cessation model is 1.363 million; if we had not accounted for the probability of returns, the estimate in 2021 would have been 1.382 million. For the stable cessation model, the difference in the caseload would have been only 3,000 lower if not allowing for returns.

Finally, it is critical to note that these results are mostly not sensitive to the choice of year chosen as the stable cessation cohort (Figure 15). Whether we use the 2003, 2017, or 2019 cessation cohort as the base year, we still find that the program growth would have been substantially smaller, with subsequently smaller declines in the caseload than have been observed. Comparing the estimates to the low CDR cessation cohort of 2008, all three cohorts would still lead to the conclusion that CDR cessation patterns can explain a substantial share of the program growth and decline. With the 2017 cessation cohort, CDRs could explain 61 percent of the program growth from 2002 to 2013 and 68 percent of the program decline from 2014 to 2021. For the 2019 cessation cohort, these numbers would be 57 percent and 62 percent; for the 2003 cessation cohort, they would be 44 percent and 47 percent.

Figure 15. *Policy Simulations for SSI Caseload Over Time, Sensitivity to Base Year Selection*
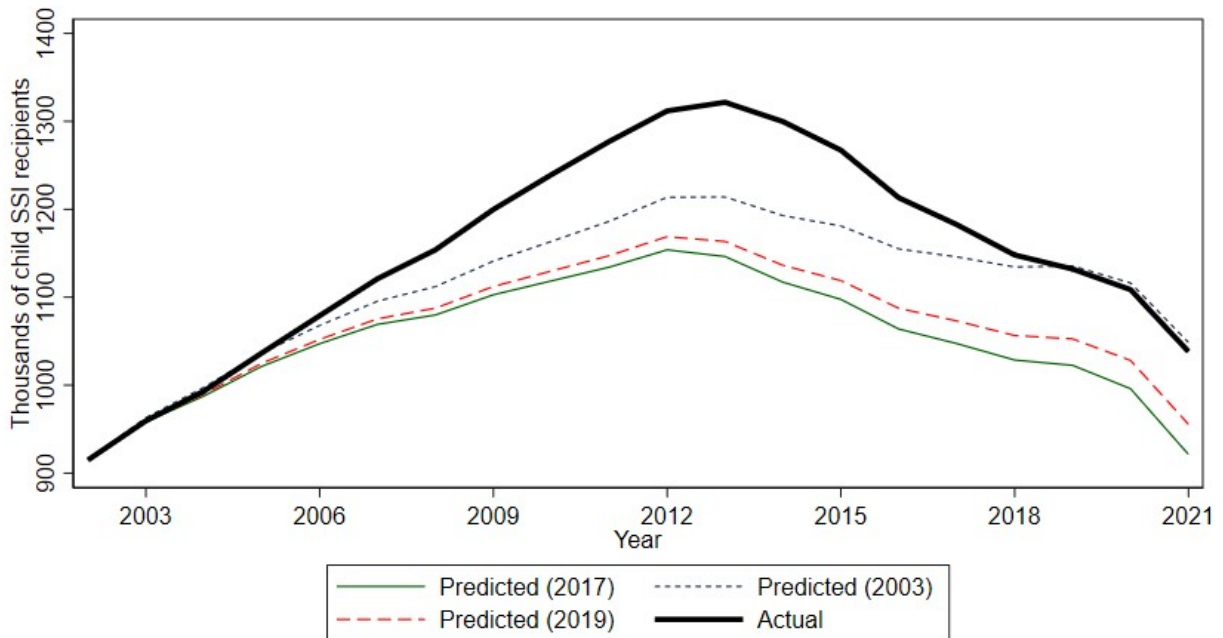
Source: Author's calculations using Social Security administrative records.

Conclusion

We investigated the role the increase in the frequency of CDRs had on recent changes in the child SSI population. Cessation rates by primary diagnosis and other demographic characteristics were stable, though the ages of ceased children shifted noticeably around 2010. This finding is not unexpected, as children ages 11 to 13 were presumably more likely to be overdue for a CDR because of a backlog in the earlier period. In contrast, the backlog would likely be more consistent across other characteristics. Children in zip codes with higher levels of deprivation were more likely to be ceased.

The rate at which ceased children return to the program was lower in the post-2008 cohorts. We were not able to isolate the cause for this decrease, but some explanations are consistent with the observed trends. SSA conducted far fewer childhood CDRs before 2008, which may have led to the backlog having a substantial number of children with relatively less severe disabilities – who would be less likely to return – being ceased in the post-2008 cohorts. Anecdotal feedback during the Youth Transition Demonstration and Promoting Readiness of Minors in SSI demonstrations suggested these reviews were unexpected and that receiving benefits was perceived as getting harder (Fraker et al. 2014; Patnaik et al. 2022). These factors might have discouraged children and their families from reapplying. However, returns did not increase as the frequency of CDRs subsequently increased. In addition, earnings five years after cessation were relatively higher for the cohorts that were ceased after 2008 (potentially because the economy was growing following the Great Recession).[24] Thus, there might have been less of a perceived need for SSI. These two explanations are not mutually exclusive and more research is needed to confirm whether either is correct or other factors explain the trend.[25]

Our results indicate that CDRs can explain a notably large portion of the caseload dynamics during the study period. For the period of program growth from 2002 to 2013, CDRs can explain about 60 percent of the program growth: if CDRs had followed a more stable cessation pattern, the predicted number of child SSI recipients would have been substantially lower. In addition, CDRs can explain two-thirds of the program decline from 2013 to 2021.

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[24] In the late 2010s, SSA began sending annual notices to all SSI recipients ages 14–17 alerting them about the age-18 redetermination, which might have better prepared them for not receiving SSI.

[25] One potential contributor external to SSI is the overall decline in the number of children in poverty during this period. From 2013 to 2022, the number of children in poverty dropped by almost 4.5 million children, or from 22 to 16 percent of the population. See Child poverty statistics in the U.S. (aecf.org), last accessed March 2024.

Without the increase in CDRs that occurred during this period, the caseload would have been roughly unchanged. These findings indicate CDR policies that resulted in consistent rates of cessation across time would have led to a more stable pattern of child SSI participation. This uncertainty about CDRs might be especially important for families in planning for the possibility of losing benefits. Even with the age-18 redetermination, which SSA conducted consistently during this time period, few families correctly anticipated the potential for their child to have benefits ceased (Deshpande and Dizon-Ross 2023). Given variation in the even lower frequency of childhood CDRs, anticipating a loss in benefits would be that much more difficult for families. Yet evidence from Deshpande and Dizon-Ross (2023) also shows that families do not tend to change behavior even when obtaining accurate information about the likelihood of the cessation, which may further complicate matters for these families. Large demonstrations on youth transition that included improved knowledge about the age-18 redetermination (e.g., PROMISE and YTD), suggest that there can be increases in human capital investment when that information is accompanied by services; however, these effects seem to be short-lived (Fraker et al. 2014; Patnaik et al. 2022). SSA already informs all youth 14-17 about the age-18 redetermination through an annually mailed brochure that notes the high likelihood of losing benefits.[26] It may be possible to add additional information about childhood CDRs to an existing notice or the award program. Such information could set parental expectations that SSI is not a permanent program.

We attribute a substantial fraction of the trends in child SSI participation to the increase in the program integrity funding for CDRs. Though the volume of CDRs has increased since the early 2000s, the stable rates of cessation across demographics, even as the volume varied, indicates that CDRs are targeted consistently. The main factor determining who faces a CDR is the medical diary category. In the fiscal year 2020 budget, SSA proposed expanding the diary categories "to conduct CDRs more frequently for those medical impairments that are expected or likely to improve."[27] Our results suggest such a change would likely further lower the number of children receiving SSI, continuing recent trends in program declines that have continued during the COVID-19 pandemic (Levere et al. 2023a).

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[26] What You Need To Know About Your Supplemental Security Income (SSI) When You Turn 18 (ssa.gov)
[27] https://www.ssa.gov/budget/assets/materials/2020/2020BO_1.pdf

That the CDRs are consistently targeted does not mean the ceased children are receiving the supports needed to be self-sufficient. As noted, we found low levels of earnings for ceased youth as they transitioned to adulthood, which correlates with poor adult economic outcomes (Patnaik et al. 2022; Luecking 2009; Fraker et al. 2014). Although SSA determined that these youth's impairments are no longer sufficiently severe to qualify for SSI, most of these children still have substantial barriers to fully participating in education settings or the labor force. Losing SSI also results in the loss of Medicaid eligibility for many children (because SSI eligibility provides categorical eligibility to Medicaid; additionally, SSI eligibility automatically determines Medicaid eligibility in most states; however, state Medicaid offices typically assess if there are alternate ways a child may be eligible before disenrolling them, which might lead many to remain eligible based on their limited income). Although there is substantial overlap in eligibility for SSI and Medicaid (Levere and Wittenburg 2024), additional supports might be necessary to fully participate in society. SSA is currently conducting the Beyond Benefits Study,[28] which is looking at the supports needed for adults who lose benefits during a medical CDR. A similar study focused on children might highlight their potentially unique needs.

In addition, there are potential equity concerns given that children from high deprivation areas are more likely to have their benefits ceased. The role of economic, medical, environmental or social factors is beyond this study. SSA is planning a new survey of children and youth receiving SSI that might provide information about this area in the coming years.[29] Better understanding the childhood SSI experience will help inform policymakers about whether children and families are prepared for CDRs, have the necessary resources when undergoing a CDR, and are prepared to deal with a potential cessation.

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[28] https://www.ssa.gov/disabilityresearch/bbs.htm
[29] The last such survey of children and youth receiving SSI was the National Survey of SSI Children and Families and was conducted from July 2001 to July 2002 (Ireys et al. 2004).

References

Deshpande, Manasi. 2016a. "The Effect of Disability Payments on Household Earnings and Income: Evidence from the SSI Children's Program." *Review of Economics and Statistics* 98(4): 638-654.

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

Deshpande, Manasi and Michael Mueller-Smith. 2022. "Does Welfare Prevent Crime? The Criminal Justice Outcomes of Youth Removed from SSI." *The Quarterly Journal of Economics* 137(4): 2263-2307.

Deshpande, Manasi and Rebecca Dizon-Ross. 2023. "The (Lack of) Anticipatory Effects of the Social Safety Net on Human Capital Investment." *American Economic Review* 113(12): 3129-3172.

Fraker, Thomas, Arif Mamun, Todd Honeycutt, Allison Thompkins, and Erin Jacobs Valentine. 2014. "Final Report on the Youth Transition Demonstration Evaluation." Washington, DC: Mathematica Policy Research.

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 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: U.S. Social Security Administration.

Hemmeter, Jeffrey, Michael Levere, Pragya Singh, and David Wittenburg. 2021. "Changing Stays? Duration of Supplemental Security Income Participation by First-Time Child Awardees and the Role of Continuing Disability Reviews" *Social Security Bulletin* 81(2): 17-41.

Ireys, Henry, Daniel Kasprzyk, Ama Takyi, and Jennifer Gillcrist. 2004. "Estimating the Size and Characteristics of the SSI Child Population: A Comparison Between the NSCF and Three National Surveys." Washington, DC: Mathematica Policy Research.

Levere, Michael. 2021. "The Labor Market Consequences of Receiving Disability Benefits During Childhood." *Journal of Human Resources* 56(3): 850-877.

Levere, Michael, Jeffrey Hemmeter, and David Wittenburg. 2023a. "Does the Drop in Child SSI Applications and Awards During the COVID-19 Pandemic Vary by Locality?" Working Paper. Princeton, NJ: Mathematica.

Levere, Michael, Jeffrey Hemmeter, and David Wittenburg. 2023b. "The Importance of Schools in Driving Children's Applications for Disability Benefits." Working Paper. Princeton, NJ: Mathematica.

Levere, Michael, and David Wittenburg. 2024. "How Many Medicaid Recipients Might Be Eligible for SSI?" Working Paper. Princeton, NJ: Mathematica.

Levere, Michael, David Wittenburg, and Jeffrey Hemmeter. 2022. "What Is the Relationship Between Socioeconomic Deprivation and Child Supplemental Security Income Participation?" *Social Security Bulletin* 82(2): 1-20.

Luecking, Richard G. 2009. *The Way to Work: How to Facilitate Work Experiences for Youth in Transition.* Baltimore, MD: Paul H Brookes.

Patnaik, Ankita, Stacy Dale, Monica Farid, Amal Harrati, Anna Hill, Todd Honeycutt, Karen Katz, et al. 2022. "Promoting Readiness of Minors in SSI (PROMISE): Youth and Family Outcomes Five Years After Enrollment." Washington, DC: Mathematica.

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.

Singh, Gopal K. 2003. "Area Deprivation and Widening Inequalities in US Mortality, 1969–1998." *American Journal of Public Health* 93(7): 1137-1143.

U.S. Social Security Administration. 2023a. "SSI Annual Statistical Report, 2022." Baltimore, MD. Available at: https://www.ssa.gov/policy/docs/statcomps/ssi_asr/2022/

U.S. Social Security Administration. 2023b. "2023 SSI Annual Report." Baltimore, MD. Available at: https://www.ssa.gov/OACT/ssir/SSI23/index.html

Wu, Joel T. and Thomas F. Boat, eds. 2015. *Mental Disorders and Disabilities among Low-income Children*. Washington, DC: National Academies Press.

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