

WORK OVERPAYMENTS AMONG NEW SOCIAL SECURITY DISABILITY INSURANCE BENEFICIARIES

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We study the longitudinal experiences of the 2008 cohort of first-time Disability Insurance (DI) beneficiaries who were at risk of benefit overpayment because of work activity. Less than 4 percent of these beneficiaries ever met the criteria for benefit suspension or termination for work within 10 years of award, yet 82 percent of this at-risk subsample were overpaid during those 10 years. Nearly all overpayments (89 percent) began in the first month after work incentives were exhausted. About 16 percent of beneficiaries received employment support services before being overpaid, representing a potential point for intervention to avoid overpayments. We also find that overpaid beneficiaries were less likely than other working beneficiaries to have benefits terminated for work in the 10 years after DI award. Understanding the beneficiary pathways that lead to overpayments might help policy-makers design policies that minimize overpayments or, if they occur, help beneficiaries maintain employment.

Introduction

A work-related overpayment occurs when the Social Security Administration (SSA) issues a monthly Social Security Disability Insurance (DI) benefit to which an individual is not entitled because of his or her substantial work activity. A beneficiary can appeal an overpayment, but if the appeal is unsuccessful, he or she is required to repay the overpayment debt. SSA-funded resources are available to help beneficiaries navigate overpayments, including the Work Incentives Planning and Assistance program, which provides benefits counseling; and the Protection and Advocacy for Beneficiaries of Social Security program, which provides legal support, advocacy, and information to help beneficiaries resolve employment-related issues.

Not all benefit overpayments are caused by work activity. However, this article focuses on work-related overpayments to DI disabled-worker beneficiaries and uses the terms “overpayments” and “overpaid beneficiaries” in that specific context. Work-related overpayments are prevalent among DI beneficiaries who work. For example, 71 percent of beneficiaries who

were at risk of a work-related overpayment because of sustained substantial earnings were overpaid during 2010–2012. The median overpayment amount accrued was more than \$9,000 and overpayments lasted for a median of 9 months (Hoffman and others 2019). Overpayments are also prevalent among DI beneficiaries participating in Ticket to Work, an SSA-funded program designed to help beneficiaries establish and maintain employment. The Government Accountability Office (GAO) estimated that approximately 96 percent of Ticket to Work participants who had substantial earnings received overpayments during 2002–2010 (GAO 2021).

Selected Abbreviations

| | |
|------|---------------------------------------|
| DAF | Disability Analysis File |
| DBAD | Disabled Beneficiaries and Dependents |
| DI | Disability Insurance |
| EN | employment network |
| EPE | extended period of eligibility |
| FRA | full retirement age |

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Selected Abbreviations—Continued

| | |
|------|--|
| GAO | Government Accountability Office |
| MEF | Master Earnings File |
| SGA | substantial gainful activity |
| SSA | Social Security Administration |
| SSI | Supplemental Security Income |
| SVRA | state vocational rehabilitation agency |
| TWP | trial work period |

Overpayments can cause financial and other challenges for DI beneficiaries and for SSA. For beneficiaries, repaying overpayments can create economic hardship and stress (O’Day and others 2016; Hoffman and others 2017). Overpayments can also cause a decline in the proportion of beneficiaries who continue to work and earn substantial amounts (Anand and others 2022; Shenk and Livermore 2021). For SSA, recouping overpaid benefits creates fiscal and administrative challenges (SSA 2015). Minimizing overpayments is one of SSA’s primary program integrity goals (SSA 2020c).

Despite the adverse implications of overpayments on DI beneficiaries and SSA, little is known about the beneficiary’s program-participation milestones that lead to overpayment. Previous literature describes work-related milestones and longitudinal work outcomes for a broad population of beneficiaries without distinguishing overpaid beneficiaries from correctly paid beneficiaries (Hennessey and Muller 1994; Liu and Stapleton 2011; Ben-Shalom and Mamun 2015; Anand and Ben-Shalom 2018).

This article documents beneficiaries’ experiences preceding overpayments among those who received a new DI award in 2008. We describe beneficiaries’ overpayment experiences by documenting temporal aspects of overpayments, including the time between the initial DI award and the first overpayment, the duration of the overpayment, and the number of overpayment spells. We focus on beneficiaries who are at risk of an overpayment and compare the experiences of beneficiaries who are overpaid with those who are not. We describe differences in the attainment rates and the timing of their work-related milestones, which include employment support service receipt, earnings, use of SSA work incentives, and suspension or termination of benefits because of work activity. Understanding the differences in the program-participation and work-related milestones and comparing the milestone

pathways taken by those who are and are not overpaid could highlight potential services or intervention points to help avoid overpayments. It could also suggest the extent to which overpayments lead to differing program participation outcomes such as benefit continuation versus termination because of work activity.

Background

DI benefits are an important safety net for people who meet the program eligibility requirements. In 2019, 8.4 million people received DI disabled-worker benefits, and the average monthly benefit amount was \$1,258 (SSA 2020b). For more than 80 percent of beneficiaries, DI benefits account for more than half of their income (Bailey and Hemmeter 2015). To qualify for DI disabled-worker benefits, a person must be unable to engage in substantial gainful activity (SGA) because he or she has a medically determinable physical or mental impairment that has lasted or is expected to last for at least 12 continuous months or result in death (SSA 2022a). Disabled-worker beneficiaries, who account for 86 percent of all disabled DI beneficiaries, must also have a sufficient work history to be eligible for benefits (SSA 2020b). Children, widows, and widowers of SSA beneficiaries may qualify for benefits because of their own medical impairment even if they have limited or no work experience.

After a waiting period, DI beneficiaries can receive cash benefits and public health insurance coverage. There is generally a 5-month waiting period between disability onset and the date DI benefits can begin.¹ After beneficiaries are entitled to DI benefits for 24 months, they are also eligible for Medicare coverage. Because the process for adjudicating DI applications can be complex and because beneficiaries may appeal a denied claim, some beneficiaries are eligible for both cash benefits (including retroactive benefits) and Medicare coverage at the time of DI award. Once enrolled, to continue receiving DI benefits, beneficiaries must continue to have a medical impairment that prevents them from engaging in SGA. SGA is defined as earnings exceeding an annually adjusted monthly threshold. In 2024, the SGA level is \$1,550 per month for non-blind individuals and \$2,590 per month for blind individuals (SSA 2024). After an initial period in which SSA work incentives allow beneficiaries to test their ability to work without forfeiting benefits, beneficiaries are generally not entitled to benefits for months in which they have earnings above the SGA threshold.

DI eligibility continues until a beneficiary dies, transitions to the Social Security retirement program, or has his or her benefits terminated for SGA or medical improvement. However, even with DI benefits, about 20 percent of beneficiaries live in poverty (Messel and Trenkamp 2022). Earned income could help these beneficiaries maintain their connection to the labor force and improve their financial stability. Many DI beneficiaries have work-related goals, and some beneficiaries are employed. A recent study found that 45 percent of DI beneficiaries considered employment a personal goal or a near-term expectation (Livermore, Shenk, and Sevak 2020). Among beneficiaries awarded DI benefits in 1996, 28 percent returned to work and earned more than \$1,000 in at least 1 of the 10 years after award (Liu and Stapleton 2011). Among 2001 DI awardees who exhausted all SSA work incentives that allow benefits to continue despite work activity, 4.3 percent engaged in SGA for at least 1 month in the 10 years after award (Anand and Ben-Shalom 2018).

SSA's Ticket to Work program offers supports to help beneficiaries achieve work-related goals. Ticket to Work allows DI beneficiaries to receive employment support services from two types of organizations, state vocational rehabilitation agencies (SVRAs) and employment networks (ENs). SSA pays those organizations if a beneficiary uses their services and achieves certain employment milestones or outcomes.² SVRAs provide customized services in line with an individual's employment goals, interests, and abilities. Services can include career counseling, work-based learning experiences, financial support for vocational training and postsecondary education, rehabilitation technology, transportation, and other services and supports (Department of Education 2020). An EN is a private or public individual or organization that provides or coordinates employment-related services. ENs have reported that Ticket to Work can help beneficiaries avoid overpayments (GAO 2021). However, a Ticket to Work blog (SSA 2017) indicated that some participants fail to report their earnings, resulting in overpayments, because of a misconception that employment service providers automatically report their earnings for them.

SSA work incentives allow beneficiaries to test their ability to work. For example, during a trial work period (TWP), DI beneficiaries can work and earn at any level with no effect on their DI benefits. The TWP consists of 9 months (which need not be consecutive) in which earnings exceed an annually

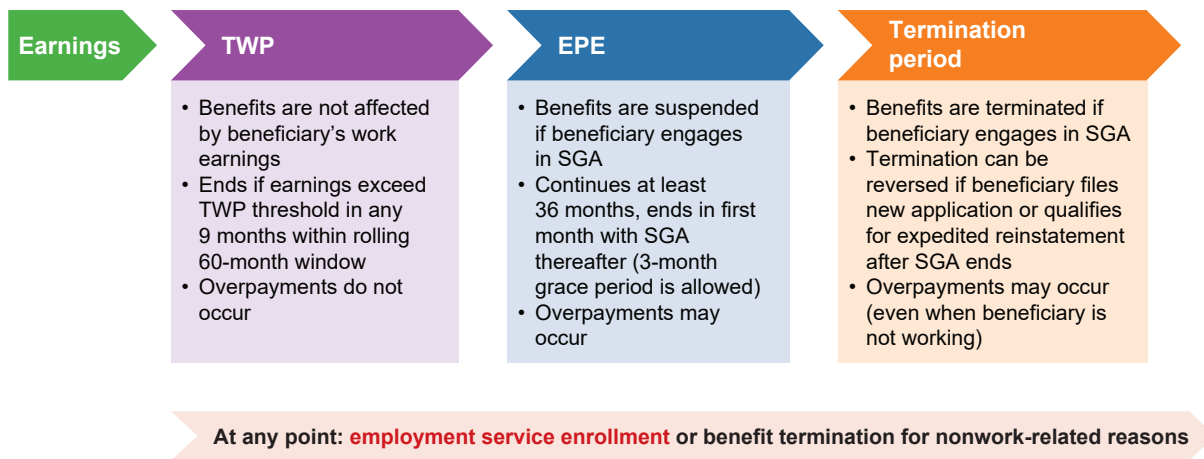
adjusted monthly threshold (\$1,110 in 2024) in a rolling 60-month window.³ An extended period of eligibility (EPE) immediately follows the TWP and lasts at least 36 consecutive months. During the first 36 months, beneficiaries are ineligible for DI benefits in any month in which they engage in SGA, except for a grace period comprising the first month of SGA and the following 2 months. After the grace period, benefits are suspended for any months in which the beneficiary engages in SGA. We refer to SGA after the grace period as meeting the criteria for benefit suspension because of work. Beneficiaries are eligible for benefits in months in which earnings are below the SGA threshold during the 36-month EPE. Starting with the 37th month, if a beneficiary engages in SGA, his or her DI benefits terminate immediately or, if available, after the grace period (the benefit termination period). We refer to SGA after the 37th month and after the grace period as meeting the criteria for benefit termination because of work.

Chart 1 summarizes the work-related milestones a beneficiary may encounter following award. A beneficiary who works may sequentially experience substantial earnings, a TWP, an EPE, and—eventually, if still entitled to benefits—a benefit termination period. The chart also reports the potential for overpayments in the TWP, EPE, and benefit termination periods, which are described in more detail below. Beneficiaries can choose to receive employment services in any of the phases shown in Chart 1.⁴ They also might experience benefit termination at any time for no longer meeting nonwork-related eligibility criteria.

Overpayments may occur after beneficiaries complete the TWP and grace period when they meet the criteria for benefit suspension or termination because of work. During the EPE, work-related overpayments can occur when a beneficiary engages in SGA and meets the conditions for which benefits should be suspended according to program rules. If SSA does not revise the beneficiary's records to change his or her eligibility status and continues to pay cash benefits, then the beneficiary is overpaid. Overpayments can accrue from the month that benefit eligibility terminates through the month in which SSA takes corrective administrative action to discontinue benefit payments.

Overpayments generally occur because of delays in transmitting earnings information to SSA and in agency processing of earnings information. Most DI beneficiaries who work do not report their earnings timely, even though they are expected to report earnings right away when they start or stop work

Chart 1.
Work-related milestones experienced by DI beneficiaries



SOURCE: Authors' compilation of SSA program descriptions.

NOTE: DI beneficiaries with earnings above certain thresholds for certain durations are subject to varying work incentive rules governing how earnings affect benefit amounts. They are also subject to medical and age-based DI eligibility criteria.

or experience a change in their work or earnings (SSA 2024). In 2012, an estimated 65 percent of work-related overpayment dollars were attributable to beneficiary reporting failures (SSA 2018). This is likely in part because beneficiaries are unaware of or do not understand the consequences of failing to meet reporting requirements (Hoffman, Deutsch, and Seifert 2023). Beneficiary interviews revealed that some overpaid beneficiaries were completely unaware of earnings reporting requirements or pending overpayments until they were notified of an overpayment (Kregel 2018). Shenk and Livermore (2021) found that the anticipation of benefit suspension is associated with a lower likelihood of overpayment.

For beneficiaries who do not report earnings timely, SSA must wait to receive earnings information from other sources. Historically, SSA's primary alternative source of earnings information has been annual data provided by the Internal Revenue Service, which can take months or years to become available (SSA 2011). SSA has recently established more timely sources of earnings information, including quarterly earnings data from the Department of Health and Human Services' Office of Child Support Services.

Additionally, SSA does not timely process the earnings information in every case. Earnings processing involves confirming alleged work incentives, verifying wages, gathering additional evidence as needed, and applying the complex rules to individual cases.

Historically, SSA has prioritized processing for self-reported earnings ahead of earnings identified from other sources (SSA 2018). Overpayments may continue to accrue with each month of delayed beneficiary reporting or SSA processing. An audit report by the SSA Office of the Inspector General noted that once beneficiaries report earnings, they may—sometimes mistakenly—presume that SSA is correctly paying benefits (SSA 2018).

Previous research has documented differences between beneficiaries who are overpaid and those who are not overpaid. Using survey data, Shenk and Livermore (2021) found that, among recently employed beneficiaries, work-related overpayments were highest among DI beneficiaries who were 55 or younger, had some college education, and were more than 10 years beyond their initial award, and that work-related overpayments were lowest among DI beneficiaries with a sensory disorder or intellectual disability. Using administrative data, Hoffman and others (2019) documented differences in overpayment rates among beneficiaries who are at risk of a work-related overpayment, which is a smaller subgroup than those who were recently employed. The authors conducted a multivariate analysis, which indicated that after controlling for observable characteristics, statistically significant predictors of an overpayment include being younger than 55, Black, or Hispanic; having less than a high school education; having a mental

disorder; receiving concurrent DI benefits and Supplemental Security Income (SSI) payments; and receiving a monthly DI benefit of less than \$1,000.

As mentioned earlier, overpayments can cause financial and other challenges. Overpayments can create economic hardship and stress on beneficiaries and can act as a disincentive to work (O'Day and others 2016; Hoffman and others 2017; Smalligan and Boyens 2023). Kregel (2018) conducted a qualitative study that provided additional context about beneficiary experiences with overpayments and documented negative reactions among affected beneficiaries. According to survey data, nearly one-quarter of overpaid beneficiaries reported changing their employment because of an overpayment (Shenk and Livermore 2021). Other research has documented a causal effect between overpayments and reduced work activity (Anand and others 2022).

Overpayments are also problematic for SSA. In fiscal year 2022, SSA recovered less than 18 percent of overpayment debt at an administrative cost of \$0.06 for every \$1 recovered (SSA 2022b). A longitudinal analysis suggested ongoing challenges with overpayment recovery: of all the overpayment debt SSA identified in 2004, nearly half was waived, canceled, or outstanding 10 years later (SSA 2015). A recent article summarized many of the challenges with overpayments and noted that the prevalence of overpayments “feeds a perception that work doesn’t pay and creates confusion, heartache, hardship and hassle for both the individual and the Social Security Administration” (Smalligan and Boyens 2023).

Data and Methods

In this section, we describe the data sources and sample selection criteria used in this analysis. We then describe how we identified beneficiaries at risk of overpayment and those who were overpaid. Finally, we describe our approach to identifying program milestones and pathways.

Data

For this analysis, we used the 2019 version of SSA’s Disability Analysis File (DAF), a restricted-access data file that combines data from multiple Social Security administrative data sources and is the agency’s largest longitudinal database of DI beneficiaries. The DAF is recreated every year with updated data. We used the DAF to identify all beneficiaries who were first awarded DI benefits in 2008. Because the data are longitudinal, we can follow the milestones

that the 2008 award cohort achieved over a 10-year period. The DAF contains comprehensive information on beneficiary characteristics, monthly earnings, and the program milestones we study, including TWP completion, use of EN or SVRA services, benefit suspension because of work, work-related and medical benefit terminations, reaching full retirement age (FRA), and death.

To identify overpayments, we used data from the December 2020 Disabled Beneficiaries and Dependents (DBAD) file, which is a monthly extract of the Master Beneficiary Record (MBR), the primary repository of data used to administer the DI program. When SSA is apprised of a beneficiary’s work activity, the agency updates the MBR to reflect the revised status. Each MBR update supersedes all previous iterations, and historical records are not retained. The DBAD files, however, capture historical information by preserving monthly snapshots of the MBR. The DBAD file’s preservation of historical records allows us to identify overpayments by comparing the benefits a beneficiary received while working with the benefits he or she should or should not have received.

We supplemented the DAF and DBAD data with information from the Master Earnings File (MEF). The MEF contains annual earnings data derived from Internal Revenue Service Form W-2, filed by employers, and Form 1040 Schedule SE, filed by self-employed workers. The DAF also includes monthly earnings information derived from SSA’s Disability Control File. However, the Disability Control File includes only earnings identified through continuing disability reviews, which affect a fraction of beneficiaries in a given year and is not the comprehensive source of earnings data that the MEF is.

Analysis Sample

We began by identifying the cohort of beneficiaries who were first awarded DI benefits in 2008 (also referred to as 2008 DI awardees). Hence, our results may not generalize to other award-year cohorts because of differences in economic circumstances, SSA policies or procedures, or beneficiary characteristics.

Our analysis is centered on the DI award date—the date SSA first sent a payment to the beneficiary. This approach follows previous literature tracking work-related milestones (Liu and Stapleton 2011; Ben-Shalom and Mamun 2015; Anand and Ben-Shalom 2018). We focused on the award date rather than on the entitlement date (the date a beneficiary first met the DI eligibility criteria) because the entitlement date may

occur before the award date, and beneficiaries have not engaged with the program until they are notified of their award and have received their first cash benefit.

Box 1 shows the additional selection criteria we imposed on the 830,271 beneficiaries awarded DI benefits in 2008. We did not include the 780 beneficiaries who were enrolled in the Benefit Offset National Demonstration (BOND), a project that changed their benefit payment formula during the analysis period; the 909 beneficiaries whose records did not merge to the December 2020 DBAD file or for whom the DBAD did not record information for the full analysis period; or the 768 beneficiaries whose records were missing key analysis variables. This yielded a sample of 827,814 beneficiaries. We retained beneficiaries regardless of age at award because overpayments can occur among DI beneficiaries nearing retirement age, and a notable portion of our analysis sample (about 38 percent) reached FRA within our 10-year analysis period. We also produced statistics for those who did not reach FRA within 10 years of award (516,307 beneficiaries). These statistics will be explained in more detail later in this article.

Next, among the 827,814 beneficiaries who met the additional sample selection criteria, we identified the beneficiaries who were at risk of an overpayment (that is, those who met the criteria for benefit suspension or termination because of work) and those who were overpaid using an algorithm originally developed and used in the BOND evaluation (Hoffman and others 2017). The same algorithm has since been used to produce overpayment statistics for DI beneficiaries who are not a part of the BOND evaluation (Hoffman and others 2019). Specifically, we identified the months in which beneficiaries were at risk of a work-related overpayment; that is, any months after the TWP and grace period in which they engaged in SGA. Over the 10-year analysis period, 31,520 beneficiaries met that criterion and were at risk of an overpayment—this is our final analysis sample.

After determining the analysis sample, we identified overpayments in months after the grace period in which beneficiaries engaged in SGA and SSA paid benefits (and later retroactively suspended or terminated benefits). We identified 25,846 beneficiaries (3.1 percent of the award cohort) with overpayments in the 10-year period following award. The algorithm detects the overwhelming majority of overpayments but does not include all overpayments. For example, if SSA was already withholding a beneficiary’s monthly benefits to repay a prior overpayment debt,

| Box 1. Sample selection | |
|---|---------------------------------------|
| Total 2008 DI awardees | 830,271 |
| Enrolled in benefit offset demonstration | <u>-780</u> |
| | 829,491 |
| Did not merge to DBAD or missing information for analysis period | <u>-909</u> |
| | 828,582 |
| Missing key analysis variables | <u>-768</u> |
| | 827,814 |
| No SGA after the TWP and grace period (not at risk of an overpayment) | <u>-796,294</u> |
| | Final analysis sample → 31,520 |
| SOURCE: Authors’ calculations based on 2019 DAF and December 2020 DBAD. | |

that beneficiary could accrue additional overpayment debt by engaging in SGA, and our algorithm would not capture those overpayments. However, SSA case reviews suggest close alignment with our algorithm in aggregate (Hoffman and others 2019).

We also produced descriptive statistics related to overpayments: the overpayment rate, timing, duration, and dollar amount. We report the nominal dollar amount of the overpayment because SSA reports, tracks, and collects overpayments in nominal dollars. For example, if SSA overpaid a beneficiary \$1,000 in 2010, in future years, the overpayment debt will be \$1,000 minus any amount repaid and is not adjusted for inflation.

Identifying Program Milestones and Pathways

We used administrative data to document program milestones that beneficiaries encounter along the pathway to overpayment. Given the sheer volume of all milestones that might occur during a 10-year period, and the nature of the data (described below), we streamlined the analysis by documenting only the first month a beneficiary met a particular milestone. This approach may overlook some nuances in beneficiary experiences but allows for summary and comparison of experiences.

The members of our sample—beneficiaries who were at risk of an overpayment—must have reached two milestones: earnings and TWP completion. When needed, we imputed these milestone dates. We identified the first instance of earnings after award using

monthly earnings information from the DAF when available. If the MEF, which records annual earnings, reported earnings in a particular year and the DAF did not, we used earnings information from the MEF and imputed the earnings date in one of three ways, depending on beneficiary circumstances and data availability. First, we assigned the midpoint of the calendar year reported in the MEF as the first month of earnings for the year (for 2008, we assigned the midpoint between month of award and December; for all years thereafter, we assigned June). Second, for beneficiaries who received EN or SVRA services in the same calendar year in which first earnings were reported in the MEF only, we revised the imputed date of first earnings to the end of the first month of employment service receipt. Third, in some cases, the administrative data indicated first earnings after the TWP completion date, which is illogical because earnings must occur before TWP completion. In those cases, we imputed that the first earnings occurred 9 months before the TWP completion date. In total, 14.6 percent of our sample had an imputed value for the first month of earnings: 8.6 percent received the first imputation, 0.3 percent received the second, and 5.7 percent received the third. The overall earnings date imputation rates were similar for beneficiaries who were and were not overpaid (14.7 percent versus 14.3 percent), although the rates for each of the three imputation types varied by overpayment status. We recognize that imputing nearly 15 percent of the earnings dates could affect the precision of the dates, but given the nature of the data, we believe the approach provides a solid foundation for analysis. In addition, the administrative data for 0.9 percent of the beneficiaries in our analysis sample did not have a TWP completion date. For these beneficiaries, we imputed a TWP completion month as the month before the benefit suspension date (even if the suspension date was retroactive).

We used the DAF to identify the remaining milestones that occurred within the 10-year period after award, including use of employment services, benefit suspension or termination because of work, benefit terminations for medical reasons, retirement, or death. We define benefit suspension and termination dates as the dates in which beneficiaries met the programmatic criteria for benefit suspension or termination because of work, even if the determination was made retroactively. Following recent literature, we used data derived from SSA's continuing disability review (CDR) Waterfall file to identify benefit terminations

for medical reasons (Hemmeter and Bailey 2016). This file includes information on the full medical reviews conducted by the state Disability Determination Services and was added to the DAF for 2019. We define the date of benefit termination for medical reasons as that corresponding with the CDR final action.

We produced statistics on the prevalence of each milestone and the time from DI benefit award to each milestone among overpaid beneficiaries. Then, we compared these outcomes with those of correctly paid beneficiaries who were at risk of an overpayment by showing the common milestone pathways of a DI beneficiary. As mentioned, we documented the *first* occurrence of work- and program-related milestones. We followed beneficiaries from award until work-related benefit termination or program exit for a non-work reason (medical determination, retirement, or death). We omitted the pathways in which the administrative data indicate that a first milestone occurred before award (but after eligibility) or an impossible sequence of events (for example, a benefit termination for work that preceded the first benefit suspension for work). Nearly 9.0 percent of the overpaid-beneficiary analysis sample (2,315 of 25,846 beneficiaries) was excluded, as was 3.2 percent of the sample of working beneficiaries who were not overpaid (183 of 5,674).

Results

A relatively small portion of 2008 DI awardees in our sample were at risk of an overpayment. Specifically, less than 4 percent of those beneficiaries met the criteria for benefit suspension or termination for work within 10 years of award. Among that group, however, 82.0 percent would be overpaid and 18.0 percent would not. The latter subgroup comprised beneficiaries for whom SSA withheld the correct benefit amount in real time. In this section, we first present statistics related to overpayments. Then we compare the characteristics and program experiences of beneficiaries at risk of overpayment who were and were not overpaid.

Overpayment Characteristics During the 10 Years After DI Award

Table 1 presents statistics on overpayments. Nearly all first overpayment spells (98.7 percent) began when beneficiaries met the criteria for benefit suspension because of work. The remaining 1.3 percent of overpayments began when beneficiaries met the criteria for benefit termination because of work. Most overpayments (89.0 percent) began during the first month beneficiaries met the criteria for benefit suspension

Table 1.
Characteristics of the 2008 DI awardee population and measures of overpayments among overpaid beneficiaries

| Characteristic or measure | All awardees | Awardees who did not reach FRA during analysis period |
|---|--------------|---|
| <i>Population characteristics</i> | | |
| Number of awardees | | |
| Total | 827,814 | 516,307 |
| At risk of overpayment | 31,520 | 28,164 |
| Overpaid | 25,846 | 23,274 |
| Percentage of all awardees who are— | | |
| At risk of overpayment | 3.8 | 5.5 |
| Overpaid | 3.1 | 4.5 |
| Percentage of at-risk awardees who are overpaid | 82.0 | 82.6 |
| <i>Overpayment measures</i> | | |
| First overpaid when criteria for suspension met because of work (%) | 98.7 | 98.6 |
| Overpaid in first month of SGA after grace period (%) | 89.0 | 88.8 |
| Duration of overpayment (months) | | |
| Average | 12.2 | 12.5 |
| 1st percentile | 1.0 | 1.0 |
| 25th percentile | 4.0 | 4.0 |
| 50th percentile | 9.0 | 9.0 |
| 75th percentile | 17.0 | 18.0 |
| 99th percentile | 49.0 | 49.0 |
| Time to first overpayment spell (months) | | |
| Average | 53.2 | 55.2 |
| 50th percentile | 49.0 | 52.0 |
| Multiple overpayment spells (%) | 38.8 | 39.2 |
| Duration of first overpayment spell (months) | | |
| Average | 7.8 | 7.9 |
| 50th percentile | 5.0 | 5.0 |
| Duration between overpayment spells (months) | | |
| Average | 8.7 | 9.0 |
| 50th percentile | 4.0 | 4.0 |
| Overpayment amount (\$) | | |
| Average | 13,556 | 13,614 |
| 1st percentile | 660 | 660 |
| 25th percentile | 3,934 | 3,943 |
| 50th percentile | 9,206 | 9,258 |
| 75th percentile | 18,337 | 18,486 |
| 99th percentile | 64,205 | 64,428 |

SOURCE: Authors' calculations based on 2019 DAF and December 2020 DBAD.

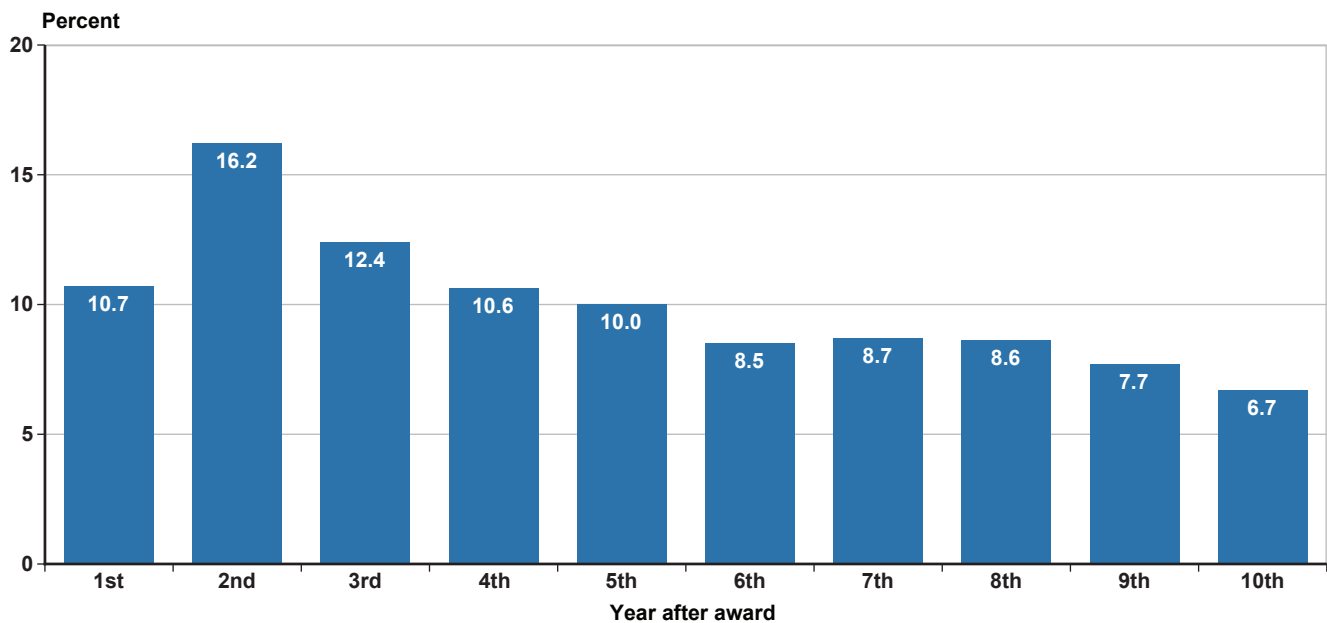
because of work. The other 11.0 percent of overpaid beneficiaries received the correct benefit amount in their first SGA month after the grace period, and then were overpaid for a later SGA month.

There was notable variation in the time between DI award and an overpayment. Chart 2 shows that across each of the first 10 years after DI award, 6.7–16.2 percent of beneficiaries in our sample experienced their first overpayment. Almost half of all overpayments observed in our 10-year analysis period occurred in the first 4 years after award, with a median duration from award to first overpayment of 49 months. Overpayments were most prevalent in the second and third years after award, when 16.2 percent and 12.4 percent, respectively, of overpayments observed in our sample occurred. Thereafter, overpayments were generally less common in each year. Notably, it is possible for beneficiaries to be overpaid in the first year after award (the first year in which a beneficiary received DI benefits) if there was a gap between DI entitlement and DI award. Beneficiaries can complete TWP months as soon as they are entitled to DI, so they could have completed some or all of their TWP months upon DI award. Beneficiaries in our analysis sample were overpaid for a median of 9 months, with

durations ranging from 1 month to more than 4 years (Table 1). For some, these months were spread across multiple overpayment spells—almost 39 percent of beneficiaries experienced more than one spell. The median length of a first or only overpayment spell was 5 months and, among those with multiple spells, the median period between overpayment spells was 4 months. Multiple overpayment spells could be experienced as distinct events triggering separate overpayment notifications from SSA. However, a beneficiary could also experience multiple spells as one overpayment (triggering one overpayment notice) if earnings fluctuated above and below SGA while earnings information was unreported or unprocessed. The median overpayment amount was \$9,206. Because some beneficiaries had very high overpayment amounts, the average overpayment amount was even higher (\$13,556).

Table 1 shows that the overpayment experiences of the 2008 DI awardees, excluding beneficiaries who reached FRA within 10 years of award, were broadly similar to those of the entire cohort of 2008 DI awardees. The most notable difference was the relatively higher rate of engagement in SGA after the grace period: 5.5 percent of those who did not reach FRA within 10 years of award were at risk of an

Chart 2.
Percentage distribution of initial overpayments, by years since award



SOURCE: Authors' calculations based on 2019 DAF and December 2020 DBAD.

NOTE: Sample size = 25,846 overpaid beneficiaries.

overpayment, relative to 3.8 percent of the full sample. Among those at risk, the overpayment rates, duration, and amounts were similar for the full analysis sample and the nonretirement subsample.

The longitudinal experiences of our sample of beneficiaries with overpayments align with previous cross-sectional research (Hoffman and others 2019) describing the median duration (9 months) and the amount (over \$9,000) of overpayments but suggest an even higher prevalence rate of 82 percent. In addition, our results suggest that, once awarded benefits, many overpaid beneficiaries initially rely solely on benefits and then begin a return-to-work journey during which overpayments begin to accrue as soon as they are at risk of overpayment. In the next subsection, we provide additional information about beneficiary pathways and compare the experiences of overpaid beneficiaries with those of at-risk beneficiaries who are not overpaid.

Beneficiary Characteristics by Overpayment Status

Table 2 compares the characteristics of at-risk beneficiaries who were overpaid with those of beneficiaries who were not overpaid. Beneficiaries who were overpaid were more likely than at-risk beneficiaries who were not overpaid to be female (48.3 percent versus 44.3 percent) and younger than 45 (65.0 percent versus 56.4 percent). They were also more likely to have 12 or fewer years of education (52.6 percent versus 44.7 percent). Lower educational levels could be associated more with hourly employment than salaried employment, leading to more variable earnings and more difficulty in tracking the use of work incentives. Overpaid beneficiaries were also more likely than beneficiaries who were not overpaid to have mental disorders (33.8 percent versus 28.4 percent) or intellectual disabilities (5.5 percent versus 1.9 percent), have Medicare eligibility at first award (21.8 percent versus 15.0 percent), and receive SSI payments at the time of DI award (16.5 percent versus 9.5 percent). Several of these characteristics may be associated with difficulty understanding and fulfilling earnings reporting requirements.

These findings are consistent with a comparison of a cross-section of beneficiaries who were overpaid and those who were at risk but not overpaid during 2010–2012 (Hoffman and others 2019). In that study, a multivariate analysis showed some of these characteristics to be statistically significantly associated with a higher likelihood of overpayment, including: aged 54

or younger, less than high school education, mental disorder diagnoses (relative to several other impairment groups), and concurrent SSI receipt. Intellectual disability did not differ significantly from mental disorders in predicting overpayment, implying an increased likelihood of overpayment relative to several other impairments. The difference by sex in overpayment likelihood was not statistically significant, and the effect of Medicare eligibility at first award was not analyzed.

Comparison of Program Experiences of At-Risk Beneficiaries by Overpayment Status

Chart 3 compares the shares of at-risk beneficiaries who reach each of four program milestones by overpayment status. Overpaid beneficiaries were less likely to meet the criteria for benefit suspension (94.1 percent) than at-risk beneficiaries who were not overpaid (99.0 percent). Theoretically, all beneficiaries at risk of overpayment meet the criteria for benefit suspension. However, a beneficiary need not meet the criteria for benefit suspension if he or she completes the TWP and first engages in SGA after the completion of the 36-month EPE, at which point benefits are terminated.

Program exit reasons also varied by overpayment status. Overpaid beneficiaries were less likely than correctly paid beneficiaries to exit the DI program because of work-related benefit termination (55.4 percent versus 63.0 percent). They were also less likely to have their DI eligibility terminate for nonwork reasons (23.7 percent) than those who were not overpaid (26.1 percent). Specifically, overpaid beneficiaries were more likely to experience benefit termination for medical reasons than at-risk beneficiaries who were not overpaid (9.4 percent versus 6.2 percent) but less likely to retire (10.2 percent versus 14.0 percent) or die (5.8 percent versus 8.6 percent) (not shown). Some of these differences might be related to the relatively younger age, lower education, and different mix of medical conditions of overpaid beneficiaries. Relative to beneficiaries who were not overpaid, overpaid beneficiaries were more likely to have received EN or SVRA services (20.8 percent versus 18.3 percent).

We also examined the sequencing of the program milestones that overpaid beneficiaries experienced and compared their pathways to those of at-risk beneficiaries who were not overpaid. Chart 4 summarizes the five most common milestone pathways. Appendix Chart A-1 expands on Chart 4 to provide a more complete depiction of pathways. In both charts, we document the first observance of each milestone.

Table 2.
DI beneficiaries at risk of overpayment because of work: Percentage distributions by characteristics at time of initial award in 2008, by overpayment status

| Characteristic | Overpaid | Not overpaid | Percentage-point difference |
|---|----------|--------------|-----------------------------|
| Number of beneficiaries | 25,846 | 5,674 | ... |
| Sex | | | |
| Women | 48.3 | 44.3 | 4.0*** |
| Men | 51.7 | 55.7 | -4.0*** |
| Age | | | |
| 18–24 | 17.7 | 13.1 | 4.5*** |
| 25–34 | 22.4 | 20.3 | 2.1*** |
| 35–44 | 24.9 | 23.0 | 1.8*** |
| 45–54 | 22.6 | 26.8 | -4.3*** |
| 55–64 | 12.5 | 16.7 | -4.2*** |
| Education level | | | |
| 0–11 years | 14.9 | 9.2 | 5.7*** |
| 12 years | 37.7 | 35.5 | 2.3*** |
| 13–15 years | 21.9 | 24.6 | -2.8*** |
| 16 years or more | 12.2 | 22.1 | -9.8*** |
| Missing | 13.3 | 8.7 | 4.6*** |
| Impairment type | | | |
| Musculoskeletal and connective tissue disease | 19.9 | 18.6 | 1.3** |
| Nervous system and sense organs disease | 8.9 | 8.1 | 0.8* |
| Neoplasm | 7.0 | 16.6 | -9.6*** |
| Other physical disorder | 24.9 | 26.5 | -1.6** |
| Mental disorder | 33.8 | 28.4 | 5.4*** |
| Intellectual disability | 5.5 | 1.9 | 3.6*** |
| Eligible for Medicare | | | |
| Yes | 21.8 | 15.0 | 6.8*** |
| No | 77.1 | 84.1 | -7.0*** |
| Missing | 1.1 | 0.8 | 0.2 |
| Awarded concurrent DI and SSI benefits | | | |
| Yes | 16.5 | 9.5 | 7.0*** |
| No | 83.5 | 90.5 | -7.0*** |

SOURCE: Authors' calculations based on 2019 DAF and December 2020 DBAD.

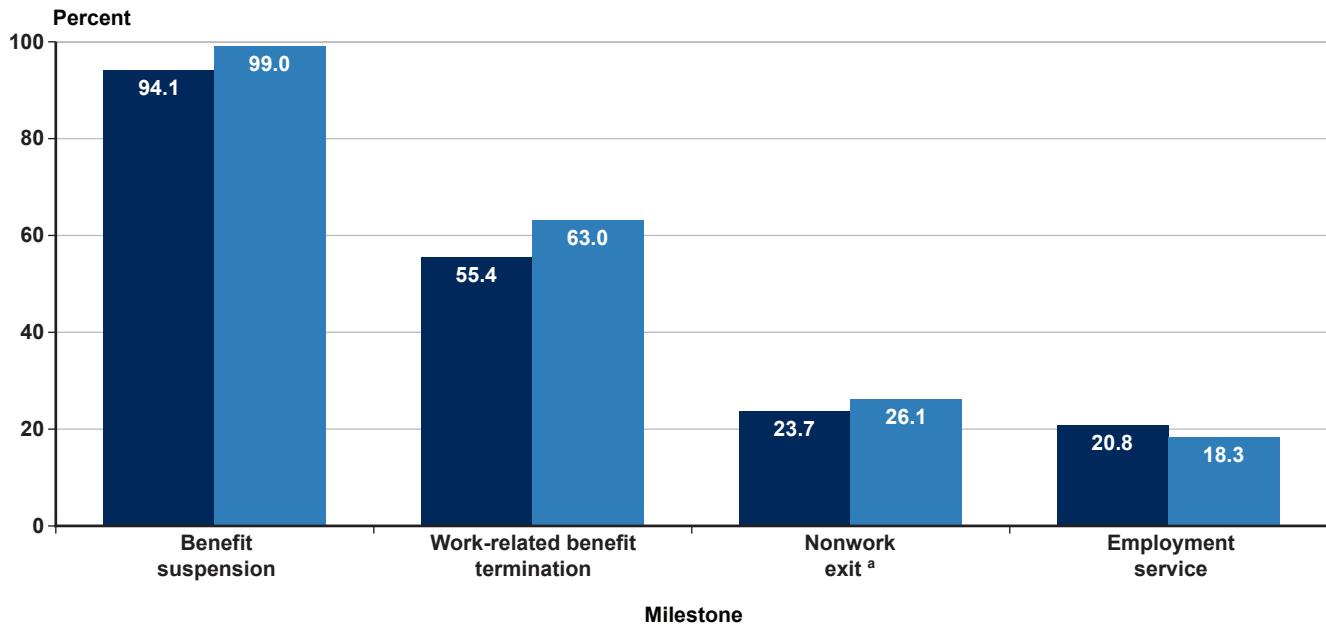
NOTES: Rounded components of percentage distributions do not necessarily sum to 100.0.

... = not applicable.

* = statistically significant at the 0.05 level; ** = statistically significant at the 0.01 level; *** = statistically significant at the 0.001 level (*t*-test comparisons of means across overpayment status categories).

Chart 3.
Share of at-risk beneficiaries reaching program milestones, by overpayment status

■ Ever overpaid ■ Not overpaid



SOURCE: Authors' calculations based on 2019 DAF and December 2020 DBAD.

NOTES: Sample sizes = 25,846 overpaid beneficiaries and 5,674 at-risk beneficiaries who were not overpaid.

T-tests indicate that, for all milestones shown, differences between overpaid and not overpaid beneficiaries are significant at the $p < 0.01$ level.

a. Retired, died, or no longer medically eligible.

For example, although most beneficiaries engaged in SGA in multiple months after the grace period, we include only the first month in which a beneficiary met the criteria for benefit suspension because of work. We did not indicate when the overpayments occurred for ease of presentation. However, as previously mentioned, nearly 90 percent of overpaid beneficiaries were overpaid the first time they engaged in SGA after the EPE grace period (at the beginning of the benefit suspension milestone).

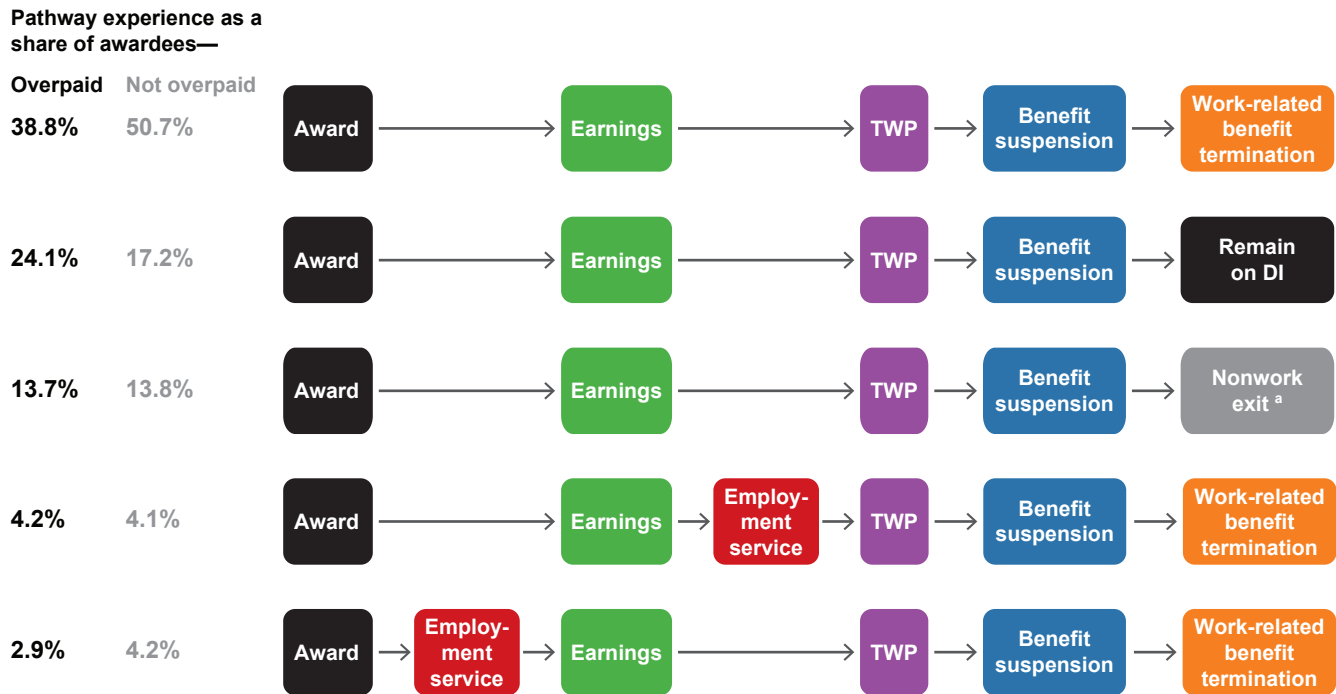
More than three-quarters of overpaid beneficiaries in our sample followed one of the three most prevalent overpayment paths (Chart 4). The most common overpayment pathway, experienced by 38.8 percent of overpaid beneficiaries in our sample, was award, earnings, TWP completion, meeting the criteria for benefit suspension because of work, and meeting the criteria for benefit termination because of work. An additional 24.1 percent followed that same pathway through the first four milestones but then remained entitled to DI benefits, and 13.7 percent followed that pathway through four milestones but then left the program because of medical determination, retirement, or

death, rather than for work. The remaining pathways were much less common. For example, the fourth most prevalent pathway (award, earnings, employment service, TWP completion, meeting the criteria for benefit suspension, then termination because of work) was taken by 4.2 percent of the overpaid subsample.

The three most common pathways for correctly paid beneficiaries—each beginning with award, earnings, TWP completion, and meeting the criteria for benefit suspension because of work—were the same as those for overpaid beneficiaries. However, the shares of awardees differed: a higher proportion of correctly paid beneficiaries had their eligibility terminated because of work (50.7 percent, compared with 38.8 percent of overpaid beneficiaries) and a lower share continued receiving DI benefits (17.2 percent, compared with 24.1 percent of overpaid beneficiaries). These findings align with existing research documenting that overpayments can cause beneficiaries to reduce work activity (Anand and others 2022).

Notably, when beneficiaries receive employment services after resuming work and before completing the TWP, similar shares of overpaid and correctly paid

Chart 4.
Five most common pathways among at-risk beneficiaries, by overpayment status



SOURCE: Authors' calculations based on 2019 DAF, December 2020 DBAD, and MEF.

NOTES: Sample sizes = 23,531 overpaid beneficiaries and 5,491 beneficiaries at risk of overpayment who were not overpaid.

Includes only beneficiaries who had a first milestone of award and had a logical sequence of milestones.

a. Retired, died, or no longer medically eligible.

beneficiaries experience benefit termination because of work. Although we cannot be certain about the mechanisms underlying any similarities or differences, the findings could suggest that overpayments can act as a disincentive to continued SGA when ENs or SVRAs are not involved to help beneficiaries understand and navigate overpayments. However, it is also important to note that there are observable differences in overpaid and correctly paid beneficiaries at risk of overpayment that could affect benefit termination.

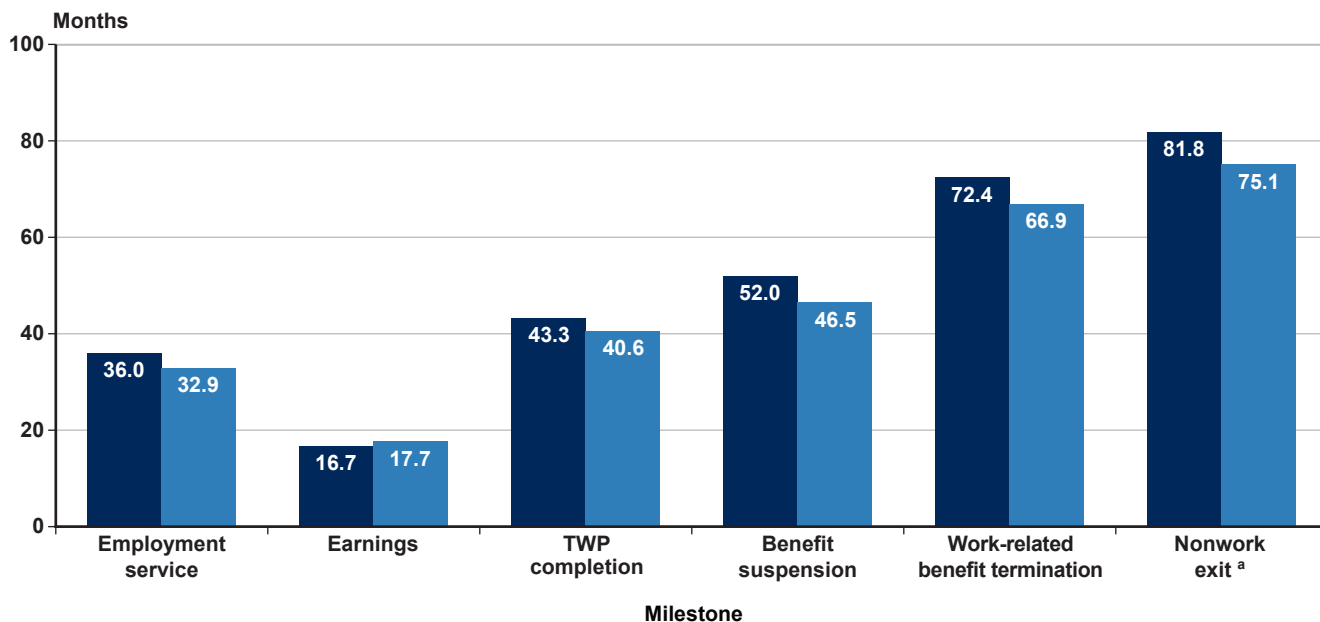
Overpaid beneficiaries were less likely to seek employment services before receiving earnings than correctly paid beneficiaries (Appendix Chart A-1). Specifically, 6.5 percent of overpaid beneficiaries received EN or SVRA services before working for earnings, compared with 8.0 percent of correctly paid beneficiaries. However, a slightly higher share of overpaid beneficiaries (9.2 percent) received EN or SVRA services after returning to work than did correctly paid beneficiaries (8.2 percent). Receipt of employment services before returning to work could help beneficiaries avoid overpayments if ENs and SVRAs educate

beneficiaries about earnings reporting requirements and best practices. It is possible that the same EN or SVRA guidance, if provided shortly before completing the TWP, is too late to prevent an overpayment.

To complement the differences by overpayment status in beneficiary pathways shown in Chart 4, Chart 5 shows the differences by overpayment status in the average time from award to each milestone among those who achieved them. Overpaid beneficiaries had their first month of earnings about 1 month sooner than those who were not overpaid (16.7 versus 17.7 months after DI award). Although this difference is statistically significant, recall that 14 percent of earnings dates were imputed, and the type of imputation differed across the two groups, so it is difficult to assert that this is a meaningful difference. Relative to beneficiaries who were overpaid, those at risk but not overpaid achieved all other milestones sooner. Notably, those who were not overpaid met the criteria for TWP completion, benefit suspension, and benefit termination for work sooner than overpaid beneficiaries did. The period between TWP completion and the first

Chart 5.
Average months from award to each milestone, by beneficiaries' overpayment status

■ Ever overpaid ■ Not overpaid



SOURCE: Authors' calculations based on 2019 DAF, December 2020 DBAD, and MEF.

NOTES: Sample sizes for overpaid beneficiaries (25,846 total) and at-risk beneficiaries who were not overpaid (5,674 total) for each milestone: employment service = 1,548 overpaid and 312 not overpaid; earnings and TWP completion = 25,846 overpaid and 5,674 not overpaid; benefit suspension = 24,321 overpaid and 5,617 not overpaid; work-related benefit termination = 14,329 overpaid and 3,753 not overpaid; and nonwork exit = 6,131 overpaid and 1,481 not overpaid.

T-tests indicate that, for all milestones shown, differences between overpaid and not overpaid beneficiaries are significant at the $p < 0.01$ level.

a. Retired, died, or no longer medically eligible.

month of benefit suspension was also shorter among those who were not overpaid—almost 6 months versus nearly 9 months. This is perhaps surprising because quickly achieving milestones that lead to benefit adjustment requires prompt earnings reporting and benefits processing to avoid overpayments. Hence, this finding suggests that beneficiaries who were not overpaid likely met reporting requirements timely. As mentioned earlier, SSA processes self-reported earnings more quickly than earnings identified from other sources (SSA 2018).

Discussion and Conclusion

This analysis provides new details on the benefit overpayment-related experiences of 2008 DI awardees. We find that nearly 4 percent of DI disabled-worker beneficiaries were at risk of a work-related overpayment because they engaged in SGA after the TWP and grace period and, within that group, 82.0 percent of beneficiaries were overpaid in the first 10 years after award. These results provide additional evidence that

overpayments were the norm for beneficiaries who engaged in SGA after the TWP and grace period. A previous study found that, among a representative cross-section of beneficiaries, 71.0 percent of those at risk of overpayment were overpaid in 2010–2012 (Hoffman and others 2019). The higher overpayment prevalence reported in this study likely reflects the longer analysis period (10 years versus 3), among other differences. Both the previous and current study estimated a median overpayment duration of 9 months and median overpayment amounts of about \$9,300.

The predominance of overpayments among beneficiaries with sustained substantial earnings and the negative effects of those overpayments point to a system in need of reform (Smalligan and Boyens 2023). Our analysis provides additional details that may help inform future modifications or reforms.

This study offers new insight into the timing of overpayments, which do not align with existing processes for timely benefit adjustment. Notably, nearly all overpayment spells (89.0 percent) began in the first

month that beneficiaries met the programmatic criteria for benefit suspension because of work. The current DI work incentive rules and administrative approaches to identifying and processing earnings information are not designed, and do not provide sufficient resources, to properly adjust benefits within the 3-month grace period to avoid overpayments.

This study also illuminates potential gains from a more efficient system for processing earnings reports. Although earlier identification of earnings and more rapid processing are likely beneficial in reducing overpayments, they could also help prevent subsequent overpayment spells. We found that 38.8 percent of overpaid beneficiaries experienced more than one overpayment spell, with a median period of 4 months between spells (Table 1). Earlier identification of overpayments could help prevent overpayments in future months.

Despite the prevalence of overpayments, some beneficiaries avoid them. This could be related to beneficiary characteristics. Relative to beneficiaries who avoid overpayments, overpaid beneficiaries were more likely to exhibit characteristics associated with inconsistent earnings (which are likely more challenging to track and report) and with difficulty in understanding reporting requirements. Research suggests that anticipation of benefit suspension is associated with a lower likelihood of overpayment (Shenk and Livermore 2021). Indeed, the relatively faster pace at which beneficiaries who were not overpaid completed the TWP and had benefits suspended for work, documented here, suggest that those who avoid overpayments are more likely to comply with earnings reporting requirements.

Beneficiaries at risk of overpayments who are not overpaid are also more likely to exit the DI program because of work. This is true in aggregate and among the most common milestone pathways beginning with award, earnings, TWP completion, and meeting the criteria for benefit suspension because of work, without receipt of EN or SVRA services. Research has found that overpayments can cause decreased earnings (Anand and others 2022; Shenk and Livermore 2021). Although the current study is not meant to demonstrate causal evidence, it is possible that overpayments can further lead to a lower likelihood of benefit termination because of work, which emphasizes the importance of preventing overpayments. Our findings on the patterns of program milestones attainment—the differences in program pathways by overpayment status—are also generally consistent

with the theory that employment service receipt can help beneficiaries avoid overpayments or help mediate their negative effects.

Because most overpayments result from beneficiary reporting failures (SSA 2018), efforts to expedite SSA's access to earnings information are critical. SSA is currently working to access more timely earnings information from data exchanges with payroll data providers. If paired with timely processing, this has the potential to prevent overpayments for many beneficiaries. However, data from one or several payroll data companies will not include all disabled workers and no payroll data will include self-employed workers.

The findings of this report suggest two possible points of intervention to prevent or minimize overpayments within the current system. Because a substantial share of overpayments occur in the first years after DI award, well-formatted earnings-reporting reminders sent in the first 4 years after award might encourage timely reporting and reduce the likelihood or amount of overpayments. Zhang and others (2020) found that earnings reporting reminders sent to SSI recipients with disabilities helped reduce the incidence of overpayments. Although the SSI and DI programs have different reporting requirements, it is possible that sending earnings reporting reminders would also be effective for DI beneficiaries. Hoffman, Deutsch, and Seifert (2023) reviewed written materials on earnings reporting that SSA provides to DI beneficiaries. They found that beneficiaries were infrequently notified of the earnings reporting requirements and that the earnings reporting information was often located at the end of a document or amid dense text. The authors note that similar communication deficiencies have been identified in research on tax compliance, which finds that reminders, particularly those using best design practices that account for human behavior, can increase compliance.

A second possible intervention could occur in partnership with employment service providers. ENs and SVRAs could issue earnings reporting reminders or directly assist their clients with reporting their earnings. These efforts could help beneficiaries navigate or even avoid overpayments. Under the Ticket to Work program, ENs and SVRAs that receive client milestone- or outcome-based payments from SSA have an incentive to collect earnings information from their clients. However, the providers do not collect that information automatically, and some beneficiaries in the Ticket to Work program do not understand their reporting responsibilities (SSA 2017).

GAO (2021) estimated that overpayments are more prevalent among Ticket to Work participants than nonparticipants, but our research finds that, in some cases, EN or SVRA services may help beneficiaries avoid or respond to overpayments. Clearly describing the potential consequences of overpayments to clients or creating client incentives to report earnings could improve reporting rates in a way that benefits both clients and providers.

This analysis is subject to several limitations. First, the overpayment algorithm we used might not capture all work-related overpayments. However, an SSA case review of beneficiary records with overpayments found that the algorithm estimated the overpayment amounts within 0.3 percent of SSA's calculations (Hoffman and others 2019). Second, to streamline the numerous combinations of all DI program-participation milestones that might occur during a 10-year period, and to align with the capabilities of the data, we documented only the first occurrence of each milestone that beneficiaries experience. We did this with the recognition that nuanced details in beneficiary experience may be sacrificed, but the fact that many of the findings comport with other research eases these concerns.

Another limitation is that our analysis focuses on beneficiaries awarded DI benefits in 2008. Therefore, the results may not generalize to beneficiaries awarded benefits in other years. This is particularly true if the recession that started in late 2007 affected the employment opportunities and experiences of beneficiaries. It is also possible that overpayment experiences will differ for beneficiaries in more recent award cohorts because SSA has increased its efforts to prevent or minimize overpayments in recent years. In 2017, after an initial pilot period, SSA began to draw on quarterly

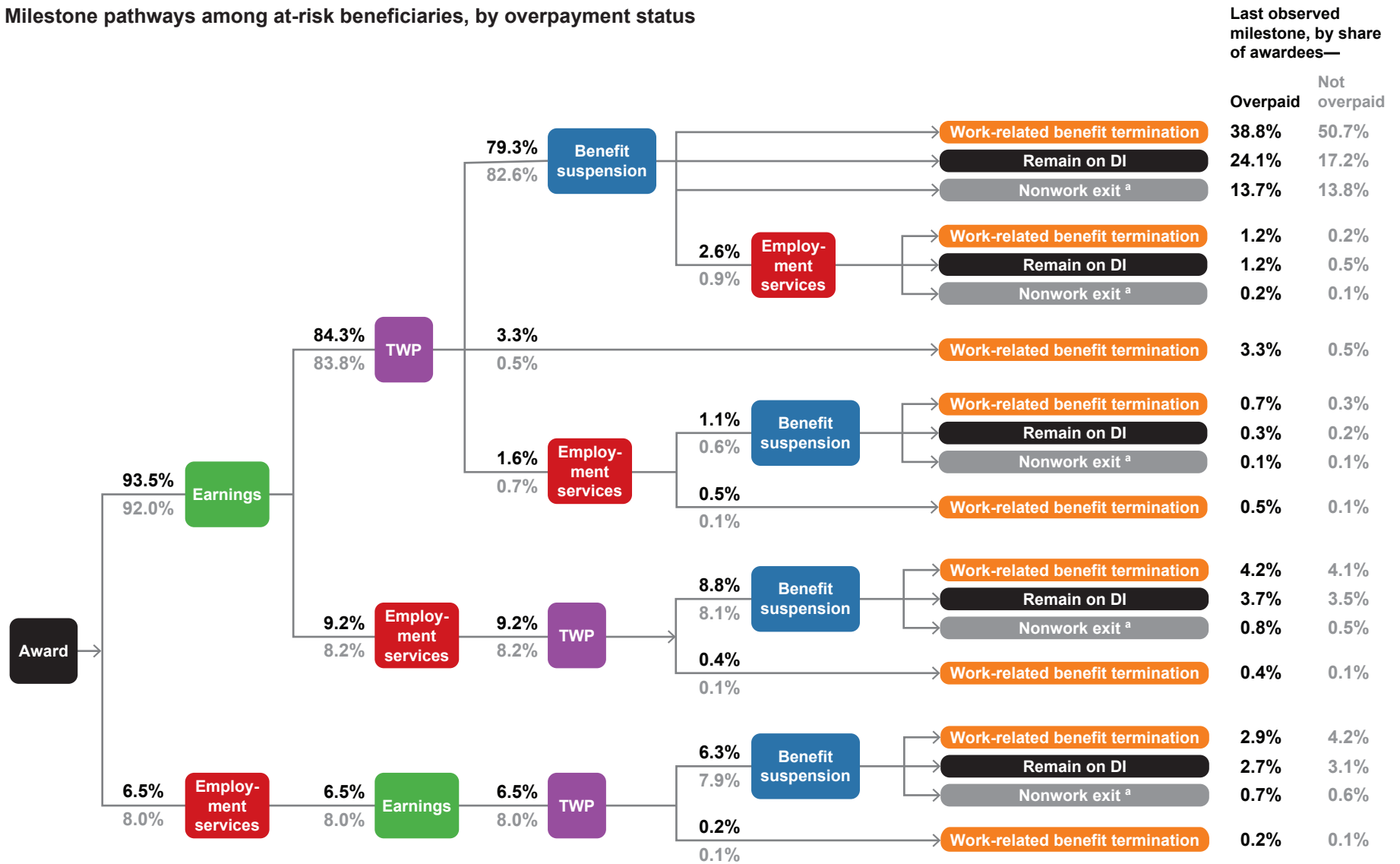
earnings data from the Office of Child Support Services' National Directory of New Hires when reviewing earnings for all DI beneficiaries. As of 2020, SSA was also in the process of working with payroll data providers to access timely earnings data for beneficiaries paid through those providers (SSA 2020c).

Despite these limitations, this study adds to the evidence on beneficiaries' experiences with overpayments and yields some insight into approaches that might help to reduce beneficiaries' overpayments. Future research could attempt to uncover more details about the mechanisms behind why beneficiaries are overpaid and the extent to which certain entities—such as ENs or SVRAs, SSA-funded benefits counselors, SSA field offices and payment service centers, or the centralized SSA toll-free number—might be able to prevent or minimize overpayments. The beneficiary pathways examined in this study may remain important even as SSA pursues initiatives to reduce overpayments, such as establishing information exchange agreements with payroll data providers. Although there is reason to be optimistic that timely information on wages from payroll providers will reduce overpayments, these agreements would not cover all working beneficiaries.

Appendix

Chart A-1 illustrates the sequencing of program milestones for overpaid beneficiaries and at-risk beneficiaries who were not overpaid, including the share of individuals at each milestone.

Chart A-1.
Milestone pathways among at-risk beneficiaries, by overpayment status



SOURCE: Authors' calculations based on 2019 DAF, December 2020 DBAD, and MEF.

NOTES: Sample sizes = 23,531 overpaid beneficiaries and 5,491 beneficiaries at risk of overpayment who were not overpaid.

Includes only beneficiaries who had a first milestone of award and had a logical sequence of milestones.

a. Retired, died, or no longer medically eligible.

Notes

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¹ If a beneficiary's disability results from amyotrophic lateral sclerosis, there is no waiting period before DI benefits begin (SSA 2022a).

² SVRAs may opt for employment service cost reimbursements in lieu of milestone- or outcome-based payments.

³ The rolling 60-month window can allow for longer than 60 months to complete the TWP. For example, the first month of the TWP is month 1. If a beneficiary exceeds the monthly earnings threshold during 9 TWP months between months 1–60, he or she has completed the TWP. However, if a beneficiary has not completed his or her TWP as of month 60, the span of months in consideration will shift from months 1–60 to months 2–61 and so on.

⁴ A summary of employment supports for DI beneficiaries is also available in the SSA Red Book (SSA 2020a).

References

- Anand, Priyanka, and Yonatan Ben-Shalom. 2018. "Pathways Taken by New Social Security Disability Insurance and Supplemental Security Income Awardees." *Journal of Disability Policy Studies* 29(3): 153–165.
- Anand, Priyanka, Denise Hoffman, John T. Jones, and Sjarhei Lukashanets. 2022. "Labor Supply Response to Overpayment Notifications: Evidence from Social Security Disability Insurance." *Contemporary Economic Policy* 40(2): 304–322.
- 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.
- Ben-Shalom, Yonatan, and Arif A. Mamun. 2015. "Return-to-Work Outcomes Among New Social Security Disability Insurance Program Beneficiaries." *Journal of Disability Policy Studies* 26(2): 100–110.
- Department of Education. 2020. *The State Vocational Rehabilitation Services Program Before and After the Workforce Innovation and Opportunity Act in 2014*. Washington, DC: Department of Education, Office of Special Education and Rehabilitative Services, Rehabilitation Services Administration. <https://rsa.ed.gov/sites/default/files/publications/state-of-vr-program-after-wioa.pdf>.
- [GAO] Government Accountability Office. 2021. *Social Security Disability: Ticket to Work Helped Some Participants, but Overpayments Increased Program Costs*. GAO-22-104031. Washington, DC: GAO. <https://www.gao.gov/assets/gao-22-104031.pdf>.
- Hemmeter, Jeffrey, and Michelle Stegman Bailey. 2016. "Earnings After DI: Evidence From Full Medical Continuing Disability Reviews." *IZA Journal of Labor Policy* 5(1): 1–22.
- Hennessey, John C., and L. Scott Muller. 1994. "Work Efforts of Disabled-Worker Beneficiaries: Preliminary Findings from the New Beneficiary Followup Survey." *Social Security Bulletin* 57(3): 42–51.
- Hoffman, Denise, Sarah Croake, David R. Mann, David Stapleton, Priyanka Anand, Christopher Jones, Judy Geyer, Daniel Gubits, Stephen Bell, Andrew McGuirk, David Wittenburg, Debra Wright, Amang Sukasih, David Judkins, and Michael Sinclair. 2017. *BOND Implementation and Evaluation: 2016 Stage 1 Interim Process, Participation, and Impact Report*. Cambridge, MA: Abt Associates, and Washington, DC: Mathematica Policy Research.
- Hoffman, Denise, Jonah Deutsch, and Britta Seifert. 2023. "A Behavioral Economics Assessment of Social Security Disability Insurance Earnings Reporting Documents." *Disability and Health Journal* 16(3).
- Hoffman, Denise, Benjamin Fischer, John T. Jones, Andrew McGuirk, and Miriam Loewenberg. 2019. "Work-Related Overpayments to Social Security Disability Insurance Beneficiaries: Prevalence and Descriptive Statistics." *Social Security Bulletin* 79(2): 65–83.
- Kregel, John. 2018. "A Qualitative Study of Employment Experiences of DI Beneficiaries After Receipt of an Overpayment." DRC Working Paper No. 2018-06. Washington, DC: Mathematica Policy Research.
- Liu, Su, and David C. Stapleton. 2011. "Longitudinal Statistics on Work Activity and Use of Employment Supports for New Social Security Disability Insurance Beneficiaries." *Social Security Bulletin* 71(3): 35–59. <https://www.ssa.gov/policy/docs/ssb/v71n3/v71n3p35.html>.
- Livermore, Gina, Marisa Shenk, and Purvi Sevak. 2020. "Profile of SSI and DI Beneficiaries With Work Goals and Expectations in 2015." DRC Working Brief No. 2020-01. Washington, DC: Mathematica Policy Research.
- Messel, Matt, and Brad Trenkamp. 2022. "Characteristics of Noninstitutionalized DI, SSI, and OASI Program Participants, 2016 Update." Research and Statistics Note No. 2022–04. Washington, DC: SSA. <https://www.ssa.gov/policy/docs/rsnotes/rsn2022-01.html>.
- O'Day, Bonnie, Frank Martin, Hannah Burak, Gina Freeman, Kathleen Feeney, Grace Lim, Elizabeth Kelley, and Katie Morrison. 2016. "Employment Experiences of Young Adults and High Earners Who Receive Social

- Security Disability Benefits: Findings from Semi-structured Interviews.” Washington, DC: Mathematica Policy Research.
- Shenk, Marisa, and Gina Livermore. 2021. “Work-Related Overpayment and Benefit Suspension Experiences of Federal Disability Beneficiaries.” Working Paper No. 2021-14. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Smalligan, Jack, and Chantel Boyens. 2023. *Raising the Alarm on the Unintended Consequences of Social Security’s Return to Work Policies*. Washington, DC: Social Security Advisory Board. <https://www.ssab.gov/wp-content/uploads/2023/03/Raising-the-Alarm-on-the-Unintended-Consequences-of-Social-Securitys-Return-to-Work-Policies-508.pdf>.
- [SSA] Social Security Administration. 2011. *The Social Security Administration’s Report on Continuing Disability Reviews Resulting from Work Activity*. [https://www.ssa.gov/legislation/WorkCDRFY2010\(edited\).pdf](https://www.ssa.gov/legislation/WorkCDRFY2010(edited).pdf).
- . 2015. *Overpayments in the Social Security Administration’s Disability Program—A 10-Year Study*. Audit Report No. A-01-14-24114. Baltimore, MD: SSA, Office of the Inspector General.
- . 2017. “Money Mondays: Wage Reporting—Myths, Tips and Ticket to Work.” *Ticket to Work Blog* (May 15). <https://choosework.ssa.gov/blog/2017-05-15-mm-wage-reporting-myths-tips-and-ticket-to-work>.
- . 2018. *Incorrect Payments to Disabled Beneficiaries Who Return to Work*. Audit Report No. A-07-17-50131. Baltimore, MD: SSA, Office of the Inspector General. <https://oig-files.ssa.gov/audits/full/A-07-17-50131.pdf>.
- . 2020a. *2020 Red Book: A Guide to Work Incentives and Employment Supports for People Who Have a Disability Under the Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) Programs*. SSA Publication No. 64-030. Baltimore, MD: SSA. <https://www.ssa.gov/pubs/EN-64-030.pdf>.
- . 2020b. *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.
- . 2020c. *Social Security Administration Agency Financial Report, Fiscal Year 2020*. Baltimore, MD: SSA. <https://www.ssa.gov/finance/2020/Full%20FY%202020%20AFR.pdf>.
- . 2022a. *Disability Benefits*. SSA Publication No. 05-10029. Baltimore, MD: SSA. <https://www.ssa.gov/pubs/EN-05-10029.pdf>.
- . 2022b. *Social Security Administration Agency Financial Report, Fiscal Year 2022*. Baltimore, MD: SSA. <https://www.ssa.gov/finance/2022/Full%20FY%202022%20AFR.pdf>.
- . 2024. *Working While Disabled: How We Can Help*. SSA Publication No. 05-10095. Baltimore, MD: SSA. <https://www.ssa.gov/pubs/EN-05-10095.pdf>.
- Zhang, C. Yiwei, Jeffrey Hemmeter, Judd B. Kessler, Robert D. Metcalfe, and Robert Weathers. 2020. “Nudging Timely Wage Reporting: Field Experimental Evidence from the United States Social Supplementary Income Program.” NBER Working Paper No. 27875. Cambridge, MA: National Bureau of Economic Research.