#### **DRAFT**

# How Do Work-Related Overpayments Affect the Earnings of Social Security Disability Insurance Beneficiaries?

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#### 1. Introduction

Work-related overpayments are prevalent among working Social Security Disability Insurance (SSDI) beneficiaries and have recently come under public scrutiny (Bipartisan Budget Act of 2015, Sec 845c). Recent research suggests that the Social Security Administration (SSA) overpaid 71 percent of beneficiaries who were at risk of receiving an overpayment (Hoffman et al. 2018). The SSDI rules dictate that SSA should suspend or terminate benefits when beneficiaries engage in substantial gainful activity (SGA), roughly measured as earnings above about \$1,000 a month for non-blind beneficiaries, after they have exhausted work incentives that maintain benefits regardless of earnings. Overpayments occur when SSA issues a monthly benefit to which an individual is not entitled because SSA is either not aware that the beneficiary is ineligible for benefits in that month because he or she has enough earnings or because SSA has not yet investigated earnings and suspended or terminated benefits accordingly. Overpayments often accrue over many months, or even years, and the total for an individual beneficiary can be quite high relative to his or her monthly benefit. Beneficiaries are required to repay this debt, often by check or through benefit withholdings.

The research on overpayments is limited, particularly regarding the relationship between overpayments and subsequent employment-related behavior. Several qualitative studies indicate that some beneficiaries reduce their work hours or quit their jobs in response to news of an overpayment (Derr et al. 2015, O'Day et al. 2016, Hoffman et al. 2017, Kregel et al. 2018). One beneficiary explained her behavior as a reaction to a perceived penalty for working. Some of the same sources also documented reports of beneficiaries who maintained or increased their earnings after an overpayment (O'Day et al. 2016, Hoffman et al. 2017). One beneficiary explained that he increased his earnings to help repay his overpayment debt. It is not possible to determine from beneficiary descriptions of their reactions alone the extent to which overpayments affect behavior. This paper helps to bridge this knowledge gap.

In our research, we used SSA administrative data to estimate the relationship between overpayment notification and subsequent employment activity. This empirical analysis exploits randomness in the timing of the overpayment notification by comparing beneficiary earnings in the period immediately after the notification to earnings in the period immediately before to identify the causal impact of an overpayment notification on earnings. Our findings will help SSA in their attempts to better understand and address the problem of SSDI overpayments.

## 2. Data and Methods

Our analysis is based on SSA's Recovery of Overpayment, Accounting, and Reporting (ROAR) data linked with SSA's Disability Analysis File (DAF). The former includes information on the amount of, and reason for, overpayments identified by SSA. The latter includes employment and earnings outcomes for all SSDI beneficiaries.

Using the ROAR data, we limited the sample to SSDI primary beneficiaries whose first instance of a work-related overpayment was identified by SSA from January 1, 2007, through November 16, 2014. We focused on beneficiaries with overpayments that SSA identified (that is, the earnings that triggered the overpayment were not self-reported) because the notification of these overpayments was more likely to be unexpected by the beneficiaries. Beneficiaries with unreported earnings represent the bulk of work-related overpayments—83 percent according to a recent report (SSA Office of the Inspector General 2018). For these cases, SSA typically detects unreported earnings through a review of Internal Revenue Service data.

We used the DAF for information on beneficiary characteristics and earnings history, which we use to construct our key outcome variable. Beneficiary characteristics include age, sex, education, impairment type, award state, and SSDI benefit amount. Our key outcome is an indicator of beneficiary engagement in SGA. We constructed this measure of beneficiary work activity based on two variables. The first is an indicator of countable earnings above SGA, which we use when available. Otherwise, we use an indicator of whether SSA suspended or terminated benefits because of SGA-level employment in each month as our measure of work activity. After a beneficiary has used work incentives that maintain benefits even when he or she engages in SGA, benefit suspension due to work indicates that countable earnings are above the SGA level.

For each beneficiary in our sample, we created an analysis window that includes the six months before, the month of, and the six months after SSA notified the beneficiary of a work-related overpayment. We used the date when SSA identified the overpayment as a proxy for when beneficiaries were notified, which should occur within five days of when SSA identified the overpayment.

As a first step in understanding beneficiaries' reactions to overpayment notifications, we graphed the monthly trajectory of employment outcomes leading up to and following notification of an overpayment. Specifically, we measured the proportion of beneficiaries earning above the SGA level across the full 13-month analysis period. If beneficiaries were responding negatively to the unexpected news of a benefit overpayment, we would expect to see a decline in the percentage of beneficiaries earning above SGA after they receives the notification.

## 3. Results

Figure 1 shows the percentage of beneficiaries who received an overpayment notification and were working above SGA in each month during the six months before and after they were notified as well as during the notification month itself. The results show a decline in SGA engagement in the months leading up to the overpayment notification, the largest single-month decrease in the notification month itself, and a smaller decline in the six months after the overpayment notification. In the six-month period before the notification, the percentage of beneficiaries engaging in SGA declined by between 0.8 and 1.8 percentage points each month. In the month of notification, there was a 2.7 percentage point decline in the proportion engaging in SGA. In the month after notification, there was an additional 1.9 percentage point decline. In the remaining analysis months, the proportion of overpaid beneficiaries engaging in SGA declined less sharply, averaging 0.6 percentage points per month. Collectively, the results suggest that overpayment notification may have accelerated a beneficiary's disengagement from SGA.

The fact that the decline in the proportion engaging in SGA grew leading up to the month of overpayment notification may be a response to SSA actions that precede overpayment notification. Before SSA can officially establish an overpayment, it must provide the beneficiary a due process notice and a SGA cessation notice. The former provides the beneficiary an opportunity to submit evidence that may affect the SGA determination. Beneficiaries are allowed 15 days to respond, at which point SSA will consider any additional information and proceed to finalize the SGA cessation date (the date the beneficiary engaged in SGA after using work incentives that maintain benefits). Once final, SSA mails a SGA cessation notice, which informs the beneficiary that SSA determined that benefits ceased because of engagement in SGA. Some beneficiaries may change their employment upon receiving the due process or SGA cessation notices, which come a few weeks to a few months before the overpayment notice.

-0.8 ppt -1.1 ppt -1.5 ppt -1.4 ppt -1.8 ppt -2.7 ppt -1.9 ppt -0.9 ppt -0.5 ppt -0.5 ppt -0.5 ppt -0.5 ppt -0.4 ppt 60% Proportion of beneficiaries engaging 50% 40% 30% 20% 10% 0% -6 -5 -4 -3 -2 -1 0 1 2 4 5 6 Months relative to overpayment notification month

Figure 1. Proportion of Overpaid Beneficiaries Engaging in SGA in the Six Months Before and After an Overpayment Notification

Note: We show the percentage point (ppt) change from the previous month at the top of each bar.

#### 4. Conclusions

Boosting the employment of SSDI beneficiaries has long been one of SSA's goals, and recent literature points to overpayments as a common by-product of engagement in SGA. Our analysis will help SSA to understand the effect overpayments on a beneficiary's continued engagement in SGA. The descriptive findings suggest that being notified of an overpayment may hasten the pace of disengagement from SGA, adding to SSA's current impetus to develop policies and procedures to curtail overpayments.

We will extend our analysis in several ways. First, we will estimate the effect of overpayments on employment outcomes via a series of regression equations. The dependent variable in these regressions will be an indicator for whether beneficiary *i* worked above SGA in analysis month *t*. The main independent variable of interest will be an indicator for whether month *t* comes after the overpayment notification. We will also estimate a model that (1) replaces the indicator for whether month *t* comes after the notification, with six indicators for each month after notification, to detect the timing of the employment behavior after notification and (2) interacts these indicators with the duration of the overpayment to detect whether the employment response varies by overpayment duration (which correlates closely with the size of the overpayment). Finally, we will explore whether the duration of an overpayment affects the decision to work above SGA after a beneficiary is notified of an overpayment. For this analysis, we will use a regression discontinuity design that exploits differences in SSA processes that lead to faster identification of overpayments (and hence smaller overpayment amounts) for beneficiaries over age 54.

We will also seek to better understand the composition of our sample and how it may influence our results. For example, we dropped about 16 percent of our sample due to observations missing information needed to construct the indicator for engagement in SGA for all 13 months of analysis; we will check to see whether the characteristics of the dropped observations systematically differ from the observations included in our sample. In addition, we

will change the duration of analysis window (which will affect the analysis sample) as a sensitivity test of our findings.

# 5. References

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