Center for STUDYING DISABILITY POLICY

Participant and Provider Outcomes Since the Inception of Ticket to Work and the Effects of the 2008 Regulatory Changes

Final Report

July 25, 2013

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MATHEMATICA Policy Research

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ACRONYMS

BFWDI	Benefits forgone for work from Social Security Disability Insurance
CDR	Continuing Disability Review
DAF11	2011 Disability Analysis File
DOL	U.S. Department of Labor
EN	Employment Network
FRA	Full retirement age
MIE	Medical improvement expected
MO	Milestone-outcome EN payment system
NSTW	Nonpayment of cash benefits due to suspension or termination for work
OO	Outcome-only EN payment system
SGA	Substantial gainful activity
SSA	Social Security Administration
SSD	Social Security Disability (benefits provided under Title II of the Social Security Act)
SSI	Supplemental Security Income (Title XVI of the Social Security Act)
SVRA	State Vocational Rehabilitation Agency
TRF10	2010 Ticket Research File
TTW	Ticket to Work
TWP	Trial Work Period

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ABSTRACT

This report provides statistics on employment and benefit outcomes for Ticket to Work (TTW) participants since the inception of the program in 2002 and compares them to outcomes for other Social Security Disability (SSD) and Supplemental Security Income (SSI) beneficiaries (nonparticipants). It also provides statistics on payments to Employment Networks (EN) under the payment systems introduced under TTW and how beneficiary employment outcomes and related provider payments vary by the nature of the EN business model.

Our analysis builds upon and extends the analysis documented in Stapleton et al. (2010). For the first time, we are able in this report to produce statistics on changes in work activity and payments to ENs following substantial revisions to the TTW program regulations in July 2008. We analyze two measures of beneficiary work activity available in the Social Security Administration's 2010 Ticket Research File (TRF10): a monthly indicator of whether the beneficiary was in non-payment status following suspense or termination for work (NSTW); and, for SSD beneficiaries, the dollar amount of benefits forgone for work (BFWDI). We also provide statistics on payments to ENs under the TTW payment systems before and after they were modified in 2008.

One intent of our analysis was designed to provide information about how the revised regulations affected NSTW and BFWDI. Because any effects of those regulatory changes are confounded by the large recession that was essentially contemporaneous with the implementation of the new regulations, we are unable to fully achieve that goal. Nonetheless it is clear that after the implementation of the revised regulations, there was renewed interest in the TTW program, with a doubling of EN providers from 2007 to 2010 and a quadrupling of participant assignments during that time in the payment systems established by TTW. Reflecting the growth in participants, the number of participants experiencing NSTW months increased, as did total BFWDI. Per participant, however, both outcomes declined over this time period.

One notable change since 2008 appears to reflect the fact that regulatory changes increased the attractiveness to providers of the milestone-outcome (MO) payment system relative to the outcome-only (OO) system: the already low percentage of assignments under the OO system dropped sharply after the change. By 2010, virtually all OO assignments were made to consumer-directed ENs, in which participants receive compensation from the EN whenever the EN receives payments from SSA for beneficiary work activity.

Our work also investigated participant outcomes by the business model of the EN providing services, assessing implications for the financial viability of TTW providers. Our analysis showed that more ENs may be financially viable than had been suggested in earlier work (Thornton et al. 2007, Stapleton et al. 2008)—both because of an increase in payments per participant under the revised payment systems and because more ENs with other primary activities and sources of revenue appear to have found that serving beneficiaries under TTW is an economically viable addition to their primary activities.

Although TTW seems to have been invigorated by the regulatory changes, as intended, we are not able to determine whether the program pays for itself by increasing the number of months that beneficiaries are in NSTW status. It might be that most participant NSTW months would have occurred in the absence of TTW; most beneficiaries with NSTW months are nonparticipants, and the change in the regulations likely attracted more participants who would have had NSTW months

anyway. It might also be, however, that many participant NSTW months would not have been NSTW months in the absence of TTW.

I. INTRODUCTION

The Social Security Disability Insurance (SSD)[1] and Supplemental Security Income (SSI) programs, administered by the Social Security Administration (SSA), provide income support to individuals with long-lasting medical impairments who are unable to work at a substantial level. In April 2013, more than 14 million individuals under age 65 received benefits from one or both of these programs.[2]

Many SSD and SSI beneficiaries are able and willing to work, even if not at a significant level. Because eligibility for these programs is based on inability to engage in substantial gainful activity (SGA),[3] however, beneficiaries often are afraid of losing their disability benefits once they become employed. Recognizing this, the Ticket to Work and Work Improvement Incentives Act of 1999 (Ticket Act) put into place a number of new policies and programs designed to support the return-to-work efforts of beneficiaries, with a strong focus on increasing the extent to which beneficiaries forego benefits, in whole or in part, because of work. These policies and programs include initiatives that provide beneficiaries with information about how work affects their benefits, offer them more options for accessing employment services, allow them to return more easily to the disability rolls following unsuccessful work attempts, and facilitate the processing of earnings information by SSA staff.

One of the most prominent initiatives established by the Ticket Act is the Ticket to Work (TTW) program. Implemented beginning in February 2002, TTW greatly expanded the ways in which service providers could be paid to support beneficiaries in their employment efforts. Before TTW, state vocational rehabilitation agencies (SVRAs) were virtually the only providers eligible to receive payments from SSA for serving beneficiaries. Under that "traditional" system, SSA reimbursed SVRAs for the costs of serving a beneficiary client when such a client became employed for at least nine months with earnings above the SGA level. Under TTW, beneficiaries are eligible for a "Ticket" that they can assign either to an SVRA under the traditional payment system or to another pre-qualified public or private provider, called an employment network (EN), in exchange for employment placement, job training, and other services.[4] ENs receive specific payment amounts from SSA when their beneficiary clients achieve specific earnings objectives, described in detail below, and an SVRA may choose to act as an EN by using an EN payment system on a case-by-case basis. The design of these systems was intended to increase the extent to which beneficiaries forego benefits because of work and create strong incentives for providers to help beneficiaries do so.

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[1] In this report, we use the acronym SSD to indicate that our population of SSDI disability benefits includes worker beneficiaries as well as disabled adult children and disabled widow(er)s receiving disability benefits under the Old-Age and Survivors Insurance Trust Fund (OASI).

[2] In April 2013, there were 7.9 million SSD-only, 4.6 million SSI-only, and 1.6 million concurrent beneficiaries for a total of 14.2 million beneficiaries, according to SSA's Monthly Statistical Snapshot, accessed at [http://www.ssa.gov/policy/docs/quickfacts/stat_snapshot/] on June 10, 2013.

[3] In 2012, the SGA level was $1,010 for a non-blind beneficiary and $1,690 for a blind beneficiary. Since July 1999, the SGA level is adjusted each year based on the average wage index (AWI).

[4] During the time period of our analysis, SSA mailed a Ticket to each beneficiary eligible to participate in the program. Starting in June 2011, universal mailings were suspended and replaced by targeted mailings to subgroups of beneficiaries. No other programmatic changes were implemented at that time.

The initial response to TTW was quite limited in terms of the number of Tickets assigned, the number of providers, changes in the services offered, and the extent to which beneficiaries earned enough to forego benefits (Stapleton et al. 2008). It also became clear that very few providers were likely to find TTW attractive from an economic perspective (Thornton et al. 2007; Stapleton et al. 2008). At the same time, however, new evidence emerged on the extent to which beneficiaries would like to earn enough to forego benefits. Many such beneficiaries do in fact work, but only a minority earn enough to leave the rolls (Liu and Stapleton 2010; Schimmel and Stapleton 2012; Ben-Shalom and Stapleton 2012).

In light of this body of evidence, SSA responded in July 2008 by making significant changes to the TTW regulations with the intent of boosting interest by beneficiaries and providers and increasing the extent to which beneficiaries forego benefits for work. Earlier work explored provider experiences with implementing these new regulations and changes in the program from the provider perspective (Altshuler et al. 2011); this report is the first to systematically assess changes in beneficiary work activity before and after 2008.

A. Report Objectives

In this report, we present new statistics on the extent to which SSD and SSI beneficiaries have forgone benefits for work from the inception of TTW through 2010, the latest year for which data were available when our analysis was conducted. Because of the nature of the TTW program and regulatory changes, our analysis is only descriptive; we are not able to attribute observed changes in beneficiary work activity around 2008 to the regulation changes alone. We primarily focus on two measures: one is a monthly indicator on "nonpayment of cash benefits due to suspensions or terminations for work" (NSTW); the other is a measure of the dollar value of SSD benefits forgone because of work (BFWDI).[5] These statistics are updated and improved from those previously presented in earlier work (Stapleton et al. 2010; Schimmel et al. 2011).[6]

Our analysis also explores how NSTW and BFWDI changed in the time immediately surrounding the 2008 regulatory changes. We use the findings to assess the extent to which the observed changes might be attributable to the regulatory changes versus contemporaneous changes in other factors—most notably the economic recession from 2007 to 2009.

We also examine the evolution of EN business models under TTW. For the first time, we present statistics on Ticket assignments to, and beneficiary work activity among, five EN subtypes: *SVRAs* operating under an EN payment system; *consumer-directed service ENs*, which share a portion of the TTW payments they receive with their clients; *employer ENs* receiving TTW payments based on work activity of their TTW participant employees; *state workforce agency ENs* comprising local workforce investment boards and One-Stop Career Centers; and *traditional ENs*, which include various community rehabilitation providers and other non-SVRA organizations that have

[5] As described later, our analysis includes only a measure of benefits forgone in SSD. To be consistent with data contained in SSA's Disability Analysis File (DAF) and used in our analysis, we refer to this as BFWDI, despite our use of the SSD terminology.

[6] As described in what follows, the measures of benefit suspensions and terminations for work have been revised substantially since the earlier work. As a result, while the analysis contained in this report is conceptually similar, statistics between the two reports are not exactly comparable.

traditionally provided services to people with disabilities.[7] For this analysis, we limit our assessment to the top 100 ENs by revenue in 2010; these ENs comprised nearly half of all new Ticket assignments in that year, but less than 10 percent of the total number of ENs.

Finally, the report provides an updated assessment of the economic viability of ENs, reflecting the post-2008 TTW regulations and new information on the extent to which ENs receive payments from SSA.

B. Organization

In Chapter II, we provide important background information on the TTW payment systems and historical growth in TTW at both the participant and provider levels, highlight previous findings regarding the employment and disability benefit suspension experiences of TTW participants, and discuss the employment patterns of TTW participants over time and potential effects of the 2007–2009 recession. In Chapter III, we describe the data and methods used in the study. We present new findings in the following chapters:

- In Chapter IV, we document the extent to which TTW participants work and earn enough to become ineligible for cash disability benefits, thus attaining NSTW. For each year from 2002 onward, we generate NSTW statistics for participants and compare these outcomes to those for beneficiaries not participating in TTW (nonparticipants). We consider similar measures for BFWDI and also present longitudinal statistics on the likelihood of remaining in NSTW after the first such occurrence.
- In Chapter V, we follow cohorts of TTW participants from the year they assign their Ticket onward, presenting annual snapshots of subsequent work activity. We present statistics on earnings, NSTW, and BFWDI in the SSD program by Ticket assignment cohort from 2002 through the end of our observation period in 2010.
- In Chapter VI, we assess whether there are systematic differences in NSTW and BFWDI outcomes for TTW participants who assigned their Ticket immediately before and after the 2008 regulatory changes. For this analysis, we examine outcomes for three successive 12-month assignment cohorts, following each cohort's activity for the same length of time (18 months after assignment).
- In Chapter VII, we examine differences in NSTW and BFWDI by EN business model and how this changed from the last cohort before to the first cohort after the regulatory changes. We consider total annual payments to ENs and assess the economic viability of each of the five EN types.

We conclude in Chapter VIII with a summary of the findings and a discussion of their implications for the success of the TTW program.

[7] To the extent that SVRAs providing services under the traditional payment model are also among the top 100 ENs under the new TTW payment systems, they are included in this analysis. However, the focus of our analysis is on participants in ENs under the new TTW payment systems only.

C. Preview of Findings

In this report, we build on the work of Stapleton et al. (2010) in several ways. First and foremost, we extend the analysis period by four years, from 2006 to 2010, allowing us to provide more recent comparisons of the work activity of TTW participants and nonparticipants and to follow beneficiaries for a longer period after their first NSTW month. Second, we exploit a refined NSTW measure that better captures benefit suspensions and terminations due to work and then incorporate a measure of benefits forgone for work. Finally, our expanded time horizon allows for a comparison of beneficiary work activity and consideration of the implications for EN viability after the 2008 regulatory changes, which substantially altered provider incentives to provide TTW services.

After the rollout ended in 2004, the TTW program expanded slowly until the 2008 regulations took effect but increased rapidly after that time. The pace of growth in the annual number of ENs accepting at least one Ticket was slow before the regulatory changes, increasing from 714 in 2005 (the year after completion of rollout) to 818 in 2007 and then to 1,600 in 2010. The number of new assignments increased from just over 61,000 in 2005 to just over 66,000 in 2007 and then to nearly 94,000 in 2010, and the number of assignments under the new EN payment systems grew fourfold from 2005 to 2010. By 2010, 4.1 percent of all beneficiaries in current-payment status or in NSTW had ever participated in the TTW program.

TTW participants were more likely than comparable nonparticipants to experience NSTW, reflecting the selection into the program of those interested in work and the possible, but unknown, impact of the services received on work activity. In 2010, 5.1 percent of participants experienced at least one NSTW month, compared with 2.7 percent of nonparticipants. Despite the relative high proportion of participants with an NSTW month, only 4.5 percent of those with an NSTW month in 2010 were participants; that is, a large majority of those with an NSTW month were not participants, because the program remains small overall. In the same year, the number of NSTW months accumulated per 1,000 participants was equivalent to 32 years without benefits (zero-benefit years). That figure is 46 percent higher than the 22 zero-benefit years accumulated per 1,000 nonparticipants.

Focusing on those who first experienced an NSTW month in 2002, we compared the likelihood of their remaining in NSTW over the next eight years. We found that eight years after their first NSTW month, the percentages of participants and nonparticipants remaining in NSTW were about the same. However, in the years immediately following assignment, the pattern of remaining in NSTW depended critically on payment title, with SSI-only and concurrent participants more likely to be in NSTW than their counterparts among nonparticipants while a lower percentage of SSD-only participants than nonparticipants remained in NSTW.

One of the intents of this report was to assess the success of the 2008 regulatory changes in spurring TTW participant work activity. Given the regulatory changes, we would have expected to see increases in NSTW and BFWDI. From the year before to the year after the regulatory changes took effect, however, we observed declines in the proportion of TTW participants experiencing NSTW, along with declines in the duration of NSTW and BFWDI. Unfortunately, the regulatory changes coincided with the major recession of 2007–2009, which significantly affected the labor market, and it seems likely that the recession contributed substantially to the decline in the NSTW and BFWDI statistics. It is unclear, however, how TTW participants would have fared in the absence of the economic downturn. Although there was a significant increase in the number of

participants with NSTW, at least under the new payment systems, this reflected rapid growth in the number of total participants that more than offset the effects of declines in per-participant NSTW and BFWDI on the number experiencing NSTW as well as on total BFWDI.

The final consideration in our analysis explores changes in work activity based on the business model used by ENs; each EN faces its own constraints, and some may have been more influenced than others by the regulatory changes. Drawing on the experience of the 100 ENs with the highest payment value in 2010, we found that more than 95 percent of Tickets assigned to those ENs in the years since the 2008 regulatory changes took effect were assigned under the revised "milestone outcome" (MO) EN payment system, which provides a large share of payments up front for smaller amounts of work activity and then smaller payments over time when beneficiary earnings exceed substantial gainful activity (SGA). Even before the regulatory changes, few Tickets were assigned under the more risky "outcome-only" (OO) EN payment system, which is potentially of larger total value to providers but makes payments only when monthly earnings exceed SGA. For providers, the regulatory changes increased the relative attractiveness of the MO payment system such that the number of assignments under the OO system fell thereafter. Since 2008, virtually all assignments to the OO system have been in consumer-directed ENs, in which consumers stand to reap financial rewards from achieving SGA.

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II. BACKGROUND

In this chapter, we provide background on the TTW program relevant to the analyses and findings presented in subsequent chapters. We begin by describing the TTW payment systems and how they changed with the implementation of the revised regulations in 2008. Next, we provide an overview of the growth in payments to ENs since 2002, followed by a presentation of statistics on the overall number of Ticket assignments. We then highlight existing evidence among TTW participants. In the final section of this chapter, we consider how the recession of 2007–2009 may have affected beneficiary work activity in a manner that complicates interpretation of the findings in this report.

A. TTW Payment Systems

Under TTW, non-SVRA ENs are compensated under one of two payment systems: outcome-only (OO) and milestone-outcome (MO). Under the OO system, ENs are eligible for payments only in months when the TTW participants they serve do not receive cash disability benefits because of work. Under the MO system, ENs are paid smaller outcome payments in months when beneficiaries do not receive cash benefits because of work in exchange for milestone payments available when beneficiaries achieve intermediate employment outcomes. ENs must decide to serve all beneficiary clients under either the MO or OO system. SVRAs also must choose one of these payment systems, but are able to request payment under the traditional cost reimbursement system rather than the selected EN system on a case-by-case basis.

From 2002 through June 2008, the OO and MO payment rules shown in Table II.1 were in effect. Under the OO system, SSA would make an outcome payment to the EN for each month (up to 60 total months) in which SSA determined, upon receipt of a properly filed claim from the EN, that the beneficiary received no SSD or SSI benefit payments because of work or earnings. The outcome payments were set at 40 percent of the average monthly SSD benefit for all SSD beneficiaries and at 40 percent of the average SSI benefit for SSI-only beneficiaries. In 2008, the maximum payments under the OO system totaled $23,520 for SSD beneficiaries (including concurrent beneficiaries) and $13,500 for SSI beneficiaries. Under the MO system, SSA would pay an EN up to four milestone payments when a beneficiary achieved employment milestones, defined by the number of months working at or above the SGA level during a specified period, again upon receipt of a properly filed claim. In addition to the milestone payments, monthly outcome payments could be paid to the EN if the beneficiary received no SSD or SSI benefit payments due to work, although these payments were reduced if milestone payments had been made for the beneficiary. In 2008, the maximum total payments under the MO system were $20,040 for an SSD client and $11,520 for an SSI-only client.

In an effort to strengthen the program, starting July 21, 2008, SSA significantly changed the regulations governing TTW. The revised regulations were designed to make TTW more financially attractive to providers and reflect a more flexible return-to-work concept. The regulations introduced more milestone payments, including payments for clients working at lower levels of earnings than before, and increased the total value of potential payments.[8] Specifically, the new

[8] The revised regulations also extended benefit eligibility to new beneficiaries designated by SSA as medical improvement expected (MIE). As the name suggests, MIE beneficiaries are those who qualified for SSI or SSD benefits

regulations (1) shortened the payment period for SSD clients so that ENs could receive full payment within as few as 36 months, (2) created two sets of milestone payments (Phase 1 and Phase 2), (3) increased MO payments so that the maximum payable amount would be closer to the maximum for OO payments, and (4) brought payment amounts for SSI-only recipients in line with those for SSD beneficiaries. Under the new regulations, Phase 1 milestone payments are based on the SSA trial work period (TWP) income amount,[9] whereas Phase 2 milestone payments are based on the original, higher SGA amount. A comparison of the top and bottom panels in Table II.1 highlights the differences in MO and OO payments before and after the regulatory changes.[10]

Other regulatory and administrative changes implemented by SSA in 2008 sought to reduce the administrative burden of participating in TTW for ENs, ultimately increasing the financial attractiveness of the program to providers. The changes removed the requirement that SVRAs actively assign Tickets to receive payments under the traditional payment system. Rather, SVRAs now only need to document for SSA that a Ticket is "in-use," meaning that the beneficiary is receiving employment services from the SVRA. While this change was implemented in 2008, it was applied retroactively to earlier years of the program, meaning that SVRAs were asked to provide information to SSA about beneficiary clients they were serving as early as 2002, and deem those Tickets to be "in use." While SSA requested data on all beneficiaries served, many SVRAs did not provide identifying information for all beneficiary clients from early years of TTW. In addition, an option called Partnership Plus allows beneficiaries to use SVRA services under the traditional payment system and subsequently assign their Ticket to an EN. If a Partnership Plus beneficiary works, both the SVRA and EN are eligible to receive payments, except that the EN is not eligible for Phase 1 milestone payments if the beneficiary is employed at vocational rehabilitation closure.[11] SSA's intent was to encourage more providers to become ENs, more ENs to accept Tickets, more beneficiaries to assign Tickets, more complete and timely records on SVRA delivery of services to beneficiaries (even if Tickets were not formally assigned), and better employment outcomes.

(continued)

based on health conditions that are expected to improve over time. Under the original regulations, MIE beneficiaries became eligible for TTW only after SSA had conducted a medical continuing disability review (CDR) and determined that the beneficiary's medical condition had not improved enough to terminate eligibility for SSI or SSD benefits.

[9] The 2012 TWP income amount was gross earnings of more than $720 per month.

[10] Cases that received payments under the old regulations were switched to the new regulations once the first payment was made under the new system. At that time, SSA implemented a formula-driven procedure to determine the payment to be made under the new system. See Altshuler et al. (2011) for more details on this procedure.

[11] In other cases in which beneficiaries receive services from both an EN and an SVRA, or more than one EN, any payments may be split between the organizations. This is handled on a case-by-case basis and is not a part of the Partnership Plus option.

Table II.1. EN Payments Under the Original and Revised Regulations

Payment Type		Earnings/Benefits Requirements	Payment for DI Beneficiary ($)	Payment for SSI-Only Recipient ($)
Original Regulations				
Milestone-Outcome				
Milestone payments	1	1 month with SGA-level earnings	$365	$210
	2	3 of 12 months with SGA-level earnings	$730	$419
	3	7 of 12 months with SGA-level earnings	$1,460	$837
	4	12 of 15 months with SGA-level earnings	$1,825	$1,046
Outcome payments		Each month with SGA-level earnings and $0 cash disability benefits; up to 60 payments	$365	$210
Total potential MO payments			*$21,900*	*$12,600*
Outcome-only				
Outcome payments		Each month with SGA-level earnings and $0 cash benefits; up to 60 payments	$430	$246
Total potential OO payments			*$25,800*	*$14,760*
Revised Regulations				
Milestone-Outcome				
Phase 1 milestones[1]	1	1 month with earnings at 50 percent of the trial work level	$1,288	$1,288
	2	3 of 6 months with earnings at trial work level	$1,288	$1,288
	3	6 of 12 months with earnings at trial work level	$1,288	$1,288
	4	9 of 19 months with earnings at trial work level	$1,288	$1,288
Phase 2 milestones		Each month with SGA-level earnings; up to 11 payments for SSD and 18 payments for SSI	387	$222.
Outcome payments		Each month with SGA-level earnings and $0 cash disability benefits; up to 36 payments for SSD and 60 for SSI	$387	$222.
Total potential MO payments			*$23,341*	*$22,468*
Outcome-Only				
Outcome payments		(SSD) Each month with SGA-level earnings and $0 cash benefits; up to 36 payments for SSD and 60 for SSI	$719	$412
Total potential OO payments			*$25,884*	*$24,720*

Source: Livermore et al 2012 and www.yourticketowork.com, accessed on July 8, 2013

Note: Payment amounts are calculated at the 2012 levels. The value of outcome payments is adjusted down in the milestone-outcome system. n.a. indicates that payment amounts were not applicable to the corresponding group.

[1]To trigger the first Phase 1 milestone payment, beneficiaries must be employed, with earnings that typically would be equal to at least the TWP level. However, if they start work in the middle of the month, or start off with reduced hours or pay, a payment can be triggered in the first month that they earn at least 50 percent of the TWP level.

B. Growth in TTW Participation at the Beneficiary Level

TTW was phased in by groups of states beginning in February 2002. By September 2004, all eligible beneficiaries in the country had received a Ticket. Beneficiaries who first received benefits after September 2004 were provided with a Ticket at the time they became eligible for disability benefits as adults, with the exception of the MIE cases described above.[12] From 2002 through the 2008 regulatory changes, TTW led to an increase in the share of beneficiaries receiving employment services (Stapleton et al. 2008). Participation in TTW during that time, however, was low, at about 2.29 percent in December 2007 (Altshuler et al. 2011). Because relatively few ENs were actively accepting Tickets, beneficiaries during that time had little or no choice of ENs. Consequently, 95 percent of Ticket holders between 2002 and 2008 assigned their Tickets to SVRAs and received services in the same places where they would have received them before TTW's implementation (Stapleton et al. 2008). ENs responded to the revised regulations by accepting more Tickets, particularly under the revised MO payment system. Presumably reflecting providers' anticipation of increased revenues, new assignments to SVRAs under the MO payment system doubled in the six months before the regulatory changes, as did new assignments to non-SVRA ENs, and then doubled again after the revised regulations went into effect (Prenovitz et al. 2012). EN staff reported that the changes in their Ticket-taking behavior were the result of increased beneficiary awareness of the TTW program and their own greater interest in it (Altshuler et al. 2011).

C. Improvements in the Payment Process and Payments to ENs

One of the primary goals of the 2008 regulatory changes was to make the TTW program more financially attractive to ENs so that beneficiaries would have more, and hopefully better quality, options for employment-related services. When interviewed, staff of four out of seven ENs that experienced a large increase in the number of Ticket assignments around the time the new regulations were implemented reported that they were serving those they previously would not have served as a result of the change in regulations (Altshuler et al. 2011). Although the number of ENs actively accepting Tickets increased in response to the revised regulations, interviews with EN staff conducted for a related study suggest that many ENs were still uncertain about whether they would be able to cover the cost of serving TTW participants with revenue from the program (Altshuler et al. 2011).

Under the original regulations, ENs did not receive a large proportion of the payments for which they could have qualified (Stapleton et al. 2010). According to EN staff, once clients are stabilized in work, they often become uninterested in providing current earnings information to the EN. This makes it challenging and time consuming for ENs to track earnings of their employed participants and then request payments from and follow up on payment requests with SSA (Altshuler et al. 2011). Hence, ENs did not file payment claims in many cases when such claims would have triggered payments.

To address this issue, SSA and its contractors made procedural improvements to the payment process after 2008. First, SSA substantially increased the number of individuals responsible for answering EN questions and providing support for Ticket assignments and payments—from 4 or 5

[12] Child SSI recipients are not eligible until they are found eligible as adults, even if they are 18 years old or older.

before the regulatory changes to 24 in 2010. These staff have also been organized into regional teams to increase their efficiency (Altshuler et al. 2011; Prenovitz et al. 2012). Presumably these additional staff streamline feedback about payments and allow SSA contractors to increase the speed at which payments are approved and made. In addition, as of fall 2010, SSA periodically analyzes data on TTW participants in NSTW to identify outcome payments that have not been made. After flagging these cases, SSA makes missed payments without requiring action by the ENs.

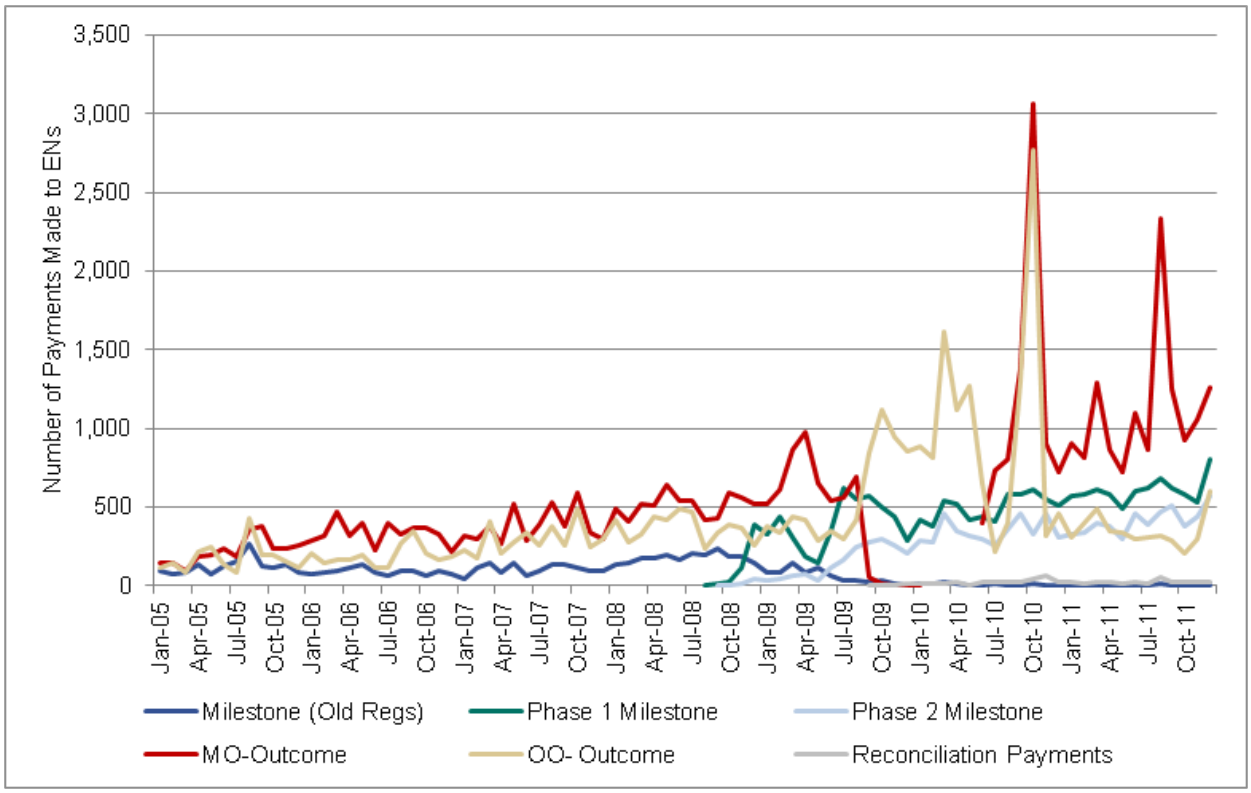
SSA also implemented additional changes more recently—late enough in our observation period that any effects are not likely reflected in our data. Beginning in late 2010, SSA changed the way TTW is marketed, focusing attention on beneficiaries interested in eventually becoming self-sufficient and directing efforts toward those ENs most equipped to help beneficiaries achieve that goal (Prenovitz et al. 2012). These changes may increase the number of payments ENs can expect from a given Ticket assignment. SSA also implemented a TTW auto-payment program in August 2011 that alerts participating ENs when their clients might be eligible for milestone payments.

Following the regulatory and related procedural changes, there was a sizable increase in the number of payments made to ENs. Figure II.1 reports the number of monthly payments made to ENs by payment type from 2005 (when the TTW program was fully rolled out) through December 2011.[13] Note that these payments are recorded based on when they were received by the EN, as opposed to when the work activity that triggered them occurred. Before the regulatory changes, the number of payments showed a slow but steady increase, reflecting increased participation in the program over time. After the regulatory changes, there was a marked increase in payments, particularly in outcome payments. This could reflect many factors, including the number of ENs serving participants, the number of participants, increased beneficiary work activity, or the larger incentive for ENs to request payment. The spike in payments in October 2010 reflects the result of an SSA analysis that considered participant work activity data from July 2008 through September 2010 and automatically made payments to ENs for months in which TTW participants were found to be in NSTW, but for which the ENs had not been paid previously.[14]

[13] As shown in the figure, a small number of "reconciliation payments" are made by SSA each month. Although these payments are coded as an initial outcome payment in the SSA system, additional discussion with SSA revealed that these are in fact reconciling milestone payments that should have been made at an earlier time. They are often lumped together for multiple milestone payments, including both Phase 1 and Phase 2 milestones. In addition, the records did not contain information about the months corresponding to the work activity that triggered the milestone. For this reason, in this chapter we display these payments separately from milestone and outcome payments.

[14] This effort was instigated by earlier findings from Stapleton et al. (2010) about the large number of months in which the ENs could have received outcome payments had they filed properly documented claims.

Figure II.1. Number of Payments to ENs, by Month and Payment Type, January 2005–December 2011



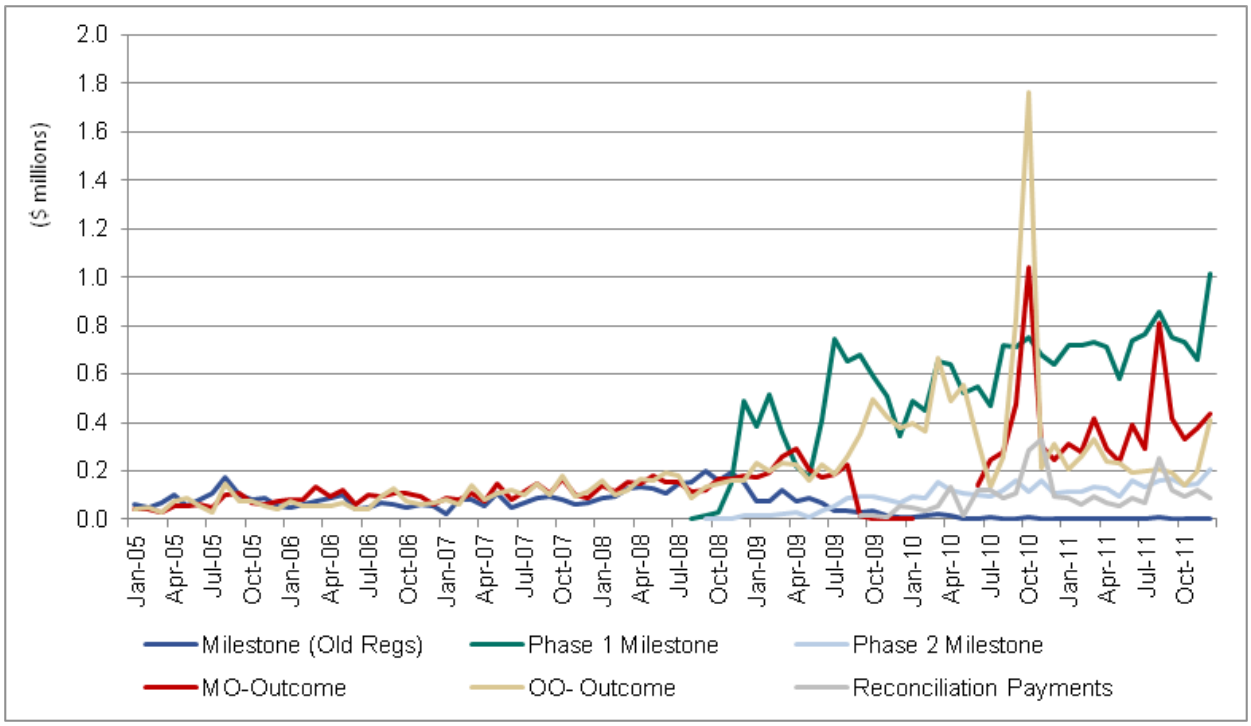
Source: DCF extracted on October 24, 2011, and SSA's EN payments file extracted in January 2012.

Note: The months shown correspond to when payments were made by SSA to the ENs; these occur with a lag relative to when Ticket participant work activity occurs.

Reflecting the increase in the number of payments and the increased dollar value of each payment after the revised regulations were implemented, the value of payments to ENs experienced a sharp increase about six months after the regulatory changes were implemented (Figure II.2).[15] Since January 2009, when payments under the revised regulations first were made in large numbers, Phase 1 milestone payments have accounted for an average of 45 percent of the value of payments, with relatively little fluctuation from month to month. This reflects that the Phase 1 milestones are substantially larger in dollar terms than outcome or Phase 2 milestone payments, and also that the level of work activity required to trigger them is lower than that needed to trigger the other types of payments.

[15] In addition, the primary calculation base (PCB) for the payment amount increased slightly faster than inflation from 2002 to 2011, reflecting growth in the inflation-adjusted value of mean SSDI and SSI benefits. Between 2002 and 2011, the SSI PCB increased by 28.6 percent and the SSD PCB increased by 34.6 percent, while the cumulative effect of cost-of-living increases was a 23.8 percent increase. The PCB for SSI and SSD reflects the average benefit paid under the respective programs. Many factors may have affected growth in the PCB, such as changes in the age distribution caused by the growing number of beneficiaries from the baby boom generation and the influx of new awardees following the recession.

Figure II.2. Value of Payments to ENs, by Month and Payment Type, January 2005–December 2011



Source: DCF extracted on October 24, 2011, and SSA's EN payments file extracted in January 2012.

Note: The months shown correspond to when payments were made by SSA to the ENs; these occur with a lag relative to when Ticket participant work activity occurs. The value of payments was adjusted to 2010 dollars using SSA's cost-of-living adjustment (COLA).

Total payments provide a sense of magnitude for the TTW program as a whole but provide no indication of changes in their distribution across ENs. Cross-year comparisons reveal an upward trend in the proportion of ENs with at least one Ticket assigned, which grew much more quickly after the regulatory changes (Table II.3). During 2005, the first year after the TTW program was fully rolled out, 714 ENs had at least one assigned Ticket, rising to just over 800 in 2007, and then increasing rapidly to 1,600 in 2011. During this time, the proportion of ENs with an assigned Ticket that received at least one payment varied from year to year by around 35 percent; in each year, the majority of ENs receiving any payments received 10 or fewer.

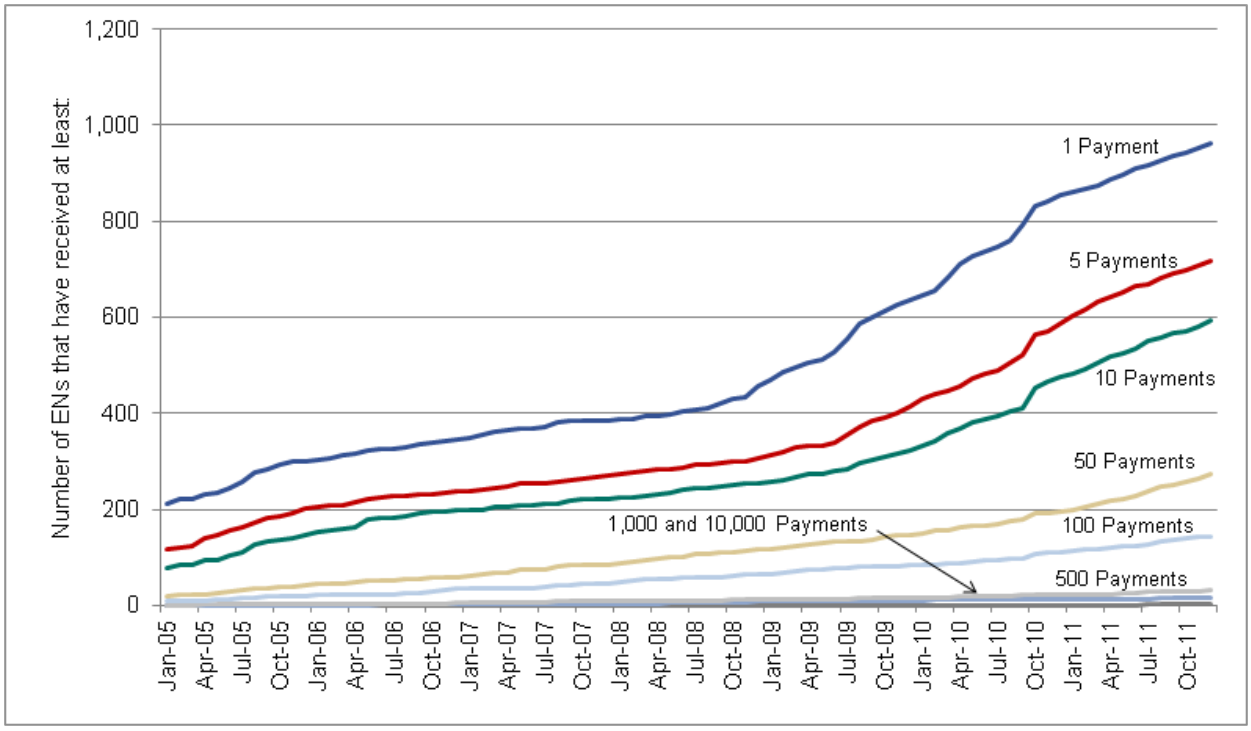
Figure II.3 presents information similar to that in Table II.2, but considers the cumulative number of payments as of each year; that is, in each year, ENs are categorized by the number of payments they had ever received as of the end of that year. Note that these are the total number of payments made, not the number of beneficiaries generating a payment. Each line shows the number of ENs that received at least the number of payments shown in the line's label. By December 2011, 961 ENs had received at least one payment. Of those, however, most ENs had received very few payments; only 15 percent of ENs (144) had received more than 100 payments during their history. There were marked increases after the regulatory changes, partially reflecting increases in the total number of ENs as well as the number accepting Tickets. The proportion of ENs that reported accepting Ticket assignments increased from 51 percent in July 2008 to 60 percent in December 2011 (not shown).

Table II.2. Distribution of EN Payment Receipts, by Year, 2002–2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of ENs with at Least One Assigned Ticket During the Calendar Year	175	375	591	714	776	818	1,003	1,275	1,500	1,600
Number of ENs										
0 payments	156	285	405	470	564	630	776	873	910	1,047
1–10 Payments	19	65	137	133	98	77	107	234	290	260
11–50 Payments	0	20	38	91	90	84	79	120	222	217
51–100 Payments	0	4	7	9	11	13	22	23	46	36
101–250 Payments	0	1	2	8	9	7	9	12	16	20
251–500 Payments	0	0	2	1	3	5	5	4	9	10
501–1,000 Payments	0	0	0	1	0	1	4	6	5	6
Proportion of Total ENs										
0 payments	89	76	69	66	73	77	77	68	61	65
1–10 Payments	11	17	23	19	13	9	11	18	19	16
11–50 Payments	–	5	6	13	12	10	8	9	15	14
51–100 Payments	–	1	1	1	1	2	2	2	3	2
101–250 Payments	–	0	0	1	1	1	1	1	1	1
251–500 Payments	–	–	0	0	0	1	0	0	1	1
501–1,000 Payments	–	–	–	0	–	0	0	0	0	0

Source: DCF extracted on October 24, 2011, and SSA's EN payments file extracted in January 2012.

Figure II.3. Cumulative Number of Ticket Payments to ENs, 2005–2011



Sources: DCF extracted on October 24, 2011, and SSA's EN payments file extracted in January 2012.

Note: Each line represents the minimum number of payments necessary to be counted in the group; the top line shows ENs generating at least one payment, the next line shows at least 5 payments, and so on.

D. Work Activity of TTW Participants

The goal of TTW is to assist beneficiaries in their employment efforts in a manner that reduces their reliance on federal disability benefits. In recent years, SSA has undertaken efforts to document from administrative data those months in which beneficiaries are in nonpayment status after their SSI and/or SSD benefits have been suspended or terminated because of work. This effort led to the NSTW variable used for this report. In previous studies conducted for the TTW evaluation (Stapleton et al. 2010; Schimmel and Stapleton 2011), we extensively analyzed the NSTW experiences of TTW participants and nonparticipants from 2002 through 2006. As discussed in the next chapter, substantial improvements have been made to the NSTW measure since these early reports; these changes have potentially altered the overall magnitude of measured work activity, but we do not expect the broad patterns observed in earlier years to have changed. We have produced statistics from 2002 forward so that comparable statistics are now available through the period since the start of the TTW rollout.

The earlier statistics showed that, through 2006, only a very small percentage of beneficiaries in NSTW were TTW participants, reflecting overall low participation in the TTW work program (Stapleton et al. 2010). In 2006, TTW participants accounted for only about 3 percent of all beneficiaries who had at least one NSTW month. Work activity as measured by NSTW was higher among participants than other beneficiaries, however. The percentage of TTW participants with a first NSTW month in each year was much larger than the percentage for nonparticipants. In 2006, for example, 3.2 percent of TTW participants who were in current pay status in every month of 2005 had one or more NSTW month, compared with 0.8 percent of nonparticipants. This might reflect in part a causal impact of the TTW program on NSTW months but also seems likely to reflect relatively high use of TTW by those interested in entering NSTW. It is unclear how much, if any, of this difference is accounted for by the supports participant ENs provided. Although analyses conducted to date have found that TTW had a significant impact on the enrollment of beneficiaries into SSA-reimbursable services, they have not detected significant impacts of TTW on employment and NSTW (Stapleton et al. 2008).

The earlier analysis also found that only a minority of beneficiaries who assigned their Ticket in 2002–2005 earned enough to be in NSTW in the years following assignment (Stapleton et al. 2010). For instance, fewer than 20 percent of TTW participants who assigned their Ticket in 2002 had one or more NSTW months during the 48 months following Ticket assignment. Participants served under the OO payment system were the most likely to have NSTW months: 25 percent had at least one NSTW month within 48 months after assignment, compared with 17 percent of other participants. Although only a minority of participants entered NSTW within 48 months after assignment, a substantial share of those who did were in NSTW at the end of the observation period—as long as 48 months after the first NSTW month.

E. Implications of the Recession for the Study Findings

From December 2007 through June 2009, the United States experienced a sharp economic contraction. This recession's effects have continued to linger in the labor market more than three years after it officially ended, with the national unemployment rate remaining high relative to its recent historical average. Like others, people with disabilities were affected significantly by the

recession (Kaye 2010); the employment rate of people with disabilities ages 16 to 64 fell from 32 percent in July 2008 to 27 percent in September 2011 (Bureau of Labor Statistics 2011).[16] Survey data indicate that annual employment rates of SSD and SSI beneficiaries also declined during this period: 12.9 percent of beneficiaries were employed at some point during 2005, compared with 9.9 percent in 2009 (Livermore et al. 2009; Wright et al. 2012).

The purpose of this report is to measure work activity among TTW participants, with a focus on measuring how it changed following the July 2008 changes in TTW regulations. Even though nearly all TTW participants have employment goals, and many are actively preparing for employment (Livermore et al. 2012), demand-side factors presumably affect their ability to find substantial employment. It seems very likely that the recession negatively affected the employment outcomes of TTW participants. Unfortunately for the analyses presented in this report, the timing of the recession coincided with the 2008 regulatory changes in the TTW program. Thus, it is likely that the recession substantially depressed the employment and earnings of the TTW cohorts that followed the regulatory changes relative to those for earlier cohorts. The findings presented herein represent the actual experiences of beneficiaries and ENs and do not control for changes in the economy that occurred over the 2007 through 2010 period, or for any other changes during that period (including changes in the characteristics of TTW participants). Because of the timing overlap, the recession's impact is confounded with any impacts from the regulatory change. As discussed in the next section, there is also an administrative factor that likely depressed the measured number of NSTW months for the later cohorts relative to those for earlier cohorts.

[16] Data are from the Current Population Survey. The Bureau of Labor Statistics (2011) counts an individual as having a disability if he or she reports at least one of the following conditions: is deaf or has serious difficulty hearing; is blind or has serious difficulty seeing, even when wearing glasses; has serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition; has serious difficulty walking or climbing stairs; has difficulty dressing or bathing; or has difficulty doing errands alone, such as visiting a doctor's office or shopping, because of a physical, mental, or emotional condition.

III. DATA AND METHODS

In this chapter, we describe the data sources and define the key variables used in the study. We also present the criteria for inclusion in our analytical subpopulations and present information on the number of observations available for analysis.

A. Data Sources

The primary data source used in this study is SSA's 2010 Ticket Research File (TRF10). The TRF10 contains administrative information through December 2010 on all adults with at least one month of SSD or SSI benefits from 1996 onward. The TRF10 data identify TTW participants and nonparticipants in each year from the start of the program in 2002 through 2010. These were the the most recently available data on beneficiary work activity when this analysis was started.

We also updated the NSTW and BFWDI measures from the TRF10 by appending information from records in the TRF10's successor, the 2011 Disability Analysis File (DAF11). This allowed us to incorporate substantial revisions to the information captured in the NSTW measure that were implemented under the DAF11. It also allowed us to use data recorded as late as early 2013, using records updated through 2010, meaning that the information in DAF11 was less subject than the earlier data to work-related processing lags.

To assess beneficiary work activity using earnings in Chapter V, we linked data from the TRF10 to the Master Earnings File (MEF), which contains annual wage data that SSA has derived from Internal Revenue Service (IRS) records: W-2 tax forms, quarterly earnings records, and annual income tax data.[17]

In addition, we used data from the Cumulative Payment Report by EN provided by MAXIMUS Inc., SSA's contractor responsible for TTW payment administration, as captured in its MAXSTAR application. This file includes all milestone and outcome payments made to providers on behalf of TTW participants for work activity through December 2010 that SSA had processed as of December 2011; this allowed a minimum of 12 months to elapse from the month in which the participant's work activity made an EN eligible for a payment upon filing a proper claim.[18]

B. Measuring Beneficiary Work Activity

1. Nonpayment Status Due to Suspension or Termination for Work (NSTW)

To explore the work activity of SSD and SSI beneficiaries in the TRF10, we use a monthly variable that indicates whether the beneficiary is in nonpayment status (that is, no cash benefit is due) following suspension or termination of benefits because of engagement in SGA; we refer to this as "NSTW." The earnings rules for SSD call for the suspension of benefits for those

[17] SSA accesses these data per the statute covering the use of IRS data, specifically, Internal Revenue Code (IRC) section 6103(l)(1)(A).

[18] Payment data were extracted from the SSA system in March 2012, corresponding to all payments processed by December 2011.

beneficiaries who engage in SGA in any of the 36 months following completion of the nine-month TWP apart from three grace-period months. After the grace-period months and the 36-month window elapse, the rules call for termination of cash benefits in the first month in which earnings exceed SGA. Thereafter, cash benefits can be reinstated only through a re-application process; this process is expedited if SGA ends within the 60 months following termination. Due to delays in processing information about beneficiary earnings, the rules often are implemented retroactively, well past the month in which the earnings actually occurred. We describe this process and implications for our analysis in more detail below.

SSI payments are considered suspended for work when monthly countable income, including countable earnings from work, exceeds the maximum monthly benefit payment—$698 for an individual in 2012. Although most income, including SSD benefits, is counted dollar for dollar after a $20 disregard, only half of earnings above an additional $65 disregard are counted. There are also disregards for various other expenses related to the SSI beneficiary's efforts to return to work. Hence, the minimum earnings that result in SSI payment suspension for work vary, depending on other income received and earnings disregards.

When payments are suspended for work, SSI recipients may enter Section 1619(b) status, under which they will continue to be eligible for Medicaid and also be able to return to SSI cash payment status should their earnings decline. To enter and continue in Section 1619(b) status, earnings must exceed the level of countable income at which SSI payments are zero by an amount no larger than the mean annual Medicaid expenditures for disabled enrollees in the individual's state or, in some states, the amount of the individual's own Medicaid expenditures if that amount is higher than the state's mean.

For purposes of our analysis, we do not distinguish between benefit suspensions and terminations. Once benefits are terminated for work, we continue to count the beneficiary's status as NSTW until, according to the administrative record, the beneficiary has returned to current pay status or eligibility ends for some other reason—most often attainment of full retirement age (FRA) or death. It is important to keep in mind that we did not include beneficiaries whose benefits were terminated before 2002. It is also important to recognize that beneficiaries are not necessarily engaged in SGA in every month counted as an NSTW month. In many months, we know only that the beneficiary left current pay status because of work in a previous month and has not returned to current pay status, reached the FRA, or died. Similarly, we are unable to verify that the beneficiary would continue to meet SSD or SSI eligibility criteria if not engaged in SGA.

The NSTW variable is available separately by SSD and SSI, but the data set also contains a combined indicator that aggregates information across the two programs for cases in which the beneficiary has received benefits from each program at some time, but not necessarily concurrently. We use this variable in our analysis. For SSD-only beneficiaries, this combined indicator simply takes on the value of NSTW in the SSD program, and analogously for SSI-only. In the case of concurrent beneficiaries, the indicator does not count months as NSTW months if the beneficiary is suspended or terminated for work in one program but is in current pay status in the other. This approach is consistent with the outcome payment rules for TTW; outcome payments are not due if the beneficiary receives a benefit from either program. Further, although the analysis presented here does not differentiate between suspense and termination for work, the combined indicator itself is coded as "suspense for work" if benefits are suspended for work in one program and terminated for work in the other.

Earlier work (Stapleton et al. 2010; Schimmel and Stapleton 2011) relied heavily on the NSTW indicator—which at that time was referred to as the "left due to work" (LDW) indicator—available in the TRF07, using data from 2007. Although the intent of the NSTW variable has remained unchanged, additional information on beneficiary work activity and how various program rules are reflected in the administrative data have been incorporated into it. These refinements have significantly improved the NSTW variable as a measure of beneficiary work activity and benefit suspension and termination for work, particularly in the SSI program.[19] Because of the significance of these refinements, results from the earlier work and those given in this report are not strictly comparable. In general, the result of the refinements produces NSTW levels somewhat lower than what had been shown previously, primarily on the SSI side (which translates into differences for the combined NSTW indicator as well).

2. Cash Benefits Forgone for Work (BFWDI)

Our second measure of work activity is new and also calculated from administrative records. It estimates the value of cash benefits that SSD beneficiaries have forgone because they were working (known as "benefits forgone for work," or BFWDI). To date, efforts to develop a symmetric SSI variable have been unsuccessful because of data limitations and the complexities related to the role of other income and assets in determining what SSI benefits would be in the absence of countable earnings. For this reason, in this report we present statistics only for BFWDI in SSD. BFWDI is relatively straightforward: we assume that benefits forgone are equal to the cost-of-living-adjusted amount of the last monthly benefit due before a person's benefits are suspended or terminated for work (as shown by the NSTW indicator). In other words, beneficiaries must be in NSTW in SSD to have BFWDI, in which case the imputed value of BFWDI is the inflation-adjusted value of the last benefit due.

We have produced BFWDI statistics for all beneficiaries with NSTW months in the relevant period and display them by beneficiary program categories (SSD-only, concurrent, and SSI-only). Positive BFWDI cases accrue for a very small share of the beneficiaries we categorize as SSI-only cases. This occurs because we define a beneficiary's payment title at a set point in time, but that individual may later go on to receive SSD benefits that ultimately are forgone because of work.

3. Processing Lags and Implications for the Measures of Interest

Many retroactive adjustments to NSTW status occur because of the time it takes SSA to receive evidence of work. For SSD beneficiaries, SSA then initiates and completes work continuing disability reviews (work CDRs). Most work CDRs are initiated only after SSA matches its administrative data to IRS earnings data, which often occurs many months after earnings were accrued; others may be initiated when the beneficiary or somebody else submits evidence of work to SSA. Processing is time consuming, in part because of backlog, but also because it takes time for SSA to collect and analyze all of the information it needs to determine whether and when the beneficiary engaged in SGA.[20] SSI has much more stringent processing requirements than SSD for

[19] Documentation for the TRF10 and DAF11 provide an overview of some of these refinements.

[20] There are also retroactive adjustments to NSTW in the opposite direction, due to reinstatements of benefits that have been suspended or terminated. For SSD beneficiaries, these are relatively rare and generally occur more quickly. If benefits are suspended for SGA and SGA ends before the 36th month after the TWP is completed, the beneficiary is

beneficiaries and their representatives, though lengthy delays in determining NSTW status are also frequent for SSI.[21]

As a result of the time it takes to determine NSTW status, administrative data for more recent periods understate the number of NSTW months because of pending cases, particularly for SSD beneficiaries. For the same reasons, they understate BFWDI.

To assess the impact of work CDR lags on our NSTW findings for SSD beneficiaries, we used data from the Work Determination files of the DCF, extracted in May of 2013. Using these data, we determined the number of TTW participants who had a suspense as a result of a work CDR and had earnings within a specified time window. This information allowed us to determine when the CDR was entered into the DCF. The proportion of CDRs entered after March 2012—the month the DAF11 data were extracted and thus the last month of retroactive updates captured by our NSTW measure—indicates the extent to which the NSTW measure is underestimating suspense and termination for work due to data lags. The results also verify our understanding that retroactive adjustments for suspense and termination for work are more common than retroactive adjustments for reinstatement.

We found that lags in work CDRs and subsequent posting to administrative records led to an understatement of NSTW for SSD beneficiaries in our data, especially for the most recent dates in our analysis. The assessment involved the examination of statistics for three assignment cohorts: those who assigned their Ticket from July 2006 through June 2007, those who assigned from July 2007 through June 2008, and those who assigned from July 2008 through June 2009. For each participant in each cohort, we considered earnings in the 18 months following assignment. Findings showed that, had we used data pulled in May 2013 instead of March 2012, we could have expected NSTW values among SSD beneficiaries that were approximately 2 percent higher for the earliest cohort, 3 percent higher for the middle cohort, and 10 percent higher for the most recent cohort. Based on evidence provided by SSA about SSI earnings alerts and their review of the data, we assume that lags for SSI are roughly comparable to those for SSD.

(continued)

very likely to inform SSA so that payments will resume immediately, as intended. If SGA ends later, a beneficiary may apply for reinstatement, but the earliest possible reinstatement month is that in which the reinstatement application is filed.

[21] A December 2012 audit report by the SSA Office of the Inspector General found that 75 percent of SSI earnings alerts, triggered when information provided by a beneficiary does not match that reported by a federal or state agency, were pending for a period of at least 6 months (SSA Office of the Inspector General 2012).

C. Subpopulation Selection

1. Annual Comparisons of TTW Participants and Nonparticipants[22]

The comparison of new work activity by TTW participants to that of nonparticipants in Chapter IV focuses on those in each group in each year who spent at least one month in current pay status or in NSTW during the year.[23] We excluded those who spent the entire year without cash benefits for a reason other than work. We further limited our cohorts to beneficiaries ages 18 to 64 who were alive at any time during the calendar year. Each beneficiary may be included in a single annual subpopulation or multiple ones, depending on their benefit status during each year and whether they met the selection criteria during that year. TTW participants were identified based on their most recent Ticket assignment date and categorized as participants from the year of assignment until 2010, even if their Ticket was subsequently unassigned.[24] For purposes of the annual comparisons between participants and other beneficiaries, program title (SSD-only, SSI-only, and concurrent) was based on the first month during each calendar year in which beneficiaries were in current pay status or in NSTW. When following participants longitudinally, program title was based on status in the TTW assignment month.

Table III.1 shows the number of beneficiaries included in each of the annual groupings for the comparative analysis in Chapter IV. The number of participants in each year includes any participant who assigned a Ticket across any of the payment systems (traditional, MO, or OO) in the current or any previous calendar year. Thus, the annual totals in Table III.1 represent a running total of "current" beneficiaries (those in current pay or NSTW status during at least one month of the year) who ever participated in TTW. Hence, it is not surprising that the number of people who had ever participated in TTW (ever-TTW participants) increased rapidly during the rollout years (2002 to 2004), then more slowly but steadily from 2005 through 2010.[25] By 2010, 4.1 percent of current beneficiaries had participated in the TTW program at some point since its inception. Participants were most likely to be SSD-only beneficiaries and least likely to be concurrent beneficiaries. As of 2010, concurrent beneficiaries had a much higher participation rate (6.4 percent) than SSD-only (3.6 percent) or SSI-only (4.0 percent) beneficiaries.

[22] It is important to note that throughout the report, we are using information on the full population of SSA beneficiaries who meet the criteria specified, as opposed to a sample of beneficiaries. For this reason, statistical tests of whether observed differences across groups are significantly different from zero are unnecessary; all observed differences reflect the actual cross-group differences for all beneficiaries.

[23] Nonparticipants include a very small share of beneficiaries not eligible to assign a Ticket. Before the 2008 regulatory changes, this included individuals classified by SSA as MIE in the disability determination process who had not yet had a medical CDR, as well as SSI child beneficiaries who had turned 18 but had not yet completed the adult redetermination. The 2008 regulations removed the first of these exclusions but not the second.

[24] As described in Chapter IV, an alternate version, in which work activity is counted only in the months that Tickets were assigned, is contained in the appendices.

[25] Between January 2002 and September 2004, the TTW program was rolled out in phases and thus was not available to all beneficiaries.

Table III.1. Number of TTW Participants and Nonparticipants in Each Year, 2002–2010

	Calendar Year								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
TTW Participants									
Total	22,670	62,220	132,915	193,291	255,149	318,636	394,624	474,264	559,875
SSD-Only	10,807	28,969	58,046	85,115	114,225	145,326	182,808	222,872	268,005
SSI-Only	7,619	20,451	45,423	65,364	83,410	101,908	123,014	144,355	164,878
Concurrent	4,244	12,800	29,446	42,812	57,514	71,402	88,802	107,037	126,992
Nonparticipants									
Total	11,291,011	11,696,447	11,883,333	12,149,582	12,395,408	12,587,975	12,813,921	13,074,972	13,085,915
SSD-Only	5,626,719	5,800,980	5,945,784	6,184,458	6,396,723	6,609,735	6,801,558	7,017,916	7,254,932
SSI-Only	4,395,321	4,496,824	4,400,401	4,366,543	4,332,789	4,304,322	4,297,941	4,284,178	3,986,540
Concurrent	1,268,971	1,398,643	1,537,148	1,598,581	1,665,896	1,673,918	1,714,422	1,772,878	1,844,443
All Beneficiaries									
Total	11,313,681	11,758,667	12,016,248	12,342,873	12,650,557	12,906,611	13,208,545	13,549,236	13,645,790
SSD-Only	5,637,526	5,829,949	6,003,830	6,269,573	6,510,948	6,755,061	6,984,366	7,240,788	7,522,937
SSI-Only	4,402,940	4,517,275	4,445,824	4,431,907	4,416,199	4,406,230	4,420,955	4,428,533	4,151,418
Concurrent	1,273,215	1,411,443	1,566,594	1,641,393	1,723,410	1,745,320	1,803,224	1,879,915	1,971,435
TTW Participants as a Percentage of All Beneficiaries									
Total	0.2	0.5	1.1	1.6	2.0	2.5	3.0	3.5	4.1
SSD-Only	0.2	0.5	1.0	1.4	1.8	2.2	2.6	3.1	3.6
SSI-Only	0.2	0.5	1.0	1.5	1.9	2.3	2.8	3.3	4.0
Concurrent	0.3	0.9	1.9	2.6	3.3	4.1	4.9	5.7	6.4

Source: TRF10.

Note: Subpopulation for each year includes beneficiaries who spent at least one month in current pay status, NSTW, or suspended for some other reason and who were age 18 through 64 and alive at any point during the calendar year. Ticket participants include those who assigned their most recent Tickets in the current or any previous calendar year, provided their Ticket remained assigned; nonparticipants include all other beneficiaries including participants in years their Ticket was not assigned. In other words, the count of participants in each year includes all beneficiaries who assigned their Ticket by the year shown and had not yet unassigned it; nonparticipants are those who never assigned a Ticket as well as those whose Ticket was not assigned during any month of the year shown (and are categorized as participants in at least one other year). Payment title is based on title in the first month of current pay status, NSTW, or suspension during the year.

In Table III.2, we confirm the findings of earlier studies regarding the growth in TTW participation around the implementation of the 2008 regulatory changes, particularly for the MO payment system. After growth resulting from initial TTW implementation between 2002 and 2004, the number of new Ticket assignments under the new payment systems remained fairly stable from 2005 through 2007. Between 2007 and 2010, the number of new assignments under these systems in each year increased by nearly 16,000, from 4,168 to 19,913. Although some of this growth simply reflects growth in the number of beneficiaries eligible to use TTW, the number eligible was growing in the years leading up to 2008 as well; the timing of the growth and its size make it clear that the change in regulations is the major cause.[26] From 2007 to 2008 alone, the number of participants under the new payment systems increased by 144 percent, from 4,168 to 10,154 while the number of beneficiaries eligible for the program only rose by 6 percent.

Table III.2. Number of New Ticket Assignments in Each Year 2002–2010, by Payment System

	Assignment Year								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total Ticket Assignments (Number)	22,838	39,864	71,353	61,488	63,767	66,322	79,425	84,397	93,587
MO	2,019	3,501	5,216	3,688	3,323	3,417	9,559	14,272	19,564
OO	392	1,024	1,131	1,057	1,193	751	595	545	349
Total EN	2,411	4,525	6,347	4,745	4,516	4,168	10,154	14,817	19,913
Traditional[1]	20,427	35,339	65,006	56,743	59,251	62,154	69,271	69,580	73,674

Source: TRF10.

Note: Table includes participants who assigned their Tickets during the specified assignment year and who were ages 18 to 64 in the month of assignment; assignment date is based on when Ticket was most recently assigned. Payment system is determined in the month of assignment.

[1] Traditional participants include those who actively assigned their Ticket to an SVRA as well as those whose Tickets were deemed in-use. As described previously, in-use status was not implemented uniformly for years prior to 2008.

2. Annual Ticket Assignments, Payment System, and Provider Type

One of the study's objectives is to learn more about the work activity and payments made on behalf of TTW participants by provider type. To accomplish this, we used the TRF10 to identify all beneficiaries who assigned their Tickets from 2002 through 2010 and who were alive and between the ages of 18 and FRA in the month of reported Ticket assignment.[27] We categorized beneficiaries based on their most recent Ticket assignment. For instance, if a beneficiary assigned his or her

[26] Appendix Table A.1 shows the number of assignments relative to the number of beneficiaries eligible to participate in TTW in each year from 2005 through 2010, years in which the TTW program was fully operational after its initial rollout.

[27] Practically speaking, very few beneficiaries are out of this age range or deceased in the month of assignment, but we imposed this limitation to account for potential misinformation about assignment date. To simplify the analysis, we use 65 as the FRA for all participants, regardless of payment title. For SSI-only participants, 65 is the FRA throughout our analysis period, while for those in SSD, it has been increasing from age 65 to 67 to reflect the changing FRA for Social Security retirement benefits.

Ticket in 2002 but unassigned and later reassigned it to another EN in 2008, we used only the information from the 2008 assignment. When analyzing data on TTW participants in Chapter V, we considered cohorts of participants based on the calendar year of assignment ("assignment-year cohorts"). In Chapter VI, we modified the time periods of our assessment slightly to better account for the mid-year regulation changes in 2008, but otherwise maintain the selection criteria outlined above. In many instances in these chapters, we categorized TTW participants by payment title (SSD-only, SSI-only, or concurrent) and payment system (MO, OO, and traditional SVRA).

Growth in assignments under the MO and OO payment systems moved in opposite directions after the regulatory change. From 2007 to 2010, MO assignments increased by 573 percent (from 3,417 to 19,564), while the already low number of OO participants fell by 54 percent, from 751 to 349. It seems likely that this change reflects the increased number of milestone payments and the increase in the maximum value of MO payments relative to the maximum for OO payments.

The pattern of assignments under the traditional SVRA payment system also differs substantially from that for MO assignments, although less radically than the pattern for OO assignments. There was a small decline in such assignments from the last rollout year (2004) through 2007, followed by modest growth through 2010.[28] Thus, there is no indication that the increase in MO assignments simply reflects a shift from SVRA acceptance of assignments under the traditional payment system toward more acceptance under the MO system. Indeed, the pace of growth of assignments to SVRAs under the traditional system was about the same as that of eligible beneficiaries during this period, with 0.6 percent of beneficiaries making assignments to the traditional payment system in each year from 2005 through 2010 (Appendix Table A.1). The substantial increase in federal Rehabilitation Act grants to SVRA under the 2009 American Recovery and Reinvestment Act likely contributed to growth in assignments under the traditional payment system, as it allowed the SVRA to respond to an influx of applications from unemployed workers with disabilities and shorten their waiting lists. Even though SVRA assignments grew much less rapidly than MO assignments after 2007, they remained the dominant type of assignments in 2010.

For purposes of assessing participant outcomes and provider viability by the business model of ENs providing services (Chapter VII), we worked with SSA to identify the top 100 ENs by the highest dollar amount of TTW payments received in 2010, then broke them into five business model categories. SSA provided us with the Dunn and Bradstreet (DUNS) number and category type for each of the top 100 ENs. We linked this information to TRF10 for Ticket participants via the DUNS number for the participant's EN. Because we focus on ENs for this analysis, we include only TTW participants being served under the MO and OO payment systems. Hence, we exclude participants served by SVRAs under the traditional SVRA payment system, even if their SVRA is among the top 100 ENs serving MO and OO participants.

[28] The number of participants assigned under the traditional SVRA payment system is much larger than shown in previous TTW evaluation reports that present analyses based on data through 2007. The reason for the increase is that in 2008, as part of the revised regulations, beneficiaries receiving SVRA services no longer had to formally assign their Tickets to the SVRA for the latter to receive traditional reimbursement payments. SVRAs could report to SSA that the Tickets of their beneficiary clients were "in use," and did so retroactively until the start of the TTW program. Hence, many participants being served under the traditional SVRA payment system before 2008 were not counted previously as participants but now are.

IV. NSTW AND BFWDI STATISTICS OF TTW PARTICIPANTS AND NONPARTICIPANTS

A primary goal of the TTW program is to increase beneficiary work activity and decrease dependence on federal disability benefits. In this chapter, we consider NSTW statistics of TTW participants and compare them to those of nonparticipants. In each case, we compare the values for TTW participants to those of nonparticipants for the calendar years and subpopulations shown in Table III.1. The nonparticipant comparison subpopulation provides a benchmark for work activity, but should not be interpreted as what we would expect of TTW participants in the absence of TTW. TTW participants differ from nonparticipants in ways that affect employment outcomes, including their ability and motivation to work. The fact that participants have assigned their Ticket indicates that they believe they can work, with some assistance, and that they want to work.

We assess the number of beneficiaries who experienced at least one NSTW month, count the number of zero-benefit years (the number of total NSTW months divided by 12), and measure BFWDI for SSD beneficiaries. We also include statistics on the number of beneficiaries who experience their first NSTW month in each year and follow the NSTW status of those who had their first NSTW month in 2002 for the next 96 months (eight years). Participants are counted as such in each year that their Ticket is assigned for one month or more, but are included as nonparticipants in each full year of unassignment—either prior to initial assignment or after their Ticket has been unassigned. Their NSTW and BFWDI values are counted according to these criteria as well.

Our analysis shows that, on a variety of measures, TTW participants are more likely than nonparticipants to engage in work activity resulting in NSTW and have higher levels of BFWDI. This is true for the annual statistics of any NSTW months, zero-benefit years, and the achievement of first NSTW. We also find that SSI-only beneficiaries—regardless of participant status—are more likely to experience a first NSTW month but less likely to have NSTW months overall than SSD-only or concurrent beneficiaries. Interestingly, in considering the likelihood of remaining in NSTW among those who first experienced this status in 2002, we find that, initially, SSD-only and concurrent participants are less likely to remain in NSTW than nonparticipants, with the opposite pattern for those with SSI only. Yet eight years after the first NSTW, the likelihood of remaining in NSTW is about the same for participants and nonparticipants.

A. Annual NSTW Statistics

The overwhelming majority of beneficiaries who spend at least one month in NSTW have never assigned a Ticket, reflecting the fact that TTW participants are a small minority of all beneficiaries. Table IV.1 reports the annual number and percentage of beneficiaries with at least one NSTW month between 2002 and 2010 by TTW participation status.[29] The annual totals are

[29] The results in the chapter aggregate TTW participants. Similar results for participants only, broken out by TTW payment system, are contained in Appendix Tables A.2 (traditional payment system) and A.3 (EN payment systems).

Table IV.1. Beneficiaries with at Least One NSTW Month and Share Represented by TTW Participants in Each Year, 2002–2010, and by Payment Title

	2002	2003	2004	2005	2006	2007	2008	2009	2010
TTW Participants									
Participants with One or More NSTW Months	668	2,447	5,861	9,984	13,798	16,980	18,774	17,580	16,880
SSD-Only	230	942	2,238	4,057	6,044	7,840	9,235	9,387	9,182
SSI-Only	325	1,045	2,499	3,967	5,039	5,793	5,915	4,999	4,771
Concurrent	113	460	1,124	1,960	2,715	3,347	3,624	3,194	2,927
Percent of All Participants	2.9	4.1	4.8	5.9	6.7	7.1	6.8	5.8	5.1
SSD-Only	2.1	3.4	4.2	5.6	6.7	7.4	7.4	6.7	5.9
SSI-Only	4.3	5.3	5.9	6.8	7.3	7.3	6.6	5.2	4.6
Concurrent	2.7	3.7	4.1	5.3	5.9	6.3	6.0	4.8	4.0
Nonparticipants									
Nonparticipants with One or More NSTW Months	305,633	313,606	323,011	340,566	364,615	391,474	406,010	385,953	358,418
SSD-Only	174,369	180,119	187,881	199,510	212,934	229,316	242,659	241,997	231,796
SSI-Only	100,183	101,010	101,284	105,478	112,636	119,893	119,454	103,042	90,397
Concurrent	31,081	32,477	33,846	35,578	39,045	42,265	43,897	40,914	36,225
Percent of All Nonparticipants	2.7	2.7	2.7	2.8	2.9	3.1	3.1	2.9	2.7
SSD-Only	3.1	3.1	3.2	3.2	3.3	3.4	3.5	3.4	3.1
SSI-Only	2.3	2.2	2.3	2.4	2.6	2.8	2.8	2.4	2.2
Concurrent	2.4	2.3	2.2	2.2	2.3	2.5	2.5	2.3	1.9
Total Beneficiaries									
Beneficiaries with One or More NSTW Months	306,301	316,053	328,872	350,550	378,413	408,454	424,784	403,533	375,298
SSD-Only	174,599	181,061	190,119	203,567	218,978	237,156	251,894	251,384	240,978
SSI-Only	100,508	102,055	103,783	109,445	117,675	125,686	125,369	108,041	95,168
Concurrent	31,194	32,937	34,970	37,538	41,760	45,612	47,521	44,108	39,152
Percent of All Beneficiaries	2.7	2.7	2.7	2.8	3.0	3.2	3.2	3.0	2.8
SSD-Only	3.1	3.1	3.2	3.2	3.4	3.5	3.6	3.5	3.2
SSI-Only	2.3	2.3	2.3	2.5	2.7	2.9	2.8	2.4	2.3
Concurrent	2.5	2.3	2.2	2.3	2.4	2.6	2.6	2.3	2.0
Share of Beneficiaries with NSTW Represented by TTW Participants (%)									
Total	0.2	0.8	1.8	2.8	3.6	4.2	4.4	4.4	4.5
SSD-Only	0.1	0.5	1.2	2.0	2.8	3.3	3.7	3.7	3.8
SSI-Only	0.3	1.0	2.4	3.6	4.3	4.6	4.7	4.6	5.0
Concurrent	0.4	1.4	3.2	5.2	6.5	7.3	7.6	7.2	7.5

Source: Analysis of TRF10 supplemented with DAF11.

Note: Eligible subpopulation in each year includes beneficiaries who spent at least one month in current pay status, in NSTW, or with benefits suspended for another reason and who were age 18 through 64 and alive at some point during the year. Payment title is determined in the first month of current pay status, NSTW or suspension. Ticket participants include those who assigned their most recent Tickets in the current or any previous calendar year provided their Ticket remained assigned; nonparticipants include all other beneficiaries including participants in years their Ticket was not assigned. In other words, the count of participants in each year includes all beneficiaries who assigned their Ticket by the year shown and had not yet unassigned it; nonparticipants are those who never assigned a Ticket as well as those whose Ticket was not assigned during any month in the calendar year shown (and are categorized as participants in at least one other year).

presented in aggregate as well as by payment title (SSD-only, SSI-only, and concurrent). For instance, in 2006, about 14,000 TTW participants and 365,000 nonparticipants spent at least one month in NSTW.

From 2002 through 2008, there was substantial growth in the number of beneficiaries with at least one NSTW month. We attribute this growth partly to our ability to observe a larger share of NSTW months as time passes. As noted previously, we are unable to count NSTW months for those terminated for work before 2002 and who subsequently continue in NSTW status. As time passes, we are able to observe a larger share of NSTW months for those whose benefits were terminated for work; this "reduction in censoring" contributes to growth in observed NSTW months, but that contribution gradually diminishes.

After 2008, there was a decline in the number of beneficiaries with at least one NSTW month, regardless of TTW participation status. In percentage terms, the decline was greater among nonparticipants than participants: from 2008 to 2010, the number of participants in NSTW for at least one month dropped by about 10 percent (18,774 to 16,880), whereas the nonparticipants in NSTW dropped by about 12 percent (406,000 to 358,000). As described in Chapter III, earnings reporting lags mean that those in the recent period have an underreporting of any NSTW months on the order of 10 percent, with smaller adjustment factors in the earlier years. Hence, it might be that the actual decline in NSTW across years is substantially smaller than reported in the table. It is clear, however, that at best, there was no growth in NSTW from 2008 to 2010.

The decline from 2008 to 2010 in the number of beneficiaries with an NSTW month was smaller for SSD-only beneficiaries than for either concurrent or SSI-only beneficiaries. The number for SSD-only beneficiaries with an NSTW month declined by 4 percent, compared to a decline of 24 percent for SSI-only beneficiaries and 18 percent for concurrent beneficiaries. This pattern applied to both participants and nonparticipants.

Compared to nonparticipants, a relatively high percentage of TTW participants experienced at least one month in NSTW each year. When TTW began in 2002, TTW participants were only slightly more likely to experience NSTW as nonparticipants (2.9 percent versus 2.7 percent). This gap started to grow as the program continued, however. By 2007, this gap had grown to 4.0 percentage points, with 7.1 percent of participants experiencing at least one NSTW month. That growth might reflect improvements in service delivery, but likely reflects several other factors as well: a growing economy, increased selectivity on the part of ENs seeking to become economically viable, growing awareness of the value of using the Ticket among those likely to have an NSTW month regardless of Ticket assignment, and that it can take months or years for participants to earn enough to have their first NSTW months after they assign their Ticket. Starting in 2008, however, the gap between participants and nonparticipants in the percentage with an NSTW month narrowed, falling to 2.4 percentage points in 2010. It seems likely that the narrowing gap reflects the adverse impact of the economy on both percentages and delays in the determination and recording of NSTW months. These trends were consistent across payment titles.

Zero-benefit years provide an indication of how much time beneficiaries spend in NSTW, as this statistic sums the total number of NSTW months across all beneficiaries and divides by 12 to generate a measure equivalent to the number of beneficiaries with a full year of cash benefits suspended or terminated for work . In absolute terms, the vast majority of zero-benefit years accrued to nonparticipants; this is unsurprising, given the relative size of each group (Table IV.2). As

Table IV.2. Zero-Benefit Years and Share Represented by TTW Participants in Each Year, 2002–2010, and by Payment Title

	2002	2003	2004	2005	2006	2007	2008	2009	2010
TTW Participants									
Total Participant Zero-Benefit Years	162	911	2,531	4,783	7,206	9,501	11,043	10,931	10,589
SSD-Only	64	416	1,186	2,334	3,770	5,210	6,373	6,787	6,813
SSI-Only	66	335	855	1,522	2,070	2,522	2,642	2,238	1,994
Concurrent	32	161	490	927	1,365	1,769	2,028	1,906	1,783
Average Zero-Benefit Years (per 1,000 participants)	7.1	15.3	20.6	28.5	35.0	39.8	40.3	36.2	31.9
SSD-Only	5.9	15.0	22.3	32.2	41.8	49.0	51.3	48.7	43.6
SSI-Only	8.7	17.0	20.1	26.2	29.9	31.9	29.6	23.2	19.4
Concurrent	7.5	13.1	18.0	24.9	29.5	33.2	33.4	28.7	24.4
Nonparticipants									
Total Nonparticipant Zero-Benefit Years	218,954	230,759	241,897	255,012	272,975	293,443	307,651	301,723	289,760
SSD-Only	146,373	153,724	161,430	170,538	181,371	194,976	206,679	208,560	204,453
SSI-Only	52,876	56,098	57,986	60,894	65,494	69,999	70,880	64,421	58,823
Concurrent	19,705	20,937	22,481	23,580	26,110	28,469	30,092	28,742	26,484
Average Zero-Benefit Years (per 1,000 nonparticipants)	19.4	19.7	20.3	20.9	21.9	23.2	23.8	22.8	21.8
SSD-Only	26.0	26.5	27.1	27.5	28.2	29.3	30.1	29.4	27.8
SSI-Only	12.0	12.5	13.2	13.9	15.1	16.2	16.4	14.9	14.5
Concurrent	15.5	15.0	14.6	14.7	15.6	16.8	17.3	15.8	14.0
Total Beneficiaries									
Total Beneficiary Zero-Benefit Years	219,116	231,670	244,428	259,794	280,181	302,944	318,694	312,654	300,349
SSD-Only	146,437	154,140	162,615	172,872	185,141	200,186	213,052	215,347	211,266
SSI-Only	52,942	56,433	58,842	62,416	67,565	72,520	73,522	66,659	60,817
Concurrent	19,737	21,098	22,971	24,507	27,476	30,238	32,120	30,648	28,267
Average Zero-Benefit Years (per 1,000 beneficiaries)	19.4	19.7	20.3	21.0	22.1	23.5	24.1	23.1	22.0
SSD-Only	26.0	26.4	27.1	27.6	28.4	29.6	30.5	29.7	28.1
SSI-Only	12.0	12.5	13.2	14.1	15.3	16.5	16.6	15.1	14.6
Concurrent	15.5	14.9	14.7	14.9	15.9	17.3	17.8	16.3	14.3
Share of Zero-Benefit Years Represented by TTW Participants (%)									
Total	0.1	0.4	1.0	1.8	2.6	3.1	3.5	3.5	3.5
SSD-Only	0.0	0.3	0.7	1.4	2.0	2.6	3.0	3.2	3.2
SSI-Only	0.1	0.6	1.5	2.4	3.1	3.5	3.6	3.4	3.3
Concurrent	0.1	0.8	2.1	3.8	5.0	5.9	6.3	6.2	6.3

Source: Analysis of TRF10 supplemented with DAF11.

Note: Eligible subpopulation in each year includes beneficiaries who spent at least one month in current pay status, in NSTW, or with benefits suspended for another reason and who were age 18 through 64 and alive at some point during the year. Payment title determined in the first month of current pay status, NSTW or suspension. Ticket participants include those who assigned their most recent Tickets in the current or any previous calendar year provided their Ticket remained assigned; nonparticipants include all other beneficiaries including participants in years their Ticket was not assigned. In other words, the count of participants in each year includes all beneficiaries who assigned their Ticket by the year shown and had not yet unassigned it; nonparticipants are those who never assigned a Ticket as well as those whose Ticket was not assigned in any month during the calendar year shown (and are categorized as participants in at least one other year).

with the likelihood of having at least one NSTW month, however, zero-benefit years were proportionally larger among TTW participants than nonparticipants (Table IV.2). In 2010, for example, participants accrued 31.9 zero-benefit years per 1,000 beneficiaries, compared with 21.8 among nonparticipants. Over time, there was an increase in the proportion of total zero-benefit years represented by Ticket participants. After 2008, the number of zero-benefit years per 1,000 beneficiaries decreased among both participants and nonparticipants, but more sharply for participants.

Notably, the proportion of total zero-benefit years accrued by participants (3.5 percent in 2010, shown in Table IV.2) was lower than the proportion with any NSTW (4.5 percent, shown in Table IV.1). This is consistent with longitudinal information presented later in this chapter suggesting that participants may be more likely to exit the rolls for work but that nonparticipants, once in NSTW, remain in that status for a longer period.

B. Annual BFWDI Statistics for SSD

Although the proportion of SSD beneficiaries in NSTW in any year is small relative to the number of all beneficiaries, total SSD benefits forgone for work every year are quite substantial, reflecting both the high value of monthly benefits and the large number of SSD beneficiaries overall. We estimate BFWDI across all beneficiaries totaled $3.4 billion in 2010 (Table IV.3).

For SSD-only and concurrent beneficiaries, trends in BFWDI mirrored those for NSTW, at least before 2008 (Table IV.3). It is important to keep in mind that, as with the NSTW statistics, rapid growth in the early years of the observation period reflects the increase in the extent to which benefits forgone by those terminated for work in previous years are captured in the data.

BFWDI grew from 2008 to 2010, reaching its highest level in 2009, despite the slow decline in zero-benefit years reported in Table IV.2. The proximate reason is that BFWDI per NSTW month increased over the period, as shown in Table IV.4. That growth reflects both growth in the amount within each payment title category and the smaller rate of decline in NSTW months for the payment title with the highest value of BFWDI per NSTW month for SSD-only beneficiaries—$1,237 in 2010, compared to $623 for concurrent beneficiaries and $10 for SSI-only beneficiaries.[30]

In 2002, TTW participants accounted for less than one-tenth of one percent of all BFWDI. This percentage grew throughout the period but remained low in 2010, at 3.5 percent, consistent with the proportion of zero-benefit years represented by participants. In absolute dollars, BFWDI for participants reached $117.4 million in 2010; in that year, SSI-only and concurrent participants represented a higher share of participant BFWDI than in earlier years (9.5 and 6.7 percent, respectively).

[30] The small but non-zero value for SSI-only beneficiaries reflects the small number of cases in which those beneficiaries became eligible for DI after the month in which they were classified as SSI-only, then later entered NSTW for DI as well as SSI.

Table IV.3. Total BFWDI (Millions) and Share Represented by TTW Participants in Each Year, 2002–2010, and by Payment Title

	2002	2003	2004	2005	2006	2007	2008	2009	2010
TTW Participants									
All Participants	1.6	7.0	18.9	36.8	60.9	85.6	107.5	119.7	117.4
SSD-Only	1.3	5.7	15.3	30.0	50.4	71.9	91.2	103.2	102.5
SSI-Only	0.1	0.2	0.5	1.0	1.4	1.5	1.6	1.4	0.7
Concurrent	0.2	1.1	3.0	5.7	9.1	12.1	14.7	15.1	14.2
Nonparticipants									
All Nonparticipants	1,758.8	1,892.5	2,051.8	2,244.7	2,522.0	2,831.7	3,103.3	3,316.8	3,236.3
SSD-Only	1,630.1	1,754.0	1,900.6	2,083.5	2,336.8	2,622.8	2,877.7	3,088.3	3,032.7
SSI-Only	11.7	11.5	13.0	14.5	15.9	18.5	17.9	13.6	6.7
Concurrent	117.0	126.9	138.2	146.7	169.2	190.5	207.6	214.9	197.0
All Beneficiaries									
All Beneficiaries	1,760.3	1,899.5	2,070.6	2,281.5	2,582.9	2,917.3	3,210.8	3,436.5	3,353.7
SSD-Only	1,631.4	1,759.8	1,916.0	2,113.6	2,387.2	2,694.7	2,968.9	3,191.5	3,135.2
SSI-Only	11.7	11.8	13.5	15.5	17.3	20.0	19.5	15.0	7.4
Concurrent	117.2	128.0	141.2	152.4	178.4	202.6	222.3	230.0	211.2
Share of BFWDI Represented by TTW Participants (%)									
Total	0.09	0.37	0.91	1.61	2.36	2.93	3.35	3.48	3.5
SSD-Only	0.08	0.33	0.80	1.42	2.11	2.67	3.07	3.23	3.3
SSI-Only	0.51	2.03	3.75	6.62	8.06	7.54	8.13	9.54	9.5
Concurrent	0.19	0.83	2.14	3.75	5.13	5.99	6.61	6.57	6.7

Source: Analysis of TRF10 supplemented with DAF11.

Note: Eligible subpopulation in each year includes beneficiaries who spent at least one month in current pay status or with benefits suspended or terminated for work and who were age 18 through 64 and alive at some point during the year. Payment title determined in the first month of current pay status, suspension, or termination for work. BFWDI includes benefits forgone for work when in NSTW on SSD; some SSI-only beneficiaries ultimately have BFWDI because they began to receive SSD benefits after our categorization; in some cases, payment title may have been incorrectly recorded in the month we measured it. Ticket participants include those who assigned their most recent Tickets in the current or any previous calendar year provided their Ticket remained assigned; nonparticipants include all other beneficiaries including participants in years their Ticket was not assigned. In other words, the count of participants in each year includes all beneficiaries who assigned their Ticket by the year shown and had not yet unassigned it; nonparticipants are those who never assigned a Ticket as well as those whose Ticket was not assigned in any month during the calendar year shown (and are categorized as participants in at least one other year).

Table IV.4. Average Monthly BFWDI Among Those with BFWDI by Participant Status, in Each Year, 2002–2010, and by Payment Title

	2002	2003	2004	2005	2006	2007	2008	2009	2010
TTW Participants									
All Participants	823	640	622	641	704	751	811	913	924
SSD-Only	1693	1142	1075	1071	1114	1150	1193	1267	1254
SSI-Only	126	50	49	55	56	50	50	52	29
Concurrent	521	569	510	512	556	570	604	660	664
Nonparticipants									
All Nonparticipants	669	683	707	734	770	804	841	916	931
SSD-Only	928	951	981	1018	1074	1121	1160	1234	1236
SSI-Only	18	17	19	20	20	22	21	18	9
Concurrent	495	505	512	518	540	558	575	623	620
All Beneficiaries									
All Beneficiaries	669	683	706	732	768	802	840	916	931
SSD-Only	928	951	982	1019	1074	1122	1161	1235	1237
SSI-Only	18	17	19	21	21	23	22	19	10
Concurrent	495	506	512	518	541	558	577	625	623

Source: TRF10 and DAF11.

Note: Eligible subpopulation in each year includes beneficiaries who spent at least one month in current pay status, in NSTW, or with benefits suspended for another reason and who were age 18 through 64 and alive at some point during the year. Payment title determined in the first month of current pay status, NSTW, or suspension. BFWDI includes benefits forgone for work when in NSTW on SSD; some SSI-only beneficiaries ultimately have BFWDI because they began to receive SSD benefits after our categorization; in some cases, payment title may have been incorrectly recorded in the month we measured it. Ticket participants include those who assigned their most recent Tickets in the current or any previous calendar year provided their Ticket remained assigned; nonparticipants include all other beneficiaries including participants in years their Ticket was not assigned. In other words, the count of participants in each year includes all beneficiaries who assigned their Ticket by the year shown and had not yet unassigned it; nonparticipants are those who never assigned a Ticket as well as those whose Ticket was not assigned in any month during the calendar year shown (and are categorized as participants in at least one other year).

C. First Month of NSTW

One particularly notable NSTW statistic is the number of beneficiaries who experience their first NSTW month within each calendar year (Table IV.5).[31] It is an important statistic because one of TTW's primary objectives is to help those receiving SSA disability benefits achieve NSTW. It also has the virtue of not being susceptible to growth due to the censoring of pre-2002 cases from our sample. This censoring contributes to growth in the annual statistics for any NSTW and zero-benefit years, described previously and reported in Tables IV.1 and IV.2. To ensure that the effect of censoring does not affect trends in the statistics, we use a definition for "first NSTW month" that requires a full calendar year in current pay prior to a first NSTW month. Thus a first NSTW month in June 2006 is counted as such only if the beneficiary was in current pay status in every month of 2005—even though in some cases the beneficiary will have had NSTW months prior to the previous calendar year (2005). [32]

Compared to nonparticipants, a higher percentage of TTW participants achieve their first NSTW month each calendar year. For example, in 2006, 3.4 percent of TTW participants experienced their first NSTW, compared with 0.7 percent of nonparticipants. As a result, a disproportionate share of first NSTW months accrue to participants; 10.6 percent of first NSTW in 2010, while participants comprised only 2.6 percent of all those eligible for first NSTW in that year (of the 10,861,874 beneficiaries eligible for first NSTW in 2010 by virtue of meeting the sample selection criteria and being in current pay status in every month of 2009, 282,305 were TTW participants). This reflects the work orientation of TTW participants relative to other beneficiaries as well as any impact of services delivered.

First NSTW months among participants and non-participants increased steadily from 2002 through 2007 and then declined. The decline in the later years could be a product of the recession, or could reflect earnings reporting or processing lags.

Among participants, throughout the 2002 to 2010 time period, SSI-only participants were the most likely to enter into NSTW for the first time, with entry rates varying from 2.3 percent to 4.1 percent per year among Ticket participants. This information, coupled with that from earlier tables—which showed that SSI-only participants had a much smaller number of zero-benefit years per 1,000 beneficiaries—suggests that SSI-only participants are more likely to enter NSTW for single months than SSD-only and concurrent participants; we return to this point in the next section.

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[31] As shown in the eligible subpopulation sizes in Table IV.5, first NSTW is limited to a subset of all beneficiaries. Specifically, we excluded from this analysis any beneficiary in the previous calendar year who was not in current pay status for the entire year. For concurrent beneficiaries, we used a restrictive definition; current pay status in both programs for all months of the previous calendar year. In other words, "first NSTW" is the first month in a year of NSTW that was preceded by an entire year in current pay status. Thus, across the period from 2002 through 2010, a beneficiary might be eligible for inclusion in this subpopulation in some years but not in others, depending on his/her pattern of NSTW.

[32] This definition of first NSTW allows for some multiple NSTW spells and yields a larger number for first NSTW months than if we had been able to look back at the full history of NSTW for every case and exclude those with any prior NSTW month rather than just excluding those who were not in current pay status in at least one month of the prior year. The difference between these two numbers is likely larger in 2010 than in earlier years, because of beneficiaries who were in NSTW status before the recession, return to current pay because of the recession, then re-entered NSTW status as the economy gradually improved in 2010.

D. Longitudinal NSTW Statistics

TTW participants are more likely to have their first NSTW month than nonparticipants, but those who do are not necessarily more likely than nonparticipants to stay in NSTW in each subsequent month (Figure IV.1). To arrive at these statistics, for each month following the first NSTW month we counted the number of beneficiaries who were in NSTW in that month, then divided by the number who had experienced a first NSTW month. For example, in Figure IV.1 we see that 52 percent of those who achieved a first NSTW month, were in NSTW in month 36.[33] In fact, for those with a first NSTW month in 2002, a higher proportion of SSD-only nonparticipants than participants were in NSTW in each month through month 96 after the first NSTW month (eight years). We found a similar pattern among concurrent participants and nonparticipants through almost 60 months (five years) after the first NSTW month. The opposite is true for SSI-only beneficiaries, however; more participants than nonparticipants are in NSTW in each month through month 96 (eight years) after the first NSTW month. Interestingly, for participants (and to a lesser extent SSI-only and concurrent nonparticipants) from about 36 to 72 months, the percentage in NSTW remained approximately constant, suggestive of sustained employment. The decline in the percentage resumed after the recession--from 72 to 96 months, corresponding to calendar years 2008 through 2010. Results are similar for later cohorts to the extent that they have been observed to date; results for the 2005 and 2008 cohorts are presented in Appendix Figures A.1–A.4.

[33] This is the same method used in Schimmel and Stapleton (2011). Stapleton, Schimmel, and Loewenberg (2010) contains figures that look similar, but in that case, each month's value is the percentage of all months from the first month through that point that are NSTW months.

Table IV.5. Beneficiaries with First NSTW Month, and Percentage Represented by TTW Participants in Each Year, 2002–2010, and by Payment Title

	Year								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
TTW Participants									
Number Eligible for First NSTW in Year	18,865	50,382	104,177	142,459	174,170	201,045	228,707	251,233	282,305
SSD-Only	9,176	24,257	46,726	63,815	78,433	91,540	106,156	118,993	136,241
SSI-Only	5,821	15,191	33,304	45,620	54,846	62,629	69,418	74,368	81,551
Concurrent	3,868	10,934	24,147	33,024	40,891	46,876	53,133	57,872	64,513
Number with First NSTW	364	1,324	3,111	4,893	6,136	6,834	6,595	5,306	5,139
SSD-Only	117	554	1,204	2,081	2,653	2,966	3,047	2,573	2,260
SSI-Only	184	524	1,324	1,849	2,253	2,430	2,192	1,695	1,907
Concurrent	63	246	583	963	1,230	1,438	1,356	1,038	972
Percent of Eligible Participants with First NSTW	1.9	2.6	3.0	3.4	3.5	3.4	2.9	2.1	1.8
SSD-Only	1.3	2.3	2.6	3.3	3.4	3.2	2.9	2.2	1.7
SSI-Only	3.2	3.4	4.0	4.1	4.1	3.9	3.2	2.3	2.3
Concurrent	1.6	2.2	2.4	2.9	3.0	3.1	2.6	1.8	1.5
Nonparticipants									
Number Eligible for First NSTW in Year	8,120,410	8,425,899	8,741,532	9,076,031	9,387,541	9,656,042	9,903,674	10,205,681	10,579,569
SSD-Only	4,484,282	4,669,850	4,838,291	5,086,343	5,308,395	5,520,388	5,695,792	5,886,523	6,166,150
SSI-Only	2,491,100	2,526,755	2,563,439	2,594,962	2,622,556	2,664,428	2,693,325	2,743,330	2,764,190
Concurrent	1,145,028	1,229,294	1,339,802	1,394,726	1,456,590	1,471,226	1,514,557	1,575,828	1,649,229
Number with First NSTW	51,437	48,126	50,721	55,828	62,653	67,052	64,457	48,171	43,218
SSD-Only	25,436	23,868	24,354	27,137	30,710	33,802	33,920	27,841	23,690
SSI-Only	18,225	16,499	17,976	19,555	21,628	22,471	20,055	11,994	12,236
Concurrent	7,776	7,759	8,391	9,136	10,315	10,779	10,482	8,336	7,292
Percent of Eligible Nonparticipants with first NSTW	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.5	0.4
SSD-Only	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.4
SSI-Only	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.4	0.4
Concurrent	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.5	0.4
All Beneficiaries									
Number Eligible for First NSTW in Year	8,139,275	8,476,281	8,845,709	9,218,490	9,561,711	9,857,087	10,132,381	10,456,914	10,861,874
SSD-Only	4,493,458	4,694,107	4,885,017	5,150,158	5,386,828	5,611,928	5,801,948	6,005,516	6,302,391
SSI-Only	2,496,921	2,541,946	2,596,743	2,640,582	2,677,402	2,727,057	2,762,743	2,817,698	2,845,741
Concurrent	1,148,896	1,240,228	1,363,949	1,427,750	1,497,481	1,518,102	1,567,690	1,633,700	1,713,742

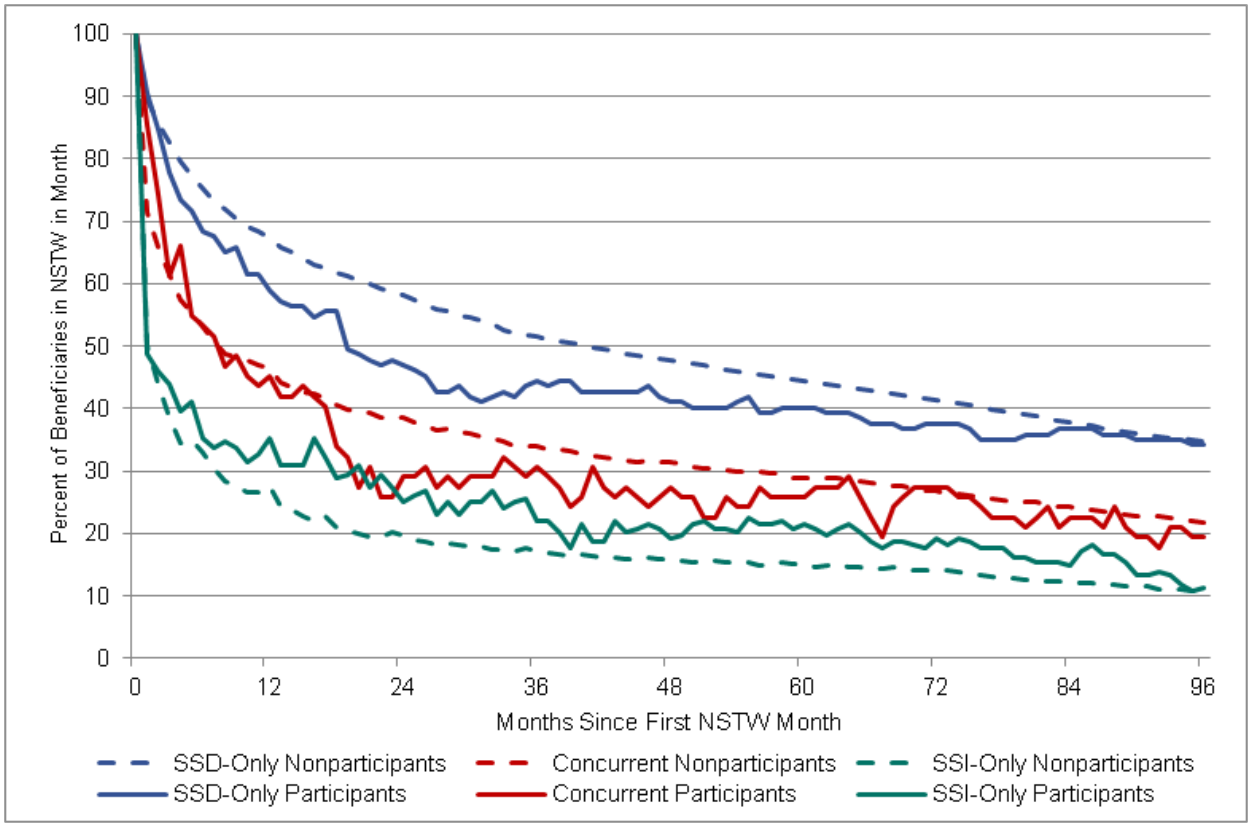
Table IV.5 *(continued)*

	Year								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number with First NSTW	51,801	49,450	53,832	60,721	68,789	73,886	71,052	53,477	48,357
SSD-Only	25,553	24,422	25,558	29,218	33,363	36,768	36,967	30,414	25,950
SSI-Only	18,409	17,023	19,300	21,404	23,881	24,901	22,247	13,689	14,143
Concurrent	7,839	8,005	8,974	10,099	11,545	12,217	11,838	9,374	8,264
Percent of Eligible Beneficiaries with First NSTW	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.5	0.4
SSD-Only	0.6	0.5	0.5	0.6	0.6	0.7	0.6	0.5	0.4
SSI-Only	0.7	0.7	0.7	0.8	0.9	0.9	0.8	0.5	0.5
Concurrent	0.7	0.6	0.7	0.7	0.8	0.8	0.8	0.6	0.5
Share of Beneficiaries with First NSTW Month Represented by TTW Participants (%)									
Total	0.7	2.7	5.8	8.1	8.9	9.2	9.3	9.9	10.6
SSD-Only	0.5	2.3	4.7	7.1	8.0	8.1	8.2	8.5	8.7
SSI-Only	1.0	3.1	6.9	8.6	9.4	9.8	9.9	12.4	13.5
Concurrent	0.8	3.1	6.5	9.5	10.7	11.8	11.5	11.1	11.8

Source: Analysis of TRF10 supplemented with DAF11.

Note: First NSTW month is defined as first occurrence of suspense or termination code in NSTW in a year, following a full year in current pay status. For concurrent beneficiaries, this definition requires current pay status in both programs for the entire previous calendar year. Eligible subpopulation in each year includes beneficiaries who were in current pay status in all 12 months of the previous year, spent at least one month in the current year in current pay status or NSTW, and were age 18 through 64 and alive at some point during the current year. Payment title determined in the first month of current pay status, suspension for work, or termination for work. Ticket participants include those who assigned their most recent Tickets in the current or any previous calendar year provided their Ticket remained assigned; nonparticipants include all other beneficiaries including participants in years their Ticket was not assigned. In other words, the count of participants in each year includes all beneficiaries who assigned their Ticket by the year shown and had not yet unassigned it; nonparticipants are those who never assigned a Ticket as well as those whose Ticket was not assigned in any month during the calendar year shown (and are categorized as participants in at least one other year).

Figure IV.1. Percentage of Those Experiencing Their First NSTW Month in 2002 Who Were in NSTW in Later Months, by Participant Status and Payment Title



Source: Analysis of TRF10 supplemented with DAF11.

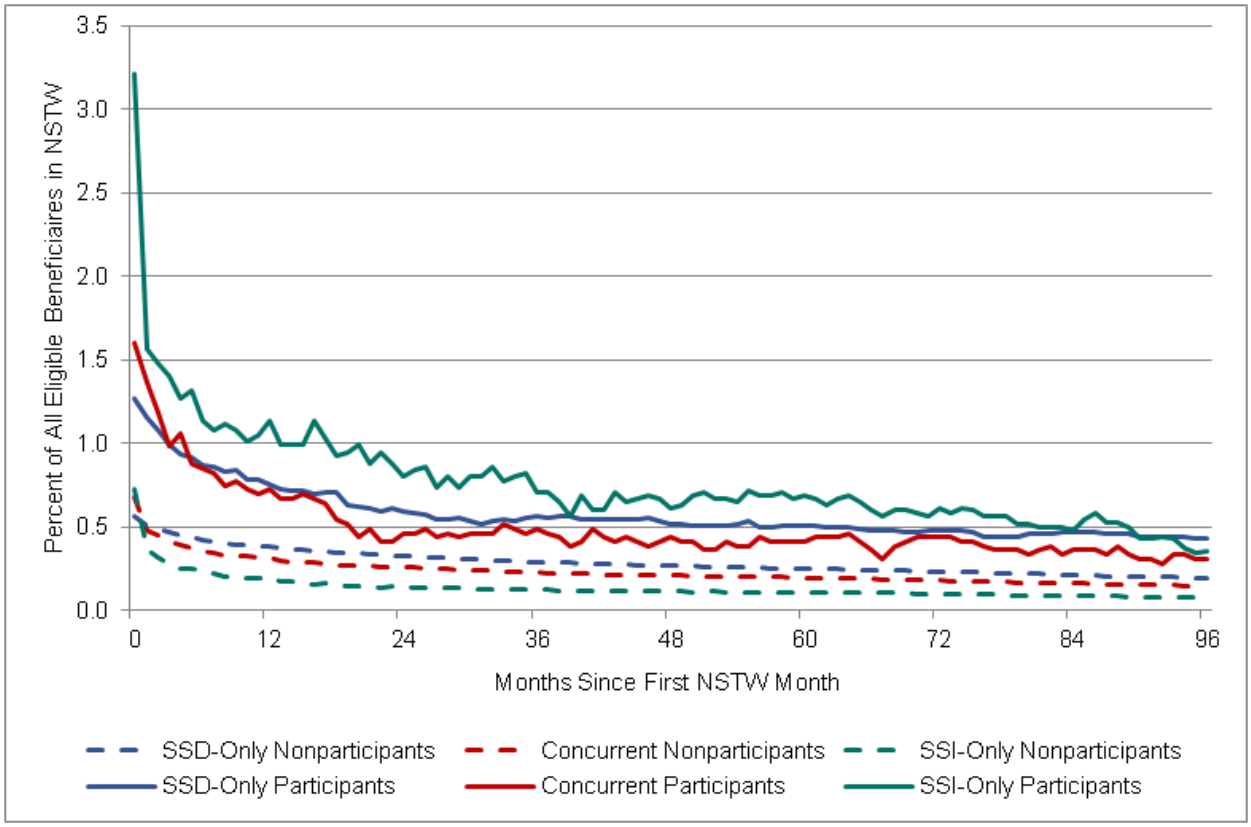
Note: Eligible subpopulation includes beneficiaries who were in current pay status in all 12 months of 2001, spent at least one month in current pay status or NSTW in 2002, and were age 18 through 64 and alive at some point during 2002. First NSTW month is defined as first occurrence of suspense or termination code in NSTW. The denominator used for calculating the percentages shown for each month includes all beneficiaries with a first NSTW in 2002. Some of the decline is from beneficiaries who cease NSTW when they reach FRA or die during the period of observation. Payment title determined in the first month of current pay status, suspension for work, or termination for work. Ticket participants include those who were participants in the year of their first NSTW month; nonparticipants include all other beneficiaries.

Participant or not, the likelihood of being in NSTW after the first occurrence is highest among SSD-only beneficiaries, followed by concurrent and then SSI-only (with the exception of around two years after first NSTW, at which point the SSI-only and concurrent participant percentages are approximately equal). Along with the high rate of experiencing a first NSTW month among SSI-only participants, this implies that many SSI-only participants spend only one month in NSTW before returning to current pay status, whereas SSD-only and concurrent participants tend to spend more months in NSTW when they do achieve it.

Although the SSD-only and concurrent participants with NSTW months are less likely to remain in NSTW once they enter NSTW, participants who are eligible for their first NSTW months are still much more likely than all eligible non-participants to be in NSTW in later months, simply because a larger percentage of eligible participants has a first NSTW month. We illustrate this point by rescaling the values in Figure IV.1, multiplying each value by the percentage of the relevant

eligible population that has a first NSTW-month. The results, displayed in Figure IV.2, show that the substantially higher likelihood of participants experiencing a first NSTW implies that the absolute likelihood of participants being in NSTW is uniformly higher in each month following that occurrence, regardless of payment title. From about 48 months onward, the proportion of all participants eligible to have first NSTW in 2002 who remain in that status is consistently about twice as high as it is for nonparticipants.

Figure IV.2. Beneficiaries Who Experienced First NSTW in 2002 and Were in NSTW in Subsequent Months As a Percentage of All Beneficiaries Who Could Have Experienced First NSTW in 2002, by Payment Title and Participant Status



Source: Analysis of TRF10 supplemented with DAF11.

Note: Beneficiaries included in the figure are those who were in current pay status in all 12 months of 2001, spent at least one month in current pay status or NSTW in 2002, were age 18 through 64 and alive at some point during 2002, and experienced at least one month of NSTW in 2002. The denominator used for calculating the percentages shown for each month includes all beneficiaries who were eligible for a first NSTW in 2002 by virtue of meeting the selection criteria above and having 12 months of current pay status in 2001. Some of the decline is from beneficiaries who cease NSTW when they reach FRA or die during the period of observation. Payment title determined in the first month of current pay status, suspension for work, or termination for work. Ticket participants include those who were participants in the year of their first NSTW month; nonparticipants include all other beneficiaries.

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V. EMPLOYMENT OUTCOMES OF TTW PARTICIPANTS

In this chapter, we present a more complete picture of the employment and earnings of TTW participants. The NSTW and BFWDI statistics in the previous chapter reflect participant earnings, but only to the extent that earnings affect cash benefits. SSD and concurrent participants are quite likely to have earnings before NSTW and BFWDI because of the TWP and grace period, whereas SSI-only may have earnings indefinitely without any NSTW or BFWDI. Ultimately, it is total earnings—not just the impact reflected in reduced payment of SSD or SSI benefits—that captures the whole benefit of beneficiary work activity; reduced payment captures only nonpayment of benefits that accrue to the federal government, while total earnings also benefit the beneficiary.[34]

Here, we present annual statistics of work activity of Ticket assignment cohorts, starting in the year that they assign their Ticket until 2010, regardless of subsequent unassignment.[35] We first provide statistics on annual earnings, as measured in the MEF. The benefit of this annual information is that we can assess the level of work-related income over the course of a year; this provides a sense of overall work intensity. We then present the corresponding NSTW and BFWDI statistics, still following assignment cohorts over time. Along with comparability to the earlier chapter, the benefit of these measures is that they provide monthly information about work activity, but only above a certain threshold of earnings. Delays in work CDRs and recording of NSTW still factor in to the later-year statistics, as described previously; thus, for all cohorts, the 2009 and 2010 levels of NSTW and BFWDI shown here are likely to be underestimates.

One distinct pattern that emerges across all of these numbers is the effect of the recession on labor market outcomes of participants in 2008, 2009, and 2010. As will be evident in the figures below, growth in earnings for each of the pre-recession cohorts was halted or reversed when the recession occurred. How this has changed as the economy started to grow again is not yet known, as our data do not extend beyond 2010.

A. Annual Earnings by Ticket Assignment Cohort

Figure V.1 shows the percentage of TTW participants with positive earnings—or, to think of it in another way, the percentage employed—in each year, by annual Ticket assignment cohort.[36] The cohorts can be assigned visually to three groups. The 2002 cohort, which comprises the first group, had a relatively low proportion of members with earnings by the end of its assignment year and then reported the lowest proportion by far with earnings in each subsequent year. All of these participants were in the 13 states involved in Phase 1 of the rollout One explanation of the relatively low employment level for this cohort is that the SVRAs in these states obtained Ticket assignments

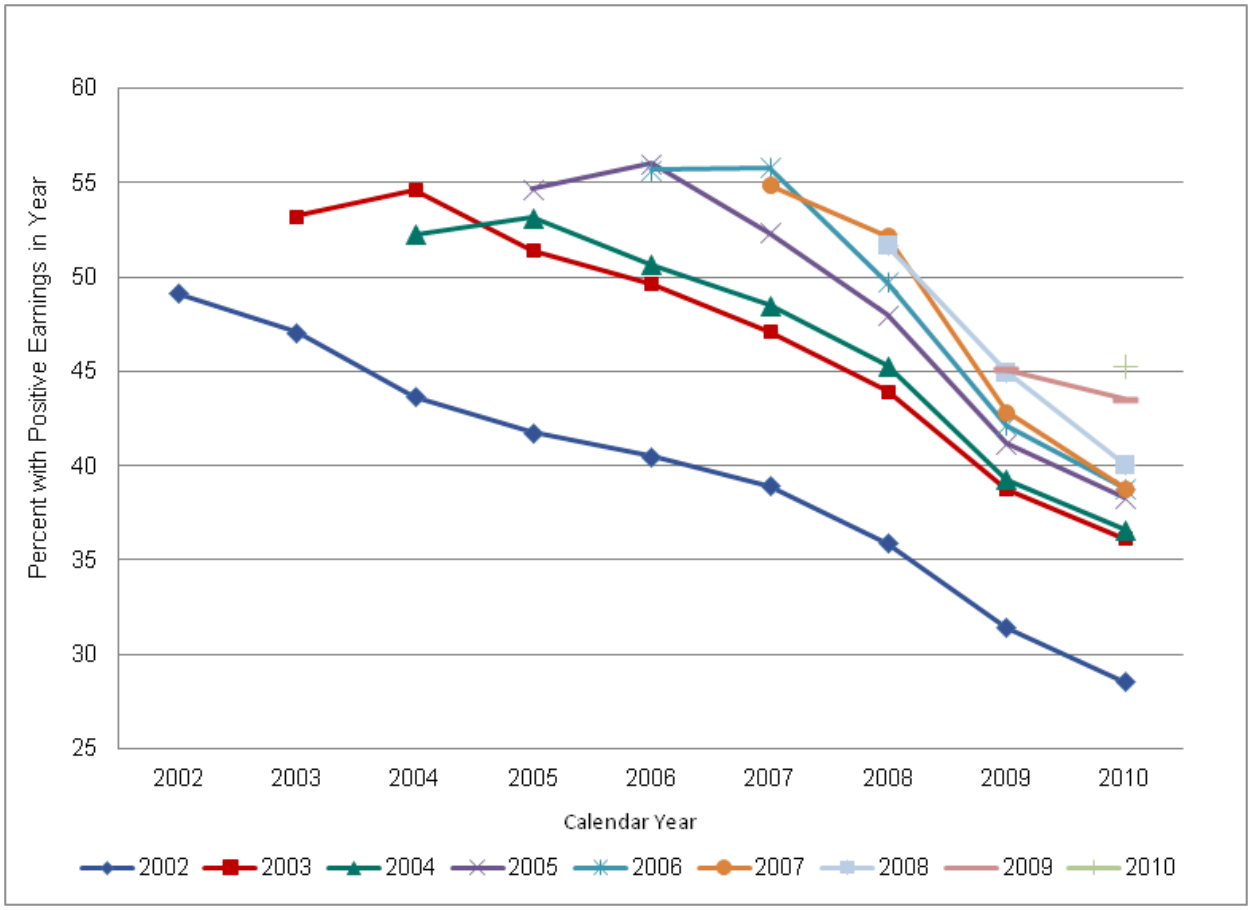
[34] There might be reductions in expenditures for other benefits, such as Medicare and Medicaid, but these do not accrue to the beneficiary either.

[35] By 2010, about 10 percent of the 2002 assignment cohort had died or reached FRA. Our analysis is based on the total number of participants in the assignment cohort in the year of assignment, without adjusting for attrition. Our analysis showed that the substantive pattern of findings was unchanged if participants were excluded after death or FRA.

[36] Appendix Table A.4 contains the annual values for the numbers shown in Figures V.1 and V.2. These statistics are further broken down by traditional and EN payment systems in Appendix Tables A.4a and A.4b.

for essentially all of the beneficiaries they were already serving out of concerns that ENs might otherwise receive TTW revenues for services that had been provided by the SVRA. Relatively low employment rates for this group have the effect of depressing the employment rate for all participants in this cohort. After the first rollout year, it became apparent that SSA payments to SVRAs were not substantially jeopardized by possible assignments of their clients' tickets to ENs, so SVRAs became much more selective about obtaining Ticket assignments from beneficiaries served. As shown in Appendix Tables A.4a and A.4b, however, the employment rates for the 2002 assignment cohort are relatively low even if only those assigning their tickets under a new payment system are counted. Hence, it might be that the relatively low employment rates for this cohort simply reflect where they lived—the states the participated in the first phase of the rollout. Perhaps also, the initial rollout attracted participants who were different in other respects from those attracted to the program in later years; this would mirror a pattern found for early-adopting ENs (Stapleton et al. 2008).

Figure V.1. Percentage of Participants with Positive Earnings, by Ticket Assignment Cohort, 2002–2010



Source: Analysis of TRF10 data merged with the MEF.

Note: The subpopulation includes beneficiaries who assigned their Ticket between 2002 and 2010 and is based on the most recent assignment date. Earnings in each year were adjusted to 2010 dollars based on the average wage index (AWI).

The second group consists of the cohorts from 2003 through 2007, each of which had an initial percentage with earnings in the 52 to 56 percent range. The percentages for the 2003 to 2005 cohorts experienced modest rate declines in the third year after assignment. The percentage

employed for all five of these cohorts then dropped sharply in 2008 and beyond, coinciding with the recession. The third group comprises the 2008, 2009, and 2010 groups, which began to show the effects of the recession almost immediately after assignment. The percentage employed in the assignment year for the 2008 cohort was 4 percentage points lower than for the 2007 cohort, and the corresponding numbers for the 2009 and 2010 cohorts were both lower by approximately 5 additional percentage points.

Although it is encouraging that around half of the participants had some earnings in the years after Ticket assignment, it turns out that earnings for many are very low, either because they work very little each month or because they work for only a few months each year (Appendix Figure A.5). In the first year or two after assignment, the percentage with earnings above $1,000 is typically 15 percentage points lower than the percentage with any earnings. For example, the percentage of the 2003 cohort earning at least $1,000 in 2003 is 38 percent, but 53 percent have at least some earnings in that year. As time passes, however, the difference between the two measures becomes smaller for each cohort; for example, in 2010 the percentage of the 2003 cohort earning at least $1,000 was 30 percent, compared to 36 percent with any earnings. This likely is in part because those with earnings initially below $1,000 are able to increase their earnings, but might also be because more of those with low earnings stop working altogether.

Those participants who earn above the SGA level are of special interest, both because that amount is the conceptual standard for medical eligibility and because of the implications for benefits. Because the SGA amount is a monthly value ($1,000 in 2010 for non-blind beneficiaries), whereas MEF earnings are reported annually only, we compare earnings to the annualized value of the non-blind SGA amount ($12,000 in 2010) in Figure V.2. Not surprisingly, these percentages are much lower than for those earning any amount or with earnings above $1,000 per year. By the end of the assignment year, from 3 to 5 percent of each assignment cohort had earnings above $12,000.

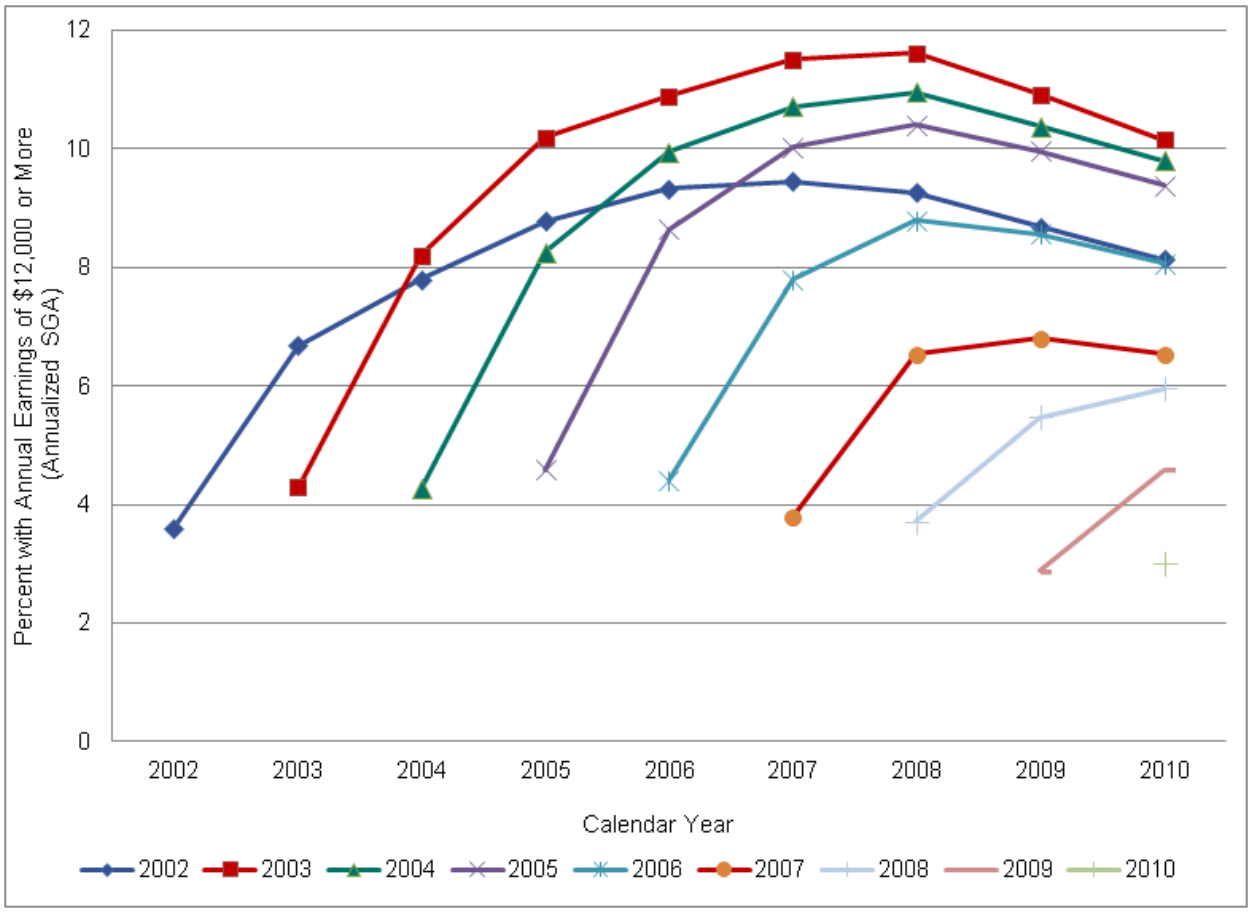
The percentage with earnings above annualized SGA level increased in the first year after Ticket assignment, regardless of cohort. In fact, before 2008, this percentage did not decline for any cohort, and for three of the cohorts, it peaked between 10 and 12 percent. For each cohort, those earning above $12,000 might have changed from year to year, but it seems likely that most who achieved earnings above this level in one year also did so in others. Thus, it seems that a minority of participants achieve a path of sustained earnings above the SGA level. It is interesting to contrast the pattern in Figure V.1 for any earnings with that in Figure V.2 for earnings above the annualized SGA level. The downward trajectory of any earnings in Figure V.1 seems to suggest that some participants initially work at very low levels but are unable to sustain work. On the other hand, the upward trajectory in Figure V.2 shows that participants able to engage in SGA continue to do so.

The pattern for the percentage with earnings above annualized SGA amount across cohorts highlights the likely compositional change in the cohorts over time. As described previously, the 2002 cohort and 2008 and later cohorts essentially include all beneficiaries served by SVRAs, but that is not true for 2003 to 2007. This might at least partly explain why the percentage of the 2002 cohort earning above the annualized SGA amount is low relative to other cohorts, and might also help explain the gradual decline across the cohorts from 2005 through 2008, as SVRAs retroactively deemed a larger and larger share of the tickets of their beneficiary clients to be in use.

The cohorts assigning Tickets after 2007 did not achieve the same measure of success as those assigning their Tickets earlier. The 2009 and 2010 cohorts, especially, had a lower percentage with earnings above the annualized SGA amount in their first year than all previous cohorts, and the trajectories for the 2007 and 2008 cohorts also appear to be lower than for the earlier cohorts. It is

difficult to know the extent to which this reflects the weakness of the labor market; a competing explanation is that the 2008 change in the regulations increased assignments from those beneficiaries less likely to attain earnings at this level.[37]

Figure V.2. Percentage of Participants with Annual Earnings Equal to at Least $12,000, by Ticket Assignment Cohort, 2002–2010



Source: Analysis of TRF10 data merged with the MEF.

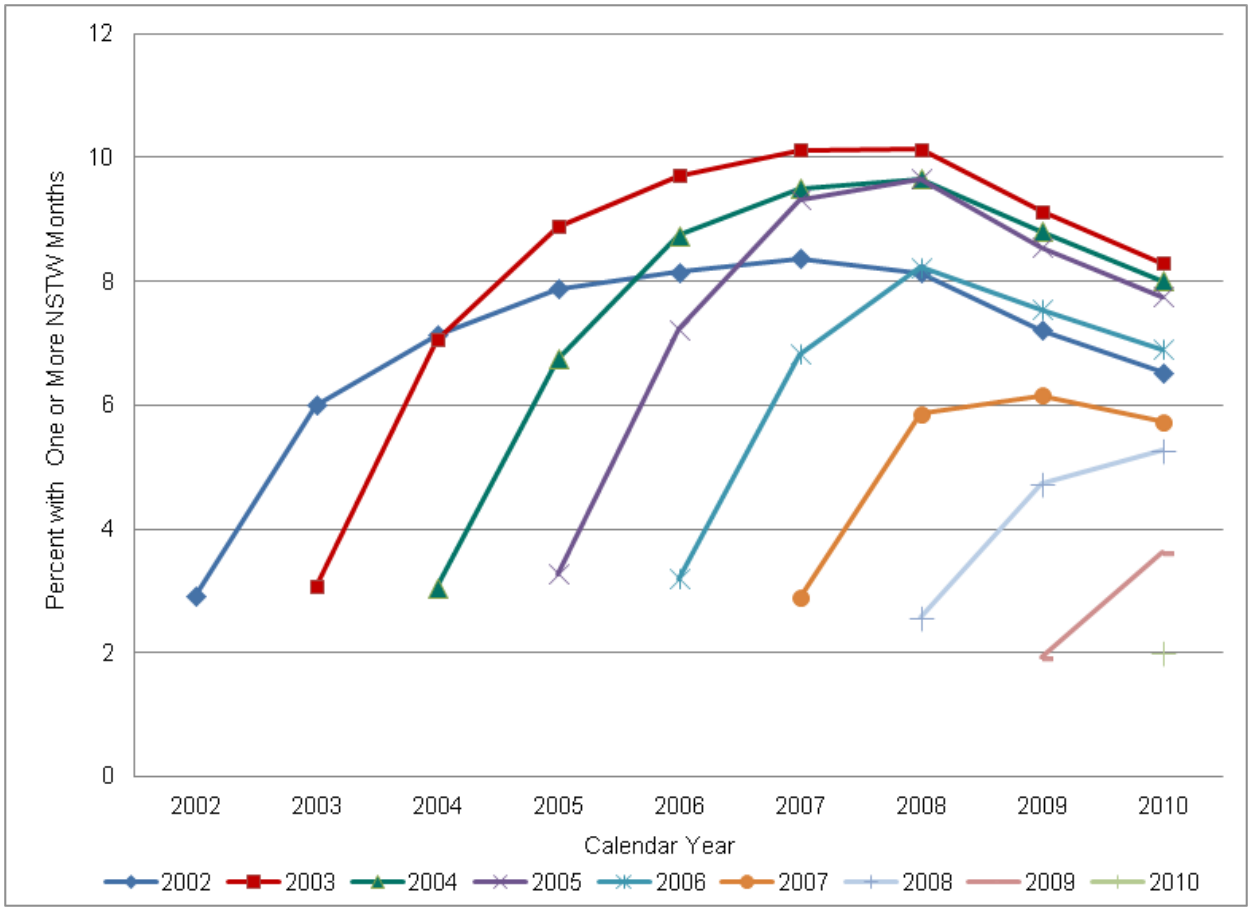
Note: The subpopulation includes beneficiaries who assigned their Ticket between 2002 and 2010 and is based on the most recent assignment date. Earnings in each year were adjusted to 2010 dollars based on changes in the average wage index (AWI).

[37] SSA was concerned enough by this possibility that, in 2011, the agency made contractual and procedural changes to clearly define who is a good candidate for TTW. Specifically, the template for the Individual Work Plan (IWP) was revised to make it more transparent that the goal of the program is reduced reliance on program benefits through self-sufficiency, and that the IWP represents the beneficiary and provider commitment to that goal. SSA also developed procedures to monitor the provision of ongoing support, and began developing performance measures to hold ENs more accountable for helping beneficiaries gain and maintain success under the program.

B. NSTW and BFWDI by Ticket Assignment Cohort

We now turn to the monthly work activity measures drawn from SSA administrative data. Figure V.3 reports the percentage of participants with at least one NSTW month by annual assignment cohort.[38] Between approximately 2 and 3 percent of each cohort shows an NSTW month in the assignment year. For each year after Ticket assignment, the 2002 cohort lagged behind the 2003 through 2005 cohorts in the percentage achieving an NSTW month, mirroring the findings for earnings.

Figure V.3. Percent of Participants with at Least One NSTW Month in the Year, by Ticket Assignment Cohort, 2002–2010



Source: Analysis of TRF10 supplemented with DAF11.

Note: Subpopulation includes beneficiaries who assigned their Ticket between 2002 and 2010 and is based on the most recent assignment date.

Until 2008, no assignment cohort experienced a decline in the percentage of its members with an NSTW month after the first year. For the 2002 through 2006 cohorts, the percentage with any NSTW peaked in 2008 at between 8 and 11 percent, only slightly below the corresponding

[38] Appendix Table A.5 contains the annual values corresponding to Figures V.3 and V.4. These statistics are further broken down by traditional and EN payment systems in Appendix Tables A.5a and A.5b.

percentages with earnings above $12,000 in the same year (9 to 12 percent). Starting in 2009, however, each of these cohorts experienced a decline in percentage of members with an NSTW month—similar to the declines in the percentage with earnings above $12,000. Likely reflecting their limited time in the program, the 2007 through 2009 cohorts experienced increases or relatively small decreases in the percentage with NSTW months in 2009 and 2010.

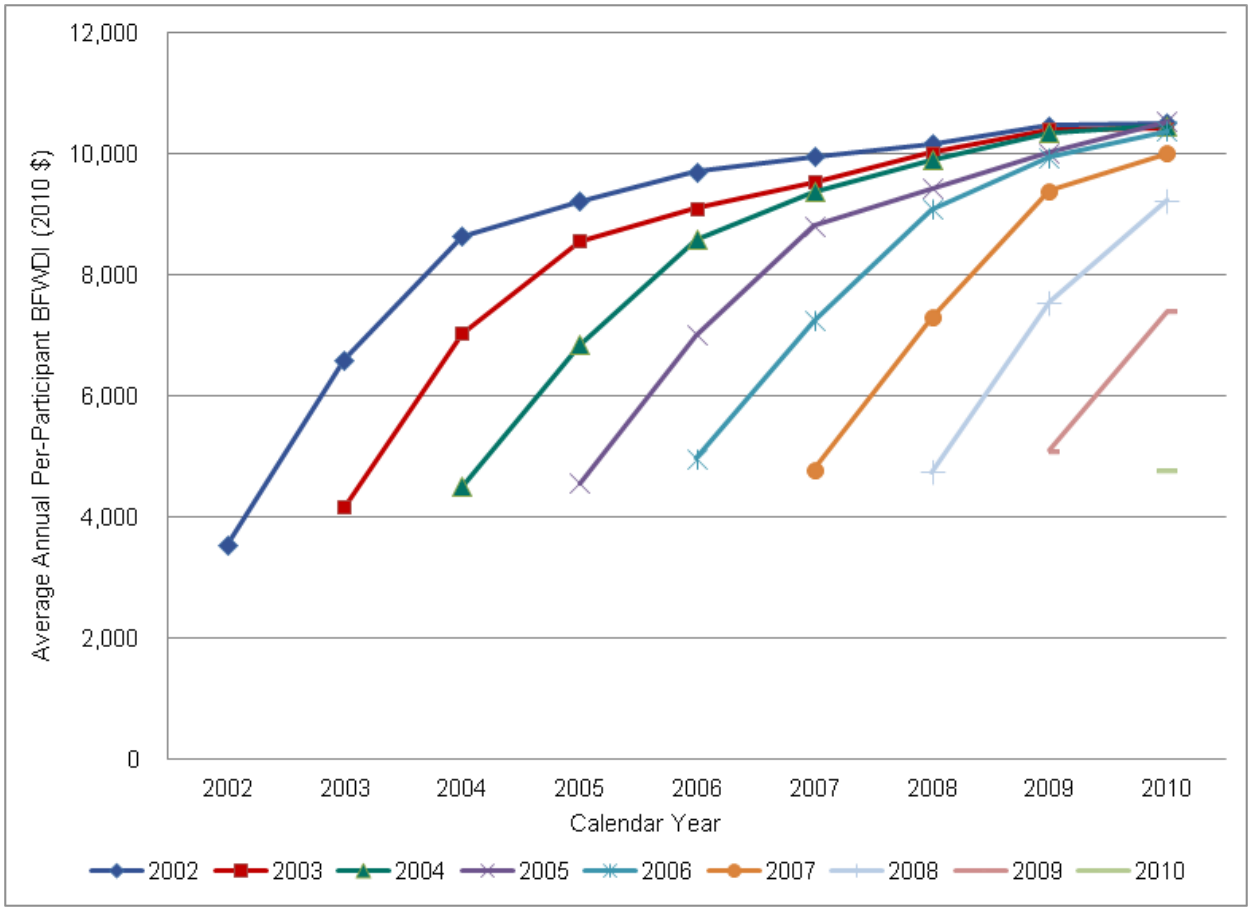
The percentage of participants with at least one NSTW month from the year of assignment through 2010, shown in Appendix Table A.5, reveals that many participants earn enough to have benefits suspended or terminated, and that the proportion with NSTW continues to increase over time though levels off in later years. Among the 2008 cohort, 7.4 percent ever experienced a month or more of NSTW by 2010, increasing to 13.4 percent among the 2006 cohort, before leveling off at around 17-19 percent for earlier cohorts, who had at least 5 years after assignment during which to accrue NSTW. Statistics in Appendix Tables A.5a and A.5b show that the likelihood of experiencing a month of NSTW at some point after assignment is at least 40 percent higher among those in the EN payment systems, and that the likelihood of achieving NSTW seems to occur slightly earlier for participants in the EN systems than those in the traditional payment system.

Across cohorts, the trends for zero-benefit years per 1,000 participants mirror those for the percentage of participants with an NSTW month (Appendix Figure A.6). In the assignment year, the zero-benefit year measure was approximately the same for all cohorts—between approximately 6 and 10 per thousand—and then increased in the years after assignment. The values for the 2002 through 2006 assignment cohorts peaked from between 50 and 75 in 2008 (and peaked in 2009 for the 2006 cohort). From 2008 to 2010, zero-benefit years decreased slightly for the 2002 through 2006 cohorts but increased for the 2007 through 2009 cohorts. In the first few years after assignment, the levels attained by the 2007 through 2010 cohorts were well below the comparable levels for those in earlier cohorts.

Average annual per-participant BFWDI (among those with positive BFWDI) increases monotonically for all cohorts (Figure V.4). In the year of Ticket assignment, the per-participant BFWDI ranged from just under $4,000 (2002 cohort) to about $5,000 (2006 through 2010 cohorts). The BFWDI of all cohorts increases steadily over time, eventually reaching between $11,000 and $12,000 five to seven years after Ticket assignment, corresponding to a monthly benefit amount of roughly $1,000 per participant if in NSTW for the entire year. These values converge by 2010, despite differences in duration since assignment across cohorts. Relating this to the earnings figures shown previously, this convergence appears to stem from reductions in the proportion of beneficiaries who are working, as opposed to a decline in the growth of earnings among those who continue to work.

It is striking that after the early years of TTW, participants have similar employment outcomes in the first few years after Ticket assignment; also, in general, employment outcomes continue to improve over that interval. Similarly notable is the effect of the recession on cross-cohort patterns in the later year of our period of observations; gains in the early years after assignment halt and some outcomes converge across participant cohorts.

Figure V.4. Mean Annual Per-Participant BFWDI Among Those with SSD and Positive BFWDI, by Ticket Assignment Cohort, 2002–2010



Source: Analysis of TRF10 supplemented with DAF11.

Note: Subpopulation includes beneficiaries who assigned their Ticket between 2002 and 2010; had SSD-only or were concurrent beneficiaries in the assignment month, based on most recent assignment date; and had a positive amount of BFWDI during the calendar year.

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VI. COMPARISON OF PARTICIPANT OUTCOMES AROUND THE 2008 TTW REGULATORY CHANGES

The revised regulations were intended to increase provider participation in TTW under the EN payment systems while increasing the number of participants who work to the point of reducing their reliance on benefits. In this chapter, we assess the extent to which the second goal was achieved: whether there was an increase in the number of participants in NSTW after the regulatory changes. In the next chapter, we return to how the regulatory changes affected the distribution of Ticket assignments across ENs and how that distribution in turn correlated with participant work activity.

For purposes of this chapter, we consider the experiences of the three cohorts of TTW participants who most recently assigned their Ticket in the following 12-month periods: (1) July 2006–June 2007, (2) July 2007–June 2008, and (3) July 2008–June 2009. For each cohort, we follow NSTW and BFWDI for as many as 18 months after assignment.[39] The 12-month cohorts are similar to the calendar-year cohorts described in Table III.2, but we categorized them in such a way that the assignment periods for each cohort do not substantially straddle the 2008 regulatory changes, which took effect in July 2008. Cohort 1 and 2 members assigned their Ticket before the regulatory changes. Therefore, the regulatory changes likely had little effect on Cohort 1 during the first 18 months after assignment, because most participants had completed that period before the changes took effect; but for others in Cohort 1, the 18 months includes no more than 6 months after the changes. The regulatory changes are more likely to have affected the experiences of Cohort 2, although even some members of that cohort experienced as many as 12 months under the previous regulations. Almost all Cohort 3 members assigned their Ticket entirely after the regulatory changes.[40] Hence, in the analysis, we refer to Cohort 1 as the "pre" cohort and to Cohort 3 as the "post" cohort.

Given that these new cohorts overlap the calendar year (CY) participant cohorts in Table III.2, it is not surprising that the cohort size and assignments by payment system are similar to those for the cohorts from 2006 through 2009 (Table VI.1). As with the CY cohorts, growth in the number of assignments to ENs is noticeably high—234 percent from the first cohort to the last (Table VI.1). And, as with the CY cohorts, growth in the number of MO assignments is especially high, while the number of OO assignments declines somewhat, and assignments under the SVRA traditional payment system increase somewhat.

[39] By following each cohort for 18 months, we observe participants who assigned their Ticket late in Cohort 1 (June 2006–July 2007) for as many as 6 months after the regulatory changes took effect. As noted, payments made before and after the effective date of the regulatory changes were adjusted to take the switch into account. Nonetheless, the results for Cohort 1 do not strictly cover the period before the regulatory changes took effect. Appendix Tables A5 and A6 show the results by month; activity through month 12 occurred before the change for all participants in this cohort.

[40] Strictly, Cohort 3's 12 assignment months include the three weeks before the regulations took effect.

In the following discussion, we first compare NSTW and BFWDI statistics for the entire 18 months across the three cohorts.[41] We then present statistics on the extent to which those in each cohort who achieve an NSTW month also remain in that status for the next 18 months. It is important to note that, in this chapter as elsewhere in the report, even though we compare the experiences of the cohorts, we are not able to attribute any pre-post differences strictly to the TTW regulatory changes. Indeed, as we will demonstrate, the confounding effect of the recession makes it nearly impossible to understand how the revised regulations affected beneficiary work activity.

In addition, revisions of NSTW status after we extracted our data influenced the cross-cohort comparisons, reflecting the time it takes to initiate and complete work CDRs and update administrative data. As outlined in Chapter III, our estimates show that lags in recording NSTW months following work CDRs imply that the Cohort 3 NSTW results should be inflated by a factor of approximately 10 percent versus 2 and 3 percent among Cohorts 1 and 2, respectively. We did not explicitly make such changes in the tables below, as these estimated effects of work CDR lags are only estimates. We return to this point, however, when discussing our findings.

A. Pre-Post Analysis of the Likelihood of Achieving NSTW and Amount of BFWDI in the 18 Months After Assignment

The high growth in participation under the EN payment systems did not automatically translate into growth in the number of participants achieving NSTW. Growth in the number of participants with NSTW depends on total participation, but also on changes in participants' mean outcomes. The latter declined substantially from Cohort 1 to Cohort 3 (Table VI.1). Specifically, those in Cohort 3 who assigned Tickets under the EN payment systems were 43 percent less likely to experience at least one NSTW month in the 18 months following Ticket assignment as compared to those in Cohort 1. Applying the factors described previously to account for lags in NSTW determination, we note that the decline is slightly lower, at 38 percent, but the substantive finding remains unchanged.

The recession almost certainly explains some and possibly most of the adjusted decline in the percentage with at least one NSTW month, but other explanations are possible. In particular, the regulatory changes increased incentives to serve beneficiaries with a lower likelihood of sustaining high levels of earnings—a likely cause of the large increase in MO assignments relative to OO assignments. It is important to note, however, that the percentage of traditional payment system participants with an NSTW month dropped by about the same percentage as for those served under an EN payment system. Presumably, the regulatory changes produced no direct effect on outcomes for those served under the traditional payment system, although they might have caused a change in the composition of participants within that group.[42]

Across the three cohorts, the proportion of participants in EN payment systems experiencing an NSTW month fell; when combined with the increase in the number of participants overall,

[41] As described in the table notes, we stop following participants if they reach FRA or die within 18 months of assignment. Practically speaking, the effect of this restriction is minimal; only 1 percent of participants are excluded for this reason.

[42] As discussed in Chapter V, one of the revisions to the regulations in 2008 allowed SVRAs to deem the Tickets of their beneficiary clients to be in use, even if the beneficiary did not formally assign it. SVRAs were encouraged by SSA to deem Tickets of beneficiary clients served in earlier years as being in use retroactively, and some did. Hence, this compositional shift likely occurred gradually in the years leading up to 2008.

however, the total number of participants in EN payment systems experiencing an NSTW month actually increased. The 234 percent increase in the number of participants under the EN payment systems, along with the 43 percent decline in the percentage achieving one NSTW month, means that the *number* of participants under the EN payment systems who achieved NSTW increased by 91 percent from Cohort 1 to Cohort 3. At the same time, the number of participants under the traditional payment system who achieved NSTW decreased by 32 percent, reflecting low growth in the number of such participants and the large unadjusted decline in the percentage achieving NSTW. In combination, the change resulted in a significant shift in the extent to which the new payment systems account for participant achievement of NSTW. Traditional participants represented 84 percent of participants with an NSTW month in Cohort 1, but only 65 percent in Cohort 3.

Table VI.1. Number of Participants and Number and Percentage with an NSTW Month as of 18 Months After Assignment, by Assignment Cohort and Payment System

	Cohort 1 July 2006—June 2007	Cohort 2 July 2007—June 2008	Cohort 3 July 2008—June 2009	Percentage Change from Cohort 1 to Cohort 3
Number of Participants	64,797	69,854	85,948	32.6
Traditional SVRA	60,649	64,109	72,076	18.8
EN Payment Systems	4,148	5,745	13,872	234.4
MO	3,191	5,135	13,263	315.6
OO	957	610	619	-35.3
Number of Participants with NSTW Month	3,730	3,411	3,246	-13.0
Traditional SVRA	3,143	2,625	2,126	-32.4
EN Payment Systems	587	786	1,120	90.8
MO	371	624	969	161.2
OO	216	162	151	-30.1
Percent of Participants with NSTW Month	5.8	4.9	3.8	-34.4
Traditional SVRA	5.2	4.1	3.0	-42.3
EN Payment Systems	14.2	13.7	8.1	-43.0
MO	11.6	12.2	7.3	-37.0
OO	22.6	26.6	24.8	9.7

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes participants who most recently assigned their Ticket during the specified assignment period. Payment system is based on month of assignment. Participants are followed from the month of assignment until 18 months later, unless they die, reach full retirement age, or unassign their Ticket before the end of that period (only about 1 percent of participants are excluded on the basis of these criteria by the end of the 18-month observation period). As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics are underestimated by approximately 2 percent, while the post-cohort statistics are underestimated by approximately 10 percent. The numbers shown do not include adjustments for lags in the reporting of earnings. Results by month since assignment appear in Appendix Table A.6, with results stratified by payment title in the assignment month in Tables A.6a and A.6b.

In Table VI.2, we consider BFWDI and therefore limit the analysis only to those with SSD-only or concurrent benefits; the first panel displays the number of participants meeting this criterion in each cohort. The percentage of SSD participants with at least one month of BFWDI fell

substantially across the cohorts, closely resembling the NSTW pattern for SSD participants.[43] The result is not surprising, as BFWDI is closely tied to NSTW, especially for SSD-only beneficiaries. Mean monthly BFWDI in months with BFWDI, which could signal the mix of participants in NSTW in terms of their monthly benefit payment amount, changed relatively little from Cohort 1 to Cohort 3, increasing by 3 percent for traditional payment participants and declining by 4 percent for participants under the EN payment systems. The proportion of participants with BFWDI across the 18 months after assignment, however, fell substantially after the regulatory change (Table VI.2).

Despite modest declines at the beneficiary level, total BFWDI across all EN participants increased by 76 percent to an estimated $7.2 million because of the high growth in the number of participants under the EN payment systems. At the same time, total BFWDI fell by 20 percent for traditional participants, reflecting the slow growth in the number of such participants and a 37 percent decline in the percentage achieving an NSTW month. As a result, for Cohort 3, participants under the EN payment systems accounted for 33 percent of total BFWDI for the cohort, up from 18 percent for Cohort 1.

B. Pre-Post Comparison of the Likelihood of Continuation of NSTW for Those with an NSTW Month in the 18 Months After Assignment

If the regulatory changes intended to promote better employment outcomes over time succeeded, we would expect the likelihood of remaining in NSTW to increase after a participant first enters NSTW. Of course, the recession's effects once again factor into whether participants remain employed after first NSTW, hampering our ability to explore participants' duration of NSTW. Nonetheless, to assess whether participants remained in NSTW, we followed all participants who experienced at least one NSTW month in the 18 months after assignment and then calculated what percentage of those participants were in NSTW each month after their first observed NSTW month. Unfortunately, the scope of the analysis is limited; we observed participants for only 18 months after Ticket assignment, and first NSTW month does not necessarily occur immediately after that date.[44] In addition, we consider the first NSTW month as that occurring after assignment; it is possible that participants were already in NSTW before assignment. Thus, "first" NSTW month in this context is not comparable to that shown in Chapter IV (which relied on a preceding episode of current-pay status).

[43] Not shown in the table is the small share of BFWDI (approximately 5 percent) represented by participants classified as SSI-only as of their assignment month—the result of incomplete information on payment title in the month of assignment, changes in payment title after the month of assignment, or retroactive application of BFWDI.

[44] For this reason, in each month, we calculated the relevant percent and number in NSTW only among those for whom data were available. In doing so, we assume that the mean experience of those not observed in month *m* after assignment would have been the same as the mean for those observed.

Table VI.2. Percentage of SSD Participants with BFWDI, Mean BFWDI for Months with Positive BFWDI, and Total BFWDI, by Assignment Cohort and Payment System

	Assignment Cohort			
	Cohort 1 July 2006–June 2007	Cohort 2 July 2007–June 2008	Cohort 3 July 2008–June 2009	Percent Change from Cohort 1 to Cohort 3
Number of SSD-Only or Concurrent Participants	43,596	45,735	57,284	31.4
Traditional SVRA	40,320	41,260	46,727	15.9
EN Payment Systems	3,276	4,475	10,557	222.3
MO	2,426	3,963	10,046	314.1
OO	850	512	511	-39.9
Percent of Participants with at Least One Month of BFWDI	6.1	5.6	4.2	-30.8
Traditional SVRA	5.4	4.8	3.4	-36.7
EN Payment Systems	14.0	12.9	7.6	-45.7
MO	11.0	11.4	6.7	-38.8
OO	22.7	24.6	25.1	10.3
Mean Monthly BFWDI if BFWDI > 0 ($)	1,091	1,085	1,114	2.1
Traditional SVRA	1,073	1,081	1,106	3.1
EN Payment Systems	1,180	1,100	1,129	-4.3
MO	1,085	1,101	1,104	1.8
OO	1,274	1,100	1,234	-3.1
Total BFWDI over 18 Months ($ millions)	22.3	22.0	21.9	-1.9
Traditional SVRA	18.2	17.0	14.6	-19.9
EN Payment Systems	4.1	4.9	7.2	76.1
MO	2.1	3.6	5.7	177.0
OO	2.0	1.2	1.5	-27.0

Source: Analysis of TRF10 supplemented with DAF11.

Note: Subpopulation includes SSD-only and concurrent participants who most recently assigned their Ticket during the specified assignment period. Payment system is determined in the month of assignment. Participants are followed from the month of assignment until 18 months later, unless they die, reach full retirement age, or unassign their Ticket before the end of that period (only about 1 percent of participants are excluded on the basis of these criteria by the end of the 18-month observation period). Monthly BFWDI values are adjusted to 2010 dollars using SSA's benefit COLA. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics are underestimated by approximately 2 percent, while the post-cohort statistics are underestimated by approximately 10 percent. The numbers shown do not include adjustments for lags in the reporting of earnings. The full set of monthly results for all participants appears in Appendix Table A.7; Tables A.7a and A.7b stratify by payment title in the assignment month; Table A.7a corresponds to the above results.

The results of this analysis indicate that the mean percentage of participants in NSTW over the 18 months starting with the first NSTW month was no higher for the post-cohort than for the pre-cohort (Table VI.3). In fact, the statistics indicate a decline of about 11 percent for both the traditional and EN payment systems. As described above, the post-cohort may have NSTW numbers that are underestimated by 10 percent, while the pre-cohort numbers might be underestimated by approximately 2 percent. Because of the uncertainty in the precision of these estimates and the true magnitude of underreporting, this change across cohorts might simply reflect the limitations of the data because of lags in earnings reporting. Hence, we do not interpret these statistics as clear evidence of a decline.

Taking into account the decline in the number of participants experiencing an NSTW month across the cohorts, we see that the number of participants remaining in NSTW in the average month

after first experiencing NSTW fell by 20 percent. The decline reflects a 39 percent decline for traditional participants but a 69 percent increase for the EN payment systems.

Though not directly related to the regulatory changes, interesting differences by payment title emerge across cohorts (not shown in Tables VI.1 and VI.3). Among those in the traditional payment system, SSI-only participants were more likely to experience an NSTW month in the 18 months after assigning their Ticket than those with SSD across all cohorts; SSD participants in the new payment systems were more likely than those with SSI to have at least one NSTW month across all cohorts (Appendix Tables A.3a and A.3b). Conditional on at least one NSTW month, however, participants with SSD were more likely to have additional NSTW months regardless of payment system or cohort (Appendix Tables A.5a and A.5b).

Table VI.3. Average Percentage and Number of Participants in NSTW in the 18 Months Following Their First NSTW Month, by Payment System

	Assignment Cohort			
	Cohort 1 July 2006–June 2007	Cohort 2 July 2007–June 2008	Cohort 3 July 2008–June 2009	Percent Change from Cohort 1 to Cohort 3
Mean Percent of Participants in NSTW in Each Month	53.5	49.7	49.4	-7.9
Traditional SVRA	52.1	48.7	46.6	-10.6
EN Payment Systems	61.9	52.8	54.6	-11.8
MO	57.1	50.0	52.5	-8.1
OO	69.6	62.2	65.6	-5.7
Mean Number of Participants in NSTW in Each Month[1]	1,999	1,694	1,603	-19.8
Traditional SVRA	1,636	1,279	991	-39.4
EN Payment Systems	363	415	612	68.6
MO	212	312	509	140.1
OO	150	101	99	-34.0

Source: Analysis of TRF10 supplemented with DAF11.

Note: Subpopulation includes participants who most recently assigned their Ticket during the specified assignment period, who were age 18 through 64 and not deceased by the end of the assignment month, and who experienced at least one month in NSTW in the 18 months following Ticket assignment. Payment system is determined in the assignment month. In each month from the first through the 18th month after first NSTW following assignment, we calculated the percentage of observed beneficiaries in NSTW. Beneficiaries not observed because of censored data or because they reached FRA or died were excluded from each month's subpopulation (only about 1 percent of participants are excluded on the basis of these criteria by the end of the 18-month observation period). As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics are underestimated by approximately 2 percent, while the post-cohort statistics are underestimated by approximately 10 percent. The numbers shown do not include adjustments for lags in the reporting of earnings. Appendix Table A.8 contains the corresponding numbers in each month following the first NSTW month, with Tables A.8a and A.8b stratifying by payment title in the assignment month.

[1]The projected number of participants is based on the total number of participants experiencing at least one NSTW month in the 18 months after assignment, using the percentage shown in the Table A.8 the number of participants with at least one NSTW month.

VII. TTW PARTICIPANT OUTCOMES BY EN BUSINESS MODEL

With the ultimate goal of improving beneficiary work outcomes, the revised regulations clearly targeted provider incentives and behavior. In this chapter, we consider the role of providers in the TTW program and then continue with a pre-post comparison of NSTW and BFWDI around the 2008 regulatory changes. We categorize ENs by type of business model, present NSTW and BFWDI statistics by type, and consider how the statistics changed after the 2008 regulatory changes took effect. We also provide an assessment of the implications of these findings for the economic viability of ENs.

To facilitate the classification of ENs by business model, our analysis focuses on the top 100 ENs, based on the dollar value of payments in the EN payment systems in 2010. To the extent that SVRAs were among the top-performing ENs, we include them in the group of 100, though our analysis considers only participants in the MO and OO payment systems; we exclude participants under the traditional payment system.

It is important to recognize that we cannot make strong inferences about the impact of TTW or of the services provided by any type of EN under any payment systems on the work activity of participant clients; we do not know what participants' work activity would have been if they were served by another EN or not served at all. Beneficiaries might choose to assign their Ticket or to assign their Ticket to a certain type of EN or under a particular payment system based on (1) their perceptions of their ability to earn a sufficient amount to give up their benefits and (2) their motivation to do so—information that might or might not be available to ENs at the time of assignment.

Similarly, we cannot draw strong inferences about the impacts of the regulatory changes on outcomes for ENs overall or for EN subgroups defined by type and payment system. As in the pre-post analysis for all providers in the previous chapter, the effects of the recession are confounded with the effects of the 2008 reforms. The effects of other external changes, including increased federal funding for employment supports for people with disabilities provided through other agencies, may also be confounded with the effects of the 2008 reforms. As we will see below, a shift has occurred in the types of ENs providing services to TTW participants, particularly from 2008 onward, along with a shift in assignments toward the MO system and away from the OO system. These changes make it even more difficult to identify the causes of change for specific EN business models or payment systems.

Despite these important cautions, several interesting findings emerge about variation by the business model of EN providing services in participants achieving NSTW. Specifically, we find that certain EN business models have participants more likely to enter NSTW. We also determine that many EN models may be financially viable, in contrast to earlier work that considered only one "average" EN.

We first present statistics on the top 100 ENs and how they and their assignments have evolved since the beginning of TTW. We then replicate the pre-post analysis of the previous chapter for the top 100 ENs, by type. We conclude the chapter with an assessment of the viability of ENs given their business models and the extent to which their past TTW clients have generated payments.

A. Classification of the Top 100 ENs and Their Business Models

For this analysis, SSA first identified the 100 ENs with the highest dollar value of payments in 2010. By identifying the top-performing ENs in terms of payment amount for 2010, we exclude from our analysis ENs that successfully generated high payment volume in the years before 2010 but were not doing so in 2010; we do not have any information on the extent of such a payment pattern among ENs.

SSA staff then classified the 100 ENs into five categories based on their business models: (1) SVRAs, (2) consumer-directed ENs, (3) employer ENs, (4) traditional ENs, and (5) state workforce agencies. All SVRAs provide services under the traditional SVRA payment system, but only a minority has accepted a substantial number of assignments under one of the new payment systems. The primary source of revenue for each SVRA is federal grants from the Rehabilitation Services Administration, along with a 20 percent state match. The second category is consumer-directed ENs, which pass on to their clients a large percentage of all TTW payments that they receive; the clients may use the funds to pay for employment-related expenses. Employer ENs consist of employers who provide services to beneficiaries they employ. Employer ENs may, for instance, use TTW payments to cover the costs of accommodations they might provide to the beneficiary. Traditional ENs include various community rehabilitation providers and other private organizations that have traditionally provided services to people with disabilities. These organizations accept Ticket assignments and use TTW payments to provide a wide array of employment services tailored to the individual's circumstances. Some traditional ENs are specialized in terms of the impairments of their clients. State workforce agencies comprise local workforce investment boards and their One-Stop Career Centers. Their primary source of revenue is employment programs funded by the U.S. Department of Labor (DOL).

In 2010, the top 100 ENs accounted for just over half of total TTW assignments (Tables VII.1 and III.2). Of these, more than half (56) had contracts with SSA when the TTW program was fully rolled out in 2004 (Table VII.1), and all 100 were in operation by 2009. Among the 100 top ENs, 75 were traditional ENs and accounted for 47 percent of assignments from the top 100 ENs, 10 were SVRAs and represented 17 percent of top 100 EN assignments, 7 were state workforce agencies and represented 3 percent of assignments, 4 were consumer-directed ENs and accounted for a disproportionate 21 percent of assignments, and 4 employers accounted for 12 percent of assignments.

Since the completion of TTW rollout in 2004, most of the new ENs in the top 100 were in the traditional model, although, in relative terms, the smallest categories grew faster. In 2004, all 10 of the SVRAs were accepting Tickets under the new payment systems; only 40 of the 75 traditional EN, only 4 of the 7 workforce agencies, and only one each of the consumer-directed and employer ENs were doing so.

The use of the OO system and the significant shift toward MO assignments varied substantially by business model. In 2004, there was significant variation in use of the MO and OO systems across business model types, but, by 2010, all but consumer-directed ENs used the MO system almost exclusively. In 2010, the consumer-directed ENs were the *only* business type accepting a substantial number of OO assignments, and even for this group, the number of MO assignments was much larger than the number of OO assignments. The shift toward more MO assignments occurred gradually before 2008 and then accelerated as the regulatory changes took effect—likely reflecting the fact that the new regulations reduced the risk of very low payments and increased the maximum payments under the MO system.

Table VII.1. Distribution of New Ticket Assignments Among the Top 100 ENs (in 2010), by EN Business Model and Payment System, 2002–2010

	Assignment Year								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Active ENs	**26**	**48**	**56**	**62**	**69**	**77**	**93**	**100**	**100**
SVRA	9	10	10	10	10	10	10	10	10
Consumer-Directed	1	1	1	1	2	3	4	4	4
Employer	0	1	1	1	2	3	3	4	4
Traditional EN	13	32	40	45	50	54	69	75	75
State Workforce Agency	3	4	4	5	5	7	7	7	7
Total Number of New Assignments in Top 100 ENs	**954**	**2,410**	**2,900**	**2,661**	**2,918**	**2,713**	**7,247**	**8,639**	**10,407**
Percent of New Assignments									
SVRA	61	58	47	46	37	29	24	30	17
Consumer-Directed	17	16	14	18	22	26	24	18	21
Employer	—	0	3	0	1	2	5	5	12
Traditional EN	19	26	35	36	39	41	45	45	47
State Workforce Agency	3	0	1	0	1	2	2	2	3
SVRA	**580**	**1,398**	**1,377**	**1,225**	**1,094**	**789**	**1,769**	**2,609**	**1,793**
MO	489	1,018	1,003	913	773	603	1,714	2,595	1,791
OO	91	380	374	312	321	186	55	14	2
Consumer-Directed	**160**	**377**	**409**	**466**	**648**	**712**	**1,763**	**1,553**	**2,214**
MO	0	0	2	1	4	416	1,495	1,285	1,957
OO	160	377	407	465	644	296	268	268	257
Employer	**0**	**4**	**87**	**6**	**24**	**50**	**353**	**426**	**1,204**
MO	0	4	87	6	23	40	347	414	1,202
OO	0	0	0	0	1	10	6	12	2
Traditional EN	**184**	**623**	**1,003**	**952**	**1,126**	**1,116**	**3,184**	**3,847**	**4,905**
MO	172	596	966	889	1,106	1,075	3,172	3,837	4,901
OO	12	27	37	63	20	41	12	10	4
State Workforce Agency	**30**	**8**	**24**	**12**	**26**	**46**	**178**	**204**	**291**
MO	30	8	13	7	10	43	138	199	291
OO	0	0	11	5	16	3	40	5	0
Percent of New Assignments That Were MO	**72**	**67**	**71**	**68**	**66**	**80**	**95**	**96**	**97**
SVRA	84	73	73	75	71	76	97	99	100
Consumer-Directed	0	0	0	0	1	58	85	83	88
Employer	—	100	100	100	96	80	98	97	100
Traditional EN	93	96	96	93	98	96	100	100	100
State Workforce Agency	100	10	54	58	38	93	78	98	100

Source: Analysis of TRF10; SSA classified ENs by business model.

Note: The selection of the top 100 ENs is based on the total dollar value of payments received in 2010. SSA classified the 100 ENs by business model. The number of new assignments in each year is based on the participant's most recent assignment only. Payment system was determined by program status (SSD or SSI-only) in the assignment month.

B. Pre-Post Changes in NSTW and BFWDI, by EN Business Model

In this section, we assess the changes in NSTW and BFWDI around the time of the regulatory changes by EN business model. To do so, we developed statistics for participants in the full pre- and post-cohorts described in the last chapter who assigned their Tickets to one of the top 100 ENs. Recall that the pre-cohort assigned its Tickets from July 2006 through June 2007 and the post-cohort from July 2008 through June 2009. For this chapter's analysis, the individuals in the pre-cohort consist of 63 percent of the individuals in the full pre-cohort, and those in the post-cohort consist of 58 percent of those in the full post-cohort. With the exception of the traditional ENs, the ENs represented in the pre- and post-cohorts are the same; only 54 of the 75 traditional ENs accepting Tickets from the post-cohort also accepted Tickets from the pre-cohort.

To make pre-post comparisons, we adjust for varying exposure times across EN business models and payment systems in the same manner as in the previous chapter: by following participants for a fixed duration after assignment. Specifically, we considered outcomes for each participant up to 18 months following assignment.[45]

In Table VII.2, we show the number of assignments by EN business model and payment system for each of the two cohorts. The table is based on a subset of the participants represented in the statistics for the full cohorts in Table VI.1, and the patterns in Table VII.2 reflect those in the earlier tables—a substantial relative increase in assignments and a particularly large shift away from OO to MO assignments. Indeed, a vast majority of OO assignments in the post-period went to consumer-directed ENs, of which there are only a few. The limited persistence of OO under the consumer-directed model likely reflects the incentive for participants to assign their Tickets under the OO system if they are confident that they can earn enough with consumer-directed services to forgo benefits; the overall value of payments is higher than under MO. Under other EN models, EN and client uncertainty about participants' future earnings may make the MO system a better choice. In the MO system, substantial milestone payments are available early for achievement of earnings milestones even if benefits continue, and some of the milestones are below the SGA level.

In Table VII.2, we also note the limited number of assignments in some categories when the subpopulation is simultaneously stratified by cohort, EN business model, and payment system, especially OO assignments. For example, there were only 10 OO assignments to employer ENs before the regulatory changes took effect, and only 14 thereafter. Other cells have a similarly small number of observations; in these cases and especially when we compare changes by EN business models over time, we are often unable to calculate changes in NSTW and BFWDI and caution the reader that small cell sizes may lead to outlier values in some cases.

[45] We followed participants until the end of the observation period unless they achieved FRA, died, or unassigned their Ticket. The period ran as late as December 2008 for the pre-cohort and into December 2010 for the post-cohort. Because we follow participants only for 18 months after assignment, only 1 percent of participants are excluded due to dying or reaching FRA during this period.

Table VII.2. Ticket Assignments to the 2010 Top 100 ENs Before and After 2008 Regulatory Changes, by EN Business Model

	Total	SVRA EN	Consumer-Directed EN	Employer EN	Traditional EN	State Workforce Agency EN
Pre-Cohort: Tickets Assigned July 2006–June 2007						
Number of Participants	2,615	967	502	38	1,080	28
MO Participants	1,837	725	27	28	1,044	13
OO Participants	778	242	475	10	36	15
Post-Cohort: Tickets Assigned July 2008–June 2009						
Number of Participants	8,087	2,447	1,627	346	3,440	227
MO Participants	7,720	2,426	1,344	332	3,431	187
OO Participants	367	21	283	14	9	40
Pre-Post Percent Change						
Number of Participants	209.3	153.1	224.1	810.5	218.5	710.7
MO Participants	320.3	234.6	4,877.8	1,085.7	228.6	1,338.5
OO Participants	-52.8	-91.3	-40.4	40.0	-75.0	166.7

Source: Analysis of TRF10; SSA classified ENs by business model.

Note: The selection of the top 100 ENs is based on the total dollar value of payments received in 2010.

From the pre- to post-period, statistics for NSTW and BFWDI in the first 18 months after assignment declined for participants assigned to the top 100 ENs, mirroring the results in the previous chapter across all ENs (Tables VII.3 and VII.4, respectively). The percentage of all participants with these ENs who spent at least one month in NSTW fell by 41.6 percent, from 16.1 to 9.4 percent. As was the case in the last chapter, lags in the determination and recording of NSTW mean that the proportion with an NSTW month was likely higher than measured for the post-cohort, but not by enough to offset fully the observed decline. The most obvious explanation of the decline is the relatively weak labor market faced by the later cohort.

Those assigning Tickets to SVRAs, traditional ENs, or consumer-directed ENs in the post-period were about 40 to 50 percent less likely to experience an NSTW month than their counterparts in the pre-period. The decline was highest among participants in employer ENs, at 67.1 percent. The decline among participants at state workforce agency ENs was much smaller, however—just 9.2 percent. The only exception to these negative changes is for consumer-directed OO participants; their percentage with at least one NSTW month, already relatively high, increased by 22.3 percent to 42 percent. It is important to note, however, that the number of participants assigned to these ENs under the OO system fell by about half. Both changes might reflect a compositional shift; those less certain about their ability and desire to achieve earnings and forgo benefits could be more likely than they were before the advent of regulatory changes to assign their Ticket to a provider operating under the MO system.

Conditional on experiencing at least one NSTW month, the estimated total for months in NSTW stayed about the same across cohorts (Table VII.3).[46] In most cases, mean NSTW months

[46] Though our exploration of work CDRs led us to an estimate of the proportion of beneficiaries who would have been counted with at least one NSTW month, we did not estimate the proportional scaling factor of NSTW months and therefore are unable to adjust the change in the measure accordingly over time.

fell somewhat in most cells. The exceptions included a sizable percentage increase from a very low base for MO participants at employer ENs (387 percent), among the relatively few OO participants at state workforce agencies (93 percent) and, to a lesser extent, among OO participants in consumer-directed ENs (15 percent).

Table VII.3. NSTW Months of TTW Participants in 18 Months Following Ticket Assignment, Before and After 2008 Regulatory Changes, by EN Business Model

	Total	SVRA EN	Consumer-Directed EN	Employer EN	Traditional EN	State Workforce Agency EN
Pre-Cohort: Tickets Assigned July 2006–June 2007						
Percent of Participants with at Least One NSTW Month	16.1	7.2	33.9	31.6	15.5	10.7
MO Participants	12.1	7.0	29.6	7.1	15.3	7.7
OO Participants	25.7	7.9	34.1	100.0	19.4	13.3
Mean NSTW Months If NSTW Months > 0[1]	7.4	6.3	8.4	10.1	6.8	6.7
MO Participants	6.7	6.0	9.8	1.5	6.7	14.0
OO Participants	8.3	6.8	8.3	11.8	9.1	3.0
Post-Cohort: Tickets Assigned July 2008–June 2009						
Percent of Participants with at Least One NSTW Month	9.4	4.3	20.7	10.4	7.6	9.7
MO Participants	8.1	4.3	16.3	7.2	7.6	9.1
OO Participants	37.1	—	41.7	85.7	11.1	12.5
Mean NSTW Months If NSTW Months > 0[1]	7.1	6.2	8.0	8.2	6.1	7.3
MO Participants	6.6	6.2	7.2	7.3	6.1	7.7
OO Participants	9.3	—	9.5	10.0	1.0	5.8
Pre-Post Percent Change						
Percent of Participants with at Least One NSTW Month	-41.6	-40.3	-38.9	-67.1	-51.0	-9.3
MO Participants	-33.1	-38.6	-44.9	1.4	-50.3	18.2
OO Participants	44.4	—	22.3	-14.3	-42.8	-6.0
Mean NSTW Months If NSTW Months > 0[1]	-4.1	-1.6	-4.8	-18.8	-10.3	9.0
MO Participants	-1.5	3.3	-26.5	386.7	-9.0	-45.0
OO Participants	12.0	—	14.5	-15.3	-89.0	93.3

Source: Analysis of TRF10 supplemented with DAF11; SSA classified ENs by business model.

Note: The selection of the top 100 ENs is based on the total dollar value of payments received in 2010. Table includes participants who most recently assigned their Ticket during the specified assignment period. Payment system is based on month of assignment. Participants are followed from the month of assignment until 18 months later, unless they die, reach full retirement age, or unassign their Ticket before the end of that period (only about 1 percent of participants are excluded on the basis of these criteria by the end of the 18-month observation period). As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics are underestimated by approximately 2 percent, while the post-cohort statistics are underestimated by approximately 10 percent. The numbers shown do not include adjustments for lags in the reporting of earnings.

[1]Conditional on at least one NSTW month by December 2010.

Table VII.4. BFWDI of SSD-Only and Concurrent TTW Participants in 18 Months Following Ticket Assignment, Before and After 2008 Regulatory Changes, by EN Business Model

	Total	SVRA EN	Consumer-Directed EN	Employer EN	Traditional EN	State Workforce Agency EN
Pre-Cohort: Tickets Assigned July 2006–June 2007						
Number of SSD-Only or Concurrent Participants	2,128	760	442	36	863	27
MO Participants	1,422	528	23	27	832	12
OO Participants	706	232	419	9	31	15
Number of Participants with at Least One Month of BFWDI	337	47	149	9	129	3
MO Participants	165	29	7	2	126	1
OO Participants	172	18	142	7	3	2
Percent of Participants with at Least One Month of BFWDI	15.8	6.2	33.7	25.0	14.9	11.1
MO Participants	11.6	5.5	30.4	7.4	15.1	8.3
OO Participants	24.4	7.8	33.9	77.8	9.7	13.3
Mean BFWDI If BFWDI > 0 ($)[1]	9,045	7,014	11,304	8,361	7,286	6,382
MO Participants	7,325	6,842	11,347	1,882	7,241	14,612
OO Participants	10,696	7,291	11,302	10,213	9,178	2,268
Total BFWDI over 18 Months ($ millions)	3.0	0.3	1.7	0.1	0.9	0.0
MO Participants	1.2	0.2	0.1	.00	0.9	0.0
OO Participants	1.8	0.1	1.6	.07	0.0	0.0
Post-Cohort: Tickets Assigned July 2008–June 2009						
Number of SSD-Only or Concurrent Participants	6,240	1,805	1,386	312	2,533	204
MO Participants	5,926	1,784	1,141	302	2,527	172
OO Participants	314	21	245	10	6	32
Number of Participants with at Least One Month of BFWDI	562	62	284	27	173	16
MO Participants	449	62	183	19	173	12
OO Participants	113	0	101	8	0	4
Percent of Participants with at Least One Month of BFWDI	9.0	3.4	20.5	8.7	6.8	7.8
MO Participants	7.6	3.5	16.0	6.3	6.8	7.0
OO Participants	36.0	—	41.2	80.0	—	12.5
Mean BFWDI If BFWDI> 0 ($)[1]	9,440	7,092	10,857	10,366	7,933	8,118
MO Participants	8,703	7,092	9,639	11,165	7,933	9,967
OO Participants	12,368	—	13,065	8,470		2,574
Total BFWDI over 18 Months ($ millions)	5.3	0.4	3.1	0.3	1.4	0.1
MO Participants	3.9	0.4	1.8	0.2	1.4	0.1
OO Participants	1.4	—	1.3	0.1	—	0.0
Pre-Post Percent Change						
Number of Participants with at Least One Month of BFWDI	66.8	31.9	90.6	200.0	34.1	433.3
MO Participants	172.1	113.8	2,514.3	850.0	37.3	1,100.0
OO Participants	-34.3	—	-28.9	14.3	—	100.0
Percent of Participants with at Least One Month of BFWDI	-43.0	-45.2	-39.2	-65.2	-54.4	-29.7

Table VII.4 *(continued)*

	Total	SVRA EN	Consumer-Directed EN	Employer EN	Traditional EN	State Workforce Agency EN
MO Participants	-34.5	-36.4	-47.4	-14.9	-55.0	-15.7
OO Participants	47.5		21.5	2.8		-6.0
Mean BFWDI If BFWDI > 0 ($)[1]	4.4	1.1	-4.0	24.0	8.9	27.2
MO Participants	18.8	3.7	-15.1	493.3	9.6	-31.8
OO Participants	15.6	—	15.6	-17.1	—	13.5
Total BFWDI over 18 Months	74.0	33.4	83.1	271.9	46.0	578.4
MO Participants	223.3	121.6	2,120.8	5,535.2	50.4	718.5
OO Participants	-24.0		-17.8	-5.2		127.0

Source: Analysis of TRF10 supplemented with DAF11; SSA classified ENs by business model.

Note: The selection of the top 100 ENs is based on the total dollar value of payments received in 2010. Table includes SSD-only and concurrent beneficiaries only because the BFWDI measure is not available for SSI. Each participant is followed for 18 months after assignment, provided that he or she remained alive and under age 65. Payment system and title are determined in the month of assignment. BFWDI includes only SSD benefits and is adjusted to 2010 dollars using SSA's COLA. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

[1]Mean BFWDI calculated across the 18-month observation period among those with any BFWDI during that period.

For SSD participants, the percentage of TTW participants with at least one BFWDI month declined by 43 percent from 15.8 to 9.0 percent, which was comparable to the declines for the percentage with any NSTW month, as expected (Table VII.4). Mean inflation-adjusted BFWDI among those with positive BFWDI over this 18-month period increased only slightly, by 4.4 percent, from $9,045 to $9,440.[47] Mean BFWDI increased by 24 percent for those served by employer ENs and by 27 percent for those served by state workforce agency ENs.

C. Assessment of EN Viability

The variation in achievement of NSTW across ENs with different business models led us to investigate the extent to which each EN type might be financially viable, as payments to ENs are based on participant work activity. This builds on earlier work by Thornton et al. (2007) and Stapleton et al. (2008) which considered the economic viability of ENs under the original regulations, assessing the extent to which the revenue stream generated by ENs would be sufficient to cover the operating costs for the provision of services to TTW participants, using revenue experience observed to date and plausible but unverifiable assumptions about the costs for a typical EN. That work showed that the typical EN costs for the typical client under TTW would likely exceed revenues by several hundreds of dollars, if not more.

[47] Note that this is total BFWDI over the 18 months and is not limited only to months with BFWDI; therefore, BFWDI may not simply be divided by 18 to arrive at an average monthly BFWDI amount because not all participants have BFWDI in each month.

We update the analysis of EN viability in two ways. First, we provide new information on the revenue-per-assignment experience of the top 100 ENs both before and after the regulatory changes took effect. For this analysis, we consider the aggregate annual per-participant value of payments to ENs, without distinguishing between type of payment (milestone or outcome). Second, we consider the implications of this experience for economic viability by business model. We recognize that, in contrast to the earlier analyses assessing EN viability, there is no typical EN; instead, EN business models vary in ways that give rise to major implications for costs and economic viability. One of the most important considerations is revenues from other sources. Economic viability may well depend critically on the nature of the EN's business model.

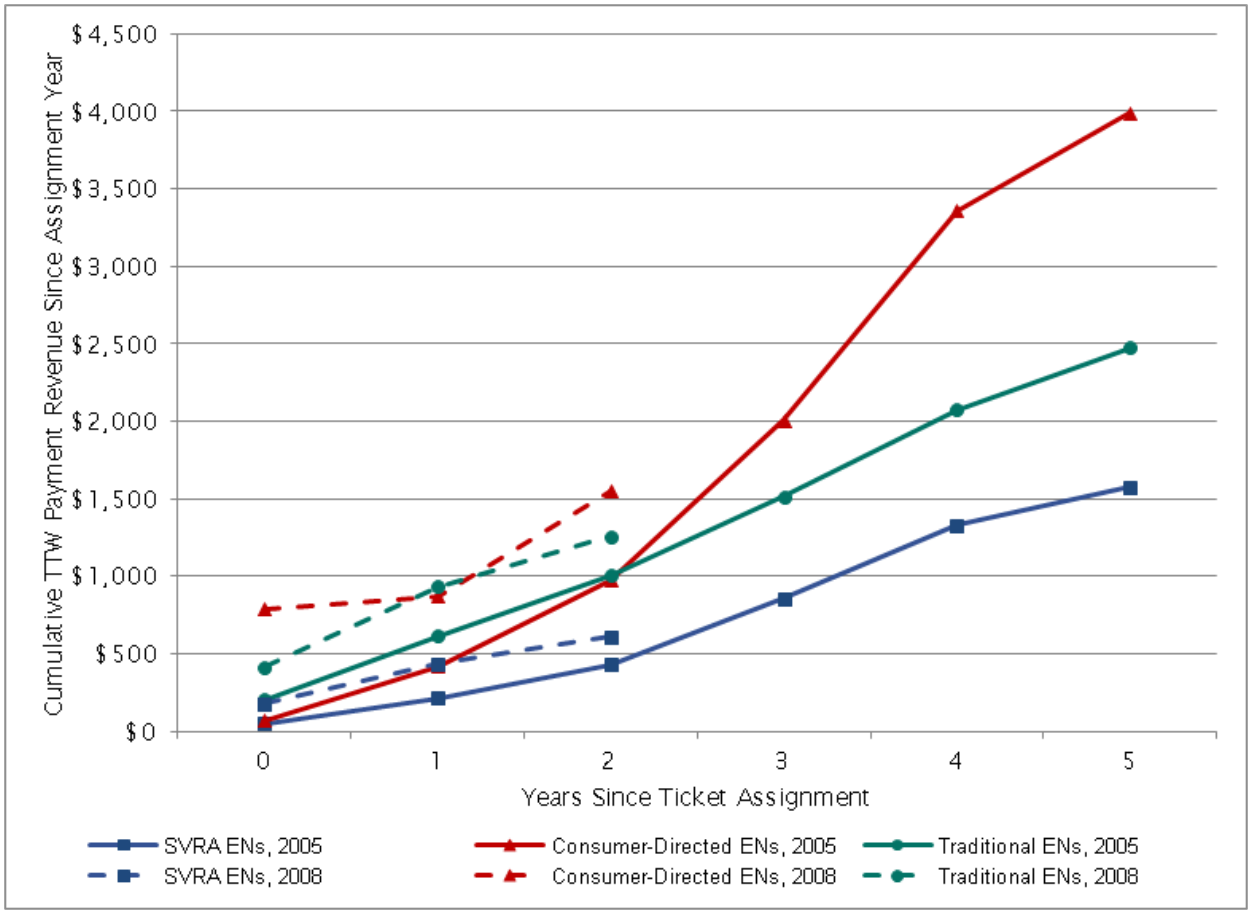
In Figure VII.1, we show the projected TTW revenue stream per assignment of the top 100 ENs by business model for assignments in 2005 and 2008; we omit employer and workforce development ENs due to small cell sizes. The earlier cohort provides information on how revenues evolved over a long period spanning the regulatory changes. In addition, a comparison of early revenues for the new and old cohorts provides an indication of how the regulations likely affected revenue streams. For each assignment cohort, we calculated revenue per assignment in each year from the assignment year through 2010; to reflect the overall dominance of MO payments and the variation in the MO/OO mix across business models, we did not distinguish between MO and OO. In Appendix Table A.9, we present results for all EN business models as well as for each assignment cohort from 2002 onward.

Two patterns emerge from the series for the 2005 assignment cohort. First, revenues per assignment were very low through the end of the first year after assignment but, in all cases, grew considerably in subsequent years. By the end of the fifth year after assignment, each EN type had received revenue per assignment between $1,500 and $4,000. The annual increase in cumulative revenue per assignment dropped slightly between years 4 and 5 and will likely drop further in later years as participants either stop working or the number of outcome payments reaches its maximum, but revenues will likely remain positive. This pattern highlights the need for ENs to track participants if they wish to continue submitting payment requests to SSA. It also points to the advisability of ENs relying on SSA to review records periodically and make payments for those NSTW months not already claimed by the ENs.

Second, the revenues for consumer-directed ENs start lower than for other ENs, presumably because of the lack of earlier milestone payments (all 2005 assignments were under OO), but then overtake those for the other EN business models by the second year after assignment, reflecting the relatively high percentages in NSTW for these ENs as documented earlier in this chapter. Notably, the annual rate of revenue accumulation for consumer-directed EN participants is highest in 2009 (from year 3 to 4 in the figure, after the regulatory changes took effect), perhaps reflecting the substantial increase in the dollar value of outcome payments after the effective date of the regulatory changes, which would have led to a revenue increase of nearly 40 percent even without any change in the number of assignments or beneficiary work activity.

In Figure VII.1, we also show that the early revenue stream per assignment after the regulatory changes is higher than the revenue stream before the change, as seen by comparing the first years after assignment in the 2005 and 2008 assignment cohorts within each EN business model. Although the regulatory changes seemingly did improve the revenue per assignment, the figures might be misleading because the duration of outcome payments for SSD beneficiaries was shortened from 60 to 36 months. Hence, ENs might benefit from the earlier receipt of revenues, but at the expense of lower revenues in later years.

Figure VII.1. Cumulative TTW Payments per Assignment to ENs from Year of Assignment Onward, Selected EN Business Models and Assignment Years



Source: Analysis of TRF10 and DCF data; SSA classified ENs by business model.

Note: Assignment cohort based on most recently assigned Ticket. Assignments include only those under the MO or OO system, as determined in the assignment month. The selection of the top 100 ENs is based on the total dollar value of payments received in 2010. All payment amounts were adjusted to 2010 dollars using SSA's COLA. Results for all EN business models and all assignment years from 2002 through 2010 appear in Appendix Table A.9.

On the other side of EN viability is the cost of providing TTW services to participants. Generally, costs fall into four categories: (1) outreach and intake, (2) initial assessment, (3) follow-up services, and (4) tracking and processing. Costs in each category vary substantially by EN business model. It is useful, for example, to consider consumer-directed ENs. As with other ENs, consumer-directed ENs incur costs for becoming a qualified EN, for establishing their operating system, for marketing their availability via SSA, and for various management activities. The costs might be substantial, but they are mostly fixed—they increase little with the number of assignments. The marginal cost of serving a client might be very low, as the client might be expected to do most or all of the work involved in assigning the Ticket, undergoing a needs assessment, purchasing services, and submitting earnings documentation. To cover its fixed costs and any variable costs, the EN may retain a share of each payment received from SSA; the higher the volume, the lower the share the EN will need to keep to break even. It seems likely that volume is the key to success. Based on the statistics in Table VII.2, the four consumer-directed ENs accept many more assignments than other types of ENs, jumping from a mean of 125 assignments per EN in the pre-cohort to over 400 per EN in the post-cohort. Whether the payments are sufficient to cover the consumer-directed ENs'

fixed costs and their presumably low variable costs is unclear and might vary by EN, but it appears that the consumer-driven EN model can be viable without relying on revenues from another source.

The economic viability for other types of ENs likely depends on the extent to which other revenue streams are available as well as on the marginal costs of providing services not covered by those streams. Employer ENs—not displayed because of relatively few assignments among the 4 in the top 100 ENs—provide an extreme example. They derive their primary source of revenue from whatever goods and services they sell. In the absence of TTW payments, the employer would continue receiving a stream of revenue from which to compensate the beneficiary and provide accommodations or other supports (labor costs). What matters to the employer is whether that stream is sufficient to cover labor costs and whether the difference would be larger if the employer replaced the worker with another employee—potentially an employee who does not require accommodations.[48] The TTW payments implicitly increase the revenue stream attributed to employing the beneficiary, making employment of the beneficiary more attractive. As with a consumer-directed EN, volume is important in determining the economic viability of the employer operating as an EN because of the fixed costs of functioning as an EN. An employer in a position to employ many beneficiaries with only modest accommodation costs might find it economically attractive to serve as an EN. The fact that only 4 employer ENs are among the top 100 suggests that few employers have figured out how to take advantage of the opportunity to be an EN. For the post-cohort, the mean annual assignment to the 4 employer ENs was fairly high—86.

SVRA ENs are another important example of a model with a primary source of revenue other than TTW payments. SVRAs largely depend on Rehabilitation Services Administration grants, which states must match at a rate of 20 percent. Given that SVRAs are essentially required to serve almost all beneficiaries who apply for services even in the absence of TTW, the attraction of payments from SSA under either the traditional payment system or the new payment systems generally translates into an increase in the revenue available to serve SVRA clients; in other words, SVRAs can serve more clients (especially if they maintain waiting lists) or offer better services to clients they would otherwise serve. Whether EN payment systems are economically attractive to SVRAs will depend on whether they generate enough additional revenue—beyond what they could generate under the traditional payment system—to cover the fixed costs of becoming an EN.

The history of assignments to the SVRA ENs in the top 100 is suggestive of the extent to which they find the new payment systems economically attractive. Before the regulatory changes took effect, the number of assignments accepted per year under the new payment systems had been falling, from 138 per SVRA in 2004 to 79 in 2007, suggesting that SVRAs were not, on average, finding the new payment systems an attractive option. The new regulations may have rekindled their interest; in 2009, they accepted 261 assignments per SVRA. That number dropped to 179 per SVRA in 2010 but is still 125 percent above the 2007 level. It is possible, however, that another factor drove the growth in assignments for these SVRAs: the large increase in revenue from the Rehabilitation Services Administration under the American Recovery and Reinvestment Act of 2009

[48] It is also possible that, given the established relationship between employer and employee, an employer EN intends to keep the beneficiary employed, even if it does not fully recoup the costs of providing the employee with accommodations.

(ARRA), allowing the SVRAs to serve a larger volume of clients in general (Stapleton and Martin 2012).[49]

In many respects, the business model of state workforce agency ENs is like that of SVRA ENs: they are state agencies, they are required to serve those who seek their services, and they depend for their main source of revenue on program funding from a federal agency other than SSA. There are, however, two differences. First, they do not have the alternative of using the traditional payment system. Second, they have the option of referring clients with disability-specific needs to the state's SVRA. The latter may be an attractive option because it might cost more to serve clients with disabilities, and the agency might expect such clients to be less likely to secure employment, depressing the agency's performance measures. The evidence about the economic attractiveness of TTW to state workforce agencies is also mixed. Only a handful of state workforce agencies became ENs in the early years of TTW, which implies that few saw TTW as economically attractive. The increase in the number of ENs in 2007, from four to seven, preceded the new regulations. It seems likely DOL instigated the increase in order to expand the accessibility of services to those with disabilities (primarily through Disability Program Navigator grants) rather than anticipation of the regulatory changes. From 2007 to 2010, mean assignments per year to the seven ENs increased from 12 to 73 (Table VII.1). This may mean that the agencies are finding TTW to be economically attractive under the new regulations, but, as with the increase in assignments to SVRA ENs, it might also reflect increased federal funding for state workforce agencies under ARRA. We expect the number of workforce agency ENs accepting large numbers of assignments to grow because of the DOL Disability Employment Initiative (DEI), under which DOL makes grants to many states that require a share of their local workforce investment boards to become ENs (U.S Department of Labor 2011).[50] It remains to be seen how many assignments state workforce board ENs will accept.

It is much more difficult to assess the economic attractiveness of TTW for the "traditional EN," in part because traditional EN business models likely vary considerably. Those that rely completely on TTW revenues to cover the cost of serving beneficiaries might experience the most difficulty in achieving economic success, whereas those whose Ticket revenues supplement revenues they otherwise receive for serving beneficiaries might be more likely to realize economic success. It is certainly the case that the regulatory changes attracted new ENs into the TTW market, as evidenced by the increase among the top ENs in traditional ENs, from 54 in 2007 to 75 in 2009. In addition, over the same period, the number of assignments per EN for this group increased from 21 to 65 per year. It would require an exhaustive analysis to differentiate among EN business models and assess their prospects for long-term economic success.

Whether the observed revenue streams are sufficient for current ENs to succeed economically or attract new ENs into the TTW market remains an unanswered question. For reasons considered above, however, the answer appears to offer much more optimism than suggested by Thornton et al. (2007) and Stapleton et al. (2008). In summary, it is now clear that assignments can generate

[49] ARRA included $540 million in grant funds for SVRAs, to be spent in fiscal years 2010 and 2011 and waiving the usual state match. Appendix C in Stapleton and Martin (2012) provides additional details of this funding increase and implications for state SVRA budgets, as well as annual funding amounts by state from 2008 through 2011.

[50] The Solicitation for Grant Applications for the DEI indicates that successful proposals must demonstrate: "[i]nvolvement in DEI by any state workforce agency or local WIB requires that either the agency or LWIB: 1) already operate as an EN under the Ticket to Work and Work Incentives Improvement Act; or 2) stipulate their commitment to apply for EN status to SSA within 60 days of the DEI grant award."

revenues over a long period; SSA increased revenue per assignment by taking steps to improve the payment system; the 2008 regulatory changes enhanced revenues per assignment, at least in the short term; some organizations that rely primarily on revenues from other sources have found it economically attractive to supplement those revenues with EN revenues; and the federal government has undertaken other efforts to expand employment services to beneficiaries via SVRA and state workforce agencies. It is impressive that this optimistic picture emerged on the heels of the 2007–2009 recession, as we would have expected revenues per assignment to be depressed by the weak labor market that followed. It is useful to note, however, that the recession contributed to the optimistic picture in one important way: through investments in employment services under ARRA.

Of course, the top 100 ENs are not representative of ENs as a whole—they were chosen because they appeared to be achieving some measure of success as of 2010. These ENs accounted for just over half of newly assigned Tickets in 2010 but represent only 7 percent of the 1,500 ENs with at least one Ticket assigned during the year. The implication is that the majority of ENs accepts far fewer assignments. If the number of accepted assignments is a good gauge of the economic attractiveness of TTW to ENs, most do not find TTW attractive. Even so, the apparent attractiveness of TTW to a substantial number of ENs (those in the top 100), coupled with the fact that many started accepting substantial assignments only as the regulations underwent revision, is reason for optimism that others will eventually find a way to succeed economically.

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VIII. CONCLUSIONS AND POLICY IMPLICATIONS

A. Summary of Findings

As documented in earlier reports and here, the TTW program was in a state of gradual decline from 2004 through 2007 in terms of both provider interest and the number of Tickets assigned under the new payment systems. Early statistics on NSTW months showed that some participants were, in fact, giving up their benefits for work, but the numbers were small, and it was unclear how many of these participants would have done so in the absence of TTW. Analysis of providers' revenues and costs also suggested that few providers would likely find TTW economically attractive.

Building on earlier work in Stapleton et al. (2010), we demonstrate in this report that the 2008 regulatory changes led to rapid growth in the TTW program in terms of both providers and participants—particularly in assignments to the EN payment systems (Chapter III). The number of ENs accepting at least one Ticket doubled from 818 in 2007 to 1,600 in 2010. The number of new assignments during that time increased from just over 66,000 to nearly 94,000, and the number of assignments under the new EN payment systems nearly quadrupled.

Findings in this report also confirm earlier evidence that TTW participants are more likely to experience NSTW than comparable nonparticipants (Chapter IV), reflecting the selection into the program of those interested in work and the possible, but unknown, impact of program services on work activity. In 2010, 5.1 percent of participants compared with 2.7 percent of nonparticipants experienced at least one NSTW month. Participants also achieved proportionally more NSTW months; the number of NSTW months accumulated per 1,000 participants was equivalent to 32 years without benefits (zero-benefit years) compared to 22 zero-benefit years accumulated per 1,000 nonparticipants. Despite the relatively high proportion of participants with an NSTW month, only 4.5 percent of those with an NSTW month in 2010 were participants, largely reflecting the fact that, by 2010, 4.1 percent of all beneficiaries had ever participated in the TTW program.

Participants were proportionally more likely than nonparticipants to experience an NSTW month and a first NSTW month. SSD-only and concurrent nonparticipants dropped out of NSTW more quickly than their nonparticipant counterparts after their first NSTW month while the opposite held for those with SSI-only (Figure IV.1). This pattern was somewhat unexpected but prevailed for those with their first NSTW month in 2002, 2005, and 2008, suggesting that more TTW participants may initially achieve employment levels triggering NSTW than non-participants, but many do not remain in that status for long. Nonetheless, because participants' likelihood of entering NSTW is higher to start, in each month following first NSTW, a higher absolute proportion of participants are in NSTW than non-participants (Figure IV.2). Within six to eight years after first NSTW, differences in the rate of change in NSTW disappeared, at which point the share of participants and nonparticipants who had their first NSTW who remained in that status was about the same, ranging from 10 percent (SSI-only) to approximately 35 percent (SSD-only). But again, because participants' initial rate of NSTW was higher than for non-participants, the long-term success of participants is higher as well.

One intent of this report was to assess the success of the 2008 regulatory changes in spurring TTW participant work activity (Chapter VI). Unfortunately, the implementation of the changes coincided with the recession of 2007–2009, which significantly affected the labor market. Comparing the cohort that assigned Tickets in the year before the effective date of the regulatory

changes to a cohort that assigned Tickets in the year after, we found a decline in the proportion of TTW participants experiencing NSTW, the duration of NSTW, BFWDI, and payments to TTW providers. It is unclear, however, how TTW participants would have fared in the absence of the economic downturn or how the revised regulations would have altered participants' work activity. Rapid growth in provider and beneficiary participation in the program, however, more than offset the effect of declines in per participant NSTW and BFWDI on the number experiencing NSTW and total BFWDI.

The final consideration in our analysis examined participant work activity based on the business model used by ENs (Chapter VII). Again, the recession substantially hampered our ability to determine the effect of the regulatory changes. Nonetheless, our investigation, by EN business model, revealed interesting assignment patterns and participant work activity. More than 95 percent of Tickets assigned to the top 100 ENs in the years since the 2008 regulatory changes took effect were assigned under the MO payment system, and virtually all assignments to the OO system went to consumer-directed ENs, in which consumers stand to reap financial rewards from achieving SGA. Even though the pattern is somewhat mixed depending on the outcome of interest, participants in consumer-directed ENs also tended to realize the best employment outcomes, as measured by NSTW and BFWDI.

B. Implications of Findings for Policy

The changes to the TTW regulations in 2008 were designed to spur interest on the part of providers and to expand beneficiaries' use of Tickets. The history of statistics on assignments accepted by the top 100 providers (Chapter VII) clearly shows renewed interest on the part of providers, and the history of statistics on total assignments (Chapter III) points to a rapid increase in beneficiaries' use of Tickets since 2007. Even though other agencies' investments in employment services for people with disabilities, especially under ARRA, might have contributed to some of that growth, it is likely that the main causes of growth were the regulatory changes coupled with SSA's efforts to improve administration of the Ticket payment system. As a result, the projected EN revenues associated with each assignment encouraged ENs to accept Tickets from beneficiaries with unclear prospects for achieving NSTW, as reflected in the shift toward almost exclusive use of the MO payment system. The regulatory changes reduced the risk of accepting assignments under the MO system and increased the maximum payment amount under that system relative to the OO system's maximum.

Our assessment of the economic viability of ENs (Chapter VII, Section C) is much more optimistic than assessments in earlier reports, in part because of prospects for higher revenues. These increased revenues are attributable to the new regulations and the payment administration initiative, coupled with the realization that assignments that generate revenues do so over a long period. Further, it appears that the consumer-directed service model, officially sanctioned in the new regulations, is economically viable for organizations that can pass a substantial percentage of Ticket payments on to their clients and achieve sufficient volume to cover the costs of managing their enterprises from the remainder.[51] Finally, it has become evident that some providers for whom

[51] SSA now requires that any portion of an EN payment that is given to a beneficiary be a reimbursement for items purchased to support an employment outcome. The reimbursement (and the services provided by the EN) must be documented in order for us to consider the EN payment and the beneficiary reimbursement valid.

TTW payments are not the primary source of revenue are starting to find TTW attractive; this group has always included some SVRA, but it now includes some state workforce agencies and some employers.

What is unknown is the extent to which SSA's expanded investment in TTW is paying off in terms of increased beneficiary earnings and reduced government expenditures. Even though we can observe the annual earnings of participants and measure how many months participants accumulate in NSTW and BFWDI, we do not know what the participants' earnings and benefit outcomes would have been in TTW's absence. Many successful participants might have been equally successful without SSA-financed services or with services provided by an SVRA under the payment system that predated TTW. Efforts to estimate impacts of TTW on earnings and benefit outcomes under the initial TTW regulations have established credible counterfactuals and have not found any evidence of impacts on these outcomes.

Owing to rapid growth in the number of assignments, the NSTW and BFWDI statistics in this report do show that both the number of NSTW months and size of BFWDI have grown substantially since the effective date of the regulatory changes. However, NSTW months per assignment have declined somewhat or remained approximately stable. It seems likely that the weak labor market from 2007 to 2009 depressed the NSTW and BFWDI statistics for that period, and it is not possible to disentangle the impacts of the regulatory changes from the impacts of the recession and other external factors.

The economic success of the four consumer-directed ENs is intriguing and will likely draw attention. It might be that the success reflects beneficiaries' willingness to give up their benefits in exchange for a smaller, time-limited allowance with no restriction on their earnings. It might also be, however, that participants who are otherwise ready to give up their benefits for work simply take advantage of the chance to receive such a stipend. These two extremes make consumer-directed services controversial. On the one hand, they place spending power in the beneficiary's hands and appear to be an inexpensive way to induce beneficiaries to give up benefits for work. On the other hand, they might simply be a windfall to those who would have otherwise given up their benefits for work.

Consumer-directed services are consistent with the original TTW proposal (Berkowitz 1996), although the proposal recognized that providers will have an incentive to "cream skim"—that is, to seek assignments from those most likely to leave the rolls without assistance—and that creaming would undermine benefit savings unless SSA could identify such individuals and make them ineligible for tickets. Consumer-directed services are a potentially effective way to cream skim, because beneficiaries who can leave the rolls without assistance have a strong incentive to assign their tickets to the consumer-directed EN—to take advantage of the cash payments that assignment will eventually generate. The likelihood that payments to beneficiaries served by consumer-directed ENs represent a windfall is perhaps higher than originally thought. We now know that about 10 percent of new SSD beneficiaries and a similar percentage of new SSI beneficiaries eventually work at a level that, if sustained, would result in benefit suspension (Liu et al. 2011; Ben-Shalom et al. 2012). If all of those who could attain a first NSTW month without use of employment services instead signed up with a consumer-directed EN, the cost of Ticket payments generated for their ENs would be considerable, but the additional reduction in benefit payments might be quite small; benefits would only be reduced if such beneficiaries accumulate more NSTW months after their first NSTW month than they would have without the use of such services.

Nonetheless, rigorous evidence from the disability research literature demonstrates that consumer-directed supports can be highly efficient; the Cash and Counseling demonstration showed that Medicaid enrollees received much better personal assistance services when they used an allowance provided by the Medicaid agency to purchase services themselves rather than relying on services available only through a pre-arranged provider (Carlson et al. 2007). Hence, it could well be that consumer-directed services under TTW are quite effective. If so, then outcome payments for consumer-directed services would pay for themselves if total benefit reductions for those induced to leave by the payments is sufficiently large to compensate for the windfall to others. This issue, along with the apparent success of the consumer-directed ENs, might make it worthwhile for SSA to conduct a rigorous test of the impacts of consumer-directed ENs.

Of course, the tradeoff between inducing exits and the realization of windfalls applies to all EN business models, not just to consumer-directed ENs. That is, we do not know the extent to which SSA's payments to these ENs are the product of induced exits from the disability programs, the extent to which they represent a windfall to the beneficiary or the provider, or some combination of both. The lack of information on both this critical issue and the impact of TTW on key outcomes reflects the fact that the Ticket Act directed SSA to roll out TTW nationally without a rigorous pilot test. As documented most recently by Mamun et al. (2013), it has not been possible to produce rigorous estimates of impacts because of methodological challenges. In the absence of more rigorous tests, the answers to these important questions will remain unknown.

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APPENDIX A

SUPPORTING TABLES AND FIGURES

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Table A.1. Number of New Ticket Assignments as a Share of Beneficiaries Eligible for TTW, by Payment System, 2005–2010

	Assignment Year					
	2005	2006	2007	2008	2009	2010
Total Ticket Assignments (Number)	61,488	63,767	66,322	79,425	84,397	93,587
MO	3,688	3,323	3,417	9,559	14,272	19,564
OO	1,057	1,193	751	595	545	349
Total EN	4,745	4,516	4,168	10,154	14,817	19,913
Traditional	56,743	59,251	62,154	69,271	69,580	73,674
Number of Eligible Beneficiaries in December	9,837,266	10,057,896	10,375,438	11,019,861	11,619,861	12,321,249
Assignments as a Percent of Eligible Beneficiaries	0.63	0.63	0.64	0.72	0.73	0.76
MO	0.04	0.03	0.03	0.09	0.12	0.16
OO	0.01	0.01	0.01	0.01	0.00	0.00
Total EN	0.05	0.04	0.04	0.09	0.13	0.16
Traditional	0.58	0.59	0.60	0.63	0.60	0.60

Source: TRF10 and DCF extracted in April 2011 (number of eligible beneficiaries).

Note: Table includes participants who assigned their Tickets during the specified assignment year and who were ages 18 to 64 in the month of assignment; assignment date is based on when Ticket was most recently assigned. Payment system is determined in the month of assignment.

Table A.2. NSTW and BFWDI Statistics Presented in Chapter IV, Traditional Payment System Only, 2005–2010

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Participants (Analogous to Table III.1)									
All Participants	20,274	53,098	110,765	152,124	186,963	216,832	243,823	259,261	272,831
SSD-Only	9,618	24,377	46,933	64,410	80,099	94,290	107,531	115,535	123,220
SSI-Only	6,799	17,681	39,016	53,769	64,342	73,683	81,806	86,400	89,072
Concurrent	3,857	11,040	24,816	33,945	42,522	48,859	54,486	57,326	60,539
Any NSTW Months In Year (Analogous to Table IV.1)									
Participants with One or More NSTW Months	533	1,941	4,767	8,270	11,447	14,026	15,203	13,662	12,452
SSD-Only	174	698	1,696	3,127	4,676	6,042	7,012	6,910	6,393
SSI-Only	269	859	2,140	3,479	4,441	5,099	5,139	4,179	3,797
Concurrent	90	384	931	1664	2330	2885	3052	2573	2262
Percent of All Participants	2.6	3.7	4.3	5.4	6.1	6.5	6.2	5.3	4.6
SSD-Only	1.8	2.9	3.6	4.9	5.8	6.4	6.5	6.0	5.2
SSI-Only	4.0	4.9	5.5	6.5	6.9	6.9	6.3	4.8	4.3
Concurrent	2.3	3.5	3.8	4.9	5.5	5.9	5.6	4.5	3.7
Zero-Benefit Years (Analogous to Table IV.2)									
Total Zero-Benefit Years	128	707	1,989	3,825	5,773	7,624	8,752	8,386	7,762
SSD-Only	47	310	877	1,749	2,846	3,938	4,780	4,983	4,796
SSI-Only	53	266	713	1,305	1,782	2,177	2,274	1,864	1,573
Concurrent	27	132	400	772	1,145	1,509	1,698	1,539	1,393
Average Zero-Benefit Years (per 1,000 participants)	6.3	13.3	18.0	25.1	30.9	35.2	35.9	32.3	28.5
SSD-Only	4.9	12.7	18.7	27.1	35.5	41.8	44.5	43.1	38.9
SSI-Only	7.8	15.0	18.3	24.3	27.7	29.5	27.8	21.6	17.7
Concurrent	6.9	12.0	16.1	22.7	26.9	30.9	31.2	26.8	23.0
BFWDI (Analogous to Tables IV.3 and IV.4)[1]									
Total BFWDI (millions)	1.2	5.3	14.2	28.0	46.4	65.3	80.9	87.5	81.7
SSD-Only	1.0	4.2	11.3	22.4	37.6	53.9	67.5	74.4	70.4
SSI-Only	0.1	0.2	0.4	0.9	1.2	1.3	1.3	1.1	0.5
Concurrent	0.2	0.9	2.5	4.7	7.6	10.1	12.1	12.0	10.8
Average Monthly BFWDI among those with BFWDI	795	626	593	610	669	714	770	869	877
SSD-Only	1,705	1,140	1,070	1,068	1,100	1,140	1,178	1,244	1,224
SSI-Only	83	60	49	56	55	49	47	48	24
Concurrent	601	556	517	508	554	560	593	648	645

Table A.2 (*continued*)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
First NSTW (Analogous to Table IV.5)[2]									
Number Eligible for First NSTW in Year	16,958	44,908	94,221	129,553	158,915	183,729	204,992	217,140	233,107
SSD-Only	8,195	21,323	41,495	56,965	70,151	81,962	92,840	99,646	108,321
SSI-Only	5,231	13,708	30,641	42,297	51,100	58,610	64,241	67,125	71,003
Concurrent	3,532	9,877	22,085	30,291	37,664	43,157	47,911	50,369	53,783
Number with First NSTW in Year	292	1,056	2,579	4,198	5,328	5,907	5,617	4,346	4,084
SSD-Only	88	404	933	1,664	2,188	2,423	2,478	2,023	1,729
SSI-Only	157	451	1,156	1,678	2,059	2,221	1,961	1,469	1,591
Concurrent	47	201	490	856	1,081	1,263	1,178	854	764
Percent of Eligible Participants with First NSTW in Year	1.7	2.4	2.7	3.2	3.4	3.2	2.7	2.0	1.8
SSD-Only	1.1	1.9	2.2	2.9	3.1	3.0	2.7	2.0	1.6
SSI-Only	3.0	3.3	3.8	4.0	4.0	3.8	3.1	2.2	2.2
Concurrent	1.3	2.0	2.2	2.8	2.9	2.9	2.5	1.7	1.4

Source: TRF10 and DCF extracted in April 2011 (number of eligible beneficiaries).

Note: Eligible subpopulation in each year includes beneficiaries who spent at least one month in current pay status, in NSTW, or with benefits suspended for another reason and who were age 18 through 64 and alive at some point during the year. Payment title is determined in the first month of current pay status, NSTW or suspension. Ticket participants include those who assigned their most recent Tickets in the current or any previous calendar year provided their Ticket remained assigned; nonparticipants include all other beneficiaries including participants in years their Ticket was not assigned. In other words, the count of participants in each year includes all beneficiaries who assigned their Ticket by the year shown and had not yet unassigned it; nonparticipants are those who either never assigned a Ticket as well as those whose Ticket was not assigned in any month during the calendar year shown (and are categorized as participants in at least one other year).

[1]BFWDI includes benefits forgone for work when in NSTW on SSD; some SSI-only beneficiaries ultimately have BFWDI because they began to receive SSD benefits after our categorization; in some cases, payment title may have been incorrectly recorded in the month we measured it.

[2]First NSTW month is defined as first occurrence of suspense or termination code in NSTW in a year, following a full year in current pay status. Eligible subpopulation in each year includes beneficiaries who were in current pay status in all 12 months of the previous year, spent at least one month in the current year in current pay status or NSTW, and were age 18 through 64 and alive at some point during the current year.

Table A.3. NSTW and BFWDI Statistics Presented in Chapter IV, EN Payment Systems (MO and OO), 2005–2010

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Participants (Analogous to Table III.1)									
All Participants	2,396	6,616	12,126	15,811	18,956	21,734	30,338	42,942	59,467
SSD-Only	1,189	3,383	6,154	8,164	10,135	11,947	16,704	23,759	33,018
SSI-Only	820	2,004	3,534	4,427	4,985	5,357	7,319	10,145	13,903
Concurrent	387	1,229	2,438	3,220	3,836	4,430	6,315	9,038	12,546
Any NSTW Months In Year (Analogous to Table IV.1)									
Participants with One or More NSTW Months	135	506	1,094	1,714	2,351	2,954	3,571	3,918	4,428
SSD-Only	56	244	542	930	1,368	1,798	2,223	2,477	2,789
SSI-Only	56	186	359	488	598	694	776	820	974
Concurrent	23	76	193	296	385	462	572	621	665
Percent of All Participants	5.6	7.6	9.0	10.8	12.4	13.6	11.8	9.1	7.4
SSD-Only	4.7	7.2	8.8	11.4	13.5	15.0	13.3	10.4	8.4
SSI-Only	6.8	9.3	10.2	11.0	12.0	13.0	10.6	8.1	7.0
Concurrent	5.9	6.2	7.9	9.2	10.0	10.4	9.1	6.9	5.3
Zero-Benefit Years (Analogous to Table IV.2)									
Total Zero-Benefit Years	35	204	542	957	1,433	1,877	2,291	2,545	2,827
SSD-Only	17	106	309	585	924	1,271	1,593	1,804	2,017
SSI-Only	13	69	143	217	289	345	368	374	420
Concurrent	5	28	90	155	220	260	330	367	390
Average Zero-Benefit Years (per 1,000 participants)	14.4	30.8	44.7	60.5	75.6	86.3	75.5	59.3	47.5
SSD-Only	13.9	31.3	50.2	71.7	91.2	106.4	95.4	75.9	61.1
SSI-Only	15.8	34.6	40.4	49.0	57.9	64.4	50.3	36.9	30.2
Concurrent	12.9	23.1	37.0	48.1	57.3	58.8	52.3	40.6	31.1
BFWDI (Analogous to Tables IV.3 and IV.4)[1]									
Total BFWDI (millions)	0.4	1.7	4.7	8.8	14.6	20.3	26.6	32.3	35.7
SSD-Only	0.3	1.5	4.1	7.6	12.8	18.0	23.7	28.8	32.1
SSI-Only	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.4	0.2
Concurrent	0.0	0.2	0.5	1.0	1.5	2.0	2.6	3.1	3.4
Average Monthly BFWDI among those with BFWDI	919	709	725	763	847	900	967	1,057	1,052
SSD-Only	1,703	1,184	1,103	1,084	1,156	1,182	1,238	1,329	1,325
SSI-Only	41	57	50	58	62	56	68	78	40
Concurrent	588	531	497	541	580	642	662	714	733

Table A.3 (*continued*)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
First NSTW (Analogous to Table IV.5)[2]									
Number Eligible for First NSTW in Year	1,907	5,474	9,956	12,906	15,255	17,316	23,715	34,093	49,198
SSD-Only	981	2,934	5,231	6,850	8,282	9,578	13,316	19,347	27,920
SSI-Only	590	1,483	2,663	3,323	3,746	4,019	5,177	7,243	10,548
Concurrent	336	1,057	2,062	2,733	3,227	3,719	5,222	7,503	10,730
Number with First NSTW in Year	72	268	532	695	808	927	978	960	1,055
SSD-Only	29	150	271	417	465	543	569	550	531
SSI-Only	27	73	168	171	194	209	231	226	316
Concurrent	16	45	93	107	149	175	178	184	208
Percent of Eligible Participants with First NSTW in Year	3.8	4.9	5.3	5.4	5.3	5.4	4.1	2.8	2.1
SSD-Only	3.0	5.1	5.2	6.1	5.6	5.7	4.3	2.8	1.9
SSI-Only	4.6	4.9	6.3	5.1	5.2	5.2	4.5	3.1	3.0
Concurrent	4.8	4.3	4.5	3.9	4.6	4.7	3.4	2.5	1.9

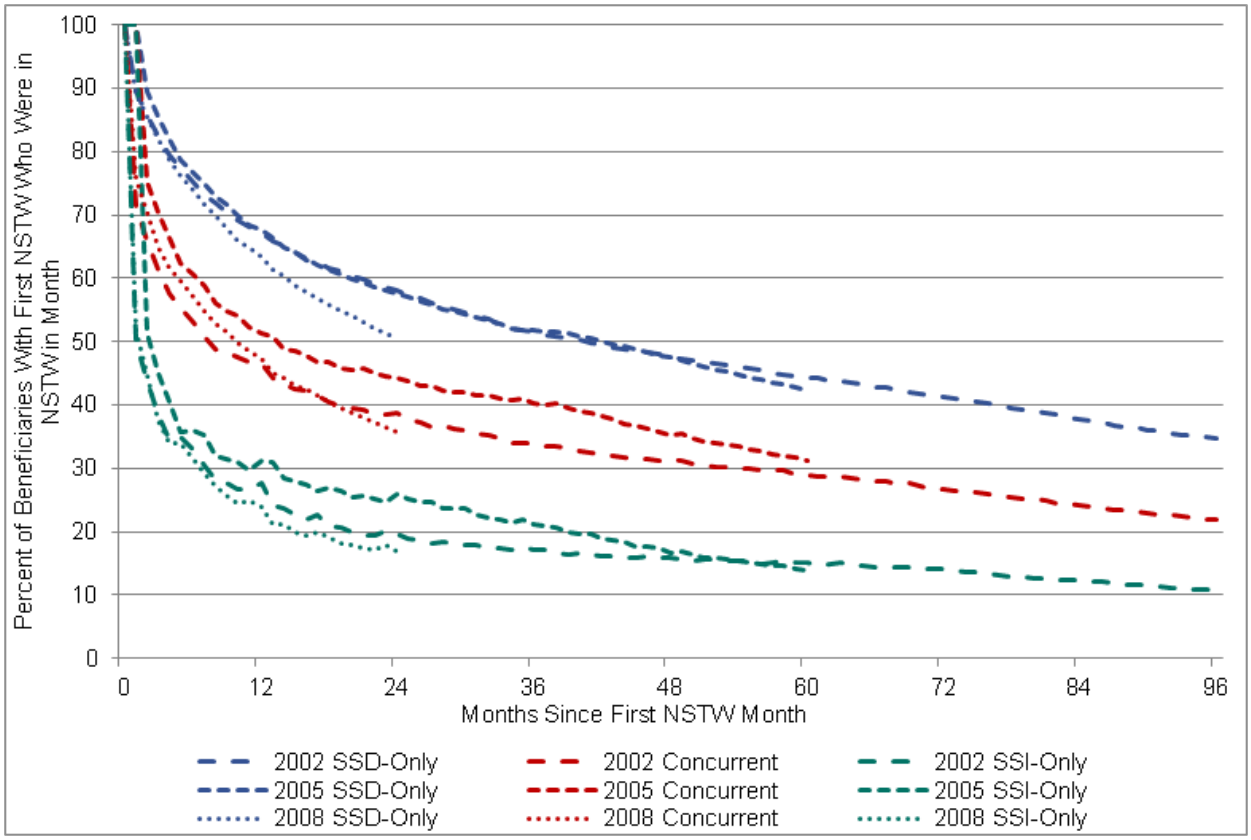
Source: TRF10 and DCF extracted in April 2011 (number of eligible beneficiaries).

Note: Eligible subpopulation in each year includes beneficiaries who spent at least one month in current pay status, in NSTW, or with benefits suspended for another reason and who were age 18 through 64 and alive at some point during the year. Payment title is determined in the first month of current pay status, NSTW or suspension. Ticket participants include those who assigned their most recent Tickets in the current or any previous calendar year provided their Ticket remained assigned; nonparticipants include all other beneficiaries including participants in years their Ticket was not assigned. In other words, the count of participants in each year includes all beneficiaries who assigned their Ticket by the year shown and had not yet unassigned it; nonparticipants are those who either never assigned a Ticket as well as those whose Ticket was not assigned in any month during the calendar year shown (and are categorized as participants in at least one other year).

[1]BFWDI includes benefits forgone for work when in NSTW on SSD; some SSI-only beneficiaries ultimately have BFWDI because they began to receive SSD benefits after our categorization; in some cases, payment title may have been incorrectly recorded in the month we measured it.

[2]First NSTW month is defined as first occurrence of suspense or termination code in NSTW in a year, following a full year in current pay status. Eligible subpopulation in each year includes beneficiaries who were in current pay status in all 12 months of the previous year, spent at least one month in the current year in current pay status or NSTW, and were age 18 through 64 and alive at some point during the current year.

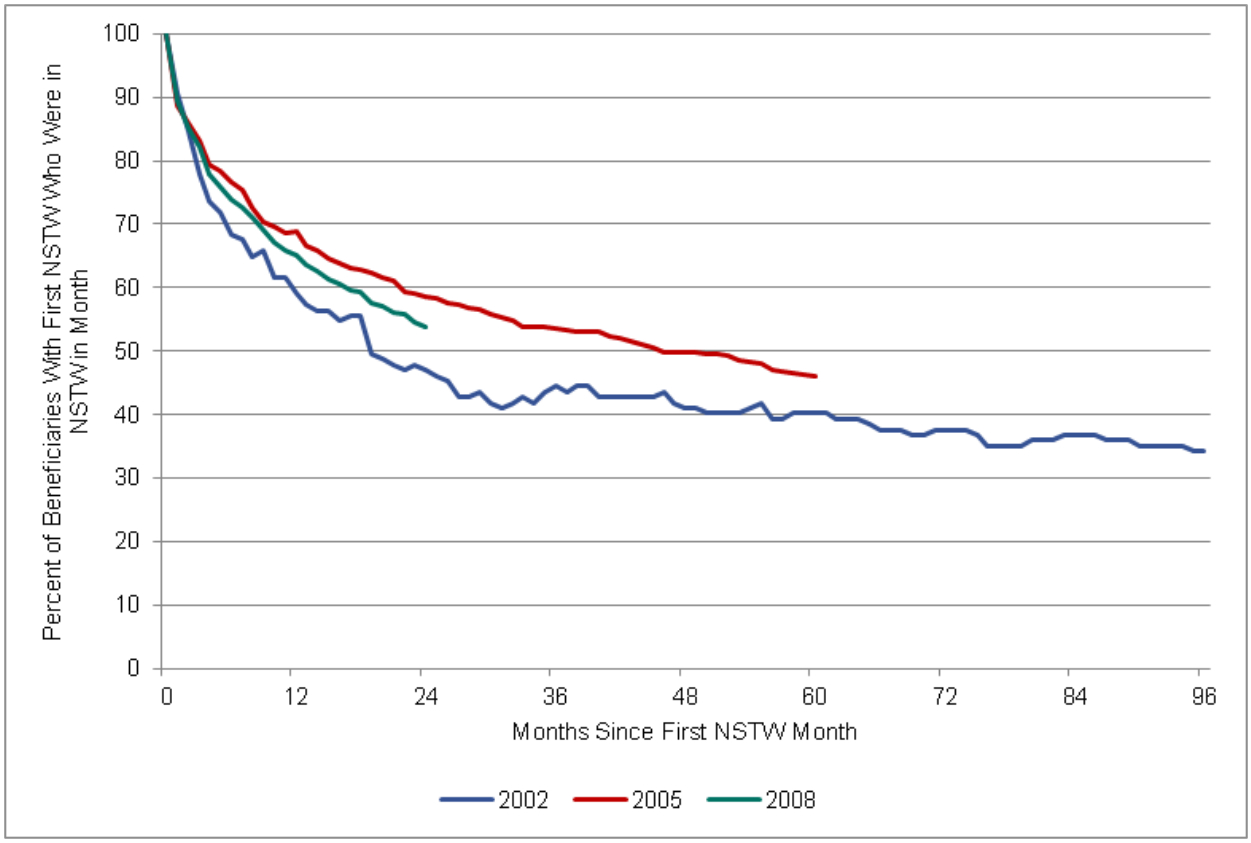
Figure A.1. Percentage of Non-TTW Participant Beneficiaries Experiencing Their First NSTW Month in 2002, 2005, and 2008 Who Were in NSTW in Subsequent Months, by Cohort of First NSTW Month and Payment Title



Source: Analysis of TRF10 supplemented with DAF11.

Note: Eligible subpopulation includes beneficiaries who were in current-pay status in all 12 months of the previous year and in the current year spent at least one month in current-pay status or NSTW, were age 18 through 64 at some point during the year, and were alive at some point during the year. Participant status determined in the first NSTW month. First NSTW month is defined as first occurrence of NSTW in the calendar year shown in the legend, following current pay status in each month during the previous calendar year. Payment title is determined in the first month of current pay status or NSTW during the year. The starting proportion of participants experiencing their first NSTW is consistently higher than for non-participants such that the participant proportion remaining in NSTW at each point remains above the proportion for non-participants despite the steeper drop in NSTW for participants (see the text discussion on pages 41-42). The participant starting proportions in this chart are shown in Table IV.5.

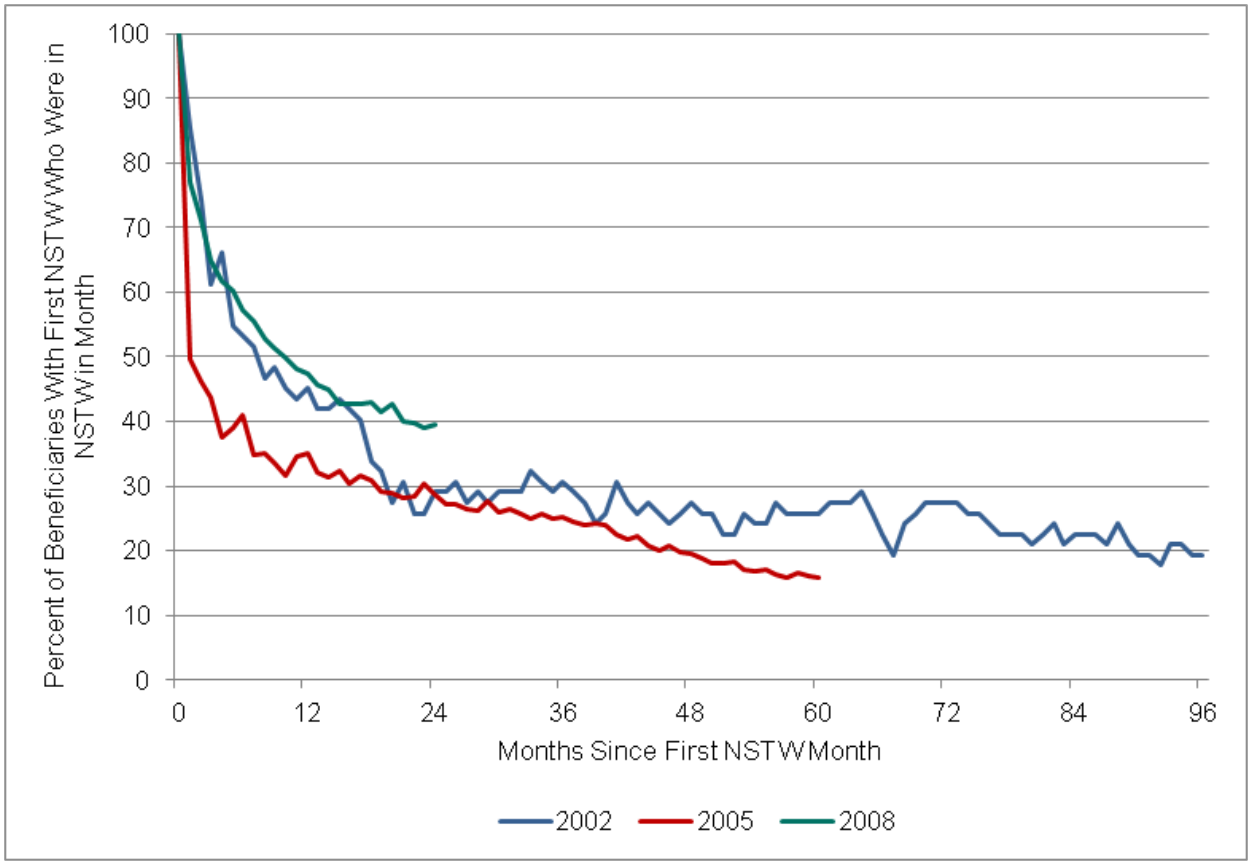
Figure A.2. Percentage of SSD-Only Participants Experiencing Their First NSTW Month in 2002, 2005, and 2008 Who Were in NSTW in Subsequent Months, by Cohort of First NSTW



Source: Analysis of TRF10 supplemented with DAF11.

Note: Eligible subpopulation includes beneficiaries who were in current-pay status in all 12 months of the previous year and in the current year spent at least one month in current-pay status or NSTW, were age 18 through 64 at some point during the year, and alive at some point during the year. Participant status determined in the first NSTW month. First NSTW month is defined as first occurrence of NSTW in the calendar year shown in the legend, following current pay status in each month during the previous calendar year. Payment title is determined in the first month of current pay status or NSTW during the year. The starting proportion of participants experiencing their first NSTW is consistently higher than for non-participants such that the participant proportion remaining in NSTW at each point remains above the proportion for non-participants despite the steeper drop in NSTW for participants (see the text discussion on pages 41-42). The participant starting proportions in this chart are shown in Table IV.5

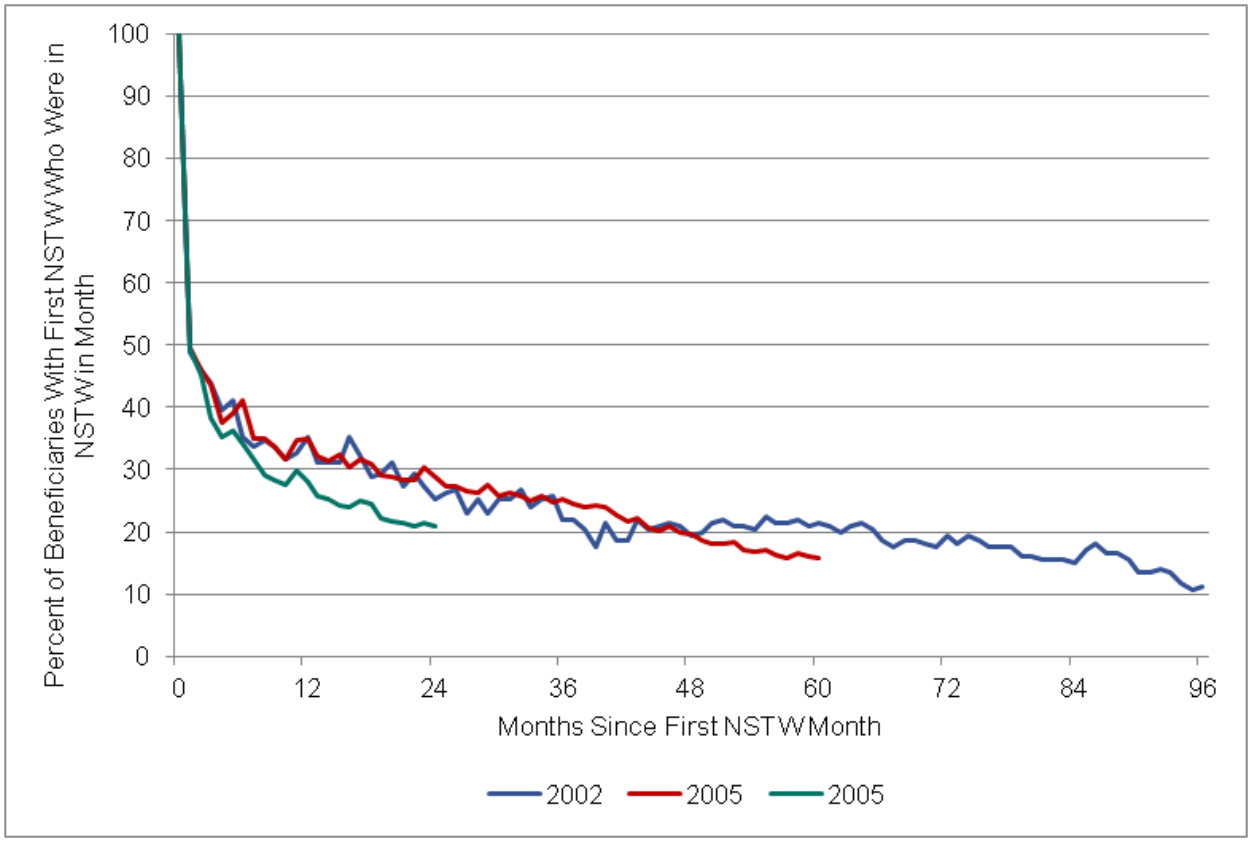
Figure A.3. Percentage of Concurrent Participants Experiencing Their First NSTW Month in 2002, 2005, and 2008 Who Were in NSTW in Subsequent Months, by Cohort of First NSTW



Source: Analysis of TRF10 supplemented with DAF11.

Note: Eligible subpopulation includes beneficiaries who were in current-pay status in all 12 months of the previous year and in the current year spent at least one month in current-pay status or NSTW, were age 18 through 64 at some point during the year, and alive at some point during the year. Participant status determined in the first NSTW month. First NSTW month is defined as first occurrence of NSTW in the calendar year shown in the legend, following current pay status in each month during the previous calendar year. Payment title is determined in the first month of current pay status or NSTW during the year. The starting proportion of participants experiencing their first NSTW is consistently higher than for non-participants such that the participant proportion remaining in NSTW at each point remains above the proportion for non-participants despite the steeper drop in NSTW for participants (see the text discussion on pages 41-42). The participant starting proportions in this chart are shown in Table IV.5

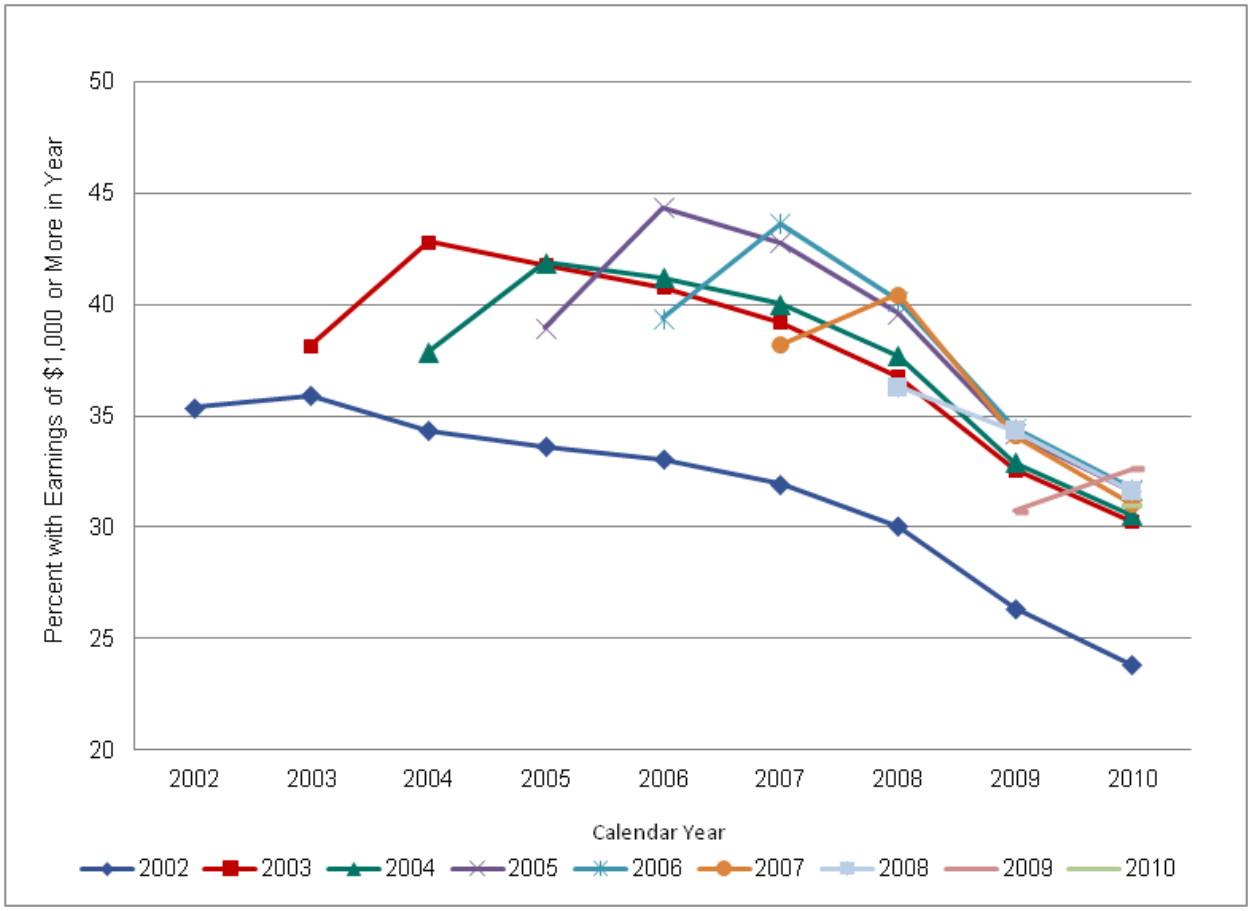
Figure A.4. Percentage of SSI-Only Participants Experiencing Their First NSTW Month in 2002, 2005, and 2008 Who Were in NSTW in Subsequent Months, by Payment Title



Source: Analysis of TRF10 supplemented with DAF11.

Note: Eligible subpopulation includes beneficiaries who were in current-pay status in all 12 months of the previous year and in the current year spent at least one month in current-pay status or NSTW, were age 18 through 64 at some point during the year, and were alive at some point during the year. Participant status determined in the first NSTW month. First NSTW month is defined as first occurrence of NSTW in the calendar year shown in the legend, following current pay status in each month during the previous calendar year. Payment title is determined in the first month of current pay status or NSTW during the year. The starting proportion of participants experiencing their first NSTW is consistently higher than for non-participants such that the participant proportion remaining in NSTW at each point remains above the proportion for non-participants despite the steeper drop in NSTW for participants (see the text discussion on pages 41-42). The participant starting proportions in this chart are shown in Table IV.5

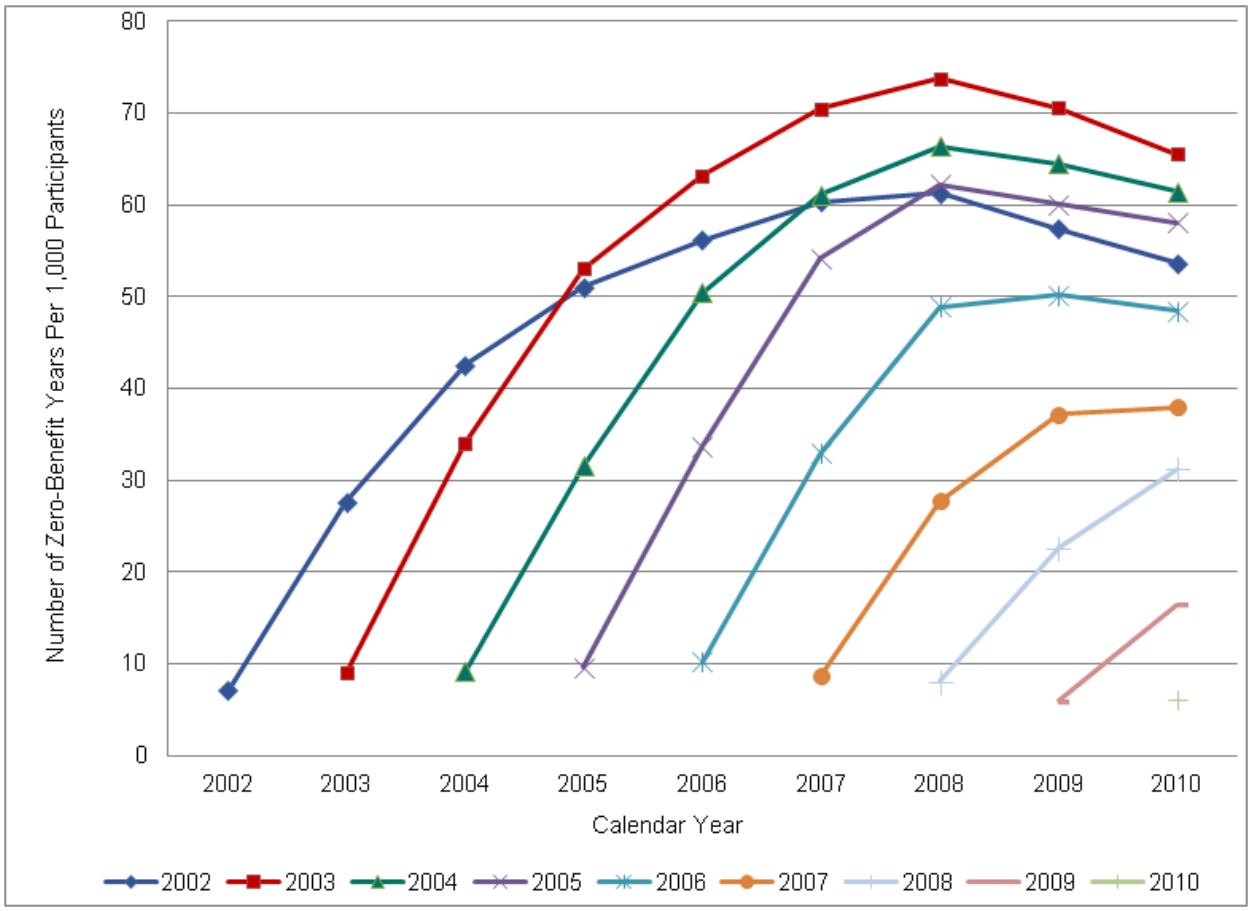
Figure A.5. Percentage of Participants with $1,000 or More of Annual Earnings, by Ticket Assignment Cohort, 2002–2010



Source: Analysis of TRF10 data merged with MEF.

Note: The sample includes beneficiaries who assigned their Ticket between 2002 and 2010 and is based on most recent assignment date. In each year, participants include those who had not died or reached FRA by the start of the year; among the 2002 cohort, more than 90 percent satisfied this criterion by 2010. Earnings in each year were adjusted to 2010 dollars based on the AWI.

Figure A.6. Annual Zero-Benefit Years per 1,000 Participants, by Ticket Assignment Cohort, 2002–2010



Source: Analysis of TRF10 data supplemented with DAF11.

Note: Sample includes beneficiaries who assigned their Ticket between 2002 and 2010 and is based on most recent assignment date. Zero benefit years are defined as the total number of NSTW months observed in a calendar year divided by 12.

Table A.4. TTW Participant Earnings from 2002–2010, by Year of Ticket Assignment

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Assignments	22,838	39,864	71,353	61,488	63,767	66,322	79,425	84,397	93,587
Percentage with Positive Earnings in Year									
2002	49.1	—	—	—	—	—	—	—	—
2003	47.1	53.2	—	—	—	—	—	—	—
2004	43.7	54.6	52.2	—	—	—	—	—	—
2005	41.7	51.4	53.1	54.6	—	—	—	—	—
2006	40.5	49.6	50.7	56.0	55.7	—	—	—	—
2007	38.9	47.1	48.5	52.4	55.8	54.9	—	—	—
2008	35.9	43.9	45.3	48.0	49.7	52.2	51.7	—	—
2009	31.4	38.7	39.3	41.2	42.2	42.9	45.0	45.1	—
2010	28.6	36.2	36.6	38.3	38.8	38.8	40.1	43.5	45.3
Any Year, 2002–2010	72.8	79.0	76.3	76.7	74.5	70.6	64.4	56.4	45.3
Percentage with Earnings of $1,000 or More in Year									
2002	35.4	—	—	—	—	—	—	—	—
2003	35.9	38.2	—	—	—	—	—	—	—
2004	34.3	42.8	37.9	—	—	—	—	—	—
2005	33.6	41.8	41.9	39.0	—	—	—	—	—
2006	33.1	40.8	41.2	44.4	39.4	—	—	—	—
2007	31.9	39.2	40.0	42.8	43.7	38.2	—	—	—
2008	30.0	36.8	37.7	39.6	40.2	40.4	36.3	—	—
2009	26.4	32.6	32.9	34.2	34.5	34.1	34.3	30.7	—
2010	23.8	30.3	30.6	31.6	31.7	31.1	31.6	32.6	31.0
Any Year, 2002–2010	61.8	68.3	65.5	65.0	61.7	56.5	50.3	42.0	31.0
Percentage with Annual Earnings of $12,000 or More (annualized SGA)									
2002	3.6	—	—	—	—	—	—	—	—
2003	6.7	4.3	—	—	—	—	—	—	—
2004	7.8	8.2	4.3	—	—	—	—	—	—
2005	8.8	10.2	8.3	4.6	—	—	—	—	—
2006	9.3	10.9	9.9	8.6	4.4	—	—	—	—
2007	9.4	11.5	10.7	10.0	7.8	3.8	—	—	—
2008	9.3	11.6	11.0	10.4	8.8	6.5	3.7	—	—
2009	8.7	10.9	10.4	10.0	8.6	6.8	5.5	2.9	—
2010	8.1	10.2	9.8	9.4	8.1	6.5	6.0	4.6	3.0
Any Year, 2002–2010	19.9	22.8	20.8	19.3	15.7	11.8	9.2	5.8	3.0

Source: Analysis of TRF10 data merged with MEF.

Note: Table includes individuals who assigned Tickets between 2002 and 2010 and is based on most recent assignment date. Earnings in each year are shown in 2010 dollars, adjusted in accordance with changes in the AWI.

— = not applicable

Table A.4a. TTW Participant Earnings from 2002–2010, by Year of Ticket Assignment, Traditional Payment System

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Assignments	20,427	35,339	65,006	56,743	59,251	62,154	69,271	69,580	73,674
Percentage with Positive Earnings in Year									
2002	48.7	—	—	—	—	—	—	—	—
2003	46.5	52.6	—	—	—	—	—	—	—
2004	43.0	54.0	51.7	—	—	—	—	—	—
2005	41.1	51.0	52.6	54.3	—	—	—	—	—
2006	39.9	49.3	50.3	55.7	55.2	—	—	—	—
2007	38.4	46.9	48.2	52.1	55.3	54.3	—	—	—
2008	35.5	43.8	45.0	47.8	49.3	51.6	50.5	—	—
2009	31.1	38.7	39.2	41.0	41.9	42.6	43.7	43.4	—
2010	28.3	36.2	36.6	38.2	38.6	38.5	39.1	41.6	43.2
Any Year, 2002–2010	72.2	78.8	75.9	76.4	74.1	70.2	63.3	54.6	43.2
Percentage with Earnings of $1,000 or More in Year									
2002	34.8	—	—	—	—	—	—	—	—
2003	35.2	37.3	—	—	—	—	—	—	—
2004	33.7	42.0	37.2	—	—	—	—	—	—
2005	32.9	41.3	41.3	38.4	—	—	—	—	—
2006	32.5	40.3	40.7	43.8	38.6	—	—	—	—
2007	31.4	38.8	39.6	42.4	43.0	37.5	—	—	—
2008	29.6	36.5	37.4	39.3	39.7	39.8	34.9	—	—
2009	26.0	32.4	32.8	34.0	34.1	33.8	33.0	28.8	—
2010	23.6	30.2	30.5	31.5	31.4	30.7	30.5	30.6	28.8
Any Year, 2002–2010	61.1	67.8	65.0	64.6	61.0	55.9	48.8	39.8	28.8
Percentage with Annual Earnings of $12,000 or More (annualized SGA)									
2002	3.2	—	—	—	—	—	—	—	—
2003	5.8	3.8	—	—	—	—	—	—	—
2004	7.0	7.5	3.9	—	—	—	—	—	—
2005	8.0	9.6	7.7	4.2	—	—	—	—	—
2006	8.6	10.3	9.4	8.0	3.9	—	—	—	—
2007	8.9	11.0	10.2	9.5	7.0	3.4	—	—	—
2008	8.8	11.2	10.6	9.9	8.1	5.9	3.1	—	—
2009	8.3	10.6	10.1	9.6	8.1	6.3	4.8	2.4	—
2010	7.8	9.9	9.6	9.1	7.7	6.2	5.4	3.8	2.4
Any Year, 2002–2010	18.6	21.9	20.2	18.5	14.8	11.1	8.2	4.9	2.4

Source: Analysis of TRF10 data merged with MEF.

Note: Table includes individuals who assigned Tickets between 2002 and 2010 and is based on most recent assignment date. Earnings in each year are shown in 2010 dollars, adjusted in accordance with changes in the AWI.

— = not applicable

Table A.4b. TTW Participant Earnings from 2002–2010, by Year of Ticket Assignment, EN Payment Systems

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Assignments	2,411	4,525	6,347	4,745	4,516	4,168	10,154	14,817	19,913
Percentage with Positive Earnings in Year									
2002	52.4	—	—	—	—	—	—	—	—
2003	51.7	57.9	—	—	—	—	—	—	—
2004	49.2	59.2	57.9	—	—	—	—	—	—
2005	47.5	54.7	59.2	59.1	—	—	—	—	—
2006	45.1	51.9	54.9	59.9	62.5	—	—	—	—
2007	43.6	49.0	51.9	55.7	62.5	63.0	—	—	—
2008	38.9	45.0	48.0	50.2	54.8	60.2	59.7	—	—
2009	34.2	38.8	39.9	42.8	45.2	47.0	53.3	53.2	—
2010	30.8	35.8	36.9	39.5	41.5	42.5	46.5	52.5	52.9
Any Year, 2002–2010	77.5	80.7	80.8	79.8	79.5	76.5	71.7	64.9	52.9
Percentage with Earnings of $1,000 or More in Year									
2002	40.1	—	—	—	—	—	—	—	—
2003	42.0	44.7	—	—	—	—	—	—	—
2004	40.1	49.0	44.5	—	—	—	—	—	—
2005	39.4	46.0	48.1	45.7	—	—	—	—	—
2006	37.9	44.0	46.1	50.3	49.2	—	—	—	—
2007	36.6	42.3	43.9	47.5	52.3	49.3	—	—	—
2008	33.9	38.9	41.1	43.1	46.5	50.2	46.0	—	—
2009	29.3	33.8	34.3	37.3	38.7	39.6	43.3	39.8	—
2010	25.8	30.8	31.2	33.7	35.5	36.2	38.9	42.2	39.4
Any Year, 2002–2010	67.6	71.8	70.5	69.9	69.7	64.9	60.4	52.1	39.4
Percentage with Annual Earnings of $12,000 or More (annualized SGA)									
2002	6.7	—	—	—	—	—	—	—	—
2003	14.2	7.9	—	—	—	—	—	—	—
2004	14.7	13.9	8.1	—	—	—	—	—	—
2005	15.1	15.0	14.4	9.1	—	—	—	—	—
2006	15.1	15.2	15.5	16.3	10.7	—	—	—	—
2007	14.5	15.4	15.6	16.9	17.6	10.1	—	—	—
2008	13.5	14.8	15.0	16.1	17.2	15.8	7.8	—	—
2009	12.0	13.5	13.5	14.2	14.8	13.7	10.1	5.3	—
2010	11.2	12.2	12.3	12.4	13.3	11.3	9.6	8.2	5.2
Any Year, 2002–2010	31.0	29.4	27.9	28.5	27.7	23.1	15.8	10.1	5.2

Source: Analysis of TRF10 data merged with MEF.

Note: Table includes individuals who assigned Tickets between 2002 and 2010 and is based on most recent assignment date. Earnings in each year are shown in 2010 dollars, adjusted in accordance with changes in the AWI.

— = not applicable

Table A.5. TTW Participant Work Activity from 2002–2010, Measured by NSTW and BFW, by Year of Ticket Assignment

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Assignments	22,838	39,864	71,353	61,488	63,767	66,322	79,425	84,397	93,587
Percentage with One Month or More of NSTW									
2002	2.9	—	—	—	—	—	—	—	—
2003	6.0	3.1	—	—	—	—	—	—	—
2004	7.1	7.1	3.1	—	—	—	—	—	—
2005	7.9	8.9	6.8	3.3	—	—	—	—	—
2006	8.2	9.7	8.7	7.2	3.2	—	—	—	—
2007	8.4	10.1	9.5	9.3	6.8	2.9	—	—	—
2008	8.1	10.1	9.7	9.7	8.2	5.9	2.6	—	—
2009	7.2	9.1	8.8	8.6	7.6	6.2	4.7	1.9	—
2010	6.5	8.3	8.0	7.8	6.9	5.7	5.3	3.6	2.0
Any NSTW, 2002–2010	17.1	19.5	17.8	16.7	13.4	10.1	7.4	4.2	2.0
Number of Zero-Benefit Years per 1,000 Participants									
2002	7.1	—	—	—	—	—	—	—	—
2003	27.7	9.0	—	—	—	—	—	—	—
2004	42.6	34.0	9.2	—	—	—	—	—	—
2005	51.1	53.0	31.5	9.6	—	—	—	—	—
2006	56.1	63.2	50.5	33.7	10.2	—	—	—	—
2007	60.4	70.5	61.1	54.2	32.9	8.7	—	—	—
2008	61.3	73.8	66.4	62.2	48.8	27.7	8.0	—	—
2009	57.4	70.6	64.5	60.0	50.2	37.2	22.6	6.0	—
2010	53.7	65.5	61.4	58.1	48.5	38.0	31.2	16.4	6.0
Average Annual per-Participant BFWDI ($)[1]									
2002	3,549	—	—	—	—	—	—	—	—
2003	6,610	4,176	—	—	—	—	—	—	—
2004	8,648	7,041	4,525	—	—	—	—	—	—
2005	9,229	8,564	6,857	4,574	—	—	—	—	—
2006	9,713	9,105	8,601	7,018	4,982	—	—	—	—
2007	9,972	9,548	9,391	8,815	7,255	4,790	—	—	—
2008	10,182	10,031	9,913	9,439	9,093	7,309	4,754	—	—
2009	10,476	10,411	10,363	10,026	9,949	9,397	7,552	5,107	—
2010	10,518	10,427	10,480	10,540	10,389	10,015	9,241	7,417	4,798

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes individuals who assigned Tickets between 2002 and 2010 and is based on most recent assignment date. BFWDI adjusted to 2010 dollars using SSA's COLA.

— = not applicable

[1]Limited only to participants who were SSD-only or were concurrent beneficiaries in the month of assignment and who had positive BFWDI during the year. The subpopulation with BFWDI during the year is close to, though not exactly the same as, the percentage reporting any NSTW months during the year; differences exist because concurrent beneficiaries' NSTW status is affected by NSTW in SSI as well.

Table A.5a. TTW Participant Work Activity from 2002–2010, Measured by NSTW and BFW, by Year of Ticket Assignment, Traditional Payment System

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Assignments	20,427	35,339	65,006	56,743	59,251	62,154	69,271	69,580	73,674
Percentage with One Month or More of NSTW									
2002	2.6	—	—	—	—	—	—	—	—
2003	5.3	2.8	—	—	—	—	—	—	—
2004	6.5	6.5	2.8	—	—	—	—	—	—
2005	7.3	8.3	6.3	3.1	—	—	—	—	—
2006	7.6	9.2	8.3	6.8	3.0	—	—	—	—
2007	7.9	9.7	9.0	8.8	6.3	2.7	—	—	—
2008	7.7	9.8	9.2	9.2	7.6	5.4	2.3	—	—
2009	6.9	8.8	8.5	8.2	7.1	5.7	4.2	1.6	—
2010	6.2	8.0	7.7	7.5	6.5	5.4	4.7	3.1	1.7
Any NSTW, 2002–2010	16.2	18.9	17.1	16.1	12.7	9.5	6.6	3.6	1.7
Number of Zero-Benefit Years per 1,000 Participants									
2002	6.2	—	—	—	—	—	—	—	—
2003	24.1	8.0	—	—	—	—	—	—	—
2004	37.5	30.4	8.3	—	—	—	—	—	—
2005	46.4	48.3	28.8	9.0	—	—	—	—	—
2006	51.2	58.7	46.5	31.2	9.2	—	—	—	—
2007	56.0	66.8	57.1	50.4	29.7	8.0	—	—	—
2008	57.3	69.9	62.9	58.5	44.1	25.2	7.1	—	—
2009	54.5	67.0	61.6	56.9	45.9	34.0	19.8	4.8	—
2010	51.2	62.8	58.9	55.5	44.9	35.3	27.2	13.2	5.1
Average Annual per-Participant BFWDI ($)[1]									
2002	3,529	—	—	—	—	—	—	—	—
2003	6,475	4,052	—	—	—	—	—	—	—
2004	8,167	6,724	4,428	—	—	—	—	—	—
2005	9,030	8,195	6,600	4,530	—	—	—	—	—
2006	9,626	8,892	8,260	6,865	4,566	—	—	—	—
2007	10,005	9,520	9,180	8,545	6,957	4,622	—	—	—
2008	10,345	10,123	9,816	9,266	8,741	7,161	4,836	—	—
2009	10,887	10,673	10,461	10,021	9,611	9,131	7,476	4,898	—
2010	11,397	11,142	10,871	10,815	10,308	9,950	8,984	7,129	4,768

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes individuals who assigned Tickets between 2002 and 2010 and is based on most recent assignment date. BFWDI adjusted to 2010 dollars using SSA's COLA.

— = not applicable

[1]Limited only to participants who were SSD-only or were concurrent beneficiaries in the month of assignment and who had positive BFWDI during the year. The subpopulation with BFWDI during the year is close to, though not exactly the same as, the percentage reporting any NSTW months during the year; differences exist because concurrent beneficiaries' NSTW status is affected by NSTW in SSI as well.

Table A.5b. TTW Participant Work Activity from 2002–2010, Measured by NSTW and BFW, by Year of Ticket Assignment, EN Payment Systems

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of Assignments	2,411	4,525	6,347	4,745	4,516	4,168	10,154	14,817	19,913
Percentage with One Month or More of NSTW									
2002	5.6	—	—	—	—	—	—	—	—
2003	12.1	5.2	—	—	—	—	—	—	—
2004	12.8	11.7	5.5	—	—	—	—	—	—
2005	13.0	13.7	11.5	5.3	—	—	—	—	—
2006	12.9	13.9	13.7	12.6	5.9	—	—	—	—
2007	12.7	13.6	14.2	15.3	13.9	6.0	—	—	—
2008	11.9	13.1	13.9	14.9	16.5	12.7	4.6	—	—
2009	9.8	11.9	12.2	12.8	13.9	12.5	8.4	3.5	—
2010	9.0	10.5	10.8	10.8	12.2	10.3	9.1	6.3	3.1
Any NSTW, 2002–2010	25.5	22.3	24.2	23.5	22.9	18.8	12.8	7.3	3.1
Number of Zero-Benefit Years per 1,000 Participants									
2002	14.2	—	—	—	—	—	—	—	—
2003	57.9	16.7	—	—	—	—	—	—	—
2004	85.4	62.3	18.1	—	—	—	—	—	—
2005	90.9	90.2	59.9	16.7	—	—	—	—	—
2006	97.7	98.1	90.7	63.2	23.1	—	—	—	—
2007	97.4	99.4	101.7	99.5	75.2	19.3	—	—	—
2008	95.7	103.7	102.2	106.4	110.9	65.0		—	—
2009	82.0	98.7	94.7	97.0	106.8	84.5	42.1	11.6	—
2010	75.0	86.6	87.7	88.7	95.3	77.8	58.5	31.6	9.5
Average Annual per-Participant BFWDI ($)[1]									
2002	3,578	—	—	—	—	—	—	—	—
2003	6,751	4,444	—	—	—	—	—	—	—
2004	10,153	7,916	4,546	—	—	—	—	—	—
2005	10,188	9,840	7,679	4,539	—	—	—	—	—
2006	10,752	10,549	10,065	7,286	6,390	—	—	—	—
2007	11,014	10,761	10,741	9,947	8,178	5,269	—	—	—
2008	11,588	11,496	11,155	10,897	10,680	7,580	4,170	—	—
2009	11,953	12,227	11,616	11,401	11,985	10,744	7,464	5,235	—
2010	11,817	11,978	11,982	12,320	12,534	11,418	10,057	7,872	4,687

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes individuals who assigned Tickets between 2002 and 2010 and is based on most recent assignment date. BFWDI adjusted to 2010 dollars using SSA's COLA.

— = not applicable

[1]Limited only to participants who were SSD-only or were concurrent beneficiaries in the month of assignment and who had positive BFWDI during the year. The subpopulation with BFWDI during the year is close to, though not exactly the same as, the percentage reporting any NSTW months during the year; differences exist because concurrent beneficiaries' NSTW status is affected by NSTW in SSI as well.

Table A.6. Cumulative Percentage of Participants with at Least One NSTW Month, by Months Since Ticket Assignment and Assignment Cohort

	Traditional Payment System Assignment Cohort			EN Payment Systems Assignment Cohort		
	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Total Participants	60,649	64,109	72,076	4,148	5,745	13,872
Percentage of Participants with at Least One NSTW Month						
Months Since Assignment						
0	0.84	0.79	0.69	1.93	2.26	1.44
1	1.19	1.08	0.93	2.84	3.10	1.92
2	1.57	1.38	1.11	3.50	3.97	2.31
3	1.86	1.62	1.28	4.15	4.84	2.78
4	2.17	1.94	1.43	4.65	5.52	3.12
5	2.50	2.17	1.59	5.64	6.30	3.48
6	2.77	2.39	1.72	6.17	6.81	3.84
7	2.99	2.58	1.84	6.73	7.28	4.20
8	3.21	2.78	1.98	7.21	7.69	4.51
9	3.43	2.96	2.10	7.52	8.23	4.76
10	3.65	3.11	2.22	8.10	8.69	5.07
11	3.85	3.24	2.34	8.53	9.40	5.33
12	4.08	3.37	2.44	9.62	10.34	5.74
13	4.29	3.51	2.56	10.82	11.23	6.20
14	4.49	3.67	2.66	11.60	11.87	6.60
15	4.70	3.77	2.74	12.39	12.41	6.96
16	4.87	3.88	2.82	12.99	12.99	7.48
17	5.03	3.99	2.89	13.65	13.42	7.79
18	5.18	4.09	2.95	14.15	13.68	8.07

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes beneficiaries who most recently assigned their Ticket in the date range shown and who were age 18 through 64 and not deceased by the end of the month of assignment. Payment system was determined in the assignment month. Each participant was followed for 18 months from assignment until death, age 65, or December 2010, whichever occurred first. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.6a. Cumulative Percentage of Participants with at Least One NSTW Month, by Months Since Ticket Assignment and Assignment Cohort, SSD Beneficiaries

	Traditional Payment System Assignment Cohort			EN Payment Systems Assignment Cohort		
	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Total Participants	40,320	41,260	46,727	3,276	4,475	10,557
Percentage of Participants with at Least One NSTW Month						
Months Since Assignment						
0	1.03	0.97	0.85	1.89	2.30	1.57
1	1.32	1.19	1.02	2.53	2.88	1.95
2	1.58	1.42	1.16	2.99	3.51	2.19
3	1.79	1.57	1.28	3.54	4.07	2.59
4	1.98	1.81	1.39	3.91	4.54	2.88
5	2.21	2.02	1.49	4.76	5.16	3.19
6	2.40	2.16	1.59	5.22	5.65	3.44
7	2.58	2.31	1.67	5.74	6.08	3.78
8	2.76	2.48	1.76	6.11	6.46	4.06
9	2.95	2.61	1.85	6.44	6.99	4.33
10	3.13	2.72	1.93	7.11	7.53	4.62
11	3.27	2.82	2.03	7.63	8.36	4.92
12	3.47	2.94	2.10	8.94	9.47	5.35
13	3.69	3.05	2.19	10.38	10.53	5.84
14	3.88	3.22	2.28	11.36	11.20	6.27
15	4.07	3.32	2.33	12.24	11.82	6.68
16	4.25	3.45	2.39	12.97	12.38	7.21
17	4.42	3.56	2.45	13.64	12.92	7.51
18	4.57	3.65	2.49	14.22	13.18	7.74

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes beneficiaries who most recently assigned their Ticket in the date range shown, had SSD, and were age 18 through 64 and not deceased by the end of the month of assignment. Payment system and title were determined in the assignment month. Each participant was followed for 18 months from assignment until death, age 65, or December 2010, whichever occurred first. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.6b. Cumulative Percentage of Participants with at Least One NSTW Month, by Months Since Ticket Assignment and Assignment Cohort, SSI-Only Beneficiaries

	Traditional Payment System Assignment Cohort			EN Payment Systems Assignment Cohort		
	July 2006–June 2007	July 2007–June 2008	July 2008-June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Total Participants	20,329	22,849	25,349	872	1,270	3,315
Percentage of Participants with at Least One NSTW Month						
Months Since Assignment						
0	0.46	0.45	0.41	2.06	2.13	1.03
1	0.94	0.88	0.75	4.01	3.86	1.84
2	1.54	1.31	1.04	5.39	5.59	2.68
3	2.01	1.72	1.29	6.42	7.56	3.41
4	2.55	2.18	1.51	7.45	8.98	3.89
5	3.08	2.46	1.77	8.94	10.31	4.40
6	3.51	2.82	1.96	9.75	10.87	5.10
7	3.80	3.06	2.16	10.44	11.50	5.52
8	4.10	3.33	2.38	11.35	12.05	5.94
9	4.39	3.60	2.56	11.58	12.60	6.15
10	4.70	3.82	2.76	11.81	12.76	6.49
11	4.99	4.00	2.91	11.93	13.07	6.67
12	5.29	4.16	3.05	12.16	13.39	6.97
13	5.47	4.33	3.23	12.50	13.70	7.33
14	5.72	4.48	3.35	12.50	14.25	7.66
15	5.94	4.57	3.51	12.96	14.49	7.84
16	6.08	4.67	3.62	13.07	15.12	8.33
17	6.24	4.78	3.71	13.65	15.20	8.66
18	6.39	4.90	3.80	13.88	15.43	9.14

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes beneficiaries who most recently assigned their Ticket in the date range shown, who were SSI-only, and who were age 18 through 64 and not deceased by the end of the month of assignment. Payment system and title were determined in the assignment month. Each participant was followed for 18 months from assignment until death, age 65, or December 2010, whichever occurred first. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.7. Average Monthly Per-Participant BFWDI by Months Since Assignment and Assignment Cohort

	Traditional Payment System Assignment Cohort						EN Payment Systems Assignment Cohort					
	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Number of Participants	60,649	64,109	72,076				4,148	5,745	13,872			
Months Since Assignment	Percentage of Participants with Any BFWDI			Average per-Participant BFWDI, if BFWDI > 0 ($)			Percentage of Participants with Any BFWDI			Average per-Participant BFWDI, if BFWDI > 0 ($)		
0	0.65	0.59	0.56	1,006	989	1,026	1.57	1.72	1.20	1,054	969	1,047
1	0.72	0.65	0.62	1,027	992	1,042	1.88	1.97	1.34	1,103	989	1,051
2	0.81	0.73	0.64	1,035	1,015	1,059	2.05	2.28	1.38	1,117	936	1,043
3	0.87	0.80	0.68	1,044	1,030	1,060	2.29	2.45	1.56	1,145	1,018	1,071
4	0.97	0.89	0.70	1,048	1,038	1,059	2.46	2.56	1.71	1,140	1,009	1,098
5	1.05	0.98	0.73	1,048	1,041	1,072	2.89	3.01	1.80	1,162	1,022	1,104
6	1.12	1.01	0.77	1,032	1,046	1,086	3.04	3.08	1.89	1,142	1,051	1,127
7	1.21	1.09	0.81	1,042	1,062	1,090	3.25	3.32	2.03	1,163	1,044	1,136
8	1.30	1.17	0.87	1,048	1,042	1,083	3.47	3.48	2.13	1,169	1,102	1,143
9	1.43	1.28	0.91	1,044	1,056	1,086	3.69	3.74	2.26	1,170	1,097	1,145
10	1.53	1.35	0.97	1,056	1,063	1,097	3.98	3.86	2.38	1,156	1,125	1,151
11	1.66	1.40	1.05	1,051	1,074	1,101	4.27	4.26	2.54	1,166	1,110	1,163
12	1.76	1.54	1.13	1,055	1,097	1,100	5.14	4.93	2.80	1,191	1,135	1,187
13	1.96	1.70	1.25	1,067	1,098	1,102	6.22	5.62	3.08	1,225	1,165	1,193
14	2.08	1.82	1.36	1,071	1,088	1,104	6.89	5.92	3.24	1,226	1,182	1,193
15	2.25	1.93	1.39	1,077	1,088	1,103	7.33	6.18	3.42	1,217	1,182	1,202
16	2.41	2.03	1.43	1,076	1,095	1,103	7.74	6.39	3.81	1,218	1,190	1,210
17	2.58	2.13	1.49	1,080	1,097	1,104	8.29	6.65	3.89	1,205	1,183	1,218
18	2.71	2.20	1.54	1,091	1,098	1,097	8.22	6.65	3.83	1,225	1,197	1,215

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes beneficiaries who most recently assigned their Ticket in the date range shown and who were age 18 through 64 and not deceased by the end of the month of assignment. Payment system was determined in the assignment month. Each participant was followed for 18 months from assignment until death, age 65, or December 2010, whichever occurred first. BFWDI adjusted to 2010 dollars using SSA's COLA. In each month, average BFWDI is calculated by dividing the total BFWDI in the month by the sum of participants with BFWDI in the month. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics (upon which BFWDI is based on) underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.7a. Average Monthly Per-Participant BFWDI by Months Since Assignment and Assignment Cohort, SSD Beneficiaries

	Traditional Payment System Assignment Cohort						EN Payment Systems Assignment Cohort					
	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Number of Participants	40,320	41,260	46,727				3,276	4,475	10,557			
Months Since Assignment	Percentage of Participants with Any BFWDI			Average per-Participant BFWDI, if BFWDI > 0 ($)			Percentage of Participants with Any BFWDI			Average per-Participant BFWDI, if BFWDI > 0 ($)		
0	0.89	0.85	0.80	1,038	1,023	1,063	1.89	2.12	1.54	1,076	1,001	1,022
1	1.00	0.94	0.89	1,056	1,022	1,073	2.29	2.44	1.73	1,123	1,018	1,033
2	1.13	1.08	0.93	1,063	1,042	1,094	2.50	2.84	1.79	1,130	959	1,020
3	1.23	1.18	0.99	1,072	1,054	1,091	2.81	3.06	2.03	1,174	1,031	1,048
4	1.38	1.32	1.02	1,074	1,060	1,088	3.02	3.20	2.22	1,167	1,022	1,086
5	1.50	1.45	1.08	1,070	1,062	1,099	3.57	3.78	2.34	1,186	1,029	1,086
6	1.60	1.50	1.14	1,054	1,069	1,110	3.75	3.87	2.45	1,157	1,058	1,115
7	1.74	1.63	1.20	1,064	1,082	1,114	4.03	4.18	2.64	1,184	1,053	1,119
8	1.86	1.75	1.29	1,069	1,063	1,104	4.30	4.36	2.78	1,189	1,111	1,129
9	2.05	1.92	1.36	1,065	1,075	1,106	4.58	4.69	2.94	1,188	1,108	1,135
10	2.20	2.02	1.45	1,075	1,083	1,115	4.95	4.85	3.10	1,167	1,131	1,137
11	2.39	2.09	1.56	1,069	1,095	1,120	5.31	5.39	3.31	1,170	1,115	1,152
12	2.54	2.30	1.68	1,073	1,119	1,120	6.41	6.23	3.65	1,200	1,140	1,179
13	2.84	2.55	1.87	1,081	1,117	1,121	7.78	7.13	4.02	1,223	1,170	1,184
14	3.02	2.72	2.03	1,084	1,109	1,121	8.64	7.51	4.22	1,224	1,185	1,184
15	3.27	2.87	2.09	1,090	1,110	1,120	9.19	7.87	4.46	1,215	1,187	1,197
16	3.48	3.02	2.16	1,091	1,118	1,119	9.71	8.13	4.97	1,216	1,194	1,205
17	3.74	3.19	2.23	1,095	1,118	1,118	10.41	8.47	5.08	1,204	1,187	1,214
18	3.92	3.28	2.31	1,107	1,120	1,112	10.32	8.47	5.00	1,221	1,201	1,208

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes beneficiaries who most recently assigned their Ticket in the date range shown, who had SSD, and who were age 18 through 64 and not deceased by the end of the month of assignment. Payment system and title were determined in the assignment month. Each participant was followed for 18 months from assignment until death, age 65, or December 2010, whichever occurred first. BFWDI adjusted to 2010 dollars using SSA's COLA. In each month, average BFWDI is calculated by dividing the total BFWDI in the month by the sum of participants with BFWDI in the month. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics (upon which BFWDI is based on) underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.7b. Average Monthly Per-Participant BFWDI by Months Since Assignment and Assignment Cohort, SSI-Only Beneficiaries

	Traditional Payment System Assignment Cohort						EN Payment Systems Assignment Cohort					
	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Number of Participants	20,329	22,849	25,349				872	1,270	3,315			
Months Since Assignment	Percentage of Participants with Any BFWDI			Average per-Participant BFWDI, if BFWDI > 0 ($)			Percentage of Participants with Any BFWDI			Average per-Participant BFWDI, if BFWDI > 0 ($)		
0	0.16	0.13	0.12	645	570	583	0.34	0.31	0.09	619	205	2,436
1	0.15	0.12	0.11	648	573	589	0.34	0.31	0.09	619	205	2,193
2	0.17	0.12	0.11	662	561	546	0.34	0.31	0.09	765	205	2,485
3	0.17	0.11	0.10	634	563	515	0.34	0.31	0.09	237	565	2,711
4	0.17	0.11	0.10	637	578	529	0.34	0.31	0.09	237	565	2,088
5	0.16	0.12	0.09	633	575	512	0.34	0.31	0.09	237	720	2,523
6	0.17	0.13	0.09	626	571	558	0.34	0.31	0.09	521	720	2,211
7	0.17	0.12	0.10	610	558	581	0.34	0.31	0.09	237	653	2,713
8	0.20	0.13	0.10	649	537	574	0.34	0.39	0.09	237	744	2,453
9	0.20	0.13	0.09	599	526	546	0.34	0.39	0.09	237	673	2,210
10	0.20	0.14	0.09	651	535	561	0.34	0.39	0.09	575	862	2,679
11	0.21	0.15	0.10	648	522	536	0.34	0.31	0.09	895	801	2,453
12	0.21	0.17	0.11	638	562	540	0.34	0.31	0.09	557	789	2,240
13	0.20	0.16	0.11	694	550	529	0.34	0.31	0.09	1,372	807	2,471
14	0.21	0.21	0.12	700	581	555	0.34	0.31	0.09	1,372	954	2,471
15	0.24	0.22	0.11	715	553	512	0.34	0.24	0.09	1,372	575	2,016
16	0.28	0.23	0.10	687	555	504	0.34	0.24	0.09	1,372	719	1,997
17	0.28	0.23	0.11	693	572	575	0.34	0.24	0.09	1,332	719	1,997
18	0.30	0.25	0.13	691	570	603	0.34	0.24	0.09	1,670	719	2,478

Source: Analysis of TRF10 supplemented with DAF11.

Note: Table includes beneficiaries who most recently assigned their Ticket in the date range shown, who were SSI-only, and who were age 18 through 64 and not deceased by the end of the month of assignment. Payment system and title were determined in the assignment month. Each participant was followed for 18 months from assignment until death, age 65, or December 2010, whichever occurred first. BFWDI adjusted to 2010 dollars using SSA's COLA. In each month, average BFWDI is calculated by dividing the total BFWDI in the month by the sum of participants with positive BFWDI in the month. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics (upon which BFWDI is based on) underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.8. Participants Remaining in NSTW (After Experiencing at Least One NSTW Month), by Months Since First NSTW Month and Assignment Cohort

	Traditional Payment System Assignment Cohort						EN Payment Systems Assignment Cohort					
	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Participants with at Least One NSTW Month	3,143	2,625	2,126				587	786	1,120			
Months Since First NSTW	Number of Participants Observed			Percentage of Observed Participants in NSTW			Number of Participants Observed			Percentage of Observed Participants in NSTW		
0	3,143	2,625	2,126	100.0	100.0	100.0	587	786	1,120	100.0	100.0	100.0
1	2,877	2,393	1,938	68.7	69.3	68.0	562	765	1,070	82.7	77.4	75.8
2	2,696	2,217	1,794	63.2	65.2	62.5	534	738	1,022	75.8	72.2	70.5
3	2,463	1,968	1,591	59.6	58.4	58.5	506	702	948	73.1	68.2	66.8
4	2,242	1,817	1,420	56.9	55.0	54.3	474	666	897	70.5	62.5	62.3
5	2,044	1,630	1,278	56.7	52.9	53.3	441	627	837	65.3	62.0	60.7
6	1,875	1,488	1,147	54.8	51.3	50.7	387	576	772	62.5	57.1	59.3
7	1,692	1,365	1,043	50.5	48.1	47.2	340	524	715	58.2	50.6	55.7
8	1,553	1,269	938	50.5	46.3	44.0	322	482	676	57.8	49.2	52.8
9	1,410	1,151	851	49.1	45.2	43.7	300	456	633	59.0	46.9	52.4
10	1,287	1,052	768	47.8	43.4	42.8	286	425	596	57.0	46.4	51.0
11	1,152	951	688	48.4	42.3	39.2	265	400	548	55.1	45.8	50.2
12	1,035	844	611	46.7	41.9	41.1	242	372	501	52.9	43.0	52.7
13	920	754	550	44.8	42.2	38.0	223	344	456	55.2	41.3	49.8
14	783	656	483	45.8	42.1	36.6	183	299	409	56.3	38.8	47.9
15	657	543	424	44.3	42.0	38.9	161	258	360	55.3	41.9	44.2
16	546	452	361	46.7	40.7	39.6	139	207	298	57.6	42.5	41.9
17	406	358	305	47.5	42.7	39.3	111	157	245	58.6	49.7	42.0
18	267	253	222	55.1	47.8	41.4	75	117	185	100.0	100.0	100.0

Source: Analysis of TRF10 supplemented with DAF11.

Note: Includes beneficiaries who most recently assigned their Ticket during the date range shown, who were age 18 through 64 and not deceased in the month of assignment, and who experienced at least one month in NSTW in the 18 months following Ticket assignment. Payment system determined in the assignment month. Each participant was followed from the first NSTW month until death, age 65, or December 2010, whichever occurred first. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.8a. Participants Remaining in NSTW After at Least One NSTW Month, by Months Since First NSTW Month and Assignment Cohort, SSD Beneficiaries

	Traditional Payment System Assignment Cohort						EN Payment Systems Assignment Cohort					
	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Participants with at Least One NSTW Month	1,844	1,506	1,163				466	590	817			
Months Since First NSTW	Number of Participants Observed			Percentage of Observed Participants in NSTW			Number of Participants Observed			Percentage of Observed Participants in NSTW		
0	1,844	1,506	1,163	100.0	100.0	100.0	466	590	817	100.0	100.0	100.0
1	1,663	1,360	1,064	82.2	84.0	82.1	443	574	785	88.9	86.1	85.2
2	1,556	1,274	995	76.0	79.6	77.3	421	549	749	82.2	81.2	78.2
3	1,420	1,139	929	72.5	74.7	73.4	394	521	690	79.9	77.2	75.5
4	1,310	1,057	848	71.3	70.6	68.6	366	489	646	77.9	71.2	72.3
5	1,191	944	773	69.5	66.7	66.1	334	459	598	71.6	69.3	69.1
6	1,085	862	701	67.1	64.6	64.5	285	412	545	68.8	64.3	67.9
7	977	783	644	64.0	61.9	59.8	241	364	499	66.0	59.1	65.1
8	895	728	581	63.7	59.5	55.8	224	326	467	63.8	58.6	61.7
9	818	676	526	61.4	57.7	57.2	204	302	436	67.2	57.3	61.7
10	744	627	477	60.3	55.7	54.1	193	277	406	64.2	53.8	60.1
11	678	571	433	58.4	51.7	49.9	180	259	372	62.2	53.3	59.1
12	603	506	394	57.2	53.2	50.5	162	239	340	60.5	52.3	60.0
13	546	463	357	55.1	53.1	48.7	149	217	316	63.1	49.8	56.0
14	481	405	318	56.3	52.3	46.5	120	189	284	64.2	47.1	54.6
15	417	350	284	56.4	51.7	48.9	107	167	252	63.6	49.7	50.0
16	359	309	249	56.5	49.5	49.4	94	139	213	63.8	46.8	46.9
17	293	261	217	53.9	49.0	48.4	78	112	187	69.2	50.9	47.6
18	223	206	174	57.0	53.4	48.3	58	90	152	70.7	56.7	51.3

Source: Analysis of TRF10 supplemented with DAF11.

Note: Includes beneficiaries who most recently assigned their Ticket during the date range shown, who had SSD, who were age 18 through 64 and not deceased in the month of assignment, and who experienced at least one month in NSTW in the 18 months following Ticket assignment. Payment system and title determined in the assignment month. Each participant was followed from the first NSTW month until death, age 65, or December 2010, whichever occurred first. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.8 b. Participants Remaining in NSTW After at Least One NSTW Month), by Months Since First NSTW Month and Assignment Cohort, SSI-Only Beneficiaries

	Traditional Payment System Assignment Cohort						EN Payment Systems Assignment Cohort					
	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009	July 2006–June 2007	July 2007–June 2008	July 2008–June 2009
Participants with at Least One NSTW Month	1,299	1,119	963				121	196	303			
Months Since First NSTW	Number of Participants Observed			Percentage of Observed Participants in NSTW			Number of Participants Observed			Percentage of Observed Participants in NSTW		
0	100.0	100.0	100.0	1,299	1,119	963	121	196	303	100.0	100.0	100.0
1	50.2	49.9	50.7	1,214	1,033	874	119	191	285	59.7	51.3	49.8
2	45.6	45.8	44.2	1,140	943	799	113	189	273	52.2	46.0	49.1
3	42.0	36.1	37.5	1,043	829	662	112	181	258	49.1	42.5	43.4
4	36.7	33.4	33.0	932	760	572	108	177	251	45.4	38.4	36.7
5	38.7	34.0	33.7	853	686	505	107	168	239	45.8	42.3	39.7
6	37.8	33.1	28.9	790	626	446	102	164	227	45.1	39.0	38.8
7	32.0	29.4	26.8	715	582	399	99	160	216	39.4	31.3	33.8
8	32.7	28.7	24.9	658	541	357	98	156	209	43.9	29.5	33.0
9	32.1	27.4	21.8	592	475	325	96	154	197	41.7	26.6	32.0
10	30.6	25.4	24.4	543	425	291	93	148	190	41.9	32.4	31.6
11	34.2	28.2	21.2	474	380	255	85	141	176	40.0	31.9	31.3
12	31.9	25.1	24.0	432	338	217	80	133	161	37.5	26.3	37.3
13	29.7	24.7	18.1	374	291	193	74	127	140	39.2	26.8	35.7
14	29.1	25.5	17.6	302	251	165	63	110	125	41.3	24.5	32.8
15	23.3	24.4	18.6	240	193	140	54	91	108	38.9	27.5	30.6
16	27.8	21.7	17.9	187	143	112	45	68	85	44.4	33.8	29.4
17	31.0	25.8	17.0	113	97	88	33	45	58	33.3	46.7	24.1
18	45.5	23.4	16.7	44	47	48	17	27	33	29.4	48.1	27.3

Source: Analysis of TRF10 supplemented with DAF11.

Note: Includes beneficiaries who most recently assigned their Ticket during the date range shown, who were SSI-only, who were age 18 through 64 and not deceased in the month of assignment, and who experienced at least one month in NSTW in the 18 months following Ticket assignment. Payment system and title were determined in the assignment month. Each participant was followed from the first NSTW month until death, age 65, or December 2010, whichever occurred first. As described in Chapter III, due to earnings reporting lags, we estimate that the pre-cohort NSTW statistics underestimate actual values by approximately 2 percent, while the post-cohort statistics underestimate actual values by approximately 10 percent. The statistics were not adjusted for the effect of lags in the reporting of earnings.

Table A.9. Total MO and OO Payments to ENs, by Assignment Cohort and EN Business Model

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
Top 100 ENs									
Number of Assignments	954	2,410	2,900	2,661	2,918	2,713	7,247	8,639	10,407
Total Payments per 100 Assignments									
2002	23	—	—	—	—	—	—	—	—
2003	67	18	—	—	—	—	—	—	—
2004	79	54	25	—	—	—	—	—	—
2005	76	74	64	26	—	—	—	—	—
2006	76	74	91	69	41	—	—	—	—
2007	73	72	90	91	81	31	—	—	—
2008	72	86	102	116	127	102	50	—	—
2009	73	91	115	125	133	114	85	37	—
2010	41	45	63	76	93	88	75	60	32
Payment Value per Assignment ($)									
2002	97	—	—	—	—	—	—	—	—
2003	299	78	—	—	—	—	—	—	—
2004	314	254	113	—	—	—	—	—	—
2005	270	277	292	110	—	—	—	—	—
2006	279	264	331	294	167	—	—	—	—
2007	265	263	319	339	344	140	—	—	—
2008	330	406	467	565	636	669	472	—	—
2009	362	473	570	658	683	591	563	320	—
2010	202	220	301	368	486	428	383	427	307
SVRA ENs									
Number of Assignments	580	1,398	1,377	1,225	1,094	789	1,769	2,609	1,793
Total Payments per 100 Assignments									
2002	17	—	—	—	—	—	—	—	—
2003	47	13	—	—	—	—	—	—	—
2004	54	37	12	—	—	—	—	—	—
2005	48	53	33	12	—	—	—	—	—
2006	51	57	47	40	13	—	—	—	—
2007	53	60	55	56	28	3	—	—	—
2008	61	71	69	77	52	28	17	—	—
2009	66	73	76	85	50	34	32	16	—
2010	38	38	42	51	32	28	26	31	14
Payment Value per Assignment ($)									
2002	77	—	—	—	—	—	—	—	—
2003	201	55	—	—	—	—	—	—	—
2004	218	170	55	—	—	—	—	—	—
2005	177	209	163	49	—	—	—	—	—
2006	194	212	181	167	57	—	—	—	—
2007	191	223	203	211	123	8	—	—	—
2008	294	351	349	427	321	254	180	—	—
2009	330	380	375	475	275	208	256	146	—
2010	199	172	196	247	184	149	173	237	135
Consumer-Directed ENs									
Number of Assignments	160	377	409	466	648	712	1,763	1,553	2,214
Total Payments per 100 Assignments									
2002	8	—	—	—	—	—	—	—	—

Table A.9 *(continued)*

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
2003	64	19	—	—	—	—	—	—	—
2004	118	56	41	—	—	—	—	—	—
2005	120	75	123	19	—	—	—	—	—
2006	108	86	177	89	29	—	—	—	—
2007	99	83	155	139	107	43	—	—	—
2008	77	132	191	192	199	173	89	—	—
2009	48	153	215	208	228	200	144	60	—
2010	17	71	88	90	147	130	133	97	52
Payment Value per Assignment ($)									
2002	26	—	—	—	—	—	—	—	—
2003	269	76	—	—	—	—	—	—	—
2004	483	246	161	—	—	—	—	—	—
2005	454	298	477	72	—	—	—	—	—
2006	408	345	687	347	107	—	—	—	—
2007	385	343	616	556	407	178	—	—	—
2008	391	755	1,039	1,032	1,079	1,088	789	—	—
2009	319	1,010	1,400	1,350	1,497	1,080	871	512	—
2010	119	478	613	632	1,013	706	681	666	488
Employer ENs									
Number of Assignments	0	4	87	6	24	50	353	426	1,204
Total Payments per 100 Assignments									
2002	—	—	—	—	—	—	—	—	—
2003	—	25	—	—	—	—	—	—	—
2004	—	25	39	—	—	—	—	—	—
2005	—	—	95	150	—	—	—	—	—
2006	—	—	174	350	100	—	—	—	—
2007	—	—	209	233	96	110	—	—	—
2008	—	—	164	320	200	296	79	—	—
2009	—	—	230	280	239	248	129	67	—
2010	—	—	132	240	174	206	93	82	25
Payment Value per Assignment ($)									
2002	—	—	—	—	—	—	—	—	—
2003	—	51	—	—	—	—	—	—	—
2004	—	101	171	—	—	—	—	—	—
2005	—	—	371	457	—	—	—	—	—
2006	—	—	647	1,773	358	—	—	—	—
2007	—	—	620	740	528	475	—	—	—
2008	—	—	635	1,547	961	1,636	896	—	—
2009	—	—	932	1,016	1,002	1,505	990	722	—
2010	—	—	490	917	664	1,309	524	703	296
Traditional ENs									
Number of Assignments	184	623	1,003	952	1,126	1,116	3,184	3,847	4,905
Total Payments per 100 Assignments									
2002	54	—	—	—	—	—	—	—	—
2003	135	30	—	—	—	—	—	—	—
2004	118	92	34	—	—	—	—	—	—
2005	116	120	77	46	—	—	—	—	—
2006	116	105	109	92	72	—	—	—	—
2007	104	93	102	109	119	41	—	—	—
2008	94	87	107	127	158	103	45	—	—

Table A.9 *(continued)*

	Assignment Cohort								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
2009	103	92	121	135	160	114	78	37	—
2010	61	45	78	102	124	102	68	62	31
Payment Value per Assignment ($)									
2002	219	—	—	—	—	—	—	—	—
2003	608	126	—	—	—	—	—	—	—
2004	451	451	166	—	—	—	—	—	—
2005	384	421	375	202	—	—	—	—	—
2006	411	335	356	415	306	—	—	—	—
2007	373	303	327	389	521	197	—	—	—
2008	388	312	383	509	692	660	417	—	—
2009	419	359	473	560	627	525	514	313	—
2010	262	171	310	401	491	423	325	427	289
State Workforce Agency ENs									
Number of Assignments	30	8	24	12	26	46	178	204	291
Total Payments per 100 Assignments									
2002									
2003	40	—	—	—	—	—	—	—	
2004	83	63	—	—	—	—	—	—	
2005	107	75	42	—	—	—	—	—	
2006	121	225	196	58	—	—	—	—	
2007	150	213	200	233	46	—	—	—	
2008	141	329	171	327	62	13	—	—	
2009	112	429	142	309	127	51	37	—	
2010	183	329	96	218	108	26	79	42	
Payment Value per Assignment ($)									
2002	134	—	—	—	—	—	—	—	—
2003	502	348	—	—	—	—	—	—	—
2004	443	149	241	—	—	—	—	—	—
2005	372	419	769	279	—	—	—	—	—
2006	438	369	831	740	116	—	—	—	—
2007	383	595	650	894	238	61	—	—	—
2008	359	1,303	445	891	471	448	361	—	—
2009	948	680	413	650	355	191	580	361	—
2010	404	367	129	417	301	118	302	449	341

Source: Analysis of TRF10 supplemented with DAF11; and SSA categorized Top 100 ENs by type.

Note: Includes only assignments to the Top 100 ENs based on payments received by SSA in 2010, as categorized by SSA staff. Assignment cohort based on most recently assigned Ticket. Assignments include only those under the MO or OO system, as determined in the assignment month. SSA provided the classification of top 100 ENs based on the total dollar value of payments received in 2010. All payment amounts were adjusted to 2010 dollars using SSA's COLA. In each year following the assignment year, the number of participants (based on the calculation of payments per 100 participants) is the number in the cohort shown, excluding beneficiaries who died or reached FRA by that year.

— = not applicable

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