

DISABILITY BENEFITS SUSPENDED OR TERMINATED BECAUSE OF WORK

by Jody Schimmel and David C. Stapleton*

We use a new variable in the Social Security Administration's Ticket Research File to produce statistics on the first month of suspension or termination for work (STW) for Social Security Disability Insurance (DI) and Supplemental Security Income (SSI)-only beneficiaries as well as on the number of months in nonpayment status following suspension or termination for work (NSTW) before their return to the rolls, attainment of the full retirement age, or death—in each year from 2002 through 2006. Less than 1 percent of beneficiaries experienced their first STW in each year, but more were in NSTW in at least 1 month. Ticket to Work (TTW) participants were more likely to have a first STW than nonparticipants, but most of those who had an STW were not TTW participants, reflecting low use of TTW. Employment networks often failed to file claims for outcome payments during months when their TTW clients were in NSTW.

Introduction

The benefits of only a small share of Social Security Disability Insurance (DI) and Supplemental Security Income (SSI)-only beneficiaries are terminated each year because of work—about one-half of 1 percent of DI participants and an even smaller percentage of SSI-only participants (O'Leary, Livermore, and Stapleton 2011). Terminations provide only a partial picture of the extent to which beneficiaries forego benefits because of work, however, for two reasons. First, a substantial number of beneficiaries have their benefits suspended for work—many more than the number whose benefits are eventually terminated for work. Second, beneficiaries may remain in nonpayment status for many months, even years, after suspension or termination for work occurs. In any month, the total number of beneficiaries or former beneficiaries who are in nonpayment status following benefit suspension or termination for work is far larger than the number first suspended or terminated for work in the same month, even after excluding

months after the beneficiary attains the full retirement age (FRA) or dies.

Recent efforts to increase beneficiary employment and program exits for work have heightened interest in counting the number of months in which beneficiaries and former beneficiaries forego benefits because of work. One specific objective of the Social Security Administration's (SSA's) Ticket to Work (TTW) program, launched in 2002, was to increase the number of such months. To achieve this objective, TTW expanded the types of organizations SSA would pay to support

Selected Abbreviations

DI	Disability Insurance
EN	employment network
FRA	full retirement age
MO	milestone outcome
NSTW	nonpayment status following suspension or termination for work

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Selected Abbreviations—Continued

OO	outcome only
SGA	substantial gainful activity
SSA	Social Security Administration
SSI	Supplemental Security Income
SVRA	state vocational rehabilitation agency
STW	suspension or termination for work
TRF	Ticket Research File
TTW	Ticket to Work
TWP	trial work period

beneficiaries' employment efforts. The new providers, called employment networks (ENs), became eligible to receive payments under TTW's milestone-outcome (MO) or outcome-only (OO) payment systems, whichever they preferred. Both of these new payment systems offer outcome payments to ENs in months when their clients are in nonpayment status because of work.¹ State vocational rehabilitation agencies (SVRAs) could also choose to use one of the new payment systems. SVRAs were also allowed to continue to use a "traditional" payment system, which ties cost reimbursement payments to attainment of an earnings objective, without regard to benefit suspension or termination for work, on a case-by-case basis, provided that they obtained the beneficiary's "ticket." During the 5-year period examined in this article, from 2002 through 2006, the traditional payment system was considered to be a TTW payment system, although regulatory modifications changed that in July 2008.² In this article, "TTW participants" refers to beneficiaries who assigned their tickets under any one of the three payment systems.

Prior to TTW, information about benefit suspensions and terminations for work was quite limited (Newcomb, Payne, and Waid 2003; O'Leary, Livermore, and Stapleton 2011), and SSA did not routinely produce statistics on suspensions and terminations of DI benefits for work. The best information available about terminations specifically for work came from a series of studies based on DI beneficiaries who entered the program in 1980 and 1981 (for example, Muller 1992). SSA did not start regularly publishing statistics on DI benefit suspensions and terminations for work until 2001. Statistics on SSI suspensions for work are more comprehensive; SSA has reported, consistently since 1987, the number of beneficiaries whose payments were suspended under section 1619(b) of the Social Security Act.

Even today, however, the annual published statistics on benefit suspension and termination for work have significant limitations. Most importantly, the data lack information about the duration of suspensions and terminations for work and do not tell us how long the small share of beneficiaries whose benefits are first suspended or terminated for work in each year remain in nonpayment status thereafter. In fact, those whose benefits have been terminated for work are not represented in SSA statistics at all in later years unless they return to current-pay status. Another limitation of the published statistics is that the data do not consider the intersection of DI and SSI. In some instances, concurrent beneficiaries might be in nonpayment status for SSI after suspension or termination for work, but in payment status for DI, or vice versa. No statistics we have seen identify those who are not receiving benefits from either program following benefit suspension or termination for work.

We exploit a newly developed monthly variable in SSA's 2007 Ticket Research File (TRF) that indicates whether a beneficiary is in nonpayment status following benefit suspension or termination for work (NSTW). The variable was developed to support the TTW evaluation because a primary goal of the program was to increase the time that beneficiaries and former beneficiaries are in NSTW. We use the NSTW variable to produce new statistics on months in which benefits were not paid following suspension or termination for work.³ We count the number of suspension or termination for work (STW) events in each year (that is, the number of beneficiaries whose benefits are suspended or terminated because of work for the first time) and provide statistics on the duration of NSTW.

By definition, NSTW only ends when the beneficiary returns to current-pay status (that is, he or she is entitled to a benefit payment), attains the FRA, or dies. Those classified as in NSTW are not necessarily working at a level that would make them ineligible to receive benefits; that is, they are not necessarily engaged in substantial gainful activity (SGA), as defined by SSA. We know that they were engaged in SGA when their STW event occurred, but not in every NSTW month thereafter. The counted NSTW months are an upper bound on the number of months such beneficiaries were engaged in SGA prior to their return to current-pay status, attainment of the FRA, or death. The counted NSTW months are not necessarily an upper bound on the number of months that beneficiaries are in nonpayment status because

of work, however, for two reasons. First, we cannot identify beneficiaries whose benefits were suspended or terminated for other reasons, but are now ineligible for benefits only because of SGA. Second, there are also instances of ambiguity about why benefits are suspended or terminated, reflecting how program administrative data are collected and used.

We provide the first STW and NSTW statistics over multiple years and compare statistics for TTW participants and nonparticipants. We also count the number of outcome payments made to ENs under the MO and OO payment systems in months when, according to the NSTW indicator, their clients were in NSTW. This comparison led to the unexpected result that no payments were made to an EN in a large share of NSTW months, prompting SSA to investigate the reasons why.

SSA's investigation included a review of a random sample of months when NSTW was at odds with the TTW payment information. The review confirmed that the NSTW statistics presented in this article are substantively correct. Some classification errors occur in both directions, but in this sample such errors approximately offset each other. The review also suggests that TTW participants are actually engaged in SGA during a large majority of the months identified as NSTW months. Because TTW participants are a self-selected group, we do not know the extent to which this finding extends to nonparticipants in NSTW.

The article first describes the NSTW indicator and defines the subpopulations analyzed, and then it presents statistics on the first STW event and the duration of NSTW months thereafter. This includes a comparison of statistics for TTW participants and nonparticipants. Annual statistics on total NSTW months from 2002 through 2006 are given next, again comparing TTW participants and nonparticipants. We then take a closer look at NSTW months for TTW participants and the extent to which those months generated outcome payments to ENs or SVRAs. Our conclusions provide a summary of key findings and a discussion of their implications.

Data and Methods

The STW statistics are derived from the 2007 version of the Ticket Research File—a compilation of data from multiple administrative data sources containing information on 100 percent of DI and adult SSI disability beneficiaries with at least 1 month in current-pay status from 1996 onward.

STW is based on a complex set of administrative information. We first constructed separate STW measures for DI and SSI beneficiaries and then combined them into a single measure indicating whether the beneficiary is in one of five status categories: (1) current-pay status in at least one of the programs and has not left the rolls because of work; (2) suspended-pay status because of work in both programs, or in suspended status because of work in one program and either ineligible or in terminated status for any reason under the other program; (3) terminated status because of work in both programs, or in terminated status for work in one program and either ineligible or in terminated status for any reason under the other program; (4) has attained the FRA or died; or (5) is in terminated status for some other reason, such as medical improvement. For the purposes of this analysis, we define the first occurrence of either the second or third category as the first STW event and all subsequent occurrences as NSTW months. We do not distinguish between suspended and terminated status.

We constructed two data extracts to support the analysis. The first was used to support comparison of statistics for TTW participants and nonparticipants. It consists of repeated cross sections of DI and SSI-only beneficiaries in each year from 2002 through 2006. For each year, all beneficiaries included were either in current-pay status or had benefits suspended or terminated for work in at least 1 month of that year, were aged 18–64, and were not deceased in January. For each year, TTW participants are those whose tickets were already assigned (that is, held by a provider) as of January or were assigned during a later month of the year. We differentiate TTW participants by payment system (traditional, MO, or OO) and “payment title” (DI or SSI-only). The latter distinction reflects the fact that TTW payments for DI beneficiaries are higher than those for SSI-only beneficiaries. It is important to recognize that all statistics for DI beneficiaries encompass both DI-only and concurrent DI and SSI beneficiaries.⁴

We constructed the second data extract to support longitudinal analysis of TTW participants over multiple years. The extract includes records for all TTW participants who assigned their tickets from February 2002 through December 2005. We consider only the most recent ticket assignment for each participant; the small number who assigned their tickets during this time period, but reassigned them after the period, are excluded.⁵ Months in which tickets were unassigned (either because they had not yet been assigned or had been unassigned) were not included in this

analysis. Hence, we excluded all months after termination for age, mortality, medical recovery, or any reason other than work. We grouped participants into annual cohorts, based on when they assigned their tickets. We again stratified the statistics by payment system and payment title. In this case, the stratum is based on the month of ticket assignment rather than the status of the beneficiary in January of the relevant year.

Nearly 140,000 of the most recent ticket assignments occurred from 2002 through 2005 (Table 1). Ticket assignments were highest in 2004 and 2005, when more than 45,000 beneficiaries assigned their tickets in each of those years. The majority of participants (86.5 percent) assigned their tickets under the traditional payment system over this period. That percentage rose from 81.8 percent in 2002 to 89.4 percent in 2005. Of the 18,809 beneficiaries who assigned their tickets under the new payment systems, 80 percent (15,029) assigned them to a provider that used the MO system. A large majority of those who assigned their tickets were DI beneficiaries under each of the three payment systems, and especially under the OO system; 85 percent of OO participants, 70 percent of MO participants, and 69 percent of traditional system participants were DI beneficiaries.

Suspensions and Terminations for Work

This section presents longitudinal statistics for all DI and SSI-only beneficiaries who experienced their first STW event from 2002 through 2006, by year.

We define the first STW event in the year as the beneficiary's first STW event if and only if the beneficiary was in current-pay status in every month of the previous calendar year. This definition excludes the bulk of beneficiaries who had an earlier STW event, but does include a small number with STW events that occurred prior to the previous calendar year. The denominator for the percentage experiencing their first STW event in each year similarly excludes those who were not on the rolls in each month of the previous calendar year.⁶

TTW participants were much more likely than nonparticipants to experience their first STW event, regardless of payment system (Table 2)—from 2 percent to 4 percent of participants did so in each year, versus less than 1 percent for nonparticipants. We expected this finding, as TTW participants signal an interest in foregoing benefits for work when they assign their tickets. Some, perhaps many, TTW participants who had their first STW event would have done so in the absence of TTW. Despite the lower percentages for nonparticipants, the number of nonparticipants who experienced their first STW event is much larger than the number of participants who did so because the vast majority of ticket-eligible beneficiaries did not assign their tickets.

In 2006, the percentage of participants with a first STW event varied substantially across TTW payment systems: OO participants had the highest percentage (6.3 percent), followed by MO (4.0 percent) and

Table 1.
Number of TTW participants, by payment system, payment title, and assignment cohort, February 2002–December 2005

Payment system and payment title	First month of most recent ticket assignment				Total	Percentage of total
	Feb.–Dec. 2002	Jan.–Dec. 2003	Jan.–Dec. 2004	Jan.–Dec. 2005		
Total	13,981	32,406	48,161	45,247	139,795	100.0
Milestone-outcome	2,133	3,485	5,745	3,666	15,029	10.8
DI	1,450	2,450	4,020	2,564	10,484	7.5
SSI-only	683	1,035	1,725	1,102	4,545	3.3
Outcome-only	414	1,073	1,178	1,115	3,780	2.7
DI	332	924	988	973	3,217	2.3
SSI-only	82	149	190	142	563	0.4
Traditional	11,434	27,848	41,238	40,466	120,986	86.5
DI	8,331	19,760	28,430	26,625	83,146	59.5
SSI-only	3,103	8,088	12,808	13,841	37,840	27.1

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Counts include participants who most recently assigned their tickets from February 2002 through December 2005. Payment system and payment title are based on ticket-assignment month.

Table 2.
Number and percentage of beneficiaries experiencing first STW event, by payment title and payment system, 2002–2006

Payment title and payment system	Number of beneficiaries experiencing first STW event					Percentage of all beneficiaries experiencing first STW event				
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006
DI										
TTW participants	221	1,089	2,421	3,896	4,210	2.58	3.76	4.11	4.54	3.84
Milestone-outcome	44	195	341	546	501	3.66	5.73	5.04	6.08	4.71
Outcome-only	12	105	176	221	225	4.23	9.69	9.43	8.48	6.57
Traditional	165	789	1,904	3,129	3,484	2.33	3.22	3.79	4.21	3.64
Nonparticipants	49,351	49,832	48,221	50,469	43,842	0.87	0.83	0.77	0.77	0.65
All DI beneficiaries	49,574	50,925	50,646	54,370	48,067	0.87	0.85	0.80	0.82	0.70
SSI-only										
TTW participants	50	224	457	627	836	1.69	2.26	2.19	2.02	2.11
Milestone-outcome	10	31	58	74	76	2.07	2.49	2.30	2.33	2.06
Outcome-only	4	9	14	12	18	6.56	5.66	4.61	3.03	4.02
Traditional	36	184	385	541	742	1.49	2.16	2.13	1.97	2.09
Nonparticipants	22,439	19,056	23,207	24,457	22,150	1.01	0.85	1.00	1.04	0.93
All SSI-only beneficiaries	22,489	19,281	23,665	25,086	22,988	1.01	0.86	1.01	1.05	0.95
Total										
TTW participants	271	1,313	2,878	4,523	5,046	2.35	3.38	3.61	3.87	3.38
Milestone-outcome	54	226	399	620	577	3.20	4.86	4.30	5.10	4.02
Outcome-only	16	114	190	233	243	4.64	9.17	8.76	7.76	6.27
Traditional	201	973	2,289	3,670	4,226	2.11	2.95	3.35	3.61	3.22
Nonparticipants	71,790	68,888	71,428	74,926	65,992	0.91	0.84	0.83	0.84	0.72
All beneficiaries	72,063	70,206	74,311	79,546	71,055	0.91	0.85	0.86	0.88	0.77

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Counts are based on the NSTW indicator. They include existing beneficiaries in January of each calendar year who were aged 18–64, not deceased, had at least 1 month during the year in current-pay status or with benefits suspended or terminated for work, and were in current-pay status for all 12 months in the previous calendar year. "TTW participants" in each year include those whose most recent tickets were assigned to an EN in at least 1 month of the year; months during the year in which the participants' tickets were not assigned are included under this definition. "Nonparticipants" include those who never assigned tickets or whose most recent tickets were not yet assigned in that calendar year. Within each panel, TTW participants and nonparticipants comprise "All beneficiaries." Total numbers are generated by adding the number of DI and SSI-only beneficiaries from the panels above. Payment title is determined in January of each calendar year. Payment system for TTW participants is determined in the month of most recent ticket assignment.

The denominators that were used to obtain the percentages (that is, the total number of TTW participants in each year, the total number of nonparticipants in each year, and the total number in each payment title category for each year) are not shown in the table.

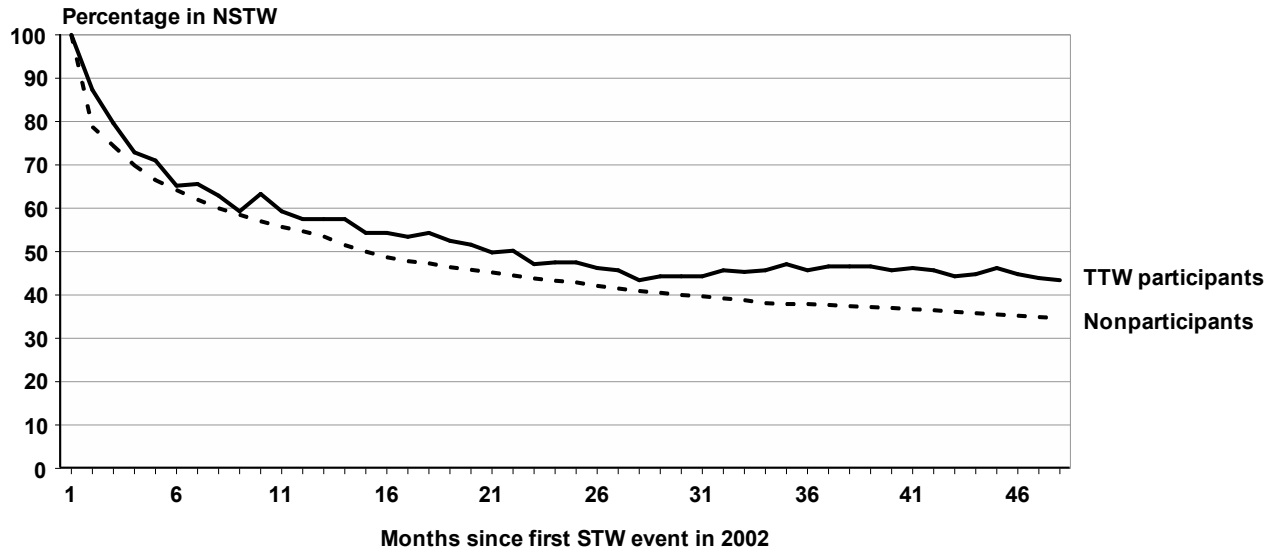
traditional (3.2 percent) participants. This pattern held in each year from 2002 through 2006, for both DI and SSI-only participants. Among participants, we find that DI beneficiaries were more likely to experience their first STW event, but the opposite was true for nonparticipants; SSI-only nonparticipants were more likely than DI nonparticipants to experience their first STW event for work.

Among beneficiaries experiencing their first STW event, TTW participants were more likely to remain in NSTW in subsequent months than nonparticipants, although there were important differences by payment title. Charts 1 and 2 highlight the experience of participants and nonparticipants with their first

STW event in 2002, for DI and SSI-only beneficiaries, respectively.⁷ Differences between participant and nonparticipant statistics might reflect differences in the characteristics of participants and nonparticipants, but also might reflect differences in services received. For DI beneficiaries, TTW participants were somewhat more likely than nonparticipants to be in NSTW in every month after their first STW event (Chart 1). The difference gradually increases through the 48th month, when 43.4 percent of the TTW participants were in NSTW, compared with 34.7 percent of the nonparticipants.

SSI-only beneficiaries experiencing their first STW event were much less likely than their DI counterparts

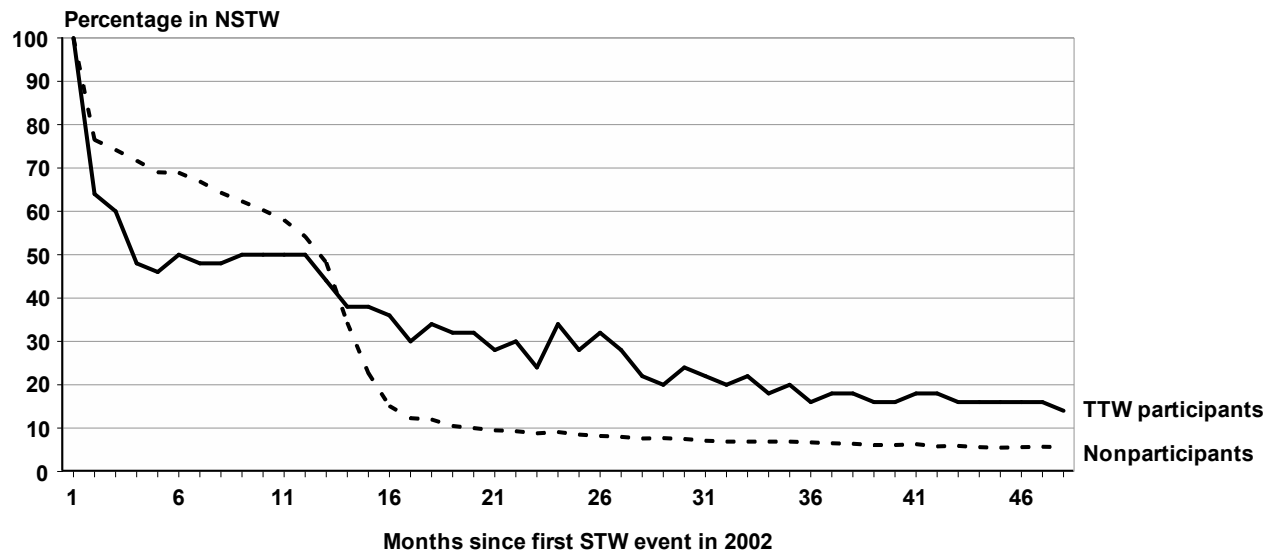
Chart 1.
Percentage of DI beneficiaries in NSTW, by months since first STW event in 2002 and TTW participation status



SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes DI beneficiaries who were aged 18–64, not deceased in January 2002, were in current-pay status throughout 2001, and had at least 1 month during 2002 in current-pay status or with benefits suspended for work. The first STW event is the first month of suspension or termination for work in 2002. TTW participants are those whose most recent tickets were assigned to an EN in at least 1 month of 2002, even if assignment occurred after the first STW event. Nonparticipants are those whose tickets had not been assigned by the end of 2002. Ticket payment system is determined at the month of ticket assignment; payment title was determined in January 2002.

Chart 2.
Percentage of SSI-only beneficiaries in NSTW, by months since first STW event in 2002 and TTW participation status



SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes SSI-only beneficiaries who were aged 18–64, not deceased in January 2002, were in current-pay status throughout 2001, and had at least 1 month during 2002 in current-pay status or with benefits suspended for work. The first STW event is the first month of suspension or termination for work in 2002. TTW participants are those whose most recent tickets were assigned to an EN in at least 1 month of 2002, even if assignment occurred after the first STW event. Nonparticipants are those whose tickets had not been assigned by the end of 2002. Ticket payment system is determined at the month of ticket assignment; payment title was determined in January 2002.

to be in NSTW in later months, and an interesting pattern emerges by TTW participation status for the SSI-only group (Chart 2). For the first 14 months, the percentage in NSTW is higher for nonparticipants than for participants, but the percentage for nonparticipants then drops off rapidly while that for participants continues a gradual decline. The only programmatic explanation we can think of relates to the fact that SSI-only payments are terminated after 12 months of suspension *if suspension occurs for a reason other than work*. Perhaps TTW participants whose benefits are suspended for work are more likely to know that SSA will not terminate their benefits after the 12th month if they continue to work.⁸ At 48 months after the first STW event, 14.0 percent of the TTW participants were in NSTW, compared with just 5.6 percent for nonparticipants; both values are much lower than the corresponding values for DI beneficiaries, as shown in Chart 1 (43.4 percent and 34.7 percent, respectively).

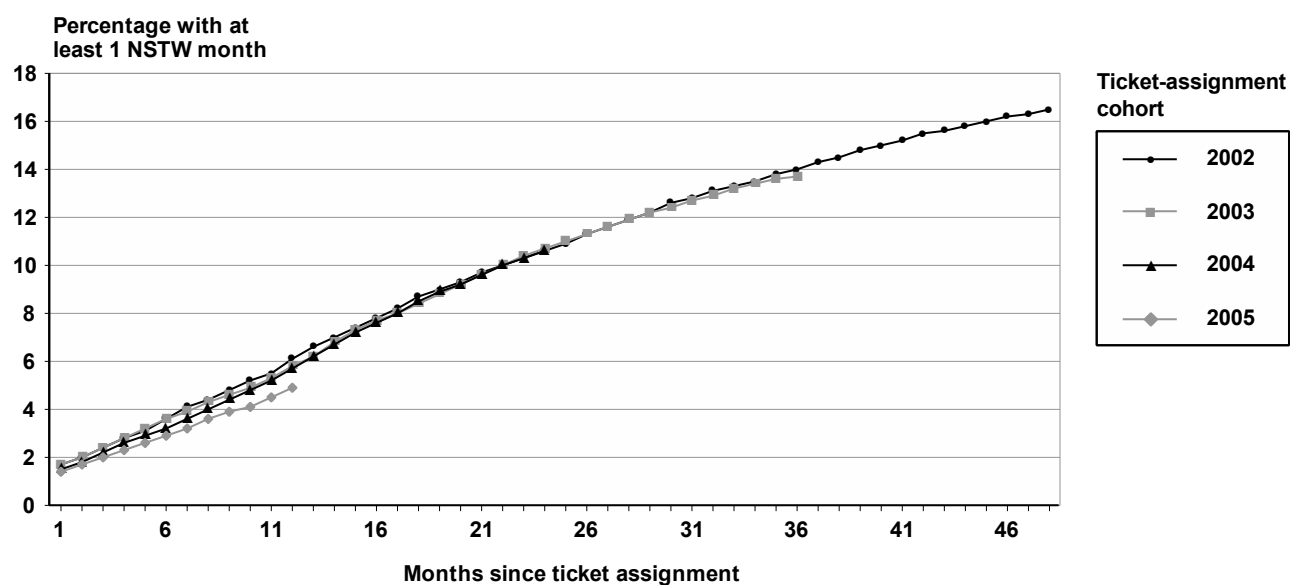
Thus far, we have considered NSTW months for TTW participants without regard for how long or in which months of a particular year their tickets were assigned. In what follows, we provide a more complete picture of the extent to which participants had NSTW months by presenting longitudinal statistics for four

annual “assignment cohorts.” The analysis follows all TTW participants in the 2002 assignment cohort for 48 months after the month of ticket assignment, those in the 2003 cohort for 36 months, those in the 2004 cohort for 24 months, and those in the 2005 cohort for 12 months. The analysis includes only months in which tickets were assigned; it excludes NSTW months that occurred before a ticket was assigned or after it was unassigned.

Fewer than 2 in 10 participants in the 2002 cohort had their first STW event by the 48th month after ticket assignment, but experience varied considerably by payment system (Charts 3, 4, and 5).⁹ By the 48th month after ticket assignment, the percentage with at least 1 NSTW month was highest for OO participants (25.1 percent, Chart 5); lower for traditional payment system participants (17.3 percent, Chart 3); and lowest for MO participants (16.5 percent, Chart 4).

The experiences of more recent cohorts have differed somewhat from earlier ones, at least to the extent they have been observed. For the traditional and MO payment systems, the percentages of the 2005 cohort that experienced their first STW event by the 12th month after ticket assignment were lower (4.9 percent for the traditional system and 6.6 percent for the MO

Chart 3.
Cumulative percentage of TTW participants under the traditional payment system with at least 1 NSTW month since ticket assignment, by ticket-assignment cohort and months since assignment

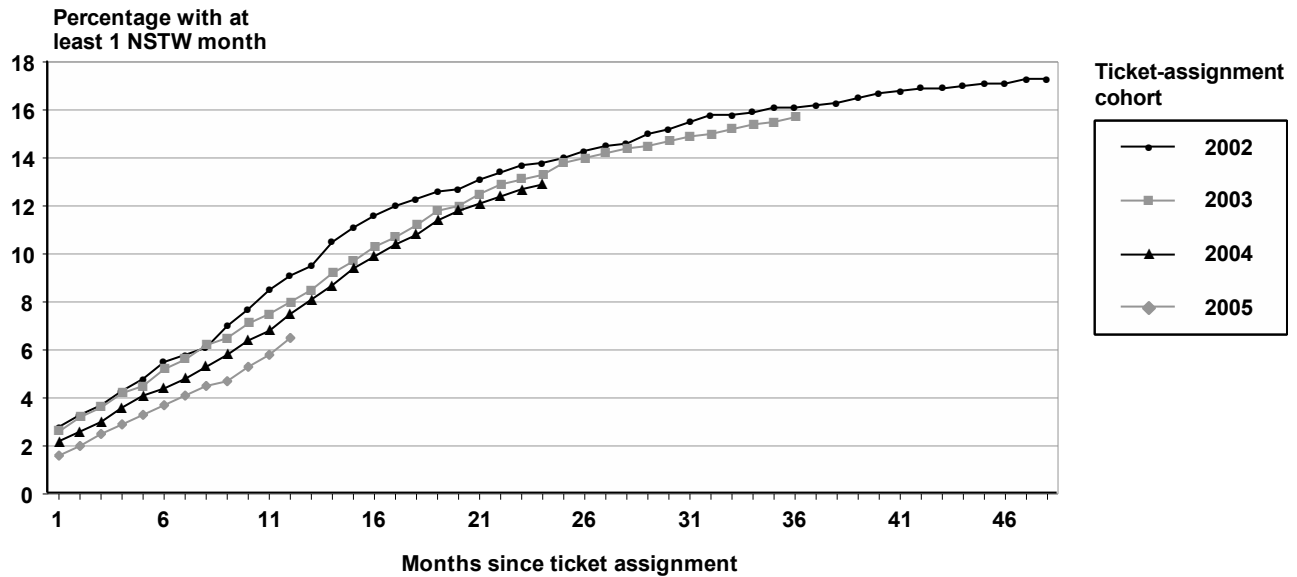


SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes TTW participants who, as of December 2005, had most recently assigned their tickets under the traditional payment system; payment system and payment title are determined in the month of ticket assignment. The first month observed is the month in which the ticket was assigned. Months in which tickets were unassigned are excluded.

Chart 4.

Cumulative percentage of TTW participants under the MO payment system with at least 1 NSTW month since ticket assignment, by ticket-assignment cohort and months since assignment

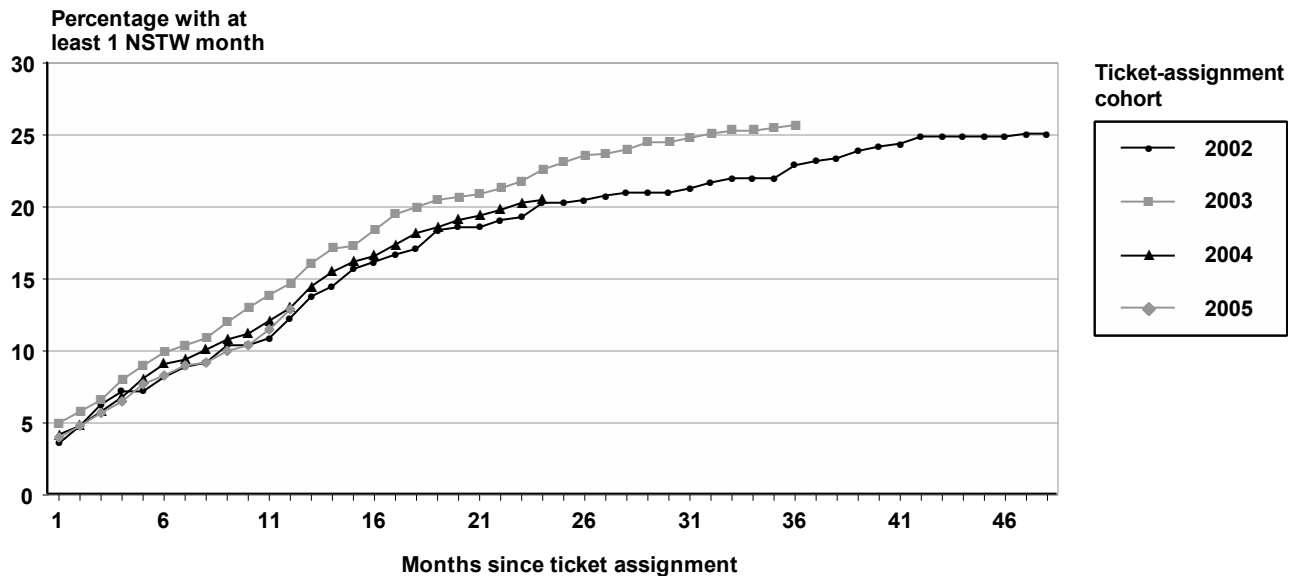


SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes TTW participants who, as of December 2005, had most recently assigned their tickets under the MO payment system; payment system and payment title are determined in the month of ticket assignment. The first month observed is the month in which the ticket was assigned. Months in which tickets were unassigned are excluded.

Chart 5.

Cumulative percentage of TTW participants under the OO payment system with at least 1 NSTW month since ticket assignment, by ticket-assignment cohort and months since assignment



SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes TTW participants who, as of December 2005, had most recently assigned their tickets under the OO payment system; payment system and payment title are determined in the month of ticket assignment. The first month observed is the month in which the ticket was assigned. Months in which tickets were unassigned are excluded.

system) than for the 2002 cohort (6.1 percent for the traditional system and 9.1 percent for the MO system). These patterns suggest that the percentages of later cohorts experiencing their first STW event by the 48th month under these payment systems will be lower than those for the 2002 cohort.

The pattern across cohorts for OO participants is different, however (Chart 5). The 2002, 2004, and 2005 cohorts all have nearly identical percentages at the 12-month mark (12.3, 12.9, and 12.9 percent, respectively), while the percentage for the 2003 cohort is higher (14.7 percent). The differences across cohorts might reflect variation in experiences across states, as the 2002 cohort only includes those persons residing in the states included in the first phase of the TTW rollout, the 2003 cohort includes those in the first and second phase states, and the 2004 cohort includes those in all states. We also note that the severe recession, which started in December 2007 (after our sample period), quite likely has been detrimental to outcomes for the 2004 and 2005 cohorts within their 48-month windows.

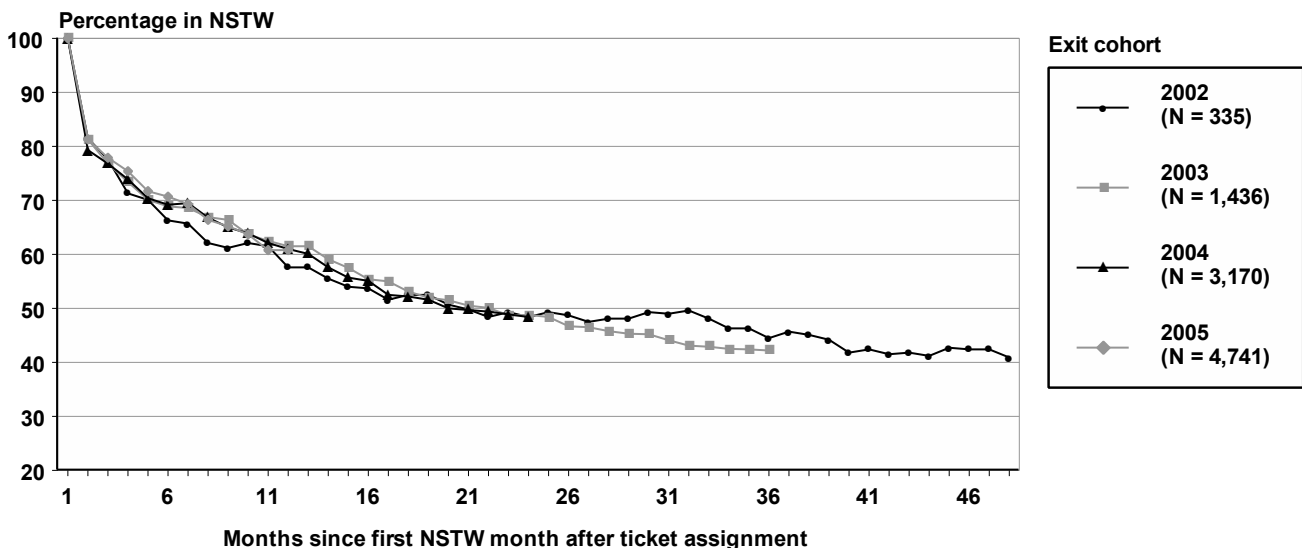
Within a given payment system, the likelihood of being off the rolls for at least 1 month tended to be

slightly higher for DI than for SSI-only beneficiaries by the end of the 48th month after ticket assignment (not shown). This difference was most pronounced among participants under the traditional payment system (17.0 percent for DI and 15.3 percent for SSI-only) and MO payment system (18.8 percent for DI and 14.2 percent for SSI-only). Among OO participants, the difference was much smaller (25.6 percent for DI and 25.1 percent for SSI-only).

Charts 6, 7, and 8 plot the share of months in which participants who had at least 1 STW event remained in NSTW, starting from their first STW event. These charts follow all cohorts of participants who experienced their first STW event in the same calendar year (“exit cohorts”), as opposed to the assignment cohorts shown in the previous three charts.¹⁰ The first month observed is the first NSTW month.

Participants under the OO payment system were the most likely to remain in NSTW. For those in the 2002 exit cohort, 48.3 percent of OO participants were in NSTW in month 48 (Chart 8), compared with 40.9 percent and 24.3 percent among traditional (Chart 6) and MO (Chart 7) participants, respectively. This may reflect major differences in the

Chart 6.
Percentage of TTW participants under the traditional payment system in NSTW, by months since first NSTW month after ticket assignment and year of first NSTW month after ticket assignment (exit cohort)

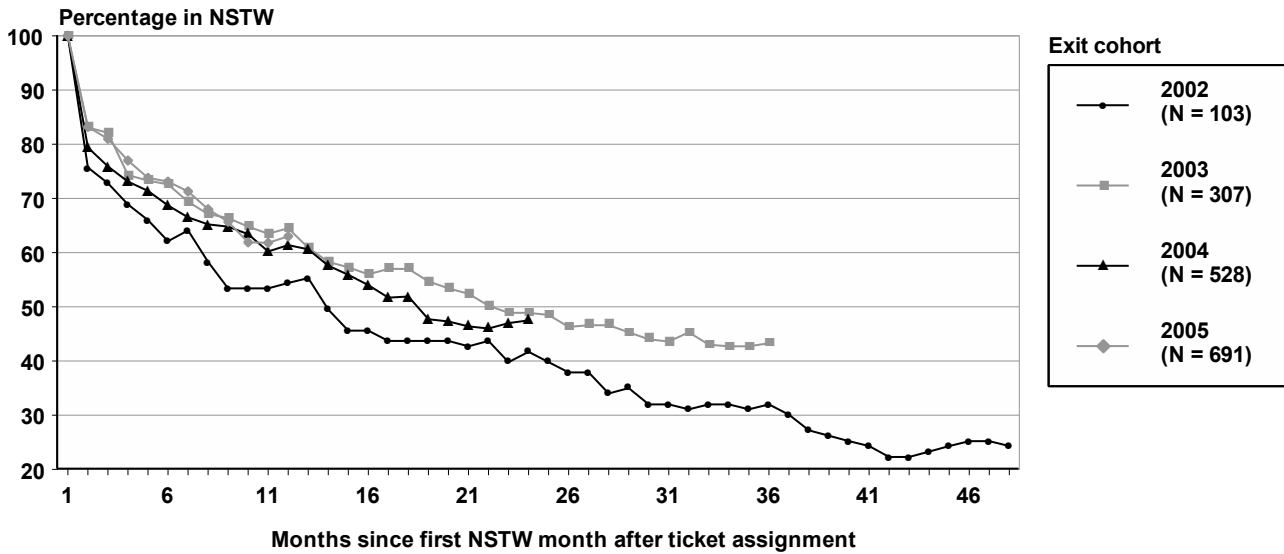


SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes participants who, as of December 2005, had most recently assigned their tickets under the traditional payment system and had a least 1 NSTW month during the observation period for their assignment cohort. Each line represents the experience of those who had their first NSTW month after ticket assignment in the year indicated. The first month observed is the first NSTW month. Months in which tickets were unassigned are excluded.

Chart 7.

Percentage of TTW participants under the MO payment system in NSTW, by months since first NSTW month after ticket assignment and year of first NSTW month after ticket assignment (exit cohort)

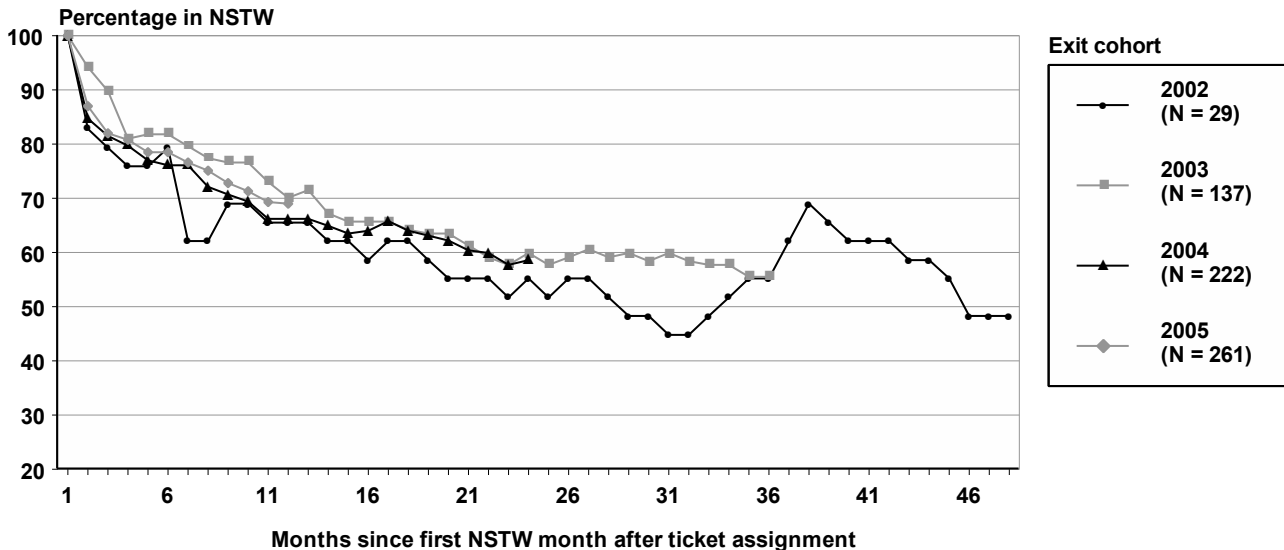


SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes participants who, as of December 2005, had most recently assigned their tickets under the MO payment system and had a least 1 NSTW month during the observation period for their assignment cohort. Each line represents the experience of those who had their first NSTW month after ticket assignment in the year indicated. The first month observed is the first NSTW month. Months in which tickets were unassigned are excluded.

Chart 8.

Percentage of TTW participants under the OO payment system in NSTW, by months since first NSTW month after ticket assignment and year of first NSTW month after ticket assignment (exit cohort)



SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes participants who, as of December 2005, had most recently assigned their tickets under the OO payment system and had a least 1 NSTW month during the observation period for their assignment cohort. Each line represents the experience of those who had their first NSTW month after ticket assignment in the year indicated. The first month observed is the first NSTW month. Months in which tickets were unassigned are excluded.

characteristics of the beneficiaries who assign their tickets under the three payment systems (Livermore, Stapleton, and Roche 2009), as well as any differences in service delivery. It is also interesting that the percentage in STW status for the OO participants *increases* from month 32 (44.8 percent) to month 38 (69.0 percent) before declining again. This may be an anomaly, however, as there were just 29 individuals in this group.

Those in the more recent exit cohorts were somewhat more successful at remaining in STW status than those in the 2002 cohort. For example, 47.5 percent of the MO participants in the 2003 cohort were in STW status in the 24th month after the first STW event, compared with only 41.8 percent for the 2002 cohort. Similar but less pronounced patterns appear for the participants under the OO and traditional payment systems. This most likely reflects differences in duration from ticket assignment to first STW event, which varied across those cohorts because of how the cohorts are defined. By definition, those whose first STW event was in 2002 must have assigned their tickets quite recently, whereas some of those whose first STW event was in 2003 or later had assigned their tickets many months before their first STW event. The differences also might reflect some of the same factors behind the variation across assignment cohorts in the percentage of participants with at least 1 NSTW month.

Regardless of payment system, the likelihood of being in NSTW conditional on having an STW event in an earlier month was much higher for DI beneficiaries than for SSI-only beneficiaries (not shown). For example, in the 48th month after the first STW event, the percentage in NSTW for DI beneficiaries under the traditional payment system is 45.7 percent, compared with 16.6 percent for the SSI-only group. Comparable values for participants under the MO payment system are 28.7 percent and 8.7 percent, respectively. The number of SSI-only participants under the OO payment system observed for 48 months after an STW event is too small (just six) to make a meaningful comparison.

In summary, only a minority of participants under all three payment systems had an STW event during the period of observation, but very substantial shares of those who did have such an event were in NSTW for a long time. Across the three payment systems, OO participants were the most likely to both have an STW event and be in NSTW for an extended period; MO

participants were the least likely. Those participants who were DI beneficiaries were more likely to both have an STW event and be in NSTW for an extended period than those who were SSI-only beneficiaries. To the extent observed, beneficiaries in more recent assignment cohorts were less likely to have an STW event than those in earlier cohorts, but when they did have such an event, they spent more months in NSTW. Cross-cohort differences might well have changed after the end of the sample period because of the recession.

Cumulative Effects of Suspensions and Terminations on NSTW Months

Annual statistics on beneficiaries do not capture the cumulative effects of past entry into NSTW because they exclude information on those whose benefits were previously terminated for work. In this section, we explore the total number of beneficiaries in NSTW in each year of the period under study, taking into account the cumulative effects of past entry. We base these statistics on the first subpopulation described earlier—those in current-pay status or in NSTW for at least 1 month during the year.

For this analysis, we exclude beneficiaries whose benefits were suspended or terminated for the entire year for a reason other than work—mostly because of age or mortality, but also because of medical recovery. Each year's subpopulation includes those who entered DI in an earlier year.¹¹ We stratify each group based on TTW participation. Participants include beneficiaries who assigned their tickets in the specified or previous calendar years, provided that those tickets were also assigned during the relevant NSTW months.¹² All other beneficiaries are non-participants. We base the payment system for TTW participants on the first month of the most recent ticket assignment.

In 2002, more than 400,000 beneficiaries (including former beneficiaries) had at least 1 NSTW month because of work; 59.5 percent were DI beneficiaries and the remaining beneficiaries were in the SSI-only group (Table 3). From 2002 through 2006, there was some fluctuation in the total number of beneficiaries with at least 1 NSTW month, but no apparent trend. The share of NSTW months for DI beneficiaries increased, reaching 67.9 percent of the total in 2006.

TTW participants accounted for only a small percentage of those with at least 1 NSTW month, even in the most recent year (Table 3). That percentage is

Table 3.
Number of beneficiaries with at least 1 NSTW month and the percentage who were TTW participants, 2002–2006

Payment title	2002	2003	2004	2005	2006
Beneficiaries with at least 1 NSTW month					
DI	245,673	259,065	259,734	274,816	274,271
SSI-only	166,971	173,132	136,503	135,216	129,328
Total	412,644	432,197	396,237	410,032	403,599
Percentage of beneficiaries with at least 1 NSTW month who had assigned tickets under any of the three payment systems					
DI	0.16	0.68	1.73	2.89	3.60
SSI-only	0.05	0.27	0.87	1.65	2.28
Total	0.11	0.52	1.43	2.48	3.17

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample consists of existing DI or SSI beneficiaries who had entered the programs by January of each calendar year, were in current-pay status or had benefits suspended or terminated because of work for at least 1 month during the calendar year, and were below the FRA in January. In each year, TTW participants include beneficiaries whose tickets were assigned as of their first NSTW month. Stapleton and others (2010b) provide statistics for TTW participants with an assigned ticket during any month of the year indicated.

The figures in the bottom bank use the numbers in the top bank as the denominator and show the percentages of the total who were TTW participants. The corresponding numerator (the number of TTW participants with at least 1 NSTW month) is not shown.

just 0.11 in the first year of TTW, when the program was only available in 13 states. By 2006, the percentage had grown to 3.17 percent, still very small. We expect this percentage to continue to grow because an increasingly larger share of those in NSTW will have had their first STW event after the rollout of the TTW program.

Many of those with NSTW months were not in NSTW in every month of the year. To adjust for this fact, we divide the total number of NSTW months in a year by 12 to obtain a full-year equivalent measure of time off the rolls for work (“NSTW years”). This figure can also be interpreted as the number of beneficiaries and former beneficiaries in NSTW during the average month in the year. The number of NSTW years also fluctuated from 2002 through 2006, from a low of nearly 265,000 years in 2002 to a high of just over 275,000 years in 2006 (Table 4). The share of NSTW years represented by DI beneficiaries rose from 67.8 percent of the total in 2002 to 77.5 percent in 2006.

The percentage of NSTW years that were accrued by TTW participants also increased during this time, from 0.05 percent in 2002 to 2.96 percent in 2006. Much of the observed growth of this percentage was the result of growth in the number of TTW participants. We cannot determine the extent to which this growth reflects an impact of TTW on months off the

rolls for work versus an increase in ticket participation by those leaving the rolls anyway.

We also examine NSTW months for TTW participants by payment system. The number of NSTW months are counted for participants under each system in each calendar year from 2002 through 2006, taking into account whether a beneficiary’s ticket was assigned during the first STW event.

Most participants who had NSTW months had assigned their tickets under the traditional payment system, and most NSTW years for participants are accounted for by the same group. This reflects the fact that a very large majority of tickets were assigned under the traditional payment system throughout this period. Participants under that system had proportionally fewer NSTW months than those under the other two payment systems. In 2002, when 73.0 percent of NSTW years were attributed to those participants, 81.8 percent of ticket assignments were under the traditional payment system. The percentage of NSTW years attributed to this group increased to 80.7 percent in 2006, but the percentage of assignments under the traditional payment system also increased, to 86.5 percent.

It is important to recognize that participants who assigned their tickets to SVRAs did not represent all of the beneficiaries served by those agencies during this period, nor all of those served who had NSTW

Table 4.
Number of NSTW years among all beneficiaries and the percentage who were TTW participants, 2002–2006

Payment title	2002	2003	2004	2005	2006
<i>NSTW years</i>					
DI	179,701	194,107	198,083	208,946	213,630
SSI-only	85,251	78,709	61,944	64,481	62,013
Total	264,952	272,816	260,027	273,427	275,643
<i>Percentage of beneficiaries with assigned tickets under any of the three payment systems</i>					
DI	0.06	0.38	1.20	2.27	3.13
SSI-only	0.02	0.19	0.72	1.48	2.40
Total	0.05	0.33	1.09	2.08	2.96

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample consists of existing DI or SSI beneficiaries who had entered the programs by January of each calendar year, were in current-pay status or NSTW for at least 1 month during the calendar year, and were below the FRA in January. In each year, months for assigned tickets only include the NSTW months during the year when the tickets were assigned. Stapleton and others (2010b) report slightly larger statistics that include NSTW months for the same participants in any months during the year when their tickets were not assigned.

months. This was especially true during 2002 and 2003, when beneficiaries in some states were not eligible for TTW. Hence, a large share of the growth in NSTW years for participants under the traditional payment system reflects growth in the number of beneficiaries served by an SVRA under TTW, not growth in the number of beneficiaries actually served by the SVRA.

In 2002, only 103 MO and 29 OO participants had at least 1 NSTW month (Table 5). By 2006, those numbers had increased to 1,432 and 663, respectively. This growth reflects the TTW program rollout, completed in 2004, as well as gradual growth in ticket assignments after they became available. In 2006, MO participants had a total of 926 NSTW years and OO participants had 476.¹³ Although MO participants spent nearly twice as many months in NSTW as OO participants in 2006, the number of MO participants was nearly five times as large as the number of OO participants.

DI participants under all three payment systems had more NSTW years than SSI-only participants, both because there were more DI participants and because they had more NSTW months per beneficiary.

Outcome Payments to MO and OO Participants in NSTW

The MO and OO payment systems are of special interest because they were first introduced under TTW, and their outcome payments are tied directly to the suspension or termination of benefits for work.

Specifically, SSA makes outcome payments in months when a participant receives no DI or SSI-only payment because of earnings, provided that the participant's EN files a claim for payments with acceptable documentation.

In this section we report findings from an analysis of the extent to which milestone and outcome payments were made during months that were identified as NSTW months for TTW participants. We focus on the period from 2002 through 2005, omitting 2006 to ensure that sufficient time had passed for all EN claims for payment to have been made and processed at the time the payment dates were extracted for this analysis.

Table 6 shows that of the 18,809 MO and OO participants who assigned their tickets from February 2002 through December 2005, at least one payment was generated by the end of 2006 by 2,502 participants (13.3 percent).¹⁴ MO participants were slightly more likely to generate at least one payment than OO participants (13.7 percent compared with 11.6 percent, respectively). Conditional on generating at least one payment, however, OO participants generated more payments than MO participants (14.9 payments compared with 7.2 payments, respectively). Under both payment systems, DI participants were more likely than their SSI-only counterparts to generate a payment. This might reflect differences in the characteristics of those two types of participants, including differences in their prior work histories, but also might reflect programmatic differences. Outcome

Table 5.
TTW participants with at least 1 NSTW month and number of NSTW years: All three payment systems, 2002–2006

Payment title and payment system	2002	2003	2004	2005	2006
TTW participants with at least 1 NSTW month					
DI					
Traditional	280	1,336	3,542	6,415	8,096
Milestone-outcome	80	295	627	1,020	1,119
Outcome-only	23	139	306	489	587
Subtotal	383	1,770	4,475	7,924	9,802
SSI-only					
Traditional	55	358	970	1,891	2,557
Milestone-outcome	23	83	173	272	313
Outcome-only	6	22	47	62	76
Subtotal	84	463	1,190	2,225	2,946
Total					
Traditional	335	1,694	4,512	8,306	10,653
Milestone-outcome	103	378	800	1,292	1,432
Outcome-only	29	161	353	551	663
Total	467	2,233	5,665	10,149	12,748
NSTW years					
DI					
Traditional	78	555	1,858	3,806	5,453
Milestone-outcome	22	128	348	608	763
Outcome-only	5	61	175	318	433
Subtotal	105	744	2,381	4,732	6,649
SSI-only					
Traditional	11	117	355	807	1,278
Milestone-outcome	5	27	66	111	163
Outcome-only	2	8	23	33	43
Subtotal	18	152	444	951	1,484
Total					
Traditional	89	672	2,213	4,613	6,731
Milestone-outcome	27	155	414	719	926
Outcome-only	7	69	198	351	476
Total	123	896	2,825	5,683	8,133

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Counts are based on the NSTW indicator. The analysis includes participants who most recently assigned their tickets from February 2002 through December 2006. Statistics only include NSTW months in which their tickets were assigned. Stapleton and others (2010b) provide slightly larger statistics that include any NSTW months during the year without regard for whether or not a ticket was assigned. Payment title and payment system are determined in January of the calendar year. Payment system for TTW participants is determined in the month of the most recent ticket assignment. NSTW years are calculated by dividing the number of months off the rolls, as indicated by NSTW months in each year, by 12.

payments for SSI-only participants are lower than for DI participants, and SSI-only participants typically must earn more than their DI counterparts for their benefits to be suspended because of differences in the work-incentive features of the two programs.¹⁵ These factors might have a substantial effect on whether a participant generates a payment, but would most likely have much less effect on how many payments

are generated by those who generate payments. In fact, among those who generate a payment, SSI-only participants generated slightly more payments than DI participants under either system.

The 18,809 MO and OO participants who assigned their tickets from February 2002 through December 2005 spent a very small share of subsequent months in NSTW through the end of 2005. Of the

Table 6.
Ticket payments generated from February 2002 through December 2006 among TTW participants assigning under the two new payment systems (MO and OO) by December 2005

Payment system and payment title	Number of tickets assigned	Tickets with payments		Mean number of payments, conditional on at least one payment		
		Number	Percent	Any	Outcome	Milestone
Total	18,809	2,502	13.3	8.5	6.9	1.7
Milestone-outcome	15,029	2,063	13.7	7.2	5.2	2.0
DI	10,484	1,587	15.1	7.1	4.8	2.2
SSI-only	4,545	476	10.5	7.6	6.4	1.2
Outcome-only	3,780	439	11.6	14.9	14.9	...
DI	3,217	393	12.2	14.8	14.8	...
SSI-only	563	46	8.2	15.6	15.6	...

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes MO and OO participants who assigned their most recent tickets from February 2002 through December 2005. Months when a beneficiary's ticket was not assigned are excluded. Payment system and payment title are based on ticket-assignment month. Payments generated for months through December 2006 and processed through December 2007 are included.

... = not applicable.

346,423 months in which their tickets were assigned during this period, only 6.8 percent (23,405 months) were NSTW months (Table 7). These participants were in current-pay status during a large majority of those months (90.1 percent) and off the rolls for some other reason (such as age or mortality) in the remaining months (2.9 percent).

Because SSA makes outcome payments only in months when an MO or OO participant is engaged in SGA and the participant's benefits are suspended or terminated for work, we expected that NSTW months and outcome payments would paint a relatively consistent picture of the months in which those participants received no benefits because of work. Our expectations were only partly confirmed, however. As expected, a very high percentage of outcome payments (84.9 percent) were made for months that we counted as NSTW months (Table 8). Most other outcome payments were made in months during which we classified the beneficiary as suspended or terminated for some other reason (10.7 percent). Further analysis reveals that most of those months were for SSI-only beneficiaries who had earnings, but whose benefits were formally suspended or terminated for a reason other than work (for example, because of other income, such as the earnings of a spouse). Future refinements of the NSTW indicator will quite likely lead to reclassification of some of these cases as STW. This might also mean that any future revisions to the NSTW numbers for the SSI-only beneficiaries

we reported earlier in this article will increase. Very few outcome payments were made to beneficiaries who were identified as being in current-pay status (4.4 percent).

Contrary to expectations, SSA made outcome payments in only a minority of the months that we classified as NSTW—just 38.7 percent (Table 8). One explanation is that SSA made milestone payments instead, but when we included milestone payments, the percentage of NSTW months with payments

Table 7.
Months with assigned tickets among all TTW participants, by suspension or termination status, 2002–2005

Status	Months	Percent
Months in which tickets were assigned	346,423	100.0
Current-pay	312,231	90.1
Suspension or termination	34,192	9.9
NSTW	23,405	6.8
Other suspension or termination	9,787	2.9

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes MO and OO participants who assigned their most recent tickets from February 2002 through December 2005. Months when a beneficiary's ticket was unassigned are excluded. The "Other suspension or termination" category indicates that the beneficiary was off the rolls for a reason other than work (such as medical recovery).

Table 8.
Comparison of NSTW months and ticket payments among TTW participants under the MO and OO payment systems, February 2002–December 2005

Status	Months with an outcome payment			Months with a milestone payment			Months with any payment		
	Months	Percent of all assigned months in status	Percent of months with outcome payment	Months	Percent of all assigned months in status	Percent of months with milestone payment	Months	Percent of all assigned months in status	Percent of months with any payment
Total	10,673	3.1	100.0	3,547	1.0	100.0	14,220	4.1	100.0
Current-pay	466	0.1	4.4	3,175	9.3	89.5	3,641	1.2	25.6
NSTW months	9,060	38.7	84.9	271	1.1	7.6	9,331	39.9	65.6
Other suspension or termination	1,147	11.7	10.7	101	1.0	2.8	1,248	12.8	8.8

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF.

NOTES: Sample includes MO and OO participants who assigned their most recent tickets from February 2002 through December 2005. Payments processed by December 2007 corresponding to months from February 2002 through December 2005 are included. Assigned months are those months in which the beneficiary's ticket was assigned to a provider. The "Other suspension or termination" category indicates that the beneficiary was off the rolls for a reason other than work (such as medical recovery).

increases only to 39.9 percent, as shown in the table. In other words, SSA made no payments in 6 out of 10 months that MO and OO participants were in NSTW according to our indicator.

This surprising result led us to investigate such cases further. Based on an initial analysis, SSA assessed a sample of NSTW months for which it had not paid the provider.¹⁶ The agency found that the NSTW indicator sometimes misclassified beneficiaries as being in NSTW when their benefits were suspended or terminated for some other reason, including incarceration, spousal earnings, or receipt of unemployment compensation. We were able to refine the NSTW indicator to take into account incarceration and spousal earnings. Those refinements are reflected in the results we present here, but they did not appreciably change the results.

After those revisions were implemented, we reviewed the concordance between the NSTW indicator and payments again (Table 9). In 96 percent of the cases, the NSTW indicator was found to be concordant with the payments data; discrepancies were identified in 4 percent of the months. SSA then selected and reviewed a random sample of 100 months from all of the 13,773 months in which the NSTW indicator and outcome payment information were discrepant; that is, NSTW months with no payment to the EN (79.2 percent), or outcome payment months that were not classified as NSTW months (20.8 percent). The SSA reviewer had access to information beyond

that contained in the 2007 TRF, the data source for our analysis.¹⁷

The review confirmed that the NSTW indicator was accurate in 73 of the 100 discrepant months reviewed (last column of Table 9). This includes 67 months in which the reviewer found evidence that benefits were suspended or terminated and the beneficiary was engaged in SGA, but the EN did not file a payment claim. In the other 6 months in which the NSTW indicator was confirmed to be correct, an outcome payment was made, but the indicator correctly showed that benefits were not suspended or terminated for work. Evidence available to the reviewer failed to contradict the NSTW indicator in an additional 3 months, leaving 24 months in which the NSTW indicator was demonstrably incorrect.

When the NSTW indicator was incorrect, it was less likely to falsely indicate that benefits were suspended or terminated for work when they were not (9 of the months reviewed) than to falsely indicate that benefits were in current-pay status or suspended or terminated for some other reason (15 of the months reviewed). That is, false negatives were more common than false positives.¹⁸

The review of the sampled cases demonstrates that the NSTW variable is an essentially accurate indicator of benefit suspension or termination for work, although imperfect. If the NSTW indicator is assumed to be correct in all months for which being in NSTW is not discrepant with outcome payment

Table 9.
Comparison of NSTW variable and ticket payments to findings from SSA's review of discrepant months among TTW participants under the MO and OO payment systems, February 2002–December 2005

Category of months	NSTW variable	Ticket payment	NSTW review	Number of months	Percent of months	Number of months reviewed
Total months	...	...	...	347,472	100.0	100
Total concordant months (not sampled for review)	...	...	...	333,699	96.0	0
Total discrepant months (sampled for review)	...	...	...	13,773	4.0	100
NSTW = Yes	...	...	...	19,399	5.6	79
Outcome payment (concordant; agrees with NSTW = Yes)	Yes	Outcome	No	8,484	2.4	0
No outcome payment (discrepant; disagrees with NSTW = Yes)	...	...	...	10,915	3.1	79
Evidence matches NSTW (evidence of SGA)	Yes	Not paid	Yes	9,257	2.7	67
Evidence inconclusive	Yes	Not paid	Yes	414	0.1	3
NSTW incorrect (no evidence of SGA)	Yes	Not paid	No	1,243	0.4	9
NSTW = No	...	...	...	328,073	94.4	21
No payment (concordant; agrees with NSTW = No)	No	Not paid	No	321,691	92.6	0
Milestone payment (concordant; agrees with NSTW = No)	No	Milestone	No	3,524	1.0	0
Outcome payment (discrepant; disagrees with NSTW = No)	...	...	...	2,858	0.8	21
Evidence matches NSTW (no evidence of SGA)	No	Outcome	No	817	0.2	6
NSTW incorrect (evidence of SGA)	No	Outcome	Yes	2,041	0.6	15

SOURCE: Analysis of DI and SSI beneficiary records in the 2007 TRF. The NSTW review included 100 randomly selected cases from all cases in which the NSTW variable and ticket payment were discrepant.

NOTE: ... = not applicable.

information and if the findings from the review provide accurate estimates of what would have been found if all discrepant cases had been reviewed, then the NSTW indicator correctly identified the following: (1) that benefits were suspended or terminated for work in 89.7 percent of all TTW participant months in which benefits were actually suspended or terminated for work, and (2) that benefits were not suspended or terminated for work in 99.6 percent of all TTW participant months in which benefits were actually not suspended or terminated for work.¹⁹ For the months reviewed, the number of months found to be NSTW months (82) is actually larger than the NSTW months reviewed (79), but this difference is not statistically significant.²⁰

The findings of the review also suggest that beneficiaries actually were engaged in SGA in a large majority of the NSTW months represented in the earlier NSTW statistics. It is important to note, however, that the sample reviewed is not a random sample of all months identified as NSTW months, but rather a random sample of those MO and OO participant months

in which the NSTW variable and the outcome payment data were discrepant. It might be that, relative to TTW participants under the MO and OO payment systems, participants under the traditional payment system and nonparticipants were engaged in SGA during a smaller share of months that we identified as NSTW months.

Finally, the findings from the review imply that providers would have been eligible for payments in a very large share of the 60.1 percent of NSTW months for which they were not paid if they had filed a properly documented claim. The most likely reason the provider did not file a claim is inability to obtain the necessary documentation. ENs must keep in touch with their clients for several years, and clients must cooperate in the EN's effort to collect documentation. Outcome payments are in line with the TTW objective of having the EN take a long-term interest in the client's success. Another explanation applies to a small share of these cases where the provider had withdrawn from its contract with SSA.

Conclusions

Based on the NSTW indicator, less than 1 percent of all beneficiaries, or about 70,000 each year, experienced their first month of benefit suspension or termination for work in each year from 2002 through 2006. Although the percentage entering NSTW in any year was small, the cumulative effect was much more substantial because many beneficiaries remain in NSTW for a sustained period. Just over 400,000 beneficiaries or former beneficiaries had at least 1 NSTW month in 2006. This number is equal to 3.9 percent of all working-age beneficiaries who were on the DI or SSI-only rolls in December 2006.²¹ Many of those beneficiaries were not on the rolls at any point in 2006. The benefits of some had been terminated for work in earlier years, and the NSTW indicator counts those beneficiaries as being in NSTW because they had not re-entered the rolls, reached the FRA, or died. Because many of these beneficiaries were not in NSTW in all months of the year, the total number of NSTW months is equivalent to a smaller number of years, approximately 275,000.

The number of NSTW months is not growing rapidly. The annual number grew by less than 4 percent from 2002 through 2006. Over the same period, the number of beneficiaries increased by nearly 14 percent.²² The statistics reflect NSTW months for those with their first STW event in 1996 or later. We cannot attribute the relatively low NSTW growth to a specific cause. For DI beneficiaries, there is substantial evidence that the 2000–2001 recession and the 2001 increase in the trial work period (TWP) “service month” amount (the minimum earnings that constitute a TWP month) contributed to a reduction in the number of NSTW months for cohorts that received their awards from 2000 through 2003, relative to earlier cohorts (Stapleton and others 2010a). Analysis of the impacts of the 1999 increase in the nonblind SGA amount from \$500 to \$700 indicates that it, too, reduced the number of NSTW months for DI beneficiaries (Schimmel, Stapleton, and Song, forthcoming). Another reason for the relatively slow growth in NSTW months is that the aging of the large baby boom generation at least partially drives the recent growth in the number of beneficiaries; they are now in their fifties and early sixties—the period in which workers are most likely to exit the labor force and enter DI, but least likely to accumulate NSTW months after DI entry (Stapleton and others 2010a). A final, more subtle reason for relatively slow growth in NSTW months is that rapid growth in the number

of DI beneficiaries is not expected to translate into a similar pattern of rapid growth in NSTW months immediately. It takes time for new beneficiaries to return to work, complete the TWP and grace period (in the case of DI), and, finally, have their benefits suspended or terminated for work.

It is likely that NSTW months increased in 2007 because of economic growth and continued growth in the beneficiary rolls, but declined in 2008 because of the severe recession. Even with its new regulations in place, TTW is clearly fighting an uphill battle to accelerate growth in NSTW months.

TTW participants account for only a small percentage of NSTW months—just 3 percent in 2006. As the number of TTW participants grew from 2002 through 2006, that percentage also grew. We do not know the extent to which growth in that percentage represents an impact of TTW on NSTW months versus increased use of TTW by those who would have NSTW months in the absence of TTW. Not surprisingly, TTW participants were more likely than nonparticipants to experience NSTW months; ticket assignment presumably reflects beneficiary interest in increasing their earnings and, for some, becoming self-sufficient.

Compared with nonparticipants, participants who had an STW event were in NSTW for a longer period, on average, but the differences are modest. It is possible that the longer duration in NSTW reflects the usefulness of services received under TTW, but it might also be that those beneficiaries most capable and determined to leave the rolls for a lengthy period were also the most likely to assign their tickets. Perhaps both are true, but we are not able to distinguish their relative importance.

In 2006, TTW participants under the MO and OO payment systems were in NSTW for the equivalent of 1,403 years, counting only months when their tickets were assigned. Participants under the traditional payment system (nearly 90 percent of all participants in 2006) were in NSTW for the equivalent of 7,475 years (almost 81 percent of the NSTW months for all participants). The number of TTW participants in NSTW increased substantially in every year from 2002 through 2006, reflecting the gradual rollout of the TTW program from 2002 through 2004 and growth in beneficiary use of TTW once it was available.

We find that a minority of participants under each of the three payment systems had NSTW months—only about 20 percent by the 48th month after

assignment. The percentages for OO and MO participants were substantially higher than the previously reported percentages for those generating payments to providers by the 48th month after assignment (Stapleton and others 2008), reflecting the fact that providers did not receive payments in many months when their clients were in NSTW. We also find that OO participants were substantially more likely than MO and traditional participants to have at least 1 NSTW month: 25 percent by the 48th month after assignment, compared with about 17 percent for participants under either the MO or traditional payment systems.

In addition, we find that OO participants with at least 1 NSTW month typically remained in NSTW longer than participants under the other two payment systems. For instance, of the OO participants with a first STW event in 2002, nearly half (48.3 percent) were in NSTW 48 months later, compared with 40.9 percent for participants under the traditional payment system and 24.3 percent for those under the MO system.

NSTW months for TTW participants may reflect the impact of the TTW program on NSTW months, but we do not know how many of those months would have been NSTW months in the absence of TTW. Presumably some participants would have obtained services from SVRAs under the traditional payment system, or entered NSTW without service financing from SSA. Our analysis shows that TTW participants constitute only a small fraction of those who leave the rolls for work in any given year. Hence, there are many more beneficiaries who could have elected to participate in TTW even though they would have left the rolls if they had not participated.

It is likely that the participant NSTW months increased again in 2007, but the severe recession, which started at the end of 2007, might well have reversed the trend. The July 2008 changes in the Ticket regulations eventually might have a positive effect on NSTW months, but that will take time to materialize, as the negative effect of the recession may linger for several years. We suspect that the recession is overwhelming any positive impact that TTW has on NSTW months.

We find that ENs received payments in only about 40 percent of the months during which their MO and OO clients were in NSTW. Investigation of a random sample of such cases led us to conclude that payment was not made in a large majority of these cases only because the provider did not file a claim.

SSA was designing and implementing changes to the payment process during the 2002–2006 period. The main objectives of those changes were to reduce the burden on providers of filing payment claims and to improve the timeliness of payments (Stapleton and others 2008, chapter X). To file a payment claim, the EN must keep in touch with the client for several years, and the client must cooperate in the EN's effort to collect documentation. This payment system is in line with the TTW objective of having the EN take a long-term interest in the client's success. The attractiveness of TTW to providers might hinge on the extent to which those efforts have increased the percentage of months in which providers request and receive payments when their TTW clients' benefits are suspended or terminated for work. Therefore, when considering further revisions to the payment process and the information required of providers to submit a claim, SSA should carefully consider the balance between the objective of encouraging the EN to maintain a relationship with the client and the burden of properly adhering to the payment process. For the program to be economically viable, the payment system might need to change in the direction of reducing the burden on ENs at a cost of reducing the incentive for the EN to maintain a relationship with the client.

Notes

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¹ Under the regulations in place during the period under study, outcome payments could be made for up to 60 months. Under the MO system, SSA makes some payments based on achieving earnings milestones, but not on the receipt of benefits; in addition, outcome payments are made.

² After 2008, it was no longer necessary for the SVRA to obtain a beneficiary's ticket for purposes of using the traditional payment system. Further, under the Partnership Plus option, the beneficiary can obtain services from an SVRA under the traditional payment system and then obtain

follow-up services from an EN under a modified version of either the MO or OO system.

³ In previous reports this indicator has been called the “left-due-to-work” indicator, or LDW. We have changed the name to STW to reflect the fact that the variable identifies suspensions for work, not just terminations.

⁴ The DI group includes both DI-only and concurrent (that is, DI and SSI-only) beneficiaries because the Ticket payment schedule for those two groups is the same.

⁵ The use of the most recent ticket assignment for dating the assignment avoids double counting of participants, but it also means that the number of assignments reported early in the period are somewhat lower than the actual number. Comparing our findings with those in Exhibit XIII.1 in Stapleton and others (2008), we find that our method captures 91 percent of all assignments in 2002; 96 percent of assignments in 2003; and 97 percent of assignments in 2004. If a participant’s ticket was unassigned during this period and not reassigned, the participant is included in our analysis, but only the most recent assignment is considered and months in which the ticket is unassigned are not included.

⁶ These definitions exclude beneficiaries from both the numerator and the denominator if they receive their award partially through the previous calendar year or in the specified calendar year. Such beneficiaries only rarely experience an STW month because of the trial work period (TWP) and grace period.

⁷ For the sake of simplicity, we display only those results for beneficiaries whose first STW event was in 2002. There was virtually no difference between participants and non-participants based on when the first STW event occurred, and 2002 offers the longest observed time trend.

⁸ Suspension for work is not time limited. Termination for work only occurs if earnings exceed the section 1619(b) income limit for the beneficiary’s state (SSA 2011, 41).

⁹ Longitudinal statistics presented in Charts 3, 4, and 5 follow participants for a set number of months, depending on the year they assigned their tickets. Beneficiaries who assigned their tickets in 2002 are observed for 48 months following assignment, 2003 assigners are followed for 36 months, 2004 assigners are followed for 24 months, and 2005 assigners are followed for 12 months. The length of observation is the same within a given cohort, regardless of whether the ticket was assigned in January or December of that year. This method avoids right censoring and ensures the same sample size for a given cohort throughout the observation period.

¹⁰ Beneficiaries who first assigned their tickets in 2002 could have been first off the rolls in any year from 2002 to 2005, while beneficiaries who assigned their tickets in 2005 could have been first off the rolls only in 2005.

¹¹ Statistics for the number of beneficiaries off the rolls and the number of months they were off would be only very

slightly higher if we had included those entering the rolls during the year because suspensions for work rarely occur during the first year on the rolls.

¹² Stapleton and others (2010b) reported a second set of statistics for TTW participants that are slightly larger because STW months for participants that occurred in months when the ticket was not assigned are counted as participant months.

¹³ As reported by Stapleton and others (2010b), NSTW years in 2006 are somewhat larger if STW months in which the participant’s tickets are not assigned are included in the count: 1,214 for MO and 569 for OO. The difference partly reflects the fact that a number of ENs withdrew from the program.

¹⁴ Because Ticket payments often are processed with a lag, we use data on payments processed by the end of 2007 to allow sufficient time for 2006 payments to have been processed.

¹⁵ SSI-only beneficiaries typically need to earn well above the SGA amount (\$1,000 per month for nonblind beneficiaries in 2011) before their SSI payments fall to zero, whereas DI beneficiaries can have their benefits suspended or terminated for work when their earnings are just above the SGA amount after they have used up their 9 TWP months and 3 grace period months. See O’Leary, Livermore, and Stapleton (2011).

¹⁶ The data we submitted to SSA for the purposes of this review were more recent than those used in this analysis, specifically, cases with months off of the rolls for work from July 2008 through December 2008 (using the 2008 TRF).

¹⁷ The SSA reviewer first checked to see if the beneficiary had a payment status code or suspension/termination code that indicated no cash benefit because of work. The reviewer then checked for verified earnings above SGA based on earnings reported directly to SSA or reported to the Internal Revenue Service; for the latter, earnings are annual, so the reviewer divided earnings by 12 to get a monthly amount. The reviewer also checked the National Directory of New Hires (NDNH), but none of the cases had NDNH data for the quarter in question. The reviewer considered a combination of the payment status indicating a suspension/termination because of work with evidence of earnings above SGA for the month in question from any of the earnings sources as positive evidence that the month was an STW month.

¹⁸ Revisions to the NSTW indicator in light of the investigations undertaken for purposes of this study are continuing. However, such revisions have not substantively changed the frequency with which ENs received outcome payments in the months when, according to the NSTW indicator, their MO and OO clients were in STW status. We are confident that any remaining revisions to the NSTW indicator will not lead to findings materially different than those presented here.

¹⁹ Under the assumption stated and as Table 9 shows, the number of months in which benefits were actually in nonpayment status following suspension or termination for work is the sum of (a) the NSTW variable = Yes, months with outcome payments (8,484); (b) the number of NSTW months = Yes, months with SGA evidence (9,257); and (c) the number of NSTW months = No, months with evidence of SGA (2,041)—for a total of 19,782 months. The percentage of those months in which the NSTW indicator is estimated to be accurate is $(9,257 + 8,484)/19,782 = 89.7$ percent.

Similarly, the number of months in which benefits were actually in current-pay status or in nonpayment status for a reason other than work is the sum of (a) the number of NSTW months = Yes, months with no outcome payments and no evidence of SGA (1,243); (b) the number of NSTW months = No, months with no payment (321,691); (c) the number of NSTW months = No, months with a milestone payment (3,524); and (d) the number of NSTW months = No, months with an outcome payment, but no evidence of SGA (817)—for a total of 327,275 months. The percentage of such months in which the NSTW indicator is estimated to be accurate is $(321,691 + 3,524 + 817)/327,275 = 99.6$ percent. We excluded from both calculations the 414 months with NSTW = Yes, with inconclusive evidence of SGA.

²⁰ The number of reviewed months found to be actual months of nonpayment status following suspension or termination for work is the sum of the 67 months with NSTW = Yes, with evidence of SGA and the 15 months with NSTW = No, with evidence of SGA. The estimated standard error for the number of reviewed months that are NSTW months is 3.8.

²¹ In December 2006, there were 10,362,419 DI or SSI-only beneficiaries aged 18–64 (SSA 2009, Table 65).

²² In December 2002, there were 9,106,014 DI or SSI-only beneficiaries aged 18–64. By December 2006, this number had increased to 10,362,419 (SSA 2009, Table 65).

References

Livermore, Gina, David Stapleton, and Allison Roche. 2009. *Work Activity and Use of Employment Supports under the Original Ticket to Work Regulations: Characteristics, Employment, and Sources of Support among Working-Age SSI-only and DI Beneficiaries*. Final report. Washington, DC: Mathematica Policy Research (April).

Muller, L. Scott. 1992. "Disability Beneficiaries Who Work and Their Experience under Program Work Incentives." *Social Security Bulletin* 55(2): 2–19.

Newcomb, Chad, Suzanne Payne, and Mikki D. Waid. 2003. "What Do We Know about Disability Beneficiaries' Work and Use of Work Incentives Prior to Ticket? Background Information and Baseline Data." In *Paying for Results in Vocational Rehabilitation: Will Provider Incentives Work for Ticket to Work?*, edited by Kalman Rupp and Stephen H. Bell, 31–70. Washington, DC: Urban Institute Press.

O'Leary, Paul, Gina Livermore, and David C. Stapleton. 2011. "Employment of Individuals in the Social Security Disability Programs." *Social Security Bulletin* 71(3): 1–10.

Schimmel, Jody, David C. Stapleton, and Jae Song. Forthcoming. "How Common is 'Parking' among Social Security Disability Insurance (SSDI) Beneficiaries? Evidence from the 1999 Change in the Level of Substantial Gainful Activity (SGA)." *Social Security Bulletin*.

Stapleton, David C., Gina A. Livermore, Craig Thornton, Bonnie O'Day, Robert Weathers, Krista Harrison, So O'Neill, Emily Sama Martin, David Wittenburg, and Debra Wright. 2008. *Ticket to Work at the Crossroads: A Solid Foundation with an Uncertain Future*. Washington, DC: Mathematica Policy Research (September).

Stapleton, David, Su Liu, Dawn Phelps, and Sarah Prenovitz. 2010a. *Work Activity and Use of Employment Supports under the Original Ticket to Work Regulations: Longitudinal Statistics for New Social Security Disability Insurance Beneficiaries*. Final report. Washington, DC: Mathematica Policy Research (December).

Stapleton, David C., Jody Schimmel, Miriam Loewenberg, and Sarah Prenovitz. 2010b. *Work Activity and Use of Employment Supports under the Original Ticket to Work Regulations: Time That Beneficiaries Spend Off the Rolls Due to Work and the Payments Generated for Employment Networks*. Final report. Washington, DC: Mathematica Policy Research (December).

[SSA] Social Security Administration. 2009. *Annual Statistical Report on the Social Security Disability Insurance Program, 2008*. Baltimore, MD: SSA (July).

———. 2011. *2011 Redbook: A Summary Guide to Employment Supports for Persons with Disabilities under the Social Security Disability Insurance and Supplemental Security Income Programs*. Baltimore, MD: SSA.