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**MATHEMATICA**  
Policy Research, Inc.

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Center for  
Studying   
**DISABILITY POLICY**

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**Work Activity and Use of  
Employment Supports Under  
the Original Ticket to Work  
Regulations**

**Longitudinal Experiences of  
an Early Cohort of Ticket to  
Work Participants**

*Final Report*

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# CONTENTS

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Chapter		Page
	ACRONYM .....	vii
	ABSTRACT .....	ix
I	INTRODUCTION .....	1
II	BACKGROUND.....	5
III	DATA AND METHODS.....	11
IV	TTW ENROLLMENT AND SERVICE USE.....	15
	A. ENROLLMENT IN TTW .....	15
	B. SERVICE USE.....	15
	C. ENROLLMENT AND SERVICE USE PATTERNS OF AOI GROUP MEMBERS .....	21
V	HEALTH STATUS .....	23
VI	EMPLOYMENT, USE OF SSA WORK INCENTIVES, AND TIME OFF THE DISABILITY ROLLS DUE TO WORK.....	27
	A. EMPLOYMENT AND EMPLOYMENT EXPECTATIONS.....	28
	B. JOB CHARACTERISTICS .....	31
	C. REASONS FOR LEAVING JOBS.....	33
	D. USE OF SSA WORK INCENTIVES AND MONTHS OFF THE DISABILITY ROLLS DUE TO WORK.....	36

---

<b>Chapter</b>		<b>Page</b>
VII	INCOME AND PRIVATE HEALTH INSURANCE.....	41
	A. INCOME .....	41
	B. POVERTY .....	44
	C. PRIVATE HEALTH INSURANCE.....	46
VIII	EXPERIENCES OF SUBGROUPS DEFINED BY EMPLOYMENT SUCCESS .....	49
IX	CONCLUSIONS.....	53
	REFERENCES .....	55
	APPENDIX A: TTW ENROLLMENT AND SERVICE USE BY AOI STATUS .....	A-1
	APPENDIX B: ADDITIONAL STATISTICS .....	B-1

# EXHIBITS

---

Exhibit		Page
1	SELECTED SSI AND DI EMPLOYMENT SUPPORTS .....	6
2	ORIGINAL AND NEW MILESTONE AND OUTCOME PAYMENTS (2008 RULES AND DOLLARS) .....	9
3	PHASE 1 TTW PARTICIPANT LONGITUDINAL SAMPLE SIZES, BY ANALYTICAL SUBGROUP .....	13
4	SELECTED SAMPLE CHARACTERISTICS .....	14
5	TTW ENROLLMENT CHARACTERISTICS AS OF DECEMBER 2006 .....	17
6	SERVICE USE DURING 2003–2005 .....	18
7	SERVICE USE HOURS, 2003–2005 .....	19
8	REPORTED UNMET SERVICE NEEDS, 2003–2005, BY PROVIDER TYPE AND EMPLOYMENT STATUS AT ROUND 3 .....	20
9	REASONS FOR UNMET SERVICE NEEDS AMONG THOSE REPORTING UNMET NEEDS IN ANY YEAR, 2003–2005, BY PROVIDER TYPE AND EMPLOYMENT STATUS AT ROUND 3 .....	21
10	CHANGES IN HEALTH STATUS, 2004–2006 (FULL SAMPLE) .....	24
11	INDICATORS OF POOR HEALTH AND NEGATIVE CHANGES IN HEALTH STATUS, 2004–2006, BY DURATION OF TTW ENROLLMENT .....	26
12	EMPLOYMENT 2003–2005 (BASED ON NBS DATA) .....	28
13	EMPLOYMENT 2003–2007 (BASED ON ANNUAL IRS DATA) .....	30
14	EMPLOYMENT EXPECTATIONS .....	31
15	BEST CHARACTERISTICS OF JOBS HELD AMONG THOSE REPORTING AT LEAST ONE JOB DURING 2003–2005 .....	32
16	REASONS FOR LEAVING JOBS .....	34

---

<b>Exhibit</b>		<b>Page</b>
17	REASONS FOR NOT WORKING REPORTED BY THOSE EMPLOYED AT ANY TIME DURING 2003–2005 AND NOT EMPLOYED AT ONE OR MORE INTERVIEWS.....	35
18	HOURLY RESERVATION WAGES AMONG NONWORKING SAMPLE MEMBERS SEEKING EMPLOYMENT OR REPORTING REASONS OTHER THAN THEIR HEALTH FOR NOT WORKING AT ROUND 3 INTERVIEW (2006) .....	36
19	USE OF SELECTED SSA EMPLOYMENT SUPPORTS, 2004–2007 .....	37
20	MONTHS OFF THE SSA DISABILITY ROLLS DUE TO WORK DURING 2004–2007 .....	38
21	REGULAR SOURCES AND AMOUNTS OF PERSONAL INCOME DURING MONTH BEFORE INTERVIEW IN 2004, 2005, AND 2006, AND CHANGES FROM PRIOR INTERVIEWS .....	43
22	POVERTY RATES AND CHANGES IN POVERTY STATUS, 2003–2005 .....	45
23	CHANGES IN PRIVATE INSURANCE COVERAGE STATUS AT INTERVIEW, 2004–2006 .....	47
24	SELECTED OUTCOMES AMONG TTW PARTICIPANT SUBGROUPS DEFINED BY DEGREE OF EMPLOYMENT SUCCESS DURING 2003–2005 .....	50

## ACRONYMS

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AOI	Adequacy of Incentives
DI	Social Security Disability Insurance (under Title II of the Social Security Act)
EN	Employment Network
IRS	Internal Revenue Service
MCS	Mental Component Summary
MEF	Master Earnings File
NBS	National Beneficiary Survey
PCS	Physical Component Summary
SGA	Substantial Gainful Activity
SSA	Social Security Administration
SSI	Supplemental Security Income (Title XVI of the Social Security Act)
SVRA	State Vocational Rehabilitation Agency
TRF	Ticket Research File
TTW	Ticket to Work

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## ABSTRACT

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In this report, we present findings of an analysis of the longitudinal experiences of a group of Ticket to Work (TTW) participants who enrolled in the program during the first 18 months of its implementation. Using data from the 2004–2006 National Beneficiary Surveys (NBS) matched to Social Security Administration (SSA) administrative data, we follow an early cohort of Phase 1 TTW participants for three years using survey data and five years using administrative data to assess changes in their service use, health status, employment, and income sources.

The period of analysis is prior to SSA's implementation of new Ticket to Work program regulations in July 2008, and so reflects experiences under the original Ticket to Work rules. We find that while the TTW program attracted a select group of beneficiaries who were actively pursuing employment, only a minority (20 to 25 percent) were able to achieve employment at levels that would significantly reduce their reliance on disability benefits and generate substantial TTW payments to providers. Another 40 percent achieved some employment success, but the remaining 40 percent reported no earnings during 2003–2005. In general, service use (as reported by participants) over the 2003–2005 period was relatively modest; only one-quarter or less received 50 or more hours of service in each year from 2003–2005. Many TTW participants experienced significant changes in their health status across the three survey rounds, which might have negatively affected their ability to actively participate in TTW and to become employed. Many TTW participants also experienced large changes in their earnings and non-SSA benefits. The findings also indicate that employment among TTW participants was associated with reduced poverty.

Similar to findings presented in previous reports based on cross-sectional data, we found significant differences in the longitudinal service use and employment outcomes of TTW participants assigned to ENs compared to those assigned to state vocational rehabilitation agencies (SVRAs). Those assigned to ENs had higher wages, worked more hours, and were more likely to work above the substantial gainful activity (SGA) level and to have their benefits reduced to zero due to work. Those assigned to SVRAs were more likely to remain enrolled in TTW, used more services, and were equally likely to be employed in each year but worked at lower levels, on average, compared with those assigned to ENs.

Finally, analyses of TTW enrollment and service use patterns by whether a participant was a member of one of the four Adequacy of Incentive (AOI) groups identified in the legislation authorizing the TTW program found very few significant differences between AOI and non-AOI group members with respect to TTW enrollment and service use.

This is the ninth in a series of reports that make up the 5th Ticket to Work evaluation report.

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## I. INTRODUCTION

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The Social Security Administration (SSA) administers two programs that provide income support to nearly 11 million working-age people with disabilities—the Social Security Disability Insurance (DI) program and the Supplemental Security Income (SSI) program.<sup>1</sup> To qualify for either program, an applicant must demonstrate that he or she is unable to work at substantial levels due to a long-term, medically determinable impairment. The passage of the Ticket to Work and Work Incentives Improvement Act of 1999 (Ticket Act) prompted numerous changes in the SSI and DI programs, intended to encourage and facilitate the return-to-work efforts of disability program participants. Among the changes was the implementation of the Ticket to Work (TTW) program. TTW was designed to increase access to and quality of employment services for disability beneficiaries. Under TTW, SSA provides beneficiaries with a Ticket they can use to obtain vocational rehabilitation, employment, or other support services from participating providers called Employment Networks (ENs). These providers receive payments from SSA if the beneficiaries they serve achieve successful employment outcomes.

In other reports, we have presented extensive information about the characteristics, experiences, and employment outcomes of TTW participants (Thornton et al. 2006, 2007; Stapleton et al. 2008, 2009). Findings of previous analyses include the following:

- Only a small share of beneficiaries has participated in TTW (1.6 percent as of December 2006), and participants differ in many respects from other beneficiaries. TTW participants were younger, had higher levels of education, were more likely to be receiving DI benefits, had been on the disability rolls for a shorter period, were in better health, and were less likely to have severe functional or activity limitations. Although these characteristics suggest that TTW participants might face fewer employment obstacles relative to other beneficiaries, relative to the general working-age population, TTW participants have significant health and functional limitations, low levels of education, and experience poverty at a very high rate, factors that can limit their employment success.
- Relative to other beneficiaries, TTW participants were significantly more likely to have used services for purposes of improving their ability to work and/or live

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<sup>1</sup> The SSI program also serves children with disabilities and individuals age 65 and over.

independently and, in particular, to have used services that were specifically intended to help them obtain or keep a job.

- TTW participants were nearly four times as likely as other beneficiaries to be employed, looking for work, or to have been employed recently. Among those beneficiaries who were employed, TTW participants worked a similar number of hours relative to others, but earned higher wages on average and were more likely to be in competitive (rather than sheltered) employment.
- There were significant differences in the service use and employment outcomes of TTW participants assigned to ENs and state vocational rehabilitation agencies (SVRAs). Those assigned to ENs were less likely to have received services, received fewer median hours of service, and were more likely to report unmet service needs. Those assigned to ENs and SVRAs were equally likely to be employed, but working participants assigned to ENs worked more hours, had higher wages and earnings, were offered more job-related benefits, and were less likely to be in sheltered employment relative to working participants assigned to SVRAs.

In this report, we build on the previous cross-sectional findings by following an early cohort of TTW participants for three years using survey data and five years using administrative data to provide a longitudinal perspective on their TTW enrollment, service use, use of SSA work incentives, and employment. We also examine changes in health status, private health insurance coverage, and income—beneficiary characteristics that might be affected directly or indirectly by TTW participation. Key findings include the following:

- We found significant differences in the TTW enrollment patterns of participants assigned longest to ENs versus SVRAs. Those assigned to ENs were much less likely to remain enrolled in TTW for longer than 12 months and were more likely to change TTW providers.
- Overall, the likelihood of using services declined steadily over the three-year period analyzed, as did the service intensity among those who used services. Only 20 to 25 percent of participants received 50 or more hours of service annually during 2003–2005. The likelihood of reporting unmet service needs also declined. TTW participants who were employed at interview in 2006 were significantly less likely to report unmet needs over the entire period relative to those not employed.
- We found very few significant differences in the patterns of TTW enrollment, service use, or reported unmet needs between TTW participants who were Adequacy of Incentives (AOI) group members and other participants. Only in 2003 were AOI group members significantly more likely to use services than non-AOI beneficiaries, primarily due to a greater use of medical services in that year.

- About half of the TTW participants experienced substantial changes in health status from interview to interview. Negative changes in health status were more likely among those who did not remain enrolled in TTW, suggesting that poor health may have contributed to termination of their TTW participation.
- About 45 percent of TTW participants reported working in each year from 2003–2005, and 60 percent reported working at some point during that period. However, IRS data covering a five-year period (2003–2007) indicate that the survey may not have captured all work activity of the participants. Based on those data, about 50 percent of TTW participants had earnings in each year from 2003–2007, and 75 percent had earnings in at least one of the five years. Average annual earnings among those with positive earnings were highest in 2007, at nearly \$10,000.
- As with the previous cross-sectional findings, we found no significant differences in the likelihood of working over the three-year period between those assigned to ENs versus SVRAs. Also consistent with the cross-sectional findings, there were significant differences between the two groups in terms of earnings and other characteristics associated with the best job held during 2003–2005. On average, employed TTW participants assigned to ENs worked more hours (32 versus 26), had higher hourly wages (\$13 versus \$10) and monthly earnings (\$1,700 versus \$1,100), and were more likely to have earned above the substantial gainful employment (SGA) level in at least one month (76 percent versus 57 percent) relative to their counterparts assigned to SVRAs. Those assigned to ENs also were significantly more likely to leave cash benefits due to work for at least one month during 2004–2007 (27 percent versus 17 percent).
- Although average monthly income remained stable across interviews, at about \$1,200, a majority of TTW participants experienced rather large income changes (increases or decreases) from interview to interview. Overall poverty rates were stable across interviews, with one-third or less either entering or leaving poverty each year. Poverty rates among those who had been employed in each year were significantly lower than among those who had not been employed.
- Just 20 percent of TTW participants achieved earnings above the SGA level for 12 or more months over the 2003–2005 period. This group differed significantly from other participants in that they were in better health, had steady employment, had higher average personal income, and were significantly less likely to be in poverty. At the other extreme, a large share of the approximately 40 percent of TTW participants who did not work at all during the three-year period were in poor health, were less likely to remain enrolled in TTW, and experienced extremely high rates of poverty.

In interpreting the findings in this report, it is important to keep in mind that TTW participants are not typical disability beneficiaries and do not represent all beneficiaries that are interested in employment. The sample of TTW participants for which the findings are

presented in this report represent a very small subgroup of disability beneficiaries who were sufficiently interested in pursuing employment that they assigned their Tickets to service providers very soon after TTW was first implemented. Their characteristics and experiences may not be representative of later TTW participant cohorts or other employment-oriented beneficiaries in general. There may also be substantial differences between those who assigned their Tickets to ENs and those who assigned their Tickets to SVRAs, both due to differences in beneficiary preferences and due to provider willingness to accept a Ticket.

In the remainder of the report, we first provide some background on the SSI, DI, and TTW programs (Chapter II) and describe the data and methods (Chapter III). We then present detailed findings on the longitudinal experiences of the early cohort of TTW participants related to TTW enrollment and service use (Chapter IV), health status (Chapter V), employment and use of SSA work incentives (Chapter VI), and income and private health insurance coverage (Chapter VII). In Chapter VIII, we examine whether selected outcomes of TTW participants differed across three subgroups defined on the basis of participants' employment success over the 2003–2005 period. We conclude with a discussion of the findings in Chapter IX.

## II. BACKGROUND

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The SSI and DI programs are designed to provide income support to those with significant disabilities who are unable to work at substantial levels. To qualify for either program, an applicant must demonstrate that he or she is unable to engage in SGA due to a medically determinable impairment expected to last at least 12 months or to result in death. As of 2009, SSA considers earnings above \$980 per month as SGA for most applicants. DI eligibility is also contingent on having a sufficient number of recent and lifetime quarters of Social Security-covered employment, and the level of the DI benefit is based on past earnings—individuals with higher lifetime earnings are eligible for higher DI benefits. SSI is a means-tested program; eligibility is subject to strict income and resource limits. The SSI benefit is based on the individual’s monthly income and living arrangement. Individuals may qualify for both programs if their income (including DI benefits) and assets are low enough to meet the SSI income limits. Eligibility for either program can also provide access to public health insurance. DI beneficiaries qualify for Medicare coverage after a 24-month waiting period, and most SSI beneficiaries are eligible for Medicaid automatically.

Although initial eligibility for both programs is contingent on an inability to engage in substantial work activity, the DI and SSI programs differ substantially in terms of how income from earnings is treated in determining the monthly cash payments and ongoing eligibility for the programs. In the DI program, individuals are permitted to work and earn at any level for up to nine months without losing eligibility for DI cash benefits. This nine-month period is referred to as the Trial Work Period.<sup>2</sup> As of 2009, an individual is considered to be in a Trial Work Period if monthly earnings exceed \$700 or if he or she is working more than 80 self-employed hours per month. If individuals earn more than the SGA level in any month after completing the Trial Work Period, they become ineligible for any DI benefits but remain eligible for Medicare if they completed the 24-month Medicare waiting period prior to becoming ineligible for DI.

In the SSI program, earnings above \$65 per month will reduce SSI benefits by \$1 for every \$2 of earnings; thus, SSI benefits are reduced gradually as earnings rise. Provisions in the SSI program allow participants to earn above the SGA level and remain eligible for SSI (Section 1619 [a]) and Medicaid even after SSI cash payments cease due to earnings (Section 1619[b]). Individuals remain eligible for Medicaid until their earnings exceed a “threshold amount,” which is based on annual per capita Medicaid expenditures for SSI recipients and varies by state. The threshold also can be computed for individuals if their Medicaid

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<sup>2</sup> The nine months need not be consecutive and must occur within a rolling 60-month period.

expenditures exceed the state per capita amount. In 2009, state threshold amounts ranged from about \$24,000 to \$54,000.

The SSI and DI programs have a number of the provisions intended to help beneficiaries in their efforts to return to work. We summarize some of these in Exhibit 1.

**Exhibit 1. Selected SSI and DI Employment Supports**

<b>Applicable to DI</b>	
Trial Work Period	Permits DI beneficiaries to test their ability to work for up to nine months without affecting their DI benefits.
Extended Period of Eligibility	Allows DI beneficiaries to earn any amount over a consecutive 36-month period following the completion of the Trial Work Period without jeopardizing eligibility for benefits. Benefits are reduced to zero when earnings reach the SGA level but during this period, beneficiaries can receive DI benefits in any month in which their earnings are below the SGA level.
Continuation of Medicare Coverage	Allows DI beneficiaries who leave the rolls due to work to remain eligible for Medicare for at least 93 months after completing the Trial Work Period.
<b>Applicable to SSI</b>	
Earned Income Exclusion	Excludes the first \$65 of monthly earnings and one-half of the remainder when calculating the SSI payment amount.
Section 1619(a)	Provides continued Medicaid coverage and reduced SSI payments to recipients who earn more than the SGA amount but remain below the SSI break-even point (the earnings level where benefits are reduced to zero).
Section 1619(b)	Provides continued Medicaid coverage and SSI eligibility, but with no monthly payments, to recipients whose income exceeds the SSI break-even point but is less than the state's 1619(b) threshold amount.
Plan for Achieving Self-Support	Allows a recipient to set aside income and/or resources for such things as education, vocational training, or starting a business, and not have the income/resources counted in the SSI income and resource eligibility tests.
Student Earned Income Exclusion	Allows a student under age 22 who attends school regularly to exclude up to \$1,550 of earned income per month (up to a maximum of \$6,240 per year) in computing the SSI benefit.
Property Essential for Self-Support	Excludes resources (such as tools, equipment, or business inventory or property) essential to self-support when determining ongoing eligibility for SSI.
<b>Applicable to Both DI and SSI</b>	
Ticket to Work	Allows beneficiaries to obtain employment, vocational rehabilitation, and other support services from participating providers. Providers are paid by SSA based on a beneficiary's employment outcomes.
Impairment-Related Work Expenses	Excludes from earnings the costs of certain impairment-related items or services a person needs for work when calculating benefits and ongoing eligibility.
Expedited Reinstatement	Allows individuals whose cash payments ended because of earnings to restart benefits without having to file a new application if they stop working within 5 years of benefit cessation.

Source: SSA (2009).

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In 1999, Congress passed the Ticket to Work and Work Incentives Improvement Act (Ticket Act). The Ticket Act included a number of provisions designed to promote the employment of Social Security disability beneficiaries. Among these was the establishment of the TTW program.<sup>3</sup> TTW is intended to increase access to, and the quality of, rehabilitation and employment services available to disability beneficiaries. The program is designed to provide beneficiaries with greater freedom and choice of service providers, create competition among providers to provide high-quality services responsive to beneficiary needs, and give providers incentives to deliver services in the most efficient and appropriate manner to achieve desired outcomes. The implementation of TTW occurred in a phased roll-out beginning in February 2002. By September 2004, the program was implemented in all U.S. states and territories.

Under TTW, eligible DI and SSI disability beneficiaries are given a Ticket, which can be used to obtain vocational rehabilitation, employment, or other support services through a participating provider—an Employment Network (EN)—or through the state VR agency (SVRA). Although the beneficiary typically initiates a Ticket assignment by selecting a provider from which he or she would like to receive services, the provider has the choice to accept the Ticket or not. Once the Ticket is assigned to a provider, the beneficiary can choose at anytime to re-assign it to a different provider for any reason, for example, if he or she is dissatisfied with the provider’s services. Likewise, providers also have the option to discontinue services to a beneficiary and “unassign” the Ticket. This might occur, for example, if the provider believes that the beneficiary is not actively pursuing employment or that its available services are insufficient or inappropriate given the beneficiary’s specific needs. Ticket assignment thus represents a mutual and voluntary agreement between the provider and the beneficiary.

ENs elect to be paid under one of two available TTW payment systems. Under the original *outcome-only* system, an EN received an outcome payment for each month (up to 60 total months) in which the beneficiary received no DI or federal SSI payments because of work or earnings. Under the original *milestone-outcome* system, SSA would pay an EN up to four milestone payments when a beneficiary achieved certain employment milestones defined by a specified number of months working at or above SGA level during a specified period. In addition to the milestone payments, monthly outcome payments could be paid to the EN if the beneficiary received no DI or SSI payments due to work or earnings.<sup>4</sup> The payment amounts differed by whether a beneficiary was a DI beneficiary versus an SSI-only beneficiary. SVRAs could choose whether to serve a particular beneficiary under one of the TTW payment systems or the traditional cost-reimbursement system in place prior to

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<sup>3</sup> Other programs and resources developed or enhanced in response to the Ticket Act include the Work Incentives Planning and Assistance program, expedited reinstatement, extended Medicare coverage, Area Work Incentive Coordinators, and state Medicaid Buy-in programs.

<sup>4</sup> Under the original milestone-outcome payment system, outcome payments made to an EN for a particular beneficiary were reduced based on the number of milestone payments made to the provider for that beneficiary (by an amount equal to 1/60<sup>th</sup> of the milestone payments).

implementation of TTW.<sup>5</sup> Under the original TTW regulations, a beneficiary's Ticket had to be assigned to the SVRA for the agency to obtain payment under the traditional cost-reimbursement system.

In July 2008, SSA implemented new TTW program regulations that, among other changes, substantially revised the two new TTW payment systems in ways intended to make provider participation in the program more financially worthwhile. Under the revised regulations, the total potential amounts payable under the milestone-outcome and outcome-only systems were increased, the outcome payment period was reduced from 60 to 36 months for DI beneficiaries, the number of milestone payments was increased, the level of employment necessary to generate certain milestone payments (the Phase 1 milestones) was reduced, and outcome payments were no longer reduced for previous milestone payments. In addition, SVRAs now can serve beneficiaries under the traditional cost-reimbursement system without requiring the beneficiary to assign the Ticket. Both SVRAs and ENs can receive payment for serving a beneficiary sequentially (SVRAs under traditional cost reimbursement and ENs under the elected TTW EN payment system) after the SVRA has closed the beneficiary's case and there has been a subsequent assignment of the beneficiary's Ticket to an EN. ENs operating under the milestone-outcome system that accept a Ticket from a beneficiary for whom an SVRA already has been paid are only eligible for a subset of milestone payments, however (the Phase 2 milestones). In Exhibit 2, we summarize the differences between the original and revised TTW payment systems.

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<sup>5</sup> Under the traditional SVRA payment system, SSA will pay an SVRA its allowable costs of providing services to a beneficiary if the beneficiary works and has earnings above the SGA level for at least nine months during a 12-month period.

**Exhibit 2. Original and New Milestone and Outcome Payments (2008 Rules and Dollars)**

Payment Type	Beneficiary Earnings	Original Regulations		New Regulations	
		DI	SSI	DI	SSI
Milestone 1	One month above SGA	\$334	\$192	NA	NA
Milestone 2	3 months above SGA in a 12-month period	\$667	\$383	NA	NA
Milestone 3	7 months above SGA in a 12-month period	\$1,334	\$766	NA	NA
Milestone 4	12 months above SGA in a 15-month period	\$1,668	\$958	NA	NA
Phase 1 Milestone 1	\$335 for 2 weeks of work	NA	NA	\$1,177	\$1,177
Milestone 2	\$670 per month x 3 months of work	NA	NA	\$1,177	\$1,177
Milestone 3	\$670 per month x 6 months of work	NA	NA	\$1,177	\$1,177
Milestone 4	\$670 per month x 9 months of work	NA	NA	\$1,177	\$1,177
Phase 2 Milestones 1–11	Gross earnings >SGA	NA	NA	\$353	\$203
Milestones 12–18	Gross earnings >SGA	NA	NA	N/A	\$203
Total Milestones		4,003	2,299	\$8,591	\$8,362
Outcome 1–36		NA	NA	\$353	NA
1–60		\$265– \$334 <sup>a</sup>	\$152– \$192 <sup>a</sup>	NA	\$184
Total Milestones and Outcomes Available		\$19,898	\$11,425	\$21,299	\$19,402

Note: The 2008 SGA amount is \$940. The payment system uses the terms Phase 1 and Phase 2 to represent different stages of a beneficiary's move to SGA; these terms do not pertain to the phases of TTW rollout. Concurrent beneficiaries are paid according to the DI schedule. NA indicates not applicable.

<sup>a</sup> The value of these outcome payments varies in the milestone-outcome system because they are adjusted downward to reflect the value of milestone payments made for a Ticket.

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### III. DATA AND METHODS

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The findings presented in this report are based on data from the National Beneficiary Survey (NBS). Three rounds of the NBS have been conducted as part of an ongoing evaluation of the TTW program. The surveys were administered in each year from 2004 through 2006.<sup>6</sup> A new, nationally representative sample of SSI and DI beneficiaries age 18 to 64 was interviewed for each round: 7,603 in 2004; 4,864 in 2005; and 2,508 in 2006. Each NBS round provides a wealth of information about the characteristics, service use, and employment activities of Social Security disability beneficiaries.

Each NBS round also included both cross-sectional and longitudinal samples of TTW participants. The findings presented in this report are based on a longitudinal sample of participants who were followed in all three NBS rounds. The sample is representative of TTW participants who were enrolled in the program at some point between January and June 2003 and who resided in the 13 states where TTW was first implemented in 2002 (the Phase 1 states). The findings thus represent the longitudinal experiences of one of the first cohorts of TTW participants enrolled in the program while operating under the original TTW regulations. Only sample members who responded to all three rounds of the survey are included in the analysis.<sup>7</sup> Sample sizes for specific subgroups used in the analyses are shown in Exhibit 3. Selected other sample member characteristics are shown in Exhibit 4.

Records in the NBS Phase 1 TTW participant longitudinal sample were matched to SSA administrative data contained in the 2007 Ticket Research File (TRF). The TRF is made up of data extracts from a number of SSA administrative data files and contains a record for all individuals age 10 to full retirement age who have participated in the SSI and DI programs since 1996. From these data, we are able to analyze information about the use of SSA work supports and the number of months that cash benefits were suspended or terminated due to work during 2004–2007 for our sample members.

The NBS Phase 1 TTW participant longitudinal sample also was matched to annual Internal Revenue Service (IRS) earnings records for 2003–2007 to analyze the earnings of the early TTW participants during this time.<sup>8</sup> The earnings data come from SSA's Master

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<sup>6</sup> A fourth round of the NBS will be administered in 2010.

<sup>7</sup> Approximately 75 percent of the Phase 1 TTW longitudinal sample responded to all three rounds of the survey. The weights used for this sample account for non-response across the three survey rounds.

<sup>8</sup> Due to restricted access to the IRS data, the IRS-NBS record linkage and earnings data analyses presented in this report were performed by SSA staff.

Earnings File (MEF), which contains earnings items from the employer-filed W-2 form and information on other earnings not subject to FICA taxes.<sup>9</sup>

Unless noted otherwise, wage and earnings values were adjusted for changes over time based on the national average wage index. Income amounts were adjusted for inflation using the SSA cost of living adjustment.<sup>10</sup> All estimates were derived using the relevant survey sampling weights, and all standard errors used to compute tests of statistical significance account appropriately for the survey's complex sampling design.<sup>11</sup> The statistics presented are representative of all SSI and DI beneficiaries residing in Phase 1 states who were enrolled in the TTW program at some point between January and June 2003.

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<sup>9</sup> The primary source of information for the MEF is the W-2 form sent directly to SSA. W-2 forms arrive at SSA continuously and the MEF is updated with new W-2 information on a weekly basis. The un-posted detail segment contains detailed non-FICA-related earnings (earnings not subject to FICA tax), such as deferred Medicare earnings, self-employment earnings, and earnings paid into retirement plans. Two variables from this detailed earnings record are used: W2\_BOX5\_WGE\_MED, corresponding to the amount contained in Box 5 of the form W-2, which includes taxable tips; and SEI\_MED, corresponding to any Medicare-covered self-employment. The detailed earning record includes multiple employers per year; for the analysis, these are summed to obtain total wages per year and total self-employment per year. These total annual wage and self-employment values then are summed to obtain total earnings for the year.

<sup>10</sup> SSA cost-of-living adjustments (COLAs) are based on changes in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

<sup>11</sup> To meet the objectives of the survey efficiently, the sample design incorporates geographic primary sampling units (PSUs) and strata defined by phase of TTW rollout and TTW payment system. The relevant weights and PSU and strata indicators must be used to produce statistics representative of Phase 1 TTW participants enrolled in the program during the first half of 2003 and to generate standard errors of the estimates that are adjusted for the sample design. See Bethel and Stapleton (2002) and Appendix B in Thornton et al. (2007) for detailed descriptions of the survey objectives and sample design.

**Exhibit 3. Phase 1 TTW Participant Longitudinal Sample Sizes, by Analytical Subgroup**

	Number (Unweighted)	Number (Weighted)	Percent of Phase 1 TTW Participants with Characteristic (Weighted)
All Phase 1 TTW Participants	767	20,763	100
Program Status at Round 1 (2004)			
DI-only	408	10,018	48
Concurrent	145	4,624	22
SSI-only	214	6,121	30
TTW Provider Type <sup>a, b</sup>			
Ticket assigned to EN	407	2,507	12
Ticket assigned to SVRA	354	18,181	88
Time Enrolled in TTW as of December 2006 <sup>b</sup>			
24 months or less	129	2,006	10
More than 24 months	632	18,682	90
Employment Status at Round 3 Interview (2006)			
Employed	267	7,206	35
Not Employed	500	13,558	65
Adequacy of Incentives (AOI) Group Member <sup>c</sup>	529	14,914	72

Source: 2004 NBS Phase 1 TTW participant longitudinal sample members responding to all three NBS rounds, matched to the TRF07.

<sup>a</sup> TTW provider and payment types are based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

<sup>b</sup> Six members of the Phase 1 TTW participant longitudinal sample lacked any TTW program-related information in the TRF and so were excluded from all statistics generated for subgroups defined by TTW-related characteristics.

<sup>c</sup> AOI groups include beneficiaries who: require ongoing support and services to work; require high-cost accommodations to work; work but earn a subminimum wage; and/or work and receive partial cash benefits. See Chapter 14 in Stapleton et al. (2008) for further details about how these groups are defined.

**Exhibit 4. Selected Sample Characteristics**

Characteristic	Mean or Percent (Weighted) Phase 1 TTW Participant Sample
Time on the Disability Rolls	
Mean time since most recent eligibility	97 months
Mean time since initial eligibility	152 months
Disability Onset (%)	
Childhood onset (< age 18)	38
Adult onset	62
Male (%)	51
Age in Years (%)	
18–24	11
25–39	34
40–54	41
55 and over	14
Race (%)	
White only	60
Black only	34
Other race	6
Hispanic or Latino Ethnicity (%)	10
Highest Level of Education (%)	
Did not obtain high school diploma/GED	20
High school diploma or GED	39
Education beyond high school	41
Marital Status (%)	
Married	16
Widowed/divorced/separated	29
Never married	55
Household Income % of Federal Poverty (%) <sup>a</sup>	
<100	53
100–299	37
300 +	10

Note: The statistics reported are based on the sample member's status at interview in 2004.

<sup>a</sup> The applicable Federal Poverty Level is determined by family size and the ages of family members. In calendar year 2003 (the reference period for the household income question in the 2004 NBS), the Federal Poverty Level for a household with one individual under age 65 was \$9,573 per year.

## IV. TTW ENROLLMENT AND SERVICE USE

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In this chapter, we examine the TTW enrollment and service use patterns of the early cohort of Phase 1 TTW participants. We first present information about the number of months TTW participants were enrolled in the program and the number of providers to which they assigned their Tickets. For this and many subsequent analyses presented in this report, we categorized participants by whether their Tickets were assigned to ENs versus SVRAs based on the provider to which the Ticket had been assigned the longest as of December 2006. The findings show significant differences in enrollment patterns between TTW participants assigned longest to an EN and those assigned longest to an SVRA; those assigned to ENs were much less likely to remain enrolled in TTW for longer than 12 months and also were more likely to change providers. We then examine the service use patterns of TTW participants over a three-year period (2003–2005). The likelihood of using services and the service intensity among those who used them steadily declined over the three years. The decline in the likelihood of using services was sharper for those assigned to ENs, but the decline in service intensity among users was more pronounced among those assigned to SVRAs. The declines in service use and intensity correspond with a general decline in unmet service needs over the same period, which was sharper for those assigned to ENs than those assigned to SVRAs. The reported reasons for unmet needs did not differ markedly by provider type; lack of information and problems with providers were the most common reasons for experiencing unmet service needs, reported by about one-quarter of the TTW participants who reported unmet needs at any of the three NBS interviews.

We conclude the chapter with a look at the enrollment and service use patterns of TTW participants differentiated by whether they are members of one of the four AOI groups identified in the Ticket Act. Concern that incentives for providers to serve some beneficiaries under TTW may be inadequate led Congress to identify four specific groups in the Ticket Act to which SSA was to pay special attention with respect to the adequacy of such provider incentives. These AOI groups include beneficiaries who require more intensive supports to work and those not able to engage in work at levels that would generate TTW payments. The findings suggest that, from a longitudinal perspective, the enrollment and service use characteristics of Phase 1 TTW participants who were AOI group members generally did not differ significantly from other participants who were not members of the AOI groups.

## A. ENROLLMENT IN TTW

Using SSA administrative data in the TRF through December 2006, we examined the TTW enrollment characteristics of our sample of early TTW participants.<sup>12</sup> Here, “enrollment” refers to a TTW-eligible beneficiary having signed up for services with a TTW provider by assigning his or her Ticket to that provider. Recall that all sample members had enrolled in TTW at some time between February 2002 (when TTW was first implemented) and June 2003 (when the 2004 NBS TTW sample was drawn).

As of the end of December 2006, 16 percent of the TTW participants were no longer enrolled in the program, that is, their Ticket was no longer assigned to a provider (Exhibit 5). On average, participants had been enrolled in TTW for 45 months out of a possible maximum of 59 months. Significant differences in the duration of enrollment are evident between those with Tickets assigned to ENs and those with Tickets assigned to SVRAs. About one-half (52 percent) of those whose Tickets had been assigned longest to an EN had left the program by the end of December 2006, compared with just 10 percent of those assigned longest to an SVRA. The mean TTW enrollment duration was 34 months among those assigned longest to an EN and 46 months among those assigned longest to an SVRA. Among those who left TTW, about half had done so after participating in the program for one year or less, and this did not differ significantly by provider type.

Overall, only a small share (2 percent) of TTW participants had enrolled with more than one provider (Exhibit 5). However, those assigned longest to an EN were significantly more likely to have assigned their Ticket to more than one provider relative to those assigned longest to an SVRA, although the share was still quite small (6 percent compared with one percent). Among the 6 percent of participants assigned longest to an EN who had tried multiple providers, about 40 percent had tried an SVRA and about 60 percent had tried at least one other EN (statistics not shown).

## B. SERVICE USE

Using data from the three NBS rounds, we examined the likelihood of using services, hours of service use among users, and reported unmet service needs during the 2003–2005 period. Services are defined very broadly, including any that respondents identified as receiving for purposes of improving their ability to work or live independently. In the analyses presented below, we categorize the types of services used into two broad groups: employment services and medical/other services. Employment services include work or job assessment, help finding a job, training, on-the-job training, job coaching, and advice about

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<sup>12</sup> At the time this analysis was conducted, only administrative data through December 2006 were available. Analyses of employment and use of work incentives presented later in this report utilize administrative data through December 2007, as those data became available subsequently and allowed us to make comparisons of the TTW participant outcomes to other work-oriented beneficiaries based on findings conducted for a related study that utilized data through December 2007. We retained the December 2006 end date for the enrollment analysis as it corresponds to the calendar year in which the Round 3 interviews were conducted.

modifying a job to accommodate a disability. Medical/other services include all other types, including, for example, physical, occupational, and speech therapy; mental health and counseling services; and medical procedures and devices. Note that services include all those accessed during the calendar year prior to the year of interview and encompass both those that might have been arranged by a TTW provider and those accessed outside the auspices of the TTW program.

**Exhibit 5. TTW Enrollment Characteristics as of December 2006**

	All TTW	Assigned to EN	Assigned to SVRA
Still enrolled in TTW (%)	84	48*	90
Total months enrolled (%) <sup>#</sup>			
<13	6	28	4
13–24	3	10	2
25–36	3	7	2
37 +	87	55	92
Mean months enrolled	45	34*	46
Number of TTW providers (%) <sup>#</sup>			
1	98	94	99
2 or more	2	6	1

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds, matched to the TRF. Sample size = 767.

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

\*Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

<sup>#</sup> Distribution of those assigned longest to ENs is significantly different from that of those assigned longest to SVRAs at the 0.05 level, chi-square test.

With respect to the likelihood of using services, several general patterns are evident overall, and also by service and provider type (Exhibit 6):

- Overall, the likelihood of using services steadily declined over the three-year period, regardless of service type (employment or medical/other services). The decline was sharper for employment-related than for medical/other services.
- Those assigned longest to SVRAs were more likely to use services in all years than those assigned longest to ENs.<sup>13</sup>

<sup>13</sup> This finding does not seem to be due to the fact that a large share of TTW participants assigned to ENs did not remain enrolled in TTW for more than 24 months. Service use comparisons between those assigned to ENs and enrolled in TTW for fewer than 24 months and their counterparts enrolled in TTW for 25

**Exhibit 6. Service Use During 2003–2005**

	All TTW	Assigned to EN	Assigned to SVRA
Used Any Services (%)			
2003	61	48*	63
2004	58	47*	60
2005	52 <sup>#</sup>	46	52 <sup>#</sup>
% Change 2003 to 2005	-15	- 4	-17
Used Employment Services (%)			
2003	46	31*	48
2004	39 <sup>#</sup>	26*	41 <sup>#</sup>
2005	29 <sup>#</sup>	19* <sup>#</sup>	30 <sup>#</sup>
% Change 2003 to 2005	-37	-39	-38
Used Medical/Other Services (% among service users)			
2003	52	39*	54
2004	48	41*	49
2005	42 <sup>#</sup>	40	42 <sup>#</sup>
% Change 2003 to 2005	-19	+2	-22
Used Any Services in Any Year 2003–2005 (%)	82	68*	83
Used Employment Services Any Year 2003–2005 (%)	66	45*	69
Used Medical/Other Services Any Year 2003–2005 (%)	70	59*	71

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

\* Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

<sup>#</sup> Significantly different from 2003 value at the 0.05 level, two-tailed test.

- The decline in service use over the three years was less pronounced among those assigned to ENs than among those assigned to SVRAs. This is because use of medical/other services remained fairly constant for those assigned to

(continued)

or more months (not shown) indicate that, across all years, both groups were equally likely to have used any services (67 percent and 68 percent, respectively). There were differences in individual years, however. Those assigned to ENs and enrolled in TTW for a shorter period were less likely to use services in 2003 but more likely to use them in 2004, relative to those assigned to ENs and enrolled in TTW for a longer period. Both groups used services at equal rates during 2005.

ENs (at around 40 percent) but declined significantly for those assigned to SVRAs (from 54 percent in 2003 to 42 percent in 2005). Use of employment services declined similarly (in percentage terms) for both groups over the three years.

We examined the share of all TTW participants who used 50 or more hours of service in each year (Exhibit 7), which we believe represents a very modest level of service use equivalent to approximately 1 hour per week, on average. Only 20 to 25 percent of TTW participants received services at this level of intensity in each year, and a steady decline was evident from 2003 to 2005. Relative to those assigned to SVRAs, those assigned to ENs were significantly less likely to use 50 or more hours of service in each year except 2005; in 2005, there was no significant difference between those with ENs and those with SVRAs.

**Exhibit 7. Service Use Hours, 2003–2005**

	All TTW	Assigned to EN	Assigned to SVRA
<b>Used 50 or More Hours of Service (%)</b>			
2003	25	11*	27
2004	24	14*	26
2005	19 <sup>#</sup>	15	20 <sup>#</sup>
<b>Median Hours of Service Use Among All Service Users</b>			
2003	43	19	48
2004	39	18	45
2005	24	16	24
<i>% Change 2003 to 2005</i>	<i>-44</i>	<i>-16</i>	<i>-50</i>
<i>Median Service Use Hours All Years, 2003–2005</i>	<i>102</i>	<i>44</i>	<i>109</i>

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Notes: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006. Test of significance were not performed for median values. Mean service use hours among users differed significantly between the EN and SVRA groups in 2003 and 2004, at the 0.05 level, two tailed test.

\* Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

<sup>#</sup> Significantly different from 2003 value at the 0.10 level, two-tailed test.

Service intensity among users, as measured by the median number of hours of service, followed a pattern similar to that observed for service use and the likelihood of using of 50 or more hours in a given year (Exhibit 7). Overall, annual median service use hours among users declined steadily over the three years, from 43 hours in 2003, to 24 hours in 2005. Service users assigned to SVRAs had much higher median service hours overall and in each year relative to service users assigned to ENs. However, those assigned to SVRAs experienced the sharpest decline in service intensity over the three-year period.

When sample members were interviewed at each round, they were asked whether they had any unmet service needs during the previous calendar year, regardless of whether they had used any services. About one-third (34 percent) of all TTW participants reported having unmet service needs in at least one year during 2003–2005, but just 5 percent reported unmet needs in all three years (Exhibit 8). The share of participants reporting unmet needs generally declined over the three years, although the difference (from 2003 to 2005) was only statistically significant for those assigned to ENs. There were no significant differences in the likelihood of reporting unmet needs by provider type (overall or within each survey round), and there were few significant differences across rounds (see Appendix Table B-1). We also examined unmet needs by whether participants were employed at the Round 3 interview in 2006. Those employed at this round were significantly less likely to report unmet needs over the 2003–2005 period relative to those who were not.

**Exhibit 8. Reported Unmet Service Needs, 2003–2005, by Provider Type and Employment Status at Round 3**

	All TTW	EN	SVRA	Employed at Round 3	Not Employed at Round 3
Unmet Service Needs (%)					
2003	19	23	18	17	20
2004	17	21	17	12*	20
2005	15	15 <sup>#</sup>	15	9*	18
<i>% change 2003 to 2005</i>	-21	-35	-17	-47	-10
Unmet needs in at least one year 2003–2005 (%)	34	38	33	28*	37
Unmet needs in all years, 2003–2005 (%)	5	6	4	3	6

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

\* Significantly different from those not employed at Round 3 at the 0.05 level, two-tailed test.

<sup>#</sup> Significantly different from 2003 value at the 0.05 level, two-tailed test.

While we cannot determine whether the observed declines in the unmet needs of TTW participants were because service needs were met or because needs changed, we do have some information about the reasons for reporting unmet needs (Exhibit 9). Lack of information and problems with service providers were the two most frequently reported reasons for experiencing unmet service needs, reported by about a quarter of all participants with unmet needs. These were followed closely by ineligibility or being refused services, reported by 20 percent of those with unmet needs. Reasons for unmet needs did not differ significantly by provider type or employment status at Round 3.

**Exhibit 9. Reasons for Unmet Service Needs Among Those Reporting Unmet Needs in Any Year, 2003–2005, by Provider Type and Employment Status at Round 3**

	All TTW	EN	SVRA	Employed at Round 3	Not Employed at Round 3
Reasons for Unmet Service Needs (%)					
Lack of information	26	25	27	20	29
Problems with providers	26	22	26	22	28
Not eligible/request refused	20	19	21	18	21
Could not afford services	14	15	14	15	13
Too difficult/confusing to obtain	11	6	11	13	10
Didn't try to obtain services	7	2	7	4	8
Other	28	38	27	32	27

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

**C. ENROLLMENT AND SERVICE USE PATTERNS OF AOI GROUP MEMBERS**

In passing the Ticket Act, Congress acknowledged that providers might be unwilling to accept Tickets from some beneficiaries because the TTW performance-based payment system might not cover the cost of services. Policymakers were particularly concerned that, from a provider's perspective, payments would be insufficient to cover services for beneficiaries who want to work but need long-term or expensive services, or those who are less likely to work at a level that will result in a payment. As part of an effort to address this concern, Congress required SSA to study the adequacy of the incentives for providers to serve the following four groups of beneficiaries:

Group 1: Beneficiaries who require ongoing support and services to work

Group 2: Beneficiaries who require high-cost accommodations to work

Group 3: Beneficiaries who work but earn a subminimum wage

Group 4: Beneficiaries who work and receive partial cash benefits

We refer to these groups as Adequacy of Incentives (AOI) groups.<sup>14</sup>

In other reports, we used survey data to classify beneficiaries into these four groups and presented findings from analyses of cross-sectional data on the characteristics, TTW

<sup>14</sup> Further information about how these groups are identified using the NBS data and the characteristics of individuals in each group is presented in Appendix E of Thornton et al. (2007), and in Chapter 14 of Stapleton et al. (2008).

participation rates, and service use by beneficiaries who were and were not AOI group members. We found that AOI group members represented a majority of all beneficiaries (67 percent) and were equally represented among TTW participants. Although AOI group members differed from non-AOI beneficiaries on a number of characteristics, our latest analyses, based on the 2005 NBS and representative of beneficiaries residing in Phase 1 and Phase 2 states (Stapleton et al. 2008), generally found that AOI beneficiaries did not differ markedly in terms of TTW participation rates. With a few exceptions, service use patterns of AOI and non-AOI TTW participants also were similar. The cross-section of Phase 1 and 2 AOI TTW participants were, however, less likely to assign their Tickets to ENs and more likely to report unmet service needs relative to their non-AOI counterparts.

Here, we used the three rounds of the NBS to compare the TTW enrollment and service use patterns of an early Phase 1 cohort of AOI and non-AOI TTW participants over the 2003–2005 period. Below, we describe the general findings of this analysis. Detailed statistics are presented in Appendix A.

With respect to TTW enrollment, we found no significant differences between AOI and non-AOI group members in the duration of TTW enrollment, the likelihood of TTW enrollment as of December 2006, the likelihood of ever being assigned to an EN, or the likelihood of changing TTW providers (Appendix Table A.1).

In terms of service use over the three years, we find that the early Phase 1 cohort of TTW participants who were AOI group members were either more likely (in 2003) or about equally likely (in 2004 and 2005) to use services relative to their non-AOI counterparts (Appendix Table A.2). The greater likelihood of service use in 2003 by AOI group members is also the reason for the greater decline in service use from 2003 to 2005 (in percentage terms) observed for this group. In 2004 and 2005, both AOI and non-AOI beneficiaries used services at about equal rates. The two groups also did not differ significantly in the percentages of all members who used 50 or more hours of service in each year. Among service users, annual median service use hours overall did not differ between AOI and non-AOI beneficiaries, although there were relatively small differences between the two groups in specific years (Appendix Table A.3). Relative to their non-AOI counterparts, annual median service use hours for AOI group members were somewhat lower in 2003 (43 versus 48), but higher in 2004 (42 versus 32). Median hours in 2005 were about equal for both groups (approximately 25).

Finally, with respect to unmet service needs, AOI and non-AOI TTW participants were about equally likely to have reported unmet needs in at least one year during 2003–2005 (approximately one-third of both groups reported unmet needs), and there were no statistically significant differences in the shares reporting unmet needs in each year (Appendix Table A.4). With two exceptions, the frequency with which particular reasons for unmet service needs were reported did not differ significantly between the two groups (Appendix Table A.5). The exceptions were that, relative to others, AOI group members were less likely to report ineligibility for services (16 percent versus 31 percent) and were much more likely to report an ‘other’ reason for unmet needs.

## V. HEALTH STATUS

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Findings presented in previous TTW evaluation reports (Stapleton et al. 2008; Thornton et al. 2007) have shown that there is a strong relationship between general physical and mental health status and the likelihood that beneficiaries are employed. In those analyses, we used two summary physical and mental health measures to assess the importance of general health status in employment, above and beyond the specific impairments, limitations, and health conditions reported by beneficiaries. The two summary health measures utilize the SF-8™ Health Survey and scoring algorithms based on general population norms constructed by the SF-8™ developers. The SF-8™ is a generic, multipurpose short-form survey intended to assess health status across several domains: general health, physical functioning, bodily pain, vitality, social functioning, and mental and emotional health.<sup>15</sup> The two summary measures derived from the SF-8™ are referred to as the Physical Component Summary (PCS) and the Mental Component Summary (MCS). In this chapter, we use the PCS and MCS to examine the general physical and mental health status of our cohort of Phase 1 TTW participants across the three survey rounds.

In Exhibit 10, we show the distribution of PCS and MCS scores for the full sample of Phase 1 TTW participants at each of the three interviews occurring during 2004, 2005, and 2006. We also indicate the shares of participants in the latter two years that experienced a change of 10 percent or more in their health status score (either up or down) from the previous year. Overall, the mean PCS and MCS scores were very similar to the mean scores reported for the general adult population, and also appear to be stable across the three survey rounds. Findings reported in Ware et al. (2001) indicate that the mean PCS and MCS scores for an adult general population sample (interviewed by phone) is about 50 and 51, respectively. The means for our sample ranged between 51 and 53 for both scores across the three years.

Although the mean health status scores appear fairly stable across the three years, within each year, about one-quarter to one-third of the sample experienced health improvements and roughly the same share experienced health declines. We define improvement and declines based on a 10 percent change in the PCS or MCS from the previous year. We do not have comparable information about the variation in the health measures over time for the general adult population, but approximately half of the TTW sample experienced rather significant health changes (improvements or declines) in each year. This suggests that the health status of TTW participants might be rather volatile. The findings with respect to changes in the PCS and MCS scores are supported by participant responses to the question

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<sup>15</sup> See Ware et al. (2001) for further details of the SF-8™.

about how their current health compares to their health during the previous year. Roughly one-half reported their current health as being the same as last year, and about one-quarter to one-third reported improvements or declines in their current health in each year (bottom panel of Exhibit 10).

**Exhibit 10. Changes in Health Status, 2004–2006 (Full Sample)**

	2004	2005	2006
<b>PCS (SF-8 Physical Health Measure)</b>			
PCS < 45 (%)	31	33	30
PCS 45–51 (%)	15	16	20 <sup>#</sup>
PCS > 51 (%)	54	51	49
Mean PCS score	52	51	52
Percent with 10% or more decline in score from previous interview	NA	28	22
Percent with 10% or more increase in score from previous interview	NA	24	29
<b>MCS (SF-8 Mental Health Measure)</b>			
MCS < 45 (%)	33	28 <sup>#</sup>	26 <sup>#</sup>
MCS 45–51 (%)	13	14	17
MCS > 51 (%)	54	58	57
Mean MCS score	52	53 <sup>#</sup>	53
Percent with 10% or more decline in score from previous interview	NA	24	30
Percent with 10% or more increase in score from previous interview	NA	37	25
<b>PCS and MCS</b>			
Percent with 10% or more decline in both PCS and MCS scores from previous interview	NA	6	5
Percent with 10% or more increase in both PCS and MCS scores from previous interview	NA	5	6
<b>Current Health Compared to Last Year (%)</b>			
Same	45	46	48
Better	31	26	27
Worse	24	27	25

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: The PCS and MCS categories approximately represent the following in the U.S. adult population: < 45 ≈ the 25th percentile among U.S. adults; 45–51 ≈ the 25th through 50th percentile among U.S. adults; and > 51 ≈ greater than the 50th percentile among U.S. adults (Ware et al. 2001).

<sup>#</sup> Significantly different from 2004 value at the 0.05 level, two-tailed test.

More detailed information comparing the assessment of current health compared to last year for subgroups defined by changes in the PCS and MCS scores across rounds is provided in Appendix B (Table B-2). The findings suggest that there is general consistency between self-reports of health status changes and the actual changes in PCS and MCS scores, however, the largest percentage of those who experienced changes in either the MCS or PCS scores, regardless of the direction of the change, reported their health to be the same as in the previous year. About 20 to 25 percent of those who experienced a change in a PCS or MCS score reported a change in health status in the opposite direction. This inconsistency may in part be due to the fact that the general health assessment encompasses both physical and mental health status, while the PCS and MCS scores capture only one or the other. However, among the small subgroup of beneficiaries who experienced a change in both the PCS and MCS scores, similar percentages reported changes in health status that were inconsistent with the direction of the change in scores.

As noted previously, we have found a significant relationship between health status and employment. All else being constant, beneficiaries with low PCS or MCS scores were significantly less likely to be employed at the time they are interviewed. Negative changes in health status might also have an effect on the ability of some participants to remain engaged with the TTW program. In Exhibit 11, we provide selected health status statistics indicative of negative health shocks over the three years for TTW participants who remained enrolled in the program for 24 or fewer months versus more than 24 months. It appears that those enrolled for the shorter period were in poorer physical health, particularly at the first and third interviews. Across all years, a much larger share of those who did not remain attached to TTW were in the lowest PCS quartile and overall had lower mean PCS scores. They were, however, less likely to experience a decline in physical health at the second interview but more likely to do so at the third interview relative to those who remained attached to TTW.

Less striking differences are evident with respect to mental health status. Only at first interview did those who were enrolled in TTW for a shorter period appear to be in worse mental health. It is interesting to note that, of those who were enrolled in TTW for 24 months or fewer, the large majority (80 percent) had disenrolled by the time they were interviewed in 2004. This, combined with the evidence that this group experienced generally poorer physical and mental health in 2004, suggests that poor or deteriorating health might have played a role in their termination from TTW. In all years, those who did not remain attached to TTW for more than two years were significantly more likely to report that their current health was worse than in the previous year.

**Exhibit 11. Indicators of Poor Health and Negative Changes in Health Status, 2004–2006, by Duration of TTW Enrollment**

	2004	2005	2006
<b>PCS &lt;45 (%)</b>			
TTW enrolled <25 months	53	38	48
TTW enrolled 25+ months	28	32	28
<b>Mean PCS score</b>			
TTW enrolled <25 months	48	49	48
TTW enrolled 25+ months	52	52	52
<b>Percent with 10% or More Decline in PCS Score from Previous Interview</b>			
TTW enrolled <25 months	NA	19	29
TTW enrolled 25+ months	NA	29	21
<b>MCS &lt;45 (%)</b>			
TTW enrolled <25 months	45	32	25
TTW enrolled 25+ months	31	27 <sup>#</sup>	26 <sup>#</sup>
<b>Mean MCS Score</b>			
TTW enrolled <25 months	48	51	53 <sup>#</sup>
TTW enrolled 25+ months	52	53	53
<b>Percent with 10% or More Decline in MCS Score from Previous Interview</b>			
TTW enrolled <25 months	NA	18	31
TTW enrolled 25+ months	NA	24	30
<b>Current Health Worse Compared to Last Year (%)</b>			
TTW enrolled <25 months	29	43 <sup>#</sup>	33
TTW enrolled 25+ months	24	25	24

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: PCS and MCS scores less than 45 are roughly equal to scores for the bottom quartile of the U.S. adult population (Ware et al. 2001).

<sup>#</sup> Significantly different from 2004 value at the 0.10 level, two-tailed test.

## VI. EMPLOYMENT, USE OF SSA WORK INCENTIVES, AND TIME OFF THE DISABILITY ROLLS DUE TO WORK

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In this chapter, we examine the longitudinal employment experiences of the early cohort of TTW participants. In the first three sections, we look at employment and employment expectations, job characteristics, and the reasons given for not working and for leaving jobs. The findings indicate that, based on the NBS data, about 45 percent of TTW participants worked in each year from 2003–2005 and 60 percent worked at some point during that three-year period. However, IRS data covering a five-year period (2003–2007) indicate that TTW participants underreported their work activity somewhat in the NBS. About 50 percent of TTW participants had earnings in each year from 2003–2007, and 75 percent had earnings in at least one of the five years. Average annual earnings among those with positive earnings were highest in 2007, at nearly \$10,000. Although there were no significant differences in the likelihood of working between those with Tickets assigned to ENs and those assigned to SVRAs, there were significant differences between the two groups in terms of earnings and other job characteristics. Those assigned to ENs worked more hours, had higher wages and earnings, and were more likely to have monthly earnings above the SGA level. However, those assigned to SVRAs had a longer average job duration than those assigned to ENs.

Although TTW participants assigned to ENs generally outperformed those assigned to SVRAs in terms of job characteristics, the employment expectations of those assigned to ENs were more pessimistic relative to those assigned to SVRAs. Across the three NBS interviews, just 49 percent of those assigned to ENs maintained positive five-year employment expectations, compared with 64 percent of those assigned to SVRAs. This pessimism is reflected in the reasons given for not working reported by those who had been employed at some point over the 2003–2005 period but who were not employed at one or more of the NBS interviews; those assigned to ENs were more likely to report a number of the employment barriers queried relative to those assigned to SVRAs. Among those who left at least one job during 2003–2005, poor health was the most common reason cited for leaving a job, and those assigned to ENs were significantly more likely to report this reason than those assigned to SVRAs. Other common reasons reported for leaving jobs were dislike of specific job features, the job being temporary, and being fired or laid off.

In the last section, we look at the use of SSA work incentive provisions and time off the disability rolls during 2004–2007. Relative to other beneficiaries with work goals or expectations, the early cohort of TTW participants were more likely to use the “automatic” work incentive provisions (those that take effect as earnings increase without any special action being required of the beneficiary), particularly those assigned to ENs. They also were

more likely to leave cash benefits for at least one month during 2004–2007. Those assigned to ENs were significantly more likely to leave cash benefits relative to those assigned to SVRAs (27 percent versus 17 percent) and also were more likely to do so for 13 months or longer (17 percent versus 10 percent).

#### A. EMPLOYMENT AND EMPLOYMENT EXPECTATIONS

At each of three NBS rounds, information needed to construct a complete employment history for the previous calendar year was collected from respondents. During each of the three years for which complete employment information was collected (2003–2005), about 45 percent of the cohort of early TTW participants were employed at some time during each year, and about 60 percent had been employed at some point during the three-year period (Exhibit 12). No significant differences in employment rates are evident by provider type.

**Exhibit 12. Employment 2003–2005 (Based on NBS Data)**

	All TTW	Assigned to EN	Assigned to SVRA
<b>Employment During 2003–2005 (%)</b>			
Employed in 2003	46	47	46
Employed in 2004	46	46	46
Employed in 2005	45	44	46
Employed at any time 2003–2005	59	60	59
<b>Months Employed 2003–2005 (%)</b>			
0	41	40	41
1–12	15	17	15
13–24	13	13	13
25 or more	27	24	27
Unknown	4	6	4
<b>Number of Jobs (%)</b>			
0	41	40	41
1	20	17	21
2 or 3	26	26	26
4 or more	9	11	9
Unknown	4	6	4

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

Overall, just over one-quarter of the sample (27 percent) was employed for more than two years during the three-year period (Exhibit 12). This share represents nearly half (46 percent) of those who were employed at some time during the three years. The remaining half of those who were employed at all is equally divided between working for one year or less and working for one to two years over the three-year period. With respect to the number of jobs held, most (about 60 percent) of those who were employed held two or more jobs. No significant differences in the distributions of total months employed or the number of jobs were found by provider type.

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Using the annual IRS earnings data that were matched to the longitudinal TTW participant sample, we are able to examine employment activity over a longer period (2003–2007) than with the information available from the NBS.<sup>16</sup> The IRS data indicate that TTW participants underreported their work activity in the NBS (Exhibit 13). Underreporting of work activity was greatest for 2003; although 46 percent of TTW participants reported working in 2003 in the NBS, the IRS data indicate that 57 percent had earnings in that year. In 2004 and 2005, the differences between the survey-reported work activity and the IRS data were less pronounced (less than 5 percentage points in each year).

According to the IRS earnings information, 75 percent of the early cohort of TTW participants had earnings in at least one year from 2003–2007 (Exhibit 13). The percentage with earnings was highest in 2003 (57 percent) but remained at approximately 50 percent in all five years. Among those with positive earnings in at least one year, average annual earnings (across all years) were \$6,830 (2007 dollars). Average earnings were lowest in 2003 at just under \$6,000, and ranged from \$8,000 to nearly \$10,000 in all subsequent years. Although there were no significant differences between those assigned to ENs and SVRAs regarding the likelihood of having earnings in each year, there were significant differences in the average earnings. Those assigned to ENs had higher average annual earnings compared with those assigned to SVRAs in all years—and the differences were statistically significant overall—and in three of the five individual years. With respect to the number of years with earnings, nearly one-third of TTW participants (30 percent) had earnings in all five years analyzed. Among those who had any earnings during the 2003–2007 period, two-thirds had earnings in three or more of the five years.

In Exhibit 14, we compare TTW participants' employment activity (as reported in the NBS) with their reported employment expectations. At the Round 1 interview in 2004, 68 percent of TTW participants visualized themselves working for pay in the next year, and 58 percent of these individuals actually had done so during the 12 months following the interview. The share reporting positive employment expectations at Round 2 declined slightly (to 64 percent), as did the percentage of these individuals who worked during the 12 months after the interview (55 percent). The one-year employment expectations of TTW participants did not differ significantly by provider type; however, the five-year expectations (reported at Round 1) did. Among those assigned longest to an EN, 73 percent visualized themselves working for pay in the next five years, compared with 83 percent of those assigned longest to an SVRA. Those assigned to ENs also were significantly less likely to have positive five-year employment expectations at all three interview rounds, relative to those assigned to SVRAs.

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<sup>16</sup> As noted in Chapter III, the IRS-NBS record linkage and earnings data analyses presented in this report were performed by SSA staff.

**Exhibit 13. Employment 2003–2007 (Based on Annual IRS Data)**

	All TTW	Assigned to EN	Assigned to SVRA
<b>Employment and Earnings 2003–2007</b>			
Employed in 2003 (%)	57	55	58
Average Annual Earnings (\$)	5,760 <sup>^</sup>	8,693 <sup>*</sup>	5,365
Employed in 2004 (%)	49	49	49
Average Annual Earnings (\$)	8,081	11,863 <sup>*</sup>	7,538
Employed in 2005 (%)	49	49	51
Average Annual Earnings (\$)	9,284	11,665	9,002
Employed in 2006 (%)	52	52	53
Average Annual Earnings (\$)	9,106	11,662 <sup>*</sup>	8,761
Employed in 2007 (%)	47	48	47
Average Annual Earnings (\$)	9,710	11,387	9,477
Employed at any time 2003–2007 (%)	75	76	75
Average Annual Earnings All Years (\$)	6,830	8,899 <sup>*</sup>	6,566
<b>Number of Years with Earnings 2003–2007 (%)<sup>#</sup></b>			
0	25	24	25
1	14	16	13
2	11	9	12
3	11	9	11
4	9	16	9
5	30	26	30

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds, matched to IRS earnings data. Sample size = 767.

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006. Dollar values are expressed in 2007 dollars.

\* Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

<sup>^</sup> Significantly different from average earnings in all other years (2004–2007), two-tailed test.

<sup>#</sup> Distribution of those assigned longest to ENs is significantly different from that of those assigned longest to SVRAs at the 0.05 level, chi-square test.

**Exhibit 14. Employment Expectations**

	All TTW	Assigned to EN	Assigned to SVRA
<b>One-Year Expectations and Likelihood of Fulfilling Them Among Those with Positive Expectations</b>			
Saw self working for pay in the next year at Round 1 (2004) interview (%)	68	65	69
Worked for pay during 12 months after interview (%)	58	58	58
Saw self working for pay in the next year at Round 2 (2005) interview (%)	64	59	65
Worked for pay during 12 months after interview (%)	55	52	55
<b>Five-Year Employment Expectations</b>			
Saw self working for pay in the next five years at Round 1 (2004) interview (%)	82	73*	83
<b>Changes in Five-Year Employment Expectations Across Interview Rounds (%)#</b>			
Positive expectations all rounds	62	49	64
Positive at Round 1, negative at Rounds 2 or 3	20	24	19
Negative at Round 1, positive at Rounds 2 or 3	10	15	10
Negative work expectations all rounds	8	12	7

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

\* Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

# Distribution of those assigned longest to ENs is significantly different from that of those assigned longest to SVRAs at the 0.05 level, chi-square test.

**B. JOB CHARACTERISTICS**

In previous reports, we have presented statistics about the characteristics of jobs held by TTW participants at the time they were interviewed (Thornton et al. 2007; Stapleton et al. 2008). In Exhibit 15, we present similar statistics, but instead of looking at a particular job, we look across all jobs held by a sample member during 2003–2005 and report the means and distributions associated with his or her best job. The ‘best job’ is defined as the job with the longest hours, highest hourly wages, highest monthly pay, or longest duration for each set of statistics pertaining to hours, wages, pay, and duration, respectively. Thus, if an individual held multiple jobs, different jobs might be the basis for the statistics generated for different job characteristics. Examining the individual maximum values for the various job features across all jobs held during 2003–2005 is intended to provide a more accurate picture of the maximum work capacity of Phase 1 TTW participants over the three-year period. In all cases, the statistics reported in Exhibit 15 portray a more successful picture of the work capacity of TTW participants relative to the analogous cross-sectional statistics presented in previous reports.

**Exhibit 15. Best Characteristics of Jobs Held Among Those Reporting at Least One Job During 2003–2005**

	All TTW	Assigned to EN	Assigned to SVRA
Reported at Least One Job 2003–2005 (%) <sup>a</sup>	55	55	55
<b>Most Hours Worked per Week (%)<sup>#</sup></b>			
1–10	11	6	12
11–20	29	23	30
21–34	26	25	26
35+	33	46	31
Unknown	1	1	1
Mean most hours worked per week	27	31*	26
<b>Highest Wages and Pay</b>			
<b>Highest Hourly Wage (%)<sup>b, #</sup></b>			
< \$5.15	2	0	3
\$5.16–\$7.99	33	15	35
\$8.00–\$14.99	49	63	47
\$15.00 or more	13	19	12
Unknown	3	3	3
Mean highest hourly wage (\$) <sup>a</sup>	10.4	12.9*	10.1
Mean highest monthly pay (\$) <sup>a</sup>	1,196	1,695*	1,123
Earned above SGA in at least 1 month (%) <sup>c</sup>	59	76*	57
<b>Months with pay above SGA (%)<sup>b, #</sup></b>			
0	41	23	43
1–12	24	29	23
13 or more	35	47	34
Unknown	<1	2	<1
<b>Maximum Job Duration (%)</b>			
1–6 months	17	20	17
7–12 months	15	19	15
13–24 months	20	15	21
25–36 months	19	18	19
37+ months	28	26	28
Unknown	1	2	1
Mean maximum job duration (months)	33	27*	34

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767 (458 sample members who provided information about at least one job during 2003-2005).

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

<sup>a</sup> The percentages reporting at least one job during 2003–2005 differ from the percentages who reported being employed during the same period (Exhibit 11) because some employed respondents provided no or incomplete job information.

<sup>b</sup> Dollar values are expressed in 2007 dollars.

<sup>c</sup> Computed based on a comparison of unadjusted monthly pay values to the monthly SGA value corresponding to the calendar year of earnings.

\*Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

<sup>#</sup> Distribution of those assigned longest to ENs is significantly different from that of those assigned longest to SVRAs at the 0.05 level, chi-square test.

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Employed TTW participants worked an average of 27 hours in the jobs at which they worked the most hours during 2003–2005. Nearly one-third had engaged in full-time employment (35 or more hours per week) for at least one of their jobs. They received a maximum average hourly wage of about \$10; the average highest monthly pay over the period was approximately \$1,200. About 60 percent of TTW participants were able to earn above the SGA level in at least one month during the three-year period, and about one-third (35 percent) were able to do so for 13 or months or longer. The average duration for the longest-duration job held was nearly three years (33 months).

The overall statistics obscure significant differences between those assigned to ENs and those assigned to SVRAs, which mirror the cross-sectional findings presented in previous reports. With one exception, those assigned longest to ENs outperformed those assigned longest to SVRAs with respect to all best-job features shown in Exhibit 15. On average, those assigned to ENs worked more hours, had higher wages and monthly pay, and were more likely to earn above the SGA level, compared with those assigned longest to SVRAs. The difference between the two groups in the likelihood of earning above SGA in at least one month is particularly striking. Among those assigned longest to ENs, 76 percent earned above SGA in at least one month, compared with 57 percent of those assigned longest to an SVRA. The one exception is job duration, where those assigned to SVRAs had a longer average maximum job duration (by 7 months) than those assigned to ENs.

As we have discussed in previous reports, the observed differences in outcomes between SVRA and EN TTW clients might be explained by differences in the characteristics of clients seeking services from ENs versus SVRAs, and also by differences in the willingness of these types of providers to serve particular individuals stemming from their incentives to serve clients who are likely to exit the rolls because of earnings.<sup>17</sup> For example, among the Phase 1 TTW participants in the first survey round, those assigned to SVRAs were significantly more likely to be employed in sheltered employment and significantly more likely to use personal assistant services relative to those assigned to ENs (Thornton et al. 2007). The higher earnings of EN clients might reflect the fact that, compared with SVRAs, ENs—because of differences in incentives—emphasize the attainment of earnings at a level that reduces benefits to zero, and this is reflected both in the characteristics of the clients they are willing to service under TTW and the types of services they provide.

### **C. REASONS FOR LEAVING JOBS**

Among the approximately 60 percent of Phase 1 TTW participants who reported that they had worked at a job for one month or longer during 2003–2005, just over half (58 percent) reported leaving one or more of those jobs (Exhibit 16). Overall, the most common

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<sup>17</sup> ENs can be more selective in choosing who they will serve than SVRAs. Although SVRAs are required to serve those with the most severe disabilities, they also have access to funds from other sources to pay for services if a client does not generate payments under TTW. ENs typically do not have alternative sources of funding and so have incentives to serve clients who are most likely to work at levels that will generate TTW payments.

reason for leaving a job was disability onset or worsening, reported by nearly one-third of those who left jobs. Those assigned longest to an EN were significantly more likely to report poor health as the reason for leaving a job relative to those assigned longest to an SVRA (44 percent versus 31 percent). Dislike of specific job features followed closely behind poor health as a reason for leaving a job (31 percent) and the shares reporting this reason did not differ by provider type. Relative to those assigned longest to an EN, those assigned longest to an SVRA were significantly more likely to report that they left a job because the job was temporary (31 percent versus 17 percent).

**Exhibit 16. Reasons for Leaving Jobs**

	All TTW	Assigned to EN	Assigned to SVRA
Worked in 2003–2005 (% of total)	59	60	59
Left a job in 2003–2005 (% of total)	34	38	34
Left a job in 2003–2005 (% of those who worked 2003–2005)	58	63	58
<b>Main Reasons Left a Job Reported by Those Leaving Jobs in 2003–2005 (%)<sup>a</sup></b>			
Disability onset or worsening	33	44*	31
Disliked specific job features <sup>b</sup>	31	31	31
Job was temporary	29	17*	31
Fired	15	18	15
Laid off	14	12	14
Family/personal reasons	18	11	20
Moved, left for school, or took another job	16	14	17
Other/unknown	22	18	23

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767 (307 sample members who left at least one job during 2003–2005).

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

<sup>a</sup> The statistics do not sum to 100 percent because respondents were permitted to report multiple reasons for leaving one or more jobs. A particular reason was counted only once per individual in the reported statistics, even if reported for multiple job terminations.

<sup>b</sup> Job features include pay, benefits, duties, schedule, co-workers, location, advancement opportunities, and availability of accommodations.

\*Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

To better understand the employment barriers among TTW participants who were employed at some time during 2003–2005, we examined the reasons given for not working among members of this subgroup not employed at one or more NBS interview rounds

(Exhibit 17).<sup>18</sup> Even among these working beneficiaries, health status played an important role. About 80 percent of those not working when interviewed reported that a physical or mental health condition prevented work. Inability to find a job for which he or she was qualified, being discouraged by previous work attempts, and believing that employers would not give him or her a chance also were common reasons reported by a majority of non-working TTW participants who had worked at some point during 2003–2005. Several of the reasons for not working were reported more frequently among those assigned to ENs relative to those assigned to SVRAs. Those assigned to ENs were significantly more likely to report not being able to find jobs for which they were qualified, not being able to find jobs that they wanted, believing that others do not think they can work, and lacking reliable transportation to and from work.

**Exhibit 17. Reasons for Not Working Reported by Those Employed at Any Time During 2003–2005 and Not Employed at One or More Interviews**

	All TTW	Assigned to EN	Assigned to SVRA
Employed at any time 2003–2005 and not employed at one or more NBS interviews (%)	39	43	39
<b>Reasons for Not Working (%)</b>			
Physical or mental condition prevents work	81	81	81
Cannot find a job he/she is qualified for	62	70*	60
Discouraged by previous work attempts	56	63	55
Employers will not give her/him a chance	53	63	52
Cannot find a job he/she wants	49	58*	47
Others do not think he/she can work	39	47*	37
Workplaces not accessible to people with his/her disability	38	40	37
Lacks reliable transportation to/from work	31	41*	30
Does not want to lose cash or health insurance benefits	27	27	27
Waiting to finish school/ training program	25	27	25
Is caring for someone else	12	11	12
Other reason(s) for not working	20	17	21

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767 (345 sample members who reported being employed at some time during 2003–2005 and were not employed at one or more interviews).

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

\*Significantly different from those assigned longest to SVRAs at the 0.10 level, two-tailed test.

<sup>18</sup> We have reported similar statistics on the reasons for not working for the cross-sectional national beneficiary and TTW participant samples in previous reports. The statistics reported here differ in that they are for the subsample of Phase 1 TTW participants who were employed at some point during 2003–2005 but not employed at one or more NBS interviews. Also, they reflect all reasons reported at any of the three NBS interviews.

Non-working Round 3 respondents who reported reasons for not working other than their health, as well as those who were actively seeking employment, were asked to report the lowest wage or salary at which they would be willing to accept a job that met their needs and abilities. The distribution of this hourly “reservation wage” is shown in Exhibit 18. Overall, about one-third of non-working TTW participants were willing to work for less than \$8 per hour, one-third for \$8 to \$14.99, and a small share (14 percent) for \$15 or more per hour. The reported reservation wages of these TTW participants were, on average, low relative to the average hourly earnings of the general working population. In 2006, the average hourly earnings of all private sector nonsupervisory nonfarm workers were just under \$17 (U.S. Bureau of Labor Statistics 2008). In contrast, the average hourly reservation wage among Phase 1 TTW participant longitudinal sample members responding to the question was about \$10. There were no statistically significant differences between the reservation wages of those assigned to ENs and those assigned to SVRAs.

**Exhibit 18. Hourly Reservation Wages Among Nonworking Sample Members Seeking Employment or Reporting Reasons Other Than Their Health for Not Working at Round 3 Interview (2006)**

	All TTW	Assigned to EN	Assigned to SVRA
Asked Reservation Wage Question (%) <sup>a</sup>	50	54	50
<b>Hourly Reservation Wage (%)</b>			
< \$5.15	7	4	7
\$5.16–\$7.99	28	24	29
\$8.00–\$9.99	15	27	14
\$10.00–\$14.99	22	26	21
\$15.00 or more	14	8	15
Unknown	13	11	13
Mean Hourly Reservation Wage (\$2006)	10.0	9.8	10.0

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767 (390 non-proxy respondents who were not working at interview and either were seeking employment or reported reasons other than their health for not working).

Note: The hourly reservation wage is the lowest hourly wage for which the respondent would be willing to work.

<sup>a</sup> The reservation wage questions were asked only of non-proxy respondents who were not working at the Round 3 interview and who were either seeking work or indicated a reason other than their health for not working.

#### **D. USE OF SSA WORK INCENTIVES AND MONTHS OFF THE DISABILITY ROLLS DUE TO WORK**

The employment support provisions of the DI and SSI programs are a source of support or assistance for beneficiaries attempting to return to work. A number of these key provisions were described briefly in Exhibit 1. The various provisions serve to promote

employment by providing information about the effect of work on benefits, providing the means to obtain vocational rehabilitation or other employment supports, allowing beneficiaries to maintain cash and health insurance benefits while working, and allowing them to return to the rolls quickly when their work attempts are unsuccessful.

Use rates among TTW participants for selected SSA work supports over the 2004–2007 period (based on administrative data) are shown in Exhibit 19. Section 1619(b) (continued Medicaid coverage) was the most frequently used provision, with about 35 percent of all TTW participants to whom the provision was applicable (concurrent and SSI-only beneficiaries) having used the provision at some point during the four-year period. With the exception of 1619(b) and the two rarely used provisions (plans for achieving self support and impairment-related work expenses), those assigned longest to ENs were more likely to use the work incentive provisions relative to those assigned longest to SVRAs. Note that of the work incentive provisions shown in Exhibit 19, the two that were rarely used were also the ones that require actions on the part of the beneficiary in order to use them. The other more frequently used provisions take effect automatically as a beneficiary increases his or her earnings.

**Exhibit 19. Use of Selected SSA Employment Supports, 2004–2007**

	TTW Participants			All Work-Oriented Beneficiaries
	All	EN	SVRA	
<b>Used Provision During 2004–2007(%)</b>				
Trial Work Period	15	24*	14	10
Extended Period of Eligibility	17	26*	15	10
1619(a) Continued SSI Eligibility	12	18*	11	6
1619(b) Continued Medicaid Coverage	35	36	35	14
Impairment-Related/Blind Work Expenses	1	1	1	1
Plan for Achieving Self-Support	<1	1	<1	<1

Source: TTW participant statistics are based on the 2004 NBS Phase 1 longitudinal TTW sample matched to the 2007 TRF (sample size = 767). Work-oriented beneficiary statistics are from Livermore et al. (2009), based on the 2004 NBS national cross-sectional beneficiary sample matched to the 2007 TRF (sample size = 4,433).

Notes: Statistics computed among all to whom each work incentive provision was applicable, based on program status at sampling. TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

\*Significantly different from those assigned longest to SVRAs at the 0.10 level, two-tailed test.

As a point of comparison to TTW participants, we also present the analogous work incentive use statistics for all 'work-oriented' beneficiaries in Exhibit 19. These statistics (reported in Livermore et al. 2009a) are for the subsample of all beneficiaries in the 2004 NBS who indicated that their personal goals include getting a job, moving up in a job, or learning new job skills, and/or that they visualized themselves working for pay in the next year or the next five years. TTW participants represent only a very small share of all work-oriented beneficiaries (about 3 percent). Compared with all beneficiaries who indicate having

work goals/expectations, TTW participants are more likely to use all of the work incentive provisions analyzed except for the two rarely-used provisions (used by one percent or less of all groups).

We also used TRF administrative data to determine the share of Phase 1 TTW participants who left the SSA disability rolls due to work during the 2004–2007 period. Being off the rolls due to work is defined as having cash disability benefits suspended or terminated for at least one month by reason of work activity.<sup>19, 20</sup> Overall, 19 percent of TTW participants were off the rolls due to work for at least one month during the four-year period (Exhibit 20). Of those who were off cash benefits for at least one month, about half did so for 12 months or fewer, and about half did so for 13 or more months. Relative to those assigned longest to an SVRA, those assigned longest to ENs were significantly more likely to have left the rolls for at least one month (27 percent versus 17 percent) and also were more likely to have done so for 13 months or more (17 percent versus 10 percent).

**Exhibit 20. Months off the SSA Disability Rolls Due to Work During 2004–2007**

	TTW Participants			All Work-Oriented Beneficiaries
	All	EN <sup>#</sup>	SVRA	
<b>Months Off the Rolls Due to Work (%)</b>				
0	81	73	83	90
1–3	3	4	3	2
4–12	5	6	4	3
13–24	5	7	5	2
25–48	5	10	5	2

Source: TTW participant statistics are based on the 2004 NBS Phase 1 longitudinal TTW sample matched to the 2007 TRF (sample size = 767). Work-oriented beneficiary statistics are from Livermore et al. (2009a), based on the 2004 NBS national cross-sectional beneficiary sample matched to the 2007 TRF (sample size = 4,433).

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

<sup>#</sup> Distribution is significantly different from that of those assigned longest to an SVRA at the 0.05 level, chi-square test.

<sup>19</sup> The TRF variables used to identify those who were off cash benefits due to work are monthly indicators constructed based on administrative data indicating that DI and/or SSI cash benefits were either suspended or terminated because of earnings. For concurrent beneficiaries to be classified as having left cash benefits due to work, both SSI and DI cash benefits must have ceased in a given month, and the reason for the cessation in at least one of the programs must be due to work.

<sup>20</sup> Note that the TRF variables used to construct the indicators of leaving DI and SSI due to work may be imprecise for two primary reasons: work activity not reported by beneficiaries or not processed by SSA at the time the TRF file was created will not be reflected in the indicators; and in some instances, the reason noted for benefit cessation may be other than due to work (for example, medical improvement) but employment could have been concurrent with or material to the documented reason for benefit cessation. Both factors will lead to underestimates of months off the rolls due to work.

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Leaving cash benefits due to work generally is an infrequent occurrence among disability beneficiaries. Comparable statistics for all beneficiaries indicate that just 6 percent left the rolls for at least one month over the same time period (Livermore et al. 2009a). In Exhibit 20, we again present the analogous statistics for all work-oriented beneficiaries to provide a point of comparison to the early cohort of Phase 1 TTW participants. Even compared with all beneficiaries who indicate having work goals/expectations, TTW participants were about twice as likely to leave the rolls for at least one month over the four-year period analyzed. Although TTW participants were much more likely to leave cash benefits due to work, the share doing so was still fairly small in light of the requirements for providers to receive TTW outcome payments. The findings suggest that TTW outcome payments might be generated by only about one-quarter of those served by ENs during the period analyzed.<sup>21</sup>

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<sup>21</sup> This issue is explored in further in related report in this series (Stapleton et al. 2010).

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## VII. INCOME AND PRIVATE HEALTH INSURANCE

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In this chapter, we analyze changes in the income sources and private health insurance status of TTW participants over the three NBS rounds. We first look at the three primary components of monthly personal income: SSA benefits, non-SSA benefits, and earnings. These findings indicate that, while only a small percentage of TTW participants experienced changes in each of these income sources from interview to interview, among those experiencing changes, the dollar values of the income changes were relatively large. With respect to total monthly personal income, average income remained constant across the three interviews at about \$1,200; however, a majority of TTW participants at the second and third NBS interviews experienced significant changes in income relative to their income at the previous interview.

We then look at the poverty rates and changes in poverty status among TTW participants over the 2003–2005 period. The overall poverty rates of TTW participants remained stable over the three years at a rate similar to that of beneficiaries in general (around 50 percent). The percentages of TTW participants entering and leaving poverty each year were between 10 and 15 percent. However, those assigned to ENs experienced a slight decline in poverty in the years after 2003, due to a relatively larger share leaving poverty in 2004. We also find that employment was associated with lower poverty rates; employed participants in each year had poverty rates that were 10 to 15 percentage points lower than participants who had not been employed during the year.

In the final section of this chapter, we examine changes in private health insurance coverage across the three NBS rounds. Overall, only a small share of TTW participants (about 20 percent) had any type of private coverage, and this did not vary substantially across interviews. Private coverage through one's own employer was fairly uncommon, with 10 percent or less having such coverage in each year.

### A. INCOME

Social Security disability beneficiaries receive cash and near-cash assistance (e.g., food stamps, energy, and housing assistance) from a variety of sources, and for many of these income sources, eligibility and benefit levels are affected by earnings. As a very large share of TTW participants work, we would expect to see changes in their SSA and non-SSA sources of income over time as their earnings change.

In Exhibit 21, we examine changes in total monthly personal income of our early cohort of TTW participants as of the month before interview in 2004, 2005, and 2006.<sup>22</sup> We also look at changes in three major components of personal income: SSA benefits, non-SSA income,<sup>23</sup> and earnings.

**SSA Benefits.** The share of TTW participants receiving any benefits remained constant across the three NBS interviews, at 98 percent. The average monthly benefit also remained constant, at about \$830. At both the 2005 and 2006 interviews, 10 percent of TTW participants experienced a decline in monthly benefits of \$50 or more;<sup>24</sup> the average decline was substantial, at approximately \$250 to \$300. At the same time, about an equal share of participants experienced an increase in benefits of \$50 or more, and the average increases were similar in magnitude to the declines experienced by others (although somewhat lower in 2005, at \$200).

**Non-SSA Benefits.** The shares of TTW participants receiving cash and in-kind support from sources other than SSA increased slightly from 2004 to 2006, from 40 percent to 44 percent. The average monthly benefits of those receiving them remained stable at between \$250 and \$275 in each year. The relatively small changes overall mask some rather significant churning. Among those receiving non-SSA benefits, one-third or more experienced a decline of \$50 or more from the previous interview in 2005 and 2006 (representing about 15 percent of all participants); among these individuals, the average decline was close to \$300 in each year—a large value, given that it is roughly equivalent to the average monthly benefit level. Nearly an equal number of TTW participants experienced increases in monthly non-SSA benefits of \$50 or more over the previous year; the average increases among these individuals also were substantial, at more than \$300 in both 2005 and 2006.

**Earnings.** At each of the first two interviews, about one-quarter of the TTW participants reported having earnings during the previous month. By the third interview, a slightly higher percentage (30 percent) reported earnings. Average monthly earnings among those with earnings were \$742 at the first interview in 2004, increased to \$846 at the second interview, and declined slightly to \$810 at the third interview in 2006. Only a small share of beneficiaries (6 to 7 percent) experienced an increase in monthly earnings of \$50 or more from the prior interview, but among those experiencing such increases, the average increase was relatively large, at more than \$400 (about 50 percent of the average monthly earnings of all who were working). Among those with any earnings at the prior interview, earnings declines of \$50 or more were more common at the second interview in 2005 than at the

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<sup>22</sup> All dollar values are expressed in 2007 dollars.

<sup>23</sup> Non-SSA sources of income and assistance include pensions, private disability insurance, public cash assistance or welfare (other than DI and state and federal SSI), veterans' benefits, workers' compensation, unemployment insurance, and other non-earnings sources of income or assistance.

<sup>24</sup> We chose \$50 as the threshold for income increases and declines for the statistics in Exhibit 20 to reflect fairly significant changes in monthly benefits and ensure that observed changes were not an artifact of the adjustments we applied to convert the dollar values to 2007 dollars.

third interview in 2006 (38 percent compared with 28 percent). The average earnings declines among those experiencing them also were larger in 2005 than in 2006 (\$466 compared with \$179).

**Exhibit 21. Regular Sources and Amounts of Personal Income During Month Before Interview in 2004, 2005, and 2006, and Changes from Prior Interviews**

	2004	2005	2006
<b>Social Security Benefits</b>			
Received benefit (%)	98	98	98
Average among those receiving benefit (\$)	825	830	834
Experienced decline of \$50 or more from prior interview			
Percent of all	NA	10	10
Percent of those receiving benefit at prior interview	NA	6	10
Average decline among those with \$50 or more decline (\$)	NA	301	245
Experienced increase of \$50 or more from prior interview	NA		
Percent of all	NA	9	10
Average increase among those with \$50 or more increase (\$)	NA	199	274
<b>Non-SSA Sources of Income and Assistance</b>			
Received income/assistance (%)	40	42	44
Average among those receiving income/assistance (\$)	255	275	274
Experienced decline of \$50 or more from prior interview			
Percent of all	NA	14	16
Percent of those receiving income/assistance at prior interview	NA	35	38
Average decline among those with \$50 or more decline (\$)	NA	283	270
Experienced increase of \$50 or more from prior interview			
Percent of all	NA	15	14
Average increase among those with \$50 or more increase (\$)	NA	346	324
<b>Earnings</b>			
Had earnings (%)	24	25	30
Average among those with earnings (\$)	742	846	810
Experienced increase of \$50 or more from prior interview			
Percent of all	NA	6	7
Average increase among those with \$50 or more increase (\$)	NA	459	420
Experienced decline of \$50 or more from prior interview			
Percent of all	NA	8	7
Percent of those with earnings at prior interview	NA	38	28
Average decline among those with \$50 or more decline (\$)	NA	466	179
<b>Total Monthly Personal Income</b>			
Average (\$)	1,090	1,142	1,178
Experienced increase of \$50 or more from prior interview (%)	NA	31	29
Average increase among those with \$50 or more increase (\$)	NA	497	546
Experienced decline of \$50 or more from prior interview (%)	NA	26	29
Average decline among those with \$50 or more decline (\$)	NA	408	267

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: Dollar values are reported in 2007 dollars, adjusted using the SSA cost-of-living adjustment (based on changes in the CPI-W).

**Total Personal Income.** Overall, total monthly income remained stable, at about \$1,100 in each year. However, this overall stability in average income masks rather significant changes in income occurring for a majority of TTW participants. At both the second and third interviews, about 30 percent of TTW participants reported an increase in income from the prior interview on the order of \$500. At the same time, a similar percentage of TTW participants reported declines in income from the previous interview. The average declines were about \$400 in 2005 and \$270 in 2006.

We suspect that much of the year-to-year changes in benefit levels were due to changes in earnings. In Appendix B (Table B-3), we provide information about how average benefits changed across rounds by subgroups of beneficiaries who experienced round-to-round changes in earnings. Although the information we have available is somewhat limited for purposes of tying earnings changes to public benefit changes,<sup>25</sup> it suggests that SSA benefits were more responsive to declines in earnings than to increases, and that the response occurred with a time lag. No clear correspondence with earnings changes was apparent with respect to non-SSA benefits. This is likely due to the large variation in the types of benefits considered (with some being more responsive to earnings changes than others) and due to imprecision in the reporting of non-SSA benefits by respondents.<sup>26</sup>

## **B. POVERTY**

Although poverty status is measured based on the annual income of all members of a household, for many TTW participants, their own personal income may be their only source. In 2004, just under half (43 percent) of all Phase 1 TTW participants were in living arrangements that represented single-person households for purposes of computing poverty status (Thornton et al. 2006).<sup>27</sup> Thus, changes in personal income that result from changes in earnings—and the consequences of earnings for benefits—have the potential to affect the likelihood of experiencing poverty for many TTW participants.

In Exhibit 22, we examine the poverty status of Phase 1 TTW participants over the 2003–2005 period. Overall, the likelihood of living in a household with an income below the federal poverty level remained fairly stable, at about 50 percent over the three years, although there was a small decline in 2004 relative to 2003 and 2005 (49 percent compared with 53 percent). Those with Tickets assigned longest to an EN experienced a much greater decline in 2004 from 2003 (from 52 percent to 42 percent) compared with those with Tickets assigned longest to an SVRA (from 53 percent to 50 percent). The poverty rate for those assigned to ENs also remained lower in 2005 (at 45 percent) relative to those assigned

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<sup>25</sup> We are only able to observe changes in income at two points in time (from the month before round 1 interview to the month before round 2 interview, and from the month before round 2 interview to the month before round 3 interview), and covering a period of only one month.

<sup>26</sup> Information about non-SSA benefits was based on respondent reports, whereas information about SSA benefits was based on administrative data.

<sup>27</sup> They were living alone, living with friends or roommates, or living in a group setting with non-relatives.

to SVRAs (54 percent). In general, the percentages of TTW participants both entering and leaving poverty each year was between 10 and 15 percent. The exception was for those assigned longest to ENs—in 2004, a larger share (22 percent) left poverty, which contributed to the marked decline in the poverty rate among those TTW participants in that year.

To see if there was a relationship between employment and poverty among TTW participants, we also examined poverty rates by employment status during the same years (lower panel of Exhibit 22). Poverty rates among those who were employed at some point in each year were substantially lower (by about 10 to 15 percentage points) relative to those who were not employed, and these differences were statistically significant in two of three years analyzed. Although many factors will contribute to a beneficiary's poverty status, employment appears to have been correlated with lower poverty rates among TTW participants.

**Exhibit 22. Poverty Rates and Changes in Poverty Status, 2003–2005**

	2003	2004	2005
<b>All</b>			
Household income below poverty level (%)	53	49	53
Left poverty from prior year (%)	NA	14	10
Entered poverty from prior year (%)	NA	10	14
<b>Assigned to EN</b>			
Household income below poverty level (%)	52	42 <sup>#</sup>	45
Left poverty from prior year (%)	NA	22 <sup>*</sup>	12
Entered poverty from prior year (%)	NA	12	15
<b>Assigned to SVRA</b>			
Household income below poverty level (%)	53	50	54
Left poverty from prior year (%)	NA	13	10
Entered poverty from prior year (%)	NA	10	14
<b>Employed During Year</b>			
Household income below poverty level (%)	44 <sup>+</sup>	43 <sup>+</sup>	47
Left poverty from prior year (%)	NA	13	13
Entered poverty from prior year (%)	NA	12	18
<b>Not Employed During Year</b>			
Household income below poverty level (%)	60	55	58
Left poverty from prior year (%)	NA	15	8
Entered poverty from prior year (%)	NA	9	11

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Notes: Poverty rates are based on the respondent's annual household income during the calendar year preceding the NBS interview, compared to the federal poverty standard for that year for a household corresponding to the size and composition of the respondent's household. TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

\*Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

<sup>+</sup>Significantly different from those not employed during the year at the 0.05 level, two-tailed test.

<sup>#</sup> Significantly different from the corresponding 2003 value at the 0.05 level, two-tailed test.

### C. PRIVATE HEALTH INSURANCE

Health insurance coverage is extremely important to many beneficiaries with disabilities who face substantial out-of-pocket costs, or risk not being able to afford needed care, in the absence of such coverage. Because of the importance of health insurance, access to insurance coverage is likely to figure prominently in the employment decisions of people with disabilities. Provisions in the SSI and DI programs allow beneficiaries who go to work to keep their Medicare or Medicaid coverage; most do so even if working above the SGA level for an extended period.<sup>28</sup>

The provisions that allow beneficiaries to maintain their public health insurance coverage after losing their SSI and DI benefits due to work also permit them to take jobs that do not offer employer-sponsored health insurance if they choose, while retaining support for their health care needs. This may be a particularly important work support because beneficiaries may be less likely than others to be able to find jobs that offer employer-sponsored health benefits at premiums they can afford. As shown previously, many employed TTW participants work part-time and at low wages—job characteristics that typically reduce the chances of being offered health insurance by an employer. In addition, many are poor and may choose not to participate in an employer’s plan because they are unable to pay the premiums. Others may not be able to justify the expenditure for private coverage, given their public coverage, or choose not to participate because they already have private coverage from another source. When beneficiaries do gain private coverage (through employment or otherwise), however, the savings to federal and state governments have the potential to be substantial. Per enrollee annual Medicare expenditures (net of premiums) are approximately \$10,000 (Medicare Board of Trustees 2009), and average annual Medicaid expenditures for recipients with disabilities are around \$13,000 (Kaiser Family Foundation 2009). Much of these public health insurance expenditures can be offset when a beneficiary has private coverage because the private coverage is generally the primary payer.<sup>29</sup>

In Exhibit 23, we present findings on the private insurance coverage of our sample of Phase 1 TTW participants at each NBS interview. Overall, only a small minority (about 20 percent) had any type of private coverage, and this did not vary substantially across interviews. Those assigned to ENs were more likely to have private coverage relative to those assigned to SVRAs, but the difference was not large and was only statistically

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<sup>28</sup> As noted in Chapter II, through the 1619b provision, SSI beneficiaries remain eligible for Medicaid until their earnings exceed a threshold amount based on annual per capita Medicaid expenditures for SSI recipients, which varies by state. This threshold also can be computed for individuals if their Medicaid expenditures exceed the state per capita amount. In 2009, state threshold amounts ranged from about \$24,000 to \$54,000. DI beneficiaries who leave DI benefits due to work can remain eligible for Medicare for up to approximately nine years.

<sup>29</sup> Relative to private health insurance, Medicaid is always the secondary payer. Medicare is also the secondary payer, except in circumstances where private coverage for a disability beneficiary is sponsored by a small employer (fewer than 100 employees). Special circumstances also apply to Medicare beneficiaries with end-stage renal disease.

significant in 2004. Having private coverage through one's own employer was fairly uncommon. Ten percent or less had such coverage in each year. Although the share with coverage through one's own employer remained fairly low across years, there appears to have been quite a bit of churning. While more gained coverage than lost it from 2004 to 2005, the opposite was true from 2005 to 2006. The gains and losses in own-employer coverage appear to explain much of the gains and losses in private coverage in general.

**Exhibit 23. Changes in Private Insurance Coverage Status at Interview, 2004–2006**

	2004	2005	2006
<b>Private Insurance</b>			
All			
Has private insurance (%)	18	20 <sup>#</sup>	17
Gained private insurance from prior interview (%)	NA	6	3
Lost private insurance from prior interview (%)	NA	4	6
Assigned to EN			
Has private insurance (%)	24	24	21
Gained private insurance from prior interview (%)	NA	6	3
Lost private insurance from prior interview (%)	NA	6	6
Assigned to SVRA			
Has private insurance (%)	17	19 <sup>#</sup>	17
Gained private insurance from prior interview (%)	NA	6	3
Lost private insurance from prior interview (%)	NA	3	6
<b>Private Insurance Through Own Employer</b>			
All			
Has insurance through own employer (%)	5	8 <sup>#</sup>	6
Gained employer insurance from prior interview (%)	NA	4	2
Lost employer insurance from prior interview (%)	NA	1	4
Assigned to EN			
Has private insurance (%)	9*	10	8
Gained private insurance from prior interview (%)	NA	4	2
Lost private insurance from prior interview (%)	NA	3	4
Assigned to SVRA			
Has private insurance (%)	5	7 <sup>#</sup>	6
Gained private insurance from prior interview (%)	NA	4	2
Lost private insurance from prior interview (%)	NA	1	3

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: TTW provider type (EN or SVRA) is based on the provider to which the beneficiary's Ticket was assigned the longest as of December 2006.

\*Significantly different from those assigned longest to SVRAs at the 0.05 level, two-tailed test.

# Significantly different from 2004 value at the 0.10 level, two-tailed test.

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## VIII. EXPERIENCES OF SUBGROUPS DEFINED BY EMPLOYMENT SUCCESS

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In the previous chapters, we have presented numerous statistics portraying the three- to five-year experiences of the early cohort of TTW participants. The findings indicate that over time, service use and unmet service needs declined, but the percentage employed in each year remained fairly constant. The findings also indicate that a large share of participants experienced significant year-to-year changes in health status and income, that poor health might have contributed to disenrollment from TTW, and that employment is correlated with lower rates of poverty.

In this chapter, we briefly examine selected patterns of service use, health status, employment, income, and poverty over the three survey rounds<sup>30</sup> among subgroups of TTW participants who did and did not achieve a measure of employment success over the 2003–2005 period. Our purpose in doing so is to assess whether the patterns differed significantly among those who experienced varying degrees of success, and whether the patterns suggest factors that might be correlated with employment success among TTW participants.

For this analysis, we group our sample of TTW participants into three subgroups:

1. Those who worked and had earnings above the SGA level for 12 or more total months during 2003–2005
2. Those who were employed at some point during 2003–2005, but who did not have 12 or more total months with earnings above SGA during that period
3. Those who did not report any employment during the 2003–2005 period

The first group is made up of 20 percent of TTW participants (Exhibit 24). Given that employment is the goal of the TTW program, and because earnings above the SGA level is an important requirement for providers to receive significant payments under TTW, this represents a group of beneficiaries that achieved a significant level of success under TTW. The second group, comprised of about 40 percent of the participants, represents those who achieved some employment success over the three-year period. The remaining 40 percent of participants in the third group did not engage in any employment during the 2003–2005 period and thus, represents the least successful participants.

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<sup>30</sup> For outcomes measured over the calendar year prior to interview (service use, annual employment, and poverty) we present statistics for 2003–2005. For outcomes measured at interview or the month prior to interview (health status, employment, and personal income) we present statistics for 2004–2006.

**Exhibit 24. Selected Outcomes Among TTW Participant Subgroups Defined by Degree of Employment Success During 2003–2005**

	Employment Success During 2003-2005			
	All TTW Participants	Employed 12+ Months >SGA	Other Employed	Not Employed
Percent (weighted)	100	20	39	41
<b>Enrolled in TTW at Interview (%)</b>				
2004	91	91	96*	87
2005	90 <sup>#</sup>	89	94*	85 <sup>#</sup>
2006	87 <sup>#</sup>	88 <sup>#</sup>	91* <sup>#</sup>	83 <sup>#</sup>
<b>Used Any Services (%)</b>				
2003	61	64	66*	54
2004	58	46 <sup>#</sup>	68*	55
2005	52 <sup>#</sup>	49 <sup>#</sup>	60*	46 <sup>#</sup>
<b>Used 50+ Hours of Service (%)</b>				
2003	25	23	30	22
2004	24	20	29	22
2005	19 <sup>#</sup>	12 <sup>#</sup>	24	17
<b>Self-Reported Health Poor or Very Poor (%)</b>				
2004	19	8*	15*	27
2005	21	11*	17*	29
2006	21	9*	18*	30
<b>Employed at Interview (%)</b>				
2004	30	81*	36*	0
2005	30	87* <sup>#</sup>	33*	0
2006	35 <sup>#</sup>	78*	46* <sup>#</sup>	3 <sup>#</sup>
<b>Employed During Year (%)</b>				
2003	46	90*	71*	0
2004	46	99* <sup>#</sup>	67*	0
2005	45	99* <sup>#</sup>	65*	0
<b>Total Personal Income Month Before Interview (\$)</b>				
2004	1,090	1,495*	988	989
2005	1,142 <sup>#</sup>	1,647*	1,009	1,019
2006	1,178 <sup>#</sup>	1,740* <sup>#</sup>	1,065 <sup>#</sup>	1,005
<b>Poverty (%)</b>				
2003	53	32*	52*	63
2004	49	37	48	56 <sup>#</sup>
2005	53	39*	52	61

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

\* Significantly different from those not employed at the 0.05 level, two-tailed test.

<sup>#</sup> Significantly different from base year (2003 or 2004) value at the 0.10 level, two-tailed test.

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Several of the three-year patterns of TTW enrollment, service use, health, employment, income, and poverty differed significantly across the three subgroups (Exhibit 24). The findings suggest three stylized, but perhaps oversimplified, characterizations of the three TTW groups:

**Group 1.** The large majority of the most successful TTW participants reported being in fair or better health, had steady employment and also had relatively high personal income. The latter two factors might have contributed to their significantly lower poverty rates. This group has the potential to reduce their reliance on SSA disability benefits and to generate significant payments to TTW providers.

**Group 2.** Members of the group that achieved some employment success, but not 12 or more months with earnings above SGA, were somewhat more likely to report poor health relative to the first group. They were also the most likely of the three groups to have used services. While about two-thirds were employed at some time during each of the three years, only one-third were employed at each interview, suggesting that their employment was more sporadic or temporary relative to those in the first group. This unsteady employment might have contributed to their lower average personal income and higher poverty rates; the former did not differ from those who did not work at all, and the latter did not differ from the poverty rates among all beneficiaries. Members of this group might generate some TTW payments to providers and some might be successful at reducing their reliance on disability benefits, but it also appears that they have greater service needs and more limited earnings capacity relative to the first group.

**Group 3.** A large share of the third group (those with no earnings during 2003–2005) reported being in poor or very poor health in each year, which probably contributed to their increased likelihood of leaving the TTW program, as well as the lack of employment success experienced during the three years analyzed. This group experienced the highest rates of poverty, rates that were much higher even than the rates among all beneficiaries.<sup>31</sup> The very high poverty rates and poor health suggest the presences of significant barriers that must be overcome before employment is a viable option. This rather large group of TTW participants (representing 41 percent of our sample) does not appear to have the potential to substantially reduce their reliance on disability benefits through employment, nor to generate any significant TTW payments to providers.

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<sup>31</sup> Based on the NBS national cross-sectional samples, poverty rates for all beneficiaries were 49 percent in 2003 (Thornton et al. 2007), 47 percent in 2004 (Stapleton et al. 2008), and 50 percent in 2006 (Livermore et al. 2009b).

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## IX. CONCLUSIONS

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As we have noted previously, the early cohort of TTW participants we followed in this analysis are a select group of Social Security disability beneficiaries who were sufficiently interested in pursuing employment that they assigned a Ticket to a service provider in an effort to improve their ability to work and/or increase their earnings. The findings suggest that they are exceptional, even among disability beneficiaries with work goals and expectations, in terms of their success in becoming employed. Based on IRS data, in each year from 2003–2007, about half of the TTW participants had earnings, and 75 percent had earnings in at least one of the five years. By comparison, other research shows that annual employment rates among all beneficiaries who report having work goals or expectations are on the order of 25 percent or about one-half the rate of TTW participants.

Although exceptional as a group in terms of their employment rates, only one-third of the TTW participants were able to achieve at least one month of earnings above the SGA level during a three-year period, and just one-fifth were able to do so for 12 months or more. Factors related to poor health appear to create significant barriers to work. Many TTW participants experienced significant changes in physical and mental health status from year to year, and health conditions preventing work was the most commonly reported employment barrier, reported by 80 percent of TTW participants who had been employed at some point during the three years they were followed in the survey. The findings suggest that poor health may have contributed to disenrollment in TTW, and may have limited employment success for some participants.

In addition to instability in their health status, over the short period that we observed TTW participants, many experienced a large degree of instability with respect to their employment and income. At each interview, about equal numbers of participants lost employment as gained employment. The changes in employment likely contributed to the large year-to-year changes in income experienced by many participants. A small group of participants achieved stable employment over several years. Just over one-quarter worked for 25 or more months of the 36 months observed in the survey. The IRS data indicate that a much greater share (about 60 percent) had earnings in two or more years of the five years analyzed. However, far fewer worked at levels that reduced their SSA benefits to zero; 19 percent did so for at least one month during a four-year period, but only 10 percent did so for 13 months or longer.

The rather modest levels of services used by the participants in our sample (both inside and outside the auspices of the TTW program) call into question the degree to which TTW could be expected to have contributed to the success of the participants who became employed, or to have the potential to do so in the future. In each year, only 20 to 25 percent of participants received services at a level equivalent to about 1 or more hours per week

(50 or more hours per year). Among those assigned to ENs, even fewer received that level of service. At the same time, those assigned to ENs had much better employment outcomes than those assigned to SVRAs in terms of earnings and leaving SSA benefits due to work. It may be that TTW's expansion of beneficiary service access to providers other than state VR agencies attracted a relatively small group of beneficiaries who might not have accessed services previously and who were able to achieve positive employment outcomes with the help of TTW. Analyses presented in previous reports have found evidence that TTW had a positive and significant impact on service enrollment (Thornton et al. 2007; Stapleton et al. 2008). However, it might also be that many TTW participants would have achieved the same employment outcomes in the absence of the program. From the data we have analyzed to date, we have not identified any significant impacts of TTW on beneficiary employment. It may be that TTW, as originally structured, provided insufficient support to participants who, though highly motivated to work, faced substantial barriers. It remains to be seen whether the revised TTW payment systems, implemented in July 2008, will have a significant effect on the service provision to and employment outcomes of disability beneficiaries.

Among the important findings in this report are those suggesting that the earnings of beneficiaries might contribute to reduced poverty. For most individuals with or without disabilities, earnings offer a primary avenue of escape from a life of poverty. SSA disability beneficiaries experience poverty at extremely high rates relative to other working-age subpopulations.<sup>32</sup> TTW participants who were employed experienced poverty at lower rates than others, and those who were able to sustain employment with earnings above the SGA level for an extended period experienced poverty at about half the rate of other participants. Most of these TTW participants were still receiving at least some of their SSA benefits. Although their earnings may not have been sufficient to allow many TTW participants to completely leave the disability rolls, it appears that employment was still an important means for reducing poverty among TTW participants.

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<sup>32</sup> For example, the poverty rate among adults ages 18 to 64 in single female-headed households with children is about 34 percent (Census undated) compared with a poverty rate of 50 percent among working-age SSA disability beneficiaries.

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**APPENDIX A**  
**TTW ENROLLMENT AND SERVICE USE BY**  
**AOI STATUS**

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**Table A.1. TTW Enrollment Characteristics as of December 2006, by AOI Status**

	AOI Group Members	Non-AOI Beneficiaries
Enrolled in TTW (%)	84	85
Mean months enrolled	45	45
Ever assigned to an EN (%)	13	12
Number of TTW providers (%)		
1	98.4	97.5
2 or more	1.6	2.5

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds, matched to the TRF06. Sample size = 767.

Note: No statistically significant differences by AOI status.

**Table A.2. Service Use During 2003–2005, by AOI Status**

	AOI Group Members	Non-AOI Beneficiaries
Used Any Services (%)		
2003	64*	53
2004	58	58
2005	53 <sup>#</sup>	51
% Change 2003 to 2005	-17	-4
Used Employment Services (%)		
2003	48	42
2004	39 <sup>#</sup>	39
2005	31 <sup>#</sup>	24 <sup>#</sup>
% Change 2003 to 2005	-35	-43
Used Medical/Other Services (%)		
2003	55*	45
2004	47	51
2005	44 <sup>#</sup>	38
% Change 2003 to 2005	-20	-16
Used Any Services in Any Year, 2003–2005 (%)	84	76
Used Employment Services Any Year, 2003–2005 (%)	68	62
Used Medical/Other Services Any Year, 2003–2005 (%)	72	65

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

\* Significantly different from non-AOI beneficiaries at the 0.05 level, two-tailed test.

<sup>#</sup> Significantly different from the corresponding 2003 value at the 0.10 level, two-tailed test.

**Table A.3. Hours of Service Use 2003–2005, by AOI Status**

	AOI Group Members	Non-AOI Beneficiaries
Used 50 or More Hours of Service (%)		
2003	27	22
2004	25	23
2005	19 <sup>#</sup>	19
Median Hours of Service Use		
2003	43	48
2004	42	32
2005	24	26
<i>% Change 2003 to 2005</i>	<i>-44</i>	<i>-46</i>
Median Service Use Hours, All Years, 2003–2005	102	100

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

<sup>#</sup> Significantly different from the corresponding 2003 value at the 0.10 level, two-tailed test.

**Table A.4. Reported Unmet Service Needs, 2003–2005, by AOI Status**

	AOI Group Members	Non-AOI Beneficiaries
Unmet Service Needs (%)		
2003	17	24
2005	18	15
2005	15	15
<i>% change 2003 to 2005</i>	<i>-12</i>	<i>-38</i>
Unmet needs in at least one year, 2003–2005 (%)	33	36
Unmet needs in all years, 2003–2005 (%)	4	6

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: No statistically significant differences by AOI status or across years.

**Table A.5. Reasons for Unmet Service Needs Among Those Reporting Unmet Needs in Any Year, 2003–2005, by AOI Status**

	AOI Group Members	Non-AOI Beneficiaries
Reasons for unmet service needs (%)		
Lack of information	23	34
Problems with providers	26	26
Not eligible/request refused	16*	31
Could not afford services	12	17
Too difficult/confusing to obtain	12	9
Didn't try to obtain services	7	7
Other	34*	15

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

\* Significantly different from non-AOI beneficiaries at the 0.05 level, two-tailed test.

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**APPENDIX B**  
**ADDITIONAL STATISTICS**

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**Table B.1. Reasons for Unmet Service Needs, by Provider Type and Survey Round**

	Round 1			Round 2			Round 3		
	All	EN	SVRA	All	EN	SVRA	All	EN	SVRA
<b>Reasons for Unmet Needs (%)</b>									
Lack of information	4.2	5.1	4.1	2.7	4.1	2.5	2.5	1.9 <sup>#</sup>	2.6
Not eligible/request refused	3.1	3.7	3.0	3.5	3.2	3.5	2.0	1.8	2.0
Problems with services/provider	2.7	5.3	2.0	4.0	1.8	4.3	2.9	1.8	3.1
Could not afford services	1.9	1.5	2.0	2.4	3.7 <sup>#</sup>	2.2	0.5 <sup>#</sup>	1.4	0.3 <sup>#</sup>
Too difficult/confusing	0.9	1.2	0.8	1.1	0.6	1.2	1.7	0.6	1.6
Did not try to get services	0.8	0.8	0.8	0.3	0.1	0.4	1.2	0.1	1.3
Other	4.3	4.2	4.4	2.7	4.9	2.4 <sup>#</sup>	4.0	6.8	3.6
Unknown	1.2	1.4	1.2	0.3	2.3	0.0 <sup>#</sup>	0.1 <sup>#</sup>	0.3	0.0 <sup>#</sup>
Not applicable (no unmet needs reported)	81.0	77.1	81.8	83.0	79.3	83.4	85.2	85.2 <sup>#</sup>	85.5

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

Note: No statistically significant within-round differences between those assigned to ENs and those assigned to SVRAs.

<sup>#</sup> Significantly different from the corresponding round 1 value at the 0.05 level, two-tailed test.

**Table B.2. Changes in Health Status Scores Across Rounds and Reported Changes in Health Compared to the Previous Year**

	Percents	
	2005	2006
<b>Changes in PCS</b>		
10% or more decline in PCS from previous interview		
Percent of All	28	22
Current health compared to last year among those with decline		
Better	22	19
Same	38	49
Worse	40	33
10% or more increase in PCS from previous interview		
Percent of All	24	29
Current health compared to last year among those with increase		
Better	27	26
Same	48	43
Worse	25	31
<b>Changes in MCS</b>		
10% or more decline in MCS from previous interview		
Percent of All	24	30
Current health compared to last year among those with decline		
Better	22	24
Same	41	41
Worse	37	35
10% or more increase in MCS from previous interview		
Percent of All	37	25
Current health compared to last year among those with increase		
Better	28	36
Same	45	38
Worse	26	27
<b>Change in Both PCS and MCS</b>		
10% or more decline in PCS and MCS scores from previous interview		
Percent of All	6	5
Current health compared to last year among those with decline		
Better	19	20
Same	36	57
Worse	44	22
10% or more increase in PCS and MCS scores from previous interview		

	Percents	
	2005	2006
Percent of All	5	6
Current health compared to last year among those with increase		
Better	17	24
Same	60	38
Worse	23	38
<b>No Change in PCS or MCS</b>		
Percent of All	22	23
Current health compared to last year among those with no change		
Better	30	29
Same	53	58
Worse	17	13

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds. Sample size = 767.

**Table B-3. Round-Specific Average Earnings, SSA Benefits, and Non-SSA Benefits, by Beneficiary Subgroups Defined Based on Round-to-Round Earnings Changes**

Earnings Change	Number (unweighted)	Percent (weighted)	Average Earnings (\$)			Average SSA Benefits (\$)			Average Non-SSA Benefits (\$)		
			R1	R2	R3	R1	R2	R3	R1	R2	R3
R1 to R2 increase	59	6	504	962	768	707	722	697	70	143	119
R1 to R2 decrease	59	8	1,157	692	459	800	856	934	75	81	74
R1 to R2 same	129	14	340	517	420	741	749	757	79	106	86
No earnings R1 and R2	467	64	0	0	95	834	830	819	113	133	141
Unknown R1 to R2	53	7									
R2 to R3 increase	64	7	538	777	1197	772	817	806	102	39	65
R2 to R3 decrease	60	7	512	1,018	604	703	701	699	33	84	74
R2 to R3 same	161	20	364	280	464	807	798	824	100	108	94
No earnings R2 and R3	433	59	21	0	0	837	843	835	112	137	147
Unknown R2 to R3	49	7									

Source: 2004 NBS Phase 1 longitudinal TTW sample members responding to all three NBS rounds matched to the 2007 TRF. Sample size = 767.

Notes: R1, R2, and R3 refer to rounds 1, 2, and 3 of the NBS, respectively. Dollar values expressed in 2007 dollars.