Employment among Social Security Disability Program Beneficiaries, 1996–2007

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We use linked administrative data from program and earnings records to summarize the 2007 employment rates of Social Security disability program beneficiaries at the national and state levels, as well as changes in employment since 1996. The findings provide new information on the employment activities of beneficiaries that should be useful in assessing current agency policies and providing benchmarks for ongoing demonstration projects and future return-to-work initiatives. The overall employment rate—which we define as annual earnings over $1,000—was 12 percent in 2007. Substantial variation exists within the population. Disability Insurance beneficiaries and those younger than age 40 were much more likely to work relative to other Social Security beneficiaries. Additionally, substantial regional variation exists across states; employment rates ranged from 7 percent (West Virginia) to 23 percent (North Dakota). Moreover, we find that the employment rates among beneficiaries were sensitive to the business cycle and persistent over time.

Introduction

In recent years, there has been increasing interest in identifying interventions to promote employment for the more than 10 million working-age individuals with disabilities who receive cash benefits from the Social Security Administration's (SSA's) Disability Insurance (DI) and Supplemental Security Income (SSI) disability programs. Declining employment rates of individuals with disabilities and the increasing number of people who receive disability cash benefits drive the need for identifying such strategies.

A key challenge in developing interventions to promote employment among disability program beneficiaries[1] is that the beneficiaries might have access to varying levels of support, particularly across states. For example, there is substantial variation in the eligibility requirements and generosity of state programs that support individuals with disabilities, such as Medicaid and state vocational rehabilitation programs. Additionally, the economic environment varies across states, which could affect decisions regarding work and program participation. An important first step in designing policies to support employment of people with disabilities is to understand how employment varies by state.[2]

However, there is very limited empirical evidence on the employment outcomes of disability beneficiaries in most available survey and administrative data

Selected Abbreviations

DI	Disability Insurance
MEF	Master Earnings File
SGA	substantial gainful activity
SSA	Social Security Administration
SSI	Supplemental Security Income
TRF	Ticket Research File
TTW	Ticket to Work

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sources. Survey data generally include limited information on DI and SSI program status, while Social Security administrative records only include information on earnings that is necessary to calculate a benefit amount (for example, program administrative records for both DI and SSI exclude certain types of income disregarded in the calculation of benefits). This lack of information represents a major barrier to understanding whether any progress is being made in achieving the broader policy objectives of promoting employment among disability beneficiaries.

This article addresses the gap in the literature that currently exists by examining the variation in employment rates of DI and SSI beneficiaries over time and across states using a consistent measure of earnings from administrative data. It also examines the extent to which observable beneficiary demographic and disability characteristics can explain the variation in employment rates. We use linked administrative data from program records on DI and SSI participation and earnings records from the Master Earnings File (MEF) to summarize the 2007 employment rates of Social Security disability beneficiaries at the national and state levels, as well as changes in employment since 1996. The linked database enables us to construct an employment measure that can be consistently applied to both SSI and DI beneficiaries across multiple years. We chose 2007 because it was the most recent year for which complete annual earnings information was available. The available program data provide information on cross sections of working-age individuals who received benefits since 1996, including the more than 10 million beneficiaries who received SSI and/or DI benefits in 2007. We first present national-level estimates of employment and then assess whether variations in employment rates exist for subgroups of beneficiaries across program titles, demographic traits, impairment conditions, and states. Next, we examine changes in employment rates from 1996 through 2007 at the national and state levels. The main text provides an overall summary of findings; the appendices include more detailed employment rates for key subgroups, especially at the state level, which are comparable with program statistics produced by SSA in its ongoing publications, such as the *Annual Statistical Supplement*.

The findings provide new information on the employment activities of SSI and DI beneficiaries that should be useful in assessing current SSA policies and providing benchmarks for ongoing demonstration projects and future return-to-work initiatives. We define beneficiaries with annual earnings exceeding $1,000 as employed;[3] under this definition of employment, the overall employment rate of Social Security disability beneficiaries was 12 percent in 2007. Substantial variation in employment rates exists within the population. DI-only beneficiaries and those younger than age 40 were much more likely to work relative to other beneficiaries. Additionally, substantial regional variation exists, as Northern Plains and Midwestern states tended to have higher employment rates and Southern states tended to have lower rates. Across states, employment rates ranged from 7 percent (West Virginia) to 23 percent (North Dakota). We also find that state-level employment rates for beneficiaries were persistent over time. Employment rates were sensitive to the business cycle, with the overall rate for all disability beneficiaries varying from 11 percent to 13 percent since 1996.

The overall employment rates for SSI and DI beneficiaries are low relative to the general population. This is not surprising given the program eligibility requirements for SSI and DI. The substantial variation that exists within subgroups, however, underscores the potential value of the data for informing SSA policies. For example, holding individual demographic and disability characteristics constant, the substantial employment variation across states suggests that economic and policy differences may explain why some states have much stronger employment outcomes relative to other states. However, the fact that employment rates by state are generally persistent over time means either the states' economies and policies changed little over the 12-year study period, or the changes that occurred had little effect on employment of beneficiaries with disabilities.

Social Security Disability Programs and Recent Employment Initiatives and Estimates

Disability programs covered under Social Security include DI and SSI. DI is a social insurance program designed to replace the loss of wages of adult workers with disabilities, and SSI is an income-maintenance program for low-income working-age adults and children with disabilities.[4] The eligibility rules for DI and SSI will quite likely lead to differences in the employment outcomes across those programs even in the absence of differences in program rules. To qualify for DI, beneficiaries must have a work history, whereas to qualify for SSI, recipients must meet income and

asset criteria. One important implication is that DI beneficiaries tend to be older and have a work history compared with SSI recipients.

Both programs use the same administrative disability assessment process to determine whether an applicant—

1. Has a medically determined impairment that has lasted or is expected to last for at least 12 months or result in death.
2. Was unable to engage in substantial gainful activity (SGA), which was defined as the ability to earn more than $900 per month in 2007 for all nonblind disability applicants and $1,500 per month for blind disability applicants.

The process of establishing eligibility has important implications for employment of beneficiaries because both programs place strong emphasis on proving an inability to work above SGA to become eligible for benefits. Applicants must provide SSA with extensive medical and, in some cases, vocational documentation about their impairment. The typical application process is also long. According to the Social Security Advisory Board (2006), initial disability determinations on average take 120 days. However, most initial determinations are rejected, and a substantial portion of those determinations is appealed, which can lengthen the application process up to several years for some beneficiaries.

Despite the long application process, there is a strong incentive for many individuals with disabilities to apply for benefits, which provide an important source of income, as well as access to medical coverage. SSI recipients (in most states) are categorically eligible for Medicaid; most DI beneficiaries must serve a 2-year waiting period to become eligible for Medicare. Although there are eligibility and coverage differences between Medicare and Medicaid, both provide an important source of health care coverage to offset potentially expensive medical costs. For those with high health care needs, the medical benefits provided under these programs can be more valuable in dollar terms than the actual cash benefits from DI and SSI.

The DI and SSI work rules differ in important ways that have implications for employment while receiving benefits. In the DI program, individuals are permitted to work and earn over $640 for up to 9 months without losing eligibility for DI cash benefits. This 9-month period is referred to as the trial work period (TWP).[5] After completing the TWP, beneficiaries enter a 36-month extended period of eligibility (EPE). Except for a 3-month grace period, individuals who earn more than the SGA level in any month during the EPE face a cash cliff in which they lose their entire cash benefit for that month (but remain eligible for Medicare). After completing the EPE, DI cash benefits are terminated in the first month when earnings are above the SGA level. In the SSI program, earnings greater than $65 per month reduce SSI payments by $1 for every $2 of earnings.[6] Hence, unlike the DI cash cliff, SSI payments are reduced gradually as earnings rise. Provisions in the SSI program (sections 1619a and b) allow participants to earn more than the SGA level and remain eligible for SSI and Medicaid even after SSI cash payments cease because of earnings (for more details, see SSA (2011)).

The programmatic rules for continuing eligibility create potential work disincentives for both DI and SSI beneficiaries (Stapleton and others 2006). First, both DI and SSI beneficiaries maintain their eligibility as long as they meet SSA's disability criteria. The process of proving an inability to work to gain access to benefits can lead to persistently low expectations for work in the future and can cause participants to feel dependent on the DI and SSI programs. Second, low expectations for work can influence the expectations of staff who administer the programs and the rehabilitation providers who give employment supports to those populations. Third, DI and SSI beneficiaries risk both the loss of cash benefits and health care coverage for excess earnings, though the rules differ across DI and SSI.[7] Although both programs include the incentives noted above that allow beneficiaries to work and retain benefits, substantial disincentives remain. For example, the $1-for-$2 offset for SSI amounts to an implicit 50 percent tax on earnings.

Recent Employment Initiatives from SSA

In recent years, there has been an increasing emphasis on promoting return-to-work outcomes of Social Security beneficiaries with disabilities. The largest of those efforts started in 1999 when policymakers implemented the Ticket to Work (TTW) program. A major emphasis of TTW was to expand return-to-work services for DI and SSI beneficiaries. Prior to TTW, virtually all such publicly financed services were provided through state vocational rehabilitation agencies. The new program gives beneficiaries more choices for obtaining services and offers employment-support service providers new financial incentives to serve beneficiaries effectively.

SSA has also conducted several demonstration projects designed to promote employment outcomes of different subgroups of DI and SSI beneficiaries, including those who are without health care coverage, younger, working, or those with mental impairments. These interventions include the Accelerated Benefits demonstration, which provided immediate health benefits (rather than serving the 2-year Medicare waiting period) and employment supports, when appropriate, to newly entitled DI beneficiaries who were selected for the study; the Benefit Offset National Demonstration, which tests a $1-for-$2 benefit offset above SGA for DI beneficiaries; the Mental Health Treatment Study, which provided mental health treatments (pharmaceutical and psychotherapeutic) and employment supports that were not covered by other insurance for DI study participants; and the Youth Transition Demonstration, which provides intensive employment supports and benefits counseling to increase employment among youth and young adults with disabilities. For more information on these initiatives, see Rangarajan and others (2008).

Recent Employment Estimates

Although SSA provides a variety of employment estimates through its statistical publications, the estimates in those publications are limited. The lack of empirical estimates for employment among beneficiaries with disabilities is primarily driven by the limited information on work in the underlying Social Security administrative data. One problem is that statistics on work and earnings are based on the information reported to SSA by beneficiaries. Such information may not be accurate if beneficiaries do not properly report their work and earnings in a timely manner. SSA uses Internal Revenue Service information and other data to identify beneficiaries who may have failed to fully report their work and earnings, but those enforcement activities occur with considerable lag, and so they only identify work activities well after occurrence. For work and earnings data that were reported, there may be additional lags in processing and recording the information by SSA staff because of workload constraints. The administrative reporting lags are particularly relevant to the DI program because changes in earnings often do not have an immediate effect on monthly benefits, reducing the need for immediate data entry. For example, because of the trial work period, DI beneficiaries can work above the monthly threshold level ($640 per month in 2007) for up to 9 months in a 60-month period before DI cash benefits would be affected. With competing workload priorities in SSA field offices, the recording of DI work may be delayed in favor of more pressing administrative demands. SSI earnings, however, immediately affect benefit levels, so there is a strong need to record SSI earnings in a timely fashion. Such differences in administrative requirements in part explain why many of the published statistics differ for the two programs. For example, SSI statistics include earnings levels for working recipients, but DI statistics do not.

Beyond SSA's regular statistical publications, the evaluation reports for the TTW program have provided additional data on work and earnings for Social Security beneficiaries that are uniform across the two programs. Those reports rely on administrative data, as well as a nationally representative survey of SSI disability recipients and DI beneficiaries—the National Beneficiary Survey (NBS)—which was conducted in three annual waves from 2004 through 2006. The analysis of the administrative data has focused primarily on the characteristics and employment experiences of beneficiaries participating in the TTW program, although the survey data provided a wealth of information on employment outcomes for all Social Security beneficiaries. Livermore, Stapleton, and Roche (2009), for example, used the NBS data to show that 13 percent of all Social Security disability beneficiaries worked during the previous year, with slightly higher rates of employment for DI and concurrent beneficiaries (13 percent and 15 percent, respectively) in comparison with SSI disability recipients (11 percent). The higher rates of employment among DI beneficiaries are not surprising given the differences in program eligibility requirements and program rules related to employment. The authors also found that beneficiaries who worked while still receiving benefits averaged 22 hours of work per week at an average wage of $6.38 per hour and earnings of $637 per month. Working beneficiaries were also more likely to work for extended periods, with an average tenure of 46 months.

Although some information exists on employment of Social Security beneficiaries, important gaps in knowledge remain on how employment rates vary across beneficiary subgroups and trends over time. For example, there are only limited data (primarily from TTW reports) on beneficiary employment by age and impairment subgroups and no information on employment of DI beneficiaries at the state level over time.

This article helps fill that gap by taking advantage of the linked administrative data, which was not available previously. Because of the need for a large sample to analyze employment outcomes for subgroups of disability beneficiaries, the administrative data enabled us to estimate the employment rates for various subgroups, by state of residence, which is not available in the literature.

Data and Methodology

Our approach addresses the limited information available on the employment experiences of Social Security disability program beneficiaries. In this section we describe the administrative data used in the analysis, the sample selection criteria and definitions, as well as our approach to generating the employment estimates.

Administrative Records from the Ticket Research File and Master Earnings File

We use linked program and earnings data to construct employment statistics for the full population of working-age beneficiaries receiving disability benefits from 1996 through 2007. We identify program participants using SSA's administrative data from the Ticket Research File (TRF), which was originally constructed to analyze the effect of the TTW program. The TRF contains current and historical data on approximately 21 million Social Security beneficiaries aged 18–64 who participated in the SSI disability and/or DI programs at any time between January 1996 and December 2007. The data are housed on the mainframe computer at SSA's data center and are available on a restricted basis. Hildebrand and others (2009) provide full documentation on the TRF.

We use earnings data from SSA's Master Earnings File, which includes annual earnings data derived from tax reports.[8] We combine total Medicare wages and total Medicare self-employment earnings in the MEF to derive a measure of total earnings.[9] The employment and earnings statistics do not reflect the employment and earnings of those whose earnings are not reported to the Internal Revenue Service. Approximately 96 percent of the legally employed US workforce is in jobs subject to Social Security taxes.[10]

The linked data provide important analytic advantages for constructing consistent annual employment rates. The use of earnings data enables us to construct consistent measures of employment across the DI and SSI disability programs and across all states. Because TRF data include program information on all Social Security beneficiaries, we can use this information to construct population estimates. This is very useful in examining overall trends, as well as for constructing state-of-residence estimates.

Sample Selection and Definitions

For each cohort, we included only Social Security beneficiaries who were on the program rolls at least 1 full calendar year to avoid capturing employment from preaward jobs. Within the overall beneficiary population, we defined three mutually exclusive program title groups: DI-only (Title II), SSI-only (Title XVI), and concurrent (DI and SSI disability) beneficiaries. The determination of program title is made independently in each observation year. We assigned program status based on whether a person was in current-pay status for that program for at least 1 month of the observation year. We defined a concurrent beneficiary as someone who was in current-pay status for SSI with at least 1 month in current-pay status for DI in a year.[11]

In Table 1, we summarize the characteristics of the more than 10 million working-age adult disability beneficiaries covered under Social Security in 2007. Among those beneficiaries, 60 percent were DI-only, 29 percent were SSI-only, and 11 percent were concurrent beneficiaries. DI beneficiaries were predominantly male (54 percent), non-Hispanic white (72 percent), older than age 50 (67 percent), and received DI because of a physical impairment (such as a back disorder or "other" physical impairment). Conversely, SSI and concurrent beneficiaries were predominantly female (56 percent in each group), younger than age 50 (approximately 60 percent in each group), and had a mental health–related disorder (such as intellectual disability—formerly known as mental retardation, an affective disorder, or "other" psychiatric disorder). SSI and concurrent beneficiaries were about equally as likely to be Hispanic (10.9 percent and 9.8 percent) or non-Hispanic black (35.8 percent and 29.5 percent) as they were to be non-Hispanic white (51.4 percent and 59.1 percent). Across program groups, relative to SSI recipients, DI beneficiaries were more likely to be older and have a physical impairment.

We also summarize the caseload characteristics from the 1996 cohort to illustrate how the Social Security disability beneficiary population has changed since our initial period under analysis (Table 1). In 1996, there were 7 million disability beneficiaries, among whom 52 percent were DI-only, 36 percent

Table 1.
Characteristics of Social Security disability beneficiaries in 1996 and 2007 (in percent)

Characteristic	1996 beneficiaries				2007 beneficiaries			
	All	DI-only	SSI-only	Concurrent	All	DI-only	SSI-only	Concurrent
Number of beneficiaries (thousands)	7,021	3,668	2,521	831	10,156	6,104	2,925	1,126
Percentage in program groups	100.0	52.3	35.9	11.8	100.0	60.1	28.8	11.1
Sex								
Female	46.1	38.1	55.9	51.4	49.9	45.6	56.4	55.8
Male	53.3	61.6	42.8	48.5	50.0	54.3	43.1	44.1
Age group								
18–39	29.8	17.4	44.3	40.9	20.7	11.1	37.1	30.3
40–49	24.1	25.3	22.0	24.9	23.0	21.7	23.3	28.9
50–59	28.9	34.7	22.4	22.8	35.9	41.1	27.6	28.8
60–64	17.2	22.6	11.4	11.3	20.5	26.1	12.0	12.1
Race/ethnicity								
Hispanic	6.0	4.5	8.1	7.0	7.8	6.0	10.9	9.8
Non-Hispanic white	64.3	72.1	53.8	61.6	64.7	72.1	51.4	59.1
Non-Hispanic black	25.8	17.8	36.5	28.3	25.4	19.6	35.8	29.5
Other/missing	3.9	5.6	1.6	3.1	2.1	2.3	1.9	1.6
Disabling condition								
Affective disorders	8.5	9.2	7.0	10.5	14.1	13.9	13.7	16.3
Other psychiatric disorders	14.2	13.7	13.3	19.4	15.3	12.5	19.3	19.9
Intellectual disability	10.7	6.6	13.2	20.8	11.6	5.9	19.9	21.2
Back disorders	7.1	11.5	1.4	4.9	10.7	15.1	3.1	6.5
Other musculoskeletal disorders	6.1	8.8	2.6	4.9	8.4	11.0	4.0	5.7
Other physical disorders	36.9	48.8	19.1	38.2	34.9	41.3	23.3	30.2
Missing	16.5	1.4	43.4	1.3	5.0	0.3	16.7	0.3
Annual 2007 earnings distribution								
$0	82.7	81.1	84.6	84.0	83.1	80.5	87.4	86.3
$1–$1,000	8.4	7.5	9.1	10.4	4.8	4.5	5.1	5.7
Between $1,000–$5,000	6.7	8.1	5.2	5.0	5.6	6.3	4.3	5.5
Between $5,000–$10,000	1.6	2.2	1.0	0.5	3.6	4.7	1.9	1.8
Between $10,000–$20,000	0.5	0.8	0.1	0.1	2.0	2.6	1.2	0.7
More than $20,000	0.1	0.3	0.0	0.0	0.9	1.3	0.2	0.1
Summary employment measure								
Any employment with > $1,000 annual earnings	8.9	11.4	6.4	5.6	12.1	15.0	7.6	8.0

SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTES: Social Security disability beneficiaries include SSI and DI beneficiaries who were in current-pay status for at least 1 month in 2007 (1996) and had been receiving benefits from either program for at least 1 calendar year. DI-only beneficiaries include individuals who received DI benefits only; SSI-only disability recipients include individuals who received SSI disability benefits only; and concurrent beneficiaries include individuals who received both SSI disability and DI benefits. Earnings in 1996 are inflation adjusted to reflect 2007 dollars.

were SSI-only, and 12 percent were concurrent. Consistent with the findings cited earlier, DI-only beneficiaries tended be older, included more men, and had more physical impairments relative to the other subgroups. However, there were important compositional shifts in the overall caseload and within-program groups, as the 2007 cohort for each program group tended to include more women and older beneficiaries. This shift in caseload composition by sex and age for later cohorts is related to the aging of the baby boom cohort and the gradual increase over time in the number of women working, which is an important consideration in examining employment rates across cohorts.

In examining the employment characteristics of beneficiaries, we use a minimum annual earnings threshold of $1,000 to identify Social Security disability beneficiaries who had substantive employment experiences. For all years prior to 2007, we use the average wage index to adjust for inflation. Thus, a

beneficiary is considered to have been employed in a particular year when he or she had more than $1,000 (in 2007 dollars) of annual earnings in that year.

Based on this threshold, 12 percent of all beneficiaries were employed during 2007. Across program groups, the DI-only beneficiary employment rate (15 percent) was substantially higher than those for SSI-only and concurrent beneficiaries (8 percent for both groups). This is not surprising given the weaker employment histories that accompany SSI status by definition.

The earnings distribution in Table 1 illustrates the sensitivity of employment-rate estimates to the choice of earnings thresholds for all Social Security disability beneficiaries and the program groups. For example, if we had used the $0 threshold, 4.8 percent of beneficiaries would have earned between $1 and $1,000 in 2007, which would have increased the overall employment rate for beneficiaries to 17 percent. Conversely, if we had used an even higher earnings threshold—for example $5,000—we would have not counted the 5.6 percent of beneficiaries who earned between $1,000 and $5,000, which would have lowered the employment rate to 6.5 percent. The choice of threshold is very important for the employment estimates of program groups because DI beneficiaries have substantially higher earnings. For example, DI-only beneficiaries were almost three times more likely than those in the other program groups to earn more than $5,000 annually (9 percent for DI-only versus approximately 3 percent for SSI and concurrent beneficiaries).

The sensitivity of employment rates to the earnings threshold might in part explain some of the differences between our employment rates and those estimated in Livermore, Stapleton, and Roche (2009) using survey data. Although our overall disability beneficiary estimates are comparable (approximately 12 percent), we find larger differences across program groups than the other authors. It is likely that these earnings thresholds and some of the information that might be self-reported in a survey, but are not available in administrative records (such as earnings from sheltered workshops), explain most of the differences.

Approach to Producing Employment Estimates for the 2007 Beneficiary Cohort

We summarize the characteristics of the 2007 cohort and then generate employment estimates, using descriptive and multivariate methods, for the overall population and for program, demographic, impairment, and state subgroups. The descriptive analysis provides an employment rate for the overall population and each of the subgroups. We use a multivariate approach to assess whether differences observed in the descriptive analysis change when controlling for multiple factors. We also use a linear probability model to estimate the probability of whether a beneficiary was employed during 2007. That is, we fit the following equation—

$$Y_i = a + bX_i + cS_i + e_i$$

where Y_i is the employment outcome for individual i; X_i is the vector of characteristics of individual i, namely, sex, age, race/ethnicity, primary disabling conditions (broad categories), and duration since first eligibility for benefits; S_i is the vector of state dummy variables for each state; and e_i is the unobserved disturbance term for individual i.[12]

Employment Statistics for 2007

In this section, we examine changes in the national employment rates from 1996 through 2007 by program group as well as fluctuations in these rates, especially in respect to the business cycle. We conclude by assessing whether state differences in 1996 were similar to those in 2007.

Employment Rates: Highest for DI Beneficiaries and Younger Workers

In Table 2, we summarize the 2007 employment rates for beneficiary subgroups by sex, age group, primary disabling condition, and number of years since first eligibility. We present the overall employment rate within each subgroup, which can be compared with the national average, to assess whether certain subgroups were more likely to work relative to others.

In general, the largest subgroup differences were across program groups, age groups, and number of years since first eligibility. Beneficiaries who were DI-only, younger, and recent awardees (that is, those who entered the rolls within the 2005–2007 period) were substantially more likely to be working relative to their counterparts. These findings are consistent with those from the Ticket to Work evaluation (Stapleton and others 2008). Approximately 16 percent of beneficiaries who entered the program in the 2005–2007 period were working. Younger beneficiaries aged 18–39 had the highest employment rates (19 percent) in comparison with all other age groups. The large variation in employment rates between the younger and the older disability program beneficiaries differs from

the employment patterns in the general population, where employment rates are generally the same across younger and older groups. For instance, in 2007 the employment rates among the noninstitutionalized population for age groups 18–39 and 50–59 were 74.3 percent and 74.1 percent, respectively (Bureau of Labor Statistics 2008). While most younger and older beneficiaries in the DI program are out of the labor force, the job prospects for older beneficiaries are likely more limited compared with their younger counterparts. Within program subgroups (data not shown), beneficiaries aged 18–39 had the highest employment rates (the DI-only beneficiary employment rate was 27 percent; SSI and concurrent beneficiaries both had employment rates of approximately 15 percent).

Table 2.
Employment rates for all Social Security disability beneficiaries, by program groups and demographic characteristics, 2007 (in percent)

Characteristic	All beneficiaries
Number of beneficiaries (millions)	10,156
Percentage of beneficiaries	12.1
Program group	
DI-only	15.0
SSI-only	7.6
Concurrent	8.0
Sex	
Female	12.0
Male	12.2
Age group	
18–39	18.7
40–49	12.4
50–59	9.8
60–64	9.1
Primary disabling condition	
Affective disorders	12.3
Other psychiatric disorders	11.9
Intellectual disability	15.5
Back disorders	9.7
Other musculoskeletal disorders	11.4
Other physical disorders [a]	12.9
Missing	5.3
Years since first eligibility	
1–2	15.6
3–5	13.5
6–9	12.9
10 or more	10.2

SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTES: Social Security disability beneficiaries include SSI and DI beneficiaries who were in current-pay status for at least 1 month in 2007 and had been receiving benefits from either program for at least 1 calendar year. Beneficiaries are considered employed if they had at least $1,000 in earnings in 2007. DI-only beneficiaries include individuals who received DI benefits only; SSI-only disability recipients include individuals who received SSI disability benefits only; and concurrent beneficiaries include individuals who received both SSI disability and DI benefits.

a. Other physical disorders include the following body system impairments and diseases: diseases of the nervous system; diseases of the circulatory system; congenital anomalies; endocrine, nutritional, and metabolic diseases; injuries; diseases of the blood and blood-forming organs, digestive system, genitourinary system, respiratory system, skin, and subcutaneous tissue; human immunodeficiency virus (also called AIDS); and other diagnoses.

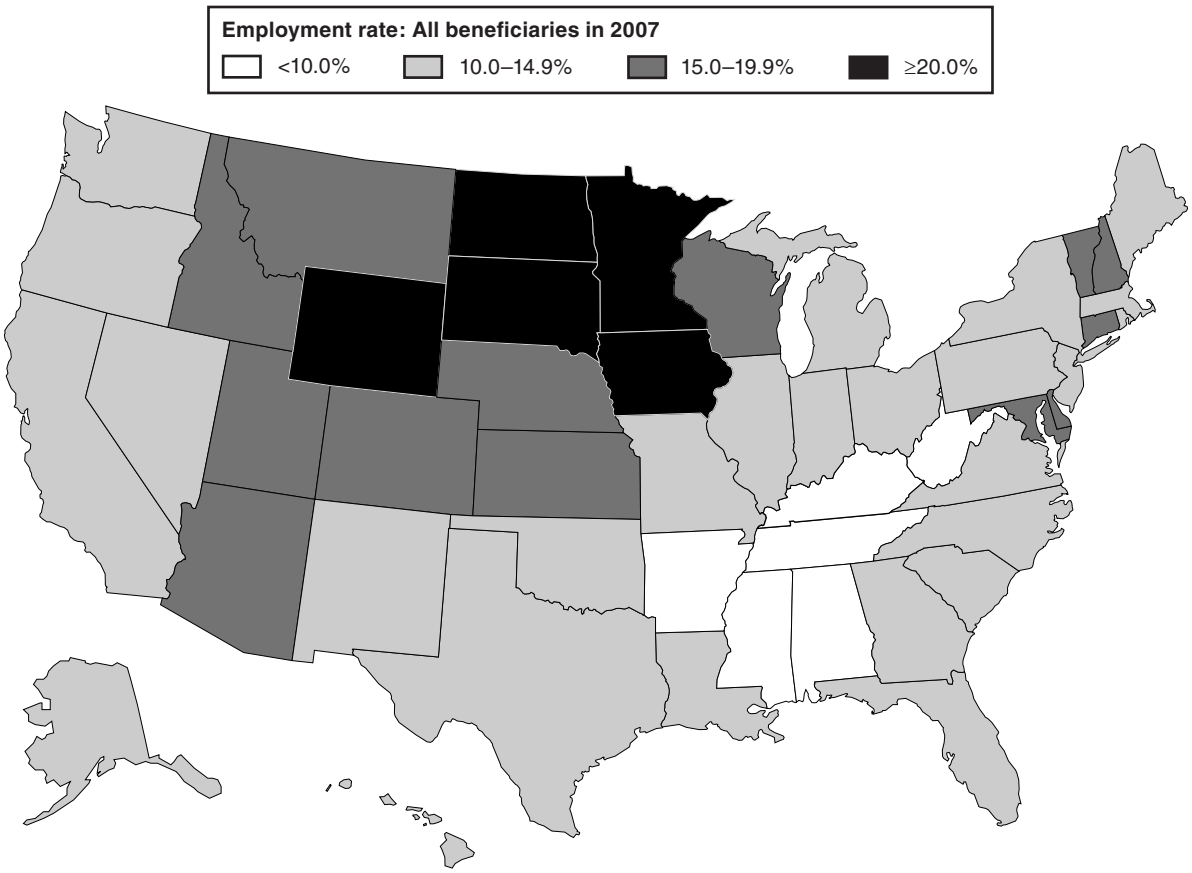
As Table 2 shows, there was limited variation in employment rates across primary disabling conditions, with the exception of intellectual disability.[13] Beneficiaries with intellectual disability as their primary disabling condition had an employment rate of 16 percent; for other conditions, employment rates varied between 10 percent (back disorders) and 13 percent (other physical disorders). Because intellectual disability is correlated with age, it is possible that part of these findings is driven by the younger age of beneficiaries in this impairment group. We will examine this issue in more detail later in the regression-adjusted analysis.

Employment Rates: Higher in Northern States

We find that Northern states have higher relative employment rates, especially in comparison with Southern states. In Chart 1, we summarize the geographic employment rates of Social Security disability beneficiaries using a map to examine variations in those rates by state and region. In the Appendix, Tables A-1 through A-4 provide detailed statistics on the state employment rates that are presented in the chart.

State employment rates ranged from 7 percent (West Virginia) to 23 percent (North Dakota), and there are strong regional differences. States in the Appalachian Mountains range (namely, West Virginia, Kentucky, Tennessee, Alabama, Mississippi, and Arkansas) had the lowest employment rates (between 7 and 10 percent) in the country; states in the Midwest and Rocky Mountains, and a few states in the Northeast, had higher employment rates (ranging from 15 to 23 percent). We also find similar state and regional patterns for different program groups across states, as employment rates were consistently lower among DI, SSI, and concurrent beneficiaries living in states in the Appalachian Mountains range (see the Appendix, Tables A-1 through A-4). The substantial differences in employment rates might reflect differences in the

Chart 1.
State-level employment rates for Social Security disability beneficiaries, 2007



SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTES: Social Security disability beneficiaries include the more than 10 million SSI and DI beneficiaries who were in current-pay status for at least 1 month in 2007 and had been receiving benefits from either program for at least 1 calendar year. Beneficiaries are considered employed if they earned at least $1,000 in 2007.

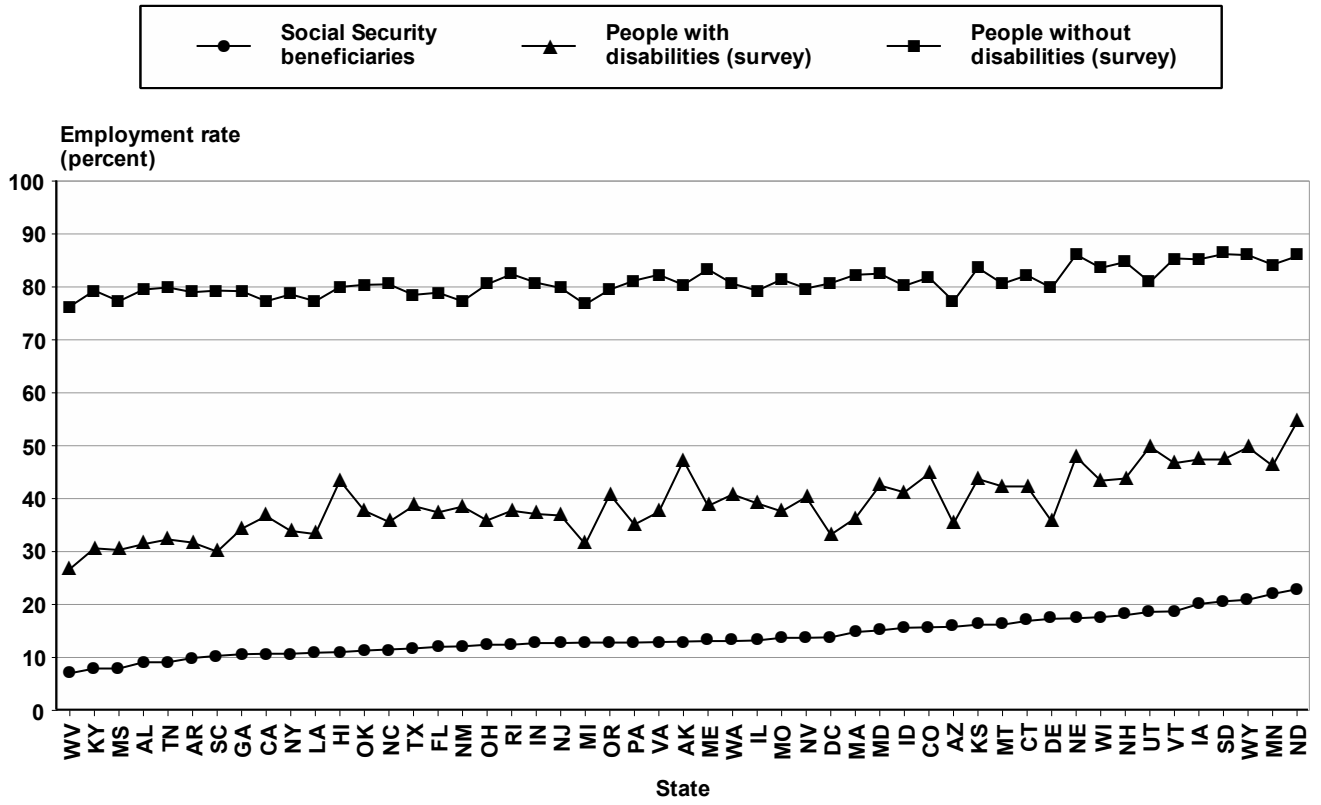
compositions of caseloads, as well as state differences in economic climate and policies.

Beneficiary Employment Rates at the State Level

Although Social Security beneficiary employment rates at the state-level mirror those for the broader population of individuals with disabilities, there are differences as compared with the nondisabled population. In Chart 2, we assess whether the variations in the employment rates of beneficiaries cited earlier reflect a potentially broader state trend in employment rates by comparing them with employment rates of people with and without disabilities, as measured in the American Community Survey (ACS). We use information from Bjelland, Erickson, and Lee (2008), who constructed annual employment rates for ACS respondents who self-reported a disability in 2007. In general, there is more variation across states in the employment rates of Social Security beneficiaries and individuals with disabilities relative to those without disabilities. This finding is expected given that most individuals without disabilities work in most states. For example, employment rates for individuals without disabilities range from 76 percent (West Virginia) to 86 percent (South Dakota).

In several states, particularly at the two ends of the distribution, the employment rates of Social Security beneficiaries follow a similar pattern to the general population. States with the highest beneficiary employment rates (North Dakota, Wyoming, and Minnesota) had relatively higher employment rates for individuals with and without disabilities. For example, North Dakota had the highest beneficiary

Chart 2.
Comparison of 2007 employment rates of Social Security disability beneficiaries with employment rates of people with and without disabilities, as measured in the American Community Survey



SOURCE: Social Security disability beneficiary data are based on authors' calculations using SSA's 2007 TRF data linked to MEF data. American Community Survey data are derived from Bjelland, Erickson, and Lee (2008).

NOTES: Social Security disability beneficiaries include the more than 10 million SSI and DI beneficiaries who were in current-pay status for at least 1 month in 2007 and had been receiving benefits from either program for at least 1 calendar year. Beneficiaries are considered employed if they earned at least $1,000 in 2007. The survey estimates of employment include the percentages of noninstitutionalized individuals with and without a disability, aged 18–64 of all races regardless of ethnicity, and of all education levels in the United States who were employed in 2007.

employment rate (23 percent), the highest employment rate for individuals with disabilities (55 percent), and the fourth-highest employment rate for individuals without disabilities (86 percent). Similarly, states with the lowest overall beneficiary employment rates (West Virginia, Mississippi, and Kentucky) had relatively lower employment rates in the broader populations. For example, West Virginia had the lowest employment rates for all three groups—Social Security beneficiaries (7 percent), individuals with disabilities (27 percent), and those without disabilities (76 percent).

However, a stronger relationship exists between the employment trends of Social Security beneficiaries and individuals with disabilities, particularly in states where the employment rate for individuals without disabilities is closer to the national average. For example, Utah had an average employment rate for individuals without disabilities (81 percent versus the national average of 80 percent), but had higher than national average rates for Social Security beneficiaries (19 percent versus the national average of 12 percent) and individuals with disabilities (50 percent versus the national average of 37 percent). Across all states, there was an 85 percent correlation between the employment rates of Social Security beneficiaries and individuals with disabilities and a 79 percent correlation between the rates of Social Security beneficiaries and individuals without disabilities.

The findings indicate that important variations exist in employment rates across states that might be related to broader state economic and policy conditions.

Although we cannot identify the factors driving these state differences, the large variation in employment rates for individuals with disabilities and Social Security beneficiaries in particular indicates that it is worthwhile to explore whether any state-specific policies targeting people with disabilities were contributing to these employment differences.

Estimated Employment Rate Differences

We find that our estimated employment-rate differences persist across subgroups, even after controlling for demographic characteristics, nature of impairment, and state of residence.

In Table 3, we present coefficient estimates from a linear probability model to examine whether the descriptive relationships cited earlier change substantively when controlling for multiple factors. The signs of the regression estimates were consistent with the raw differences across categories. However, the magnitude of the regression estimates for certain variables, especially DI and age, were larger than the raw differences, indicating that caseload composition

Table 3.
Coefficients from linear probability model regressions for state-level employment rates in 1996 and 2007, by selected characteristics

	1996		2007	
Characteristic	Coefficient	Standard error	Coefficient	Standard error
Program group (reference: SSI-only)				
DI-only	0.0831	0.0003	0.1174	0.0004
Concurrent	0.0032	0.0004	0.0124	0.0003
Sex (reference: male)				
Female	-0.0016	0.0002	0.0111	0.0002
Age group (reference: 50–59)				
18–39	0.1104	0.0003	0.1188	0.0003
40–49	0.0321	0.0003	0.0364	0.0003
60–64	-0.0081	0.0004	-0.0133	0.0003
Disabling condition (reference: other physical disorders and missing)				
Affective disorders and other psychiatric disorders	-0.0028	0.0003	-0.0055	0.0002
Intellectual disability	0.0486	0.0004	0.0273	0.0004
Back disorders and other musculoskeletal disorders	-0.0186	0.0004	-0.0212	0.0003
Race/ethnicity (reference: Non-Hispanic black)				
Hispanic	-0.0318	0.0006	-0.0287	0.0004
Non-Hispanic white	-0.0031	0.0003	-0.0213	0.0003
Other/missing	-0.0321	0.0005	-0.0315	0.0005
Years since first eligibility (reference: 6 or more years)				
0–2	0.0354	0.0003	0.0234	0.0003
3–5	0.0163	0.0003	0.005	0.0003
Missing	0.1193	0.0011	. . .	. . .
Intercept	0.0528	0.0035	0.0462	0.0026
State fixed effect (reference: Alaska)				
Alabama	-0.0657	0.0036	-0.0524	0.0026
Arizona	0.0046	0.0036	0.0171	0.0027
Arkansas	-0.0506	0.0036	-0.0447	0.0027
California	-0.0233	0.0035	-0.0074	0.0026
Colorado	0.0304	0.0036	0.0178	0.0027
Connecticut	0.0097	0.0037	0.0256	0.0027
Delaware	0.0155	0.0043	0.0201	0.0032
District of Columbia	-0.024	0.0042	-0.0006	0.0034
Florida	-0.0388	0.0035	-0.0197	0.0026
Georgia	-0.0439	0.0035	-0.0383	0.0026

(Continued)

Table 3.
Coefficients from linear probability model regressions for state-level employment rates in 1996 and 2007, by selected characteristics—*Continued*

Characteristic	1996		2007	
	Coefficient	Standard error	Coefficient	Standard error
Hawaii	-0.0299	0.0042	-0.0142	0.0031
Idaho	0.012	0.004	0.0138	0.003
Illinois	-0.0133	0.0035	-0.0118	0.0026
Indiana	-0.0007	0.0036	-0.0223	0.0026
Iowa	0.0565	0.0037	0.0561	0.0028
Kansas	0.0142	0.0037	0.0159	0.0028
Kentucky	-0.0704	0.0035	-0.0525	0.0026
Louisiana	-0.0532	0.0036	-0.0315	0.0026
Maine	-0.0256	0.0038	-0.0097	0.0028
Maryland	-0.0134	0.0036	0.0026	0.0027
Massachusetts	0.0017	0.0035	0.0138	0.0026
Michigan	0.015	0.0035	-0.0148	0.0026
Minnesota	0.0758	0.0036	0.0733	0.0027
Mississippi	-0.0654	0.0036	-0.0659	0.0027
Missouri	-0.0051	0.0036	-0.0077	0.0026
Montana	-0.0049	0.0041	0.0273	0.0031
Nebraska	0.0257	0.0039	0.0268	0.0029
Nevada	-0.0103	0.0039	-0.0062	0.0028
New Hampshire	0.0127	0.004	0.0249	0.003
New Jersey	-0.0291	0.0035	-0.0157	0.0026
New Mexico	-0.0183	0.0038	-0.0069	0.0028
New York	-0.0358	0.0035	-0.02	0.0026
North Carolina	-0.0335	0.0035	-0.0329	0.0026
North Dakota	0.0471	0.0045	0.0848	0.0036
Ohio	-0.0024	0.0035	-0.016	0.0026
Oklahoma	-0.0389	0.0036	-0.0269	0.0027
Oregon	-0.0004	0.0037	-0.0071	0.0027
Pennsylvania	-0.0345	0.0035	-0.0109	0.0026
Rhode Island	-0.0269	0.0039	-0.0106	0.003
South Carolina	-0.0434	0.0036	-0.0449	0.0026
South Dakota	0.0506	0.0043	0.0677	0.0034
Tennessee	-0.0485	0.0035	-0.0495	0.0026
Texas	-0.0372	0.0035	-0.0208	0.0026
Utah	0.0515	0.0039	0.037	0.003
Vermont	0.0064	0.0043	0.0486	0.0033
Virginia	-0.0402	0.0036	-0.0198	0.0026
Washington	-0.0072	0.0036	-0.005	0.0026
West Virginia	-0.0845	0.0036	-0.0613	0.0027
Wisconsin	0.0426	0.0036	0.0308	0.0027
Wyoming	0.0335	0.0048	0.0654	0.0038

SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to 2007 MEF data.

NOTES: Social Security disability beneficiaries include the more than 10 million (7 million in 1996) SSI and DI beneficiaries who were in current-pay status for at least 1 month in 2007 (1996) and had been receiving benefits from either program for at least 1 calendar year. DI-only beneficiaries include individuals who received DI benefits only; SSI-only disability recipients include individuals who received SSI disability benefits only; and concurrent beneficiaries include individuals who received both SSI disability and DI benefits. Beneficiaries are considered employed if they had at least $1,000 in earnings in 2007 (1996). The dependent variable is equal to 1 if the beneficiary was employed during 2007 (1996); 0 otherwise. Earnings in 1996 are inflation adjusted to reflect 2007 dollars.

. . . = not applicable.

has important implications in examining employment rates of subgroups.[14] The highest-point estimates were for the DI-only program group and the group aged 18–39. Social Security beneficiaries with those characteristics were about 12 percentage points more likely to be employed than those in the comparison groups, which included SSI-only (compared with DI-only) and beneficiaries aged 50–59 (compared with those aged 18–39). These estimates were larger than those from the descriptive tabulations shown in Table 2, where the corresponding differences between DI-only beneficiaries and SSI-only recipients were 7 percentage points for the group aged 18–39 and 9 percentage points for the group aged 50–59.

In general, the employment rate differences across sex, impairment, race, and years from first eligibility were small and mirror the results from the descriptive analysis. There was only a 1 percentage point difference between male and female beneficiaries. The differences across impairments groups were larger, as beneficiaries with intellectual disability were 2 percentage points more likely to be employed, and those with back/musculoskeletal disorders were 2 percentage points less likely to be employed when compared with beneficiaries with other physical impairments. Finally, the number of years since first eligibility indicates that beneficiaries who were on the program rolls for 2 years or fewer are about 2 percentage points more likely to be employed than those who were on the rolls for more than 5 years. We also find that non-Hispanic blacks are 2 to 3 percent more likely to be employed when compared with all racial and ethnic groups.

We find the same general pattern when examining the state coefficients in Table 3 as that in the bivariate statistics. For example, the state coefficient for West Virginia's rate was 6 percentage points lower than that for the reference state (Alaska), and the coefficient for North Dakota was 8 percentage points higher. In total, the 14 percentage point difference between West Virginia and North Dakota was similar, but slightly lower than the (16 percentage point) difference noted in the descriptive analysis.

Employment Trends

Here we assess the trends in the national employment rates among Social Security disability beneficiaries from 1996 through 2007. We also discuss the changes in the state-level employment rates during the 1996–2007 period.

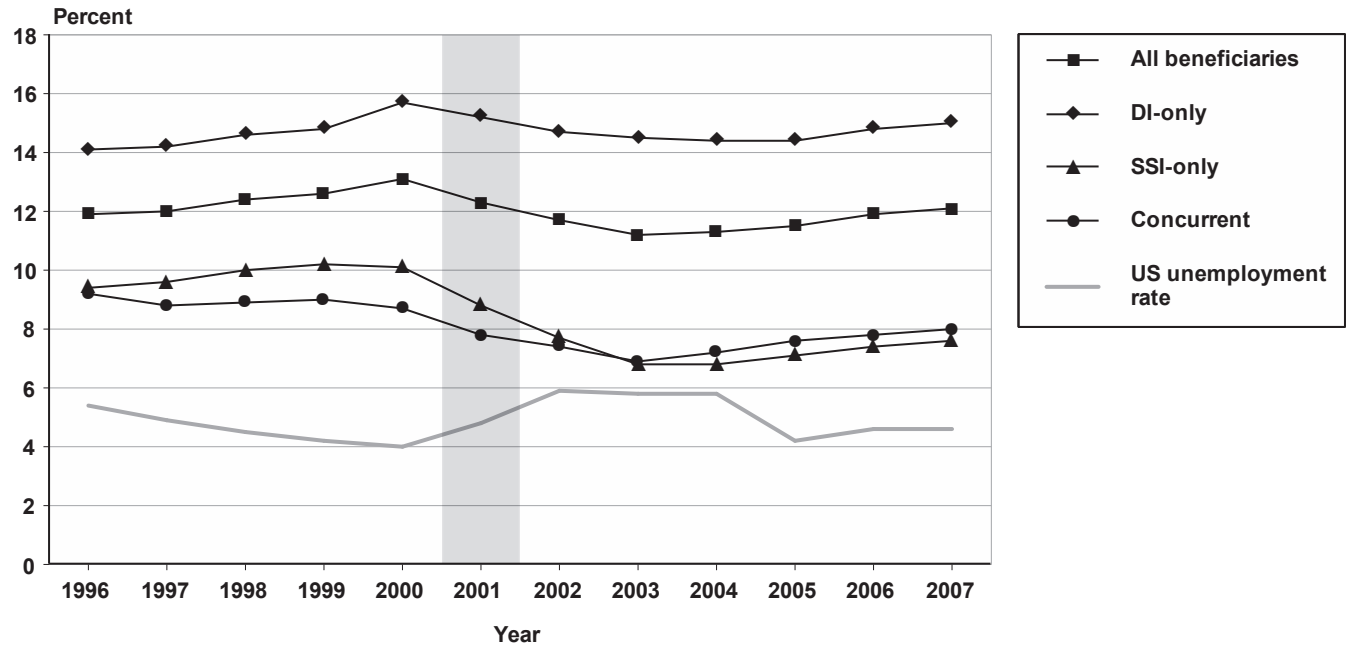
National Employment Rates

Trends in employment rates for all Social Security disability beneficiaries and each of the program groups since 1996 are shown in Chart 3. Each year, we create a cross section of beneficiaries using the same definitions used to construct the 2007 beneficiary estimates. We also include the unemployment rate to track the manner in which employment rates vary with the business cycle. The Appendix, Tables A-1 through A-4, includes a full summary of the data shown in the chart.

The patterns in Chart 3 indicate that the Social Security beneficiary rates and the rates for each of the program groups were sensitive to the business cycle. For all program groups, employment rates for beneficiaries increased in the late 1990s when unemployment rates were falling. However, employment rates began to fall with the 2001 recession (shown with the shaded vertical bar in the chart), and continued to fall in the next 3 years as unemployment rates remained relatively high. The decrease in employment was greater among SSI-only and concurrent beneficiaries than for DI-only beneficiaries. In 2005, with a stronger overall economy, employment rates for beneficiaries started to improve. By 2007, beneficiary employment rates were at 12 percent, approximately the same level as that in 1996. Within program groups, from 1996 through 2007, there was a slight increase in DI-only employment rates by 1 percentage point (from 14 percent to 15 percent), with slight decreases in the rates for SSI-only and concurrent beneficiaries (from 9 percent to 8 percent for both groups).[15] The findings indicate that the general employment rates of Social Security beneficiaries have been relatively consistent (between 11 and 13 percent) over time.

To illustrate the effects of a change in the business cycle on employment, in Chart 4 we present a scatter diagram with a regression line showing the relationship between the state employment rate among Social Security beneficiaries and the overall state unemployment rate during the economic downturn from 2000 to 2004.[16] During that period, state employment rates among beneficiaries were falling and overall state unemployment rates were rising. The regression line indicates a clear inverse relationship, as it shows that beneficiary employment fell by 0.7 percentage points for every 1.0 percentage point increase in unemployment. The experiences in Ohio, which was hit very hard by the recession during that period, illustrate the magnitude of this effect. From 2000 to 2004,

Chart 3.
Trends in national-level employment rates among Social Security disability beneficiaries, 1996–2007



SOURCES: Authors' calculations based on SSA's 2007 TRF data linked to MEF data. The US unemployment data is from the Geographic Profile of Employment and Unemployment, maintained by the Bureau of Labor Statistics at http://www.bls.gov/gps/#tables, and http://www.bls.gov/opub/gp/laugp.htm.

NOTES: Social Security disability beneficiaries include the more than 10 million SSI and DI beneficiaries who were in current-pay status for at least 1 month in 2007 and had been receiving benefits from either program for at least 1 calendar year. Beneficiaries are considered employed if they earned at least $1,000 in 2007. DI-only beneficiaries include individuals who received DI benefits only; SSI-only disability recipients include individuals who received SSI disability benefits only; and concurrent beneficiaries include individuals who received both SSI disability and DI benefits.

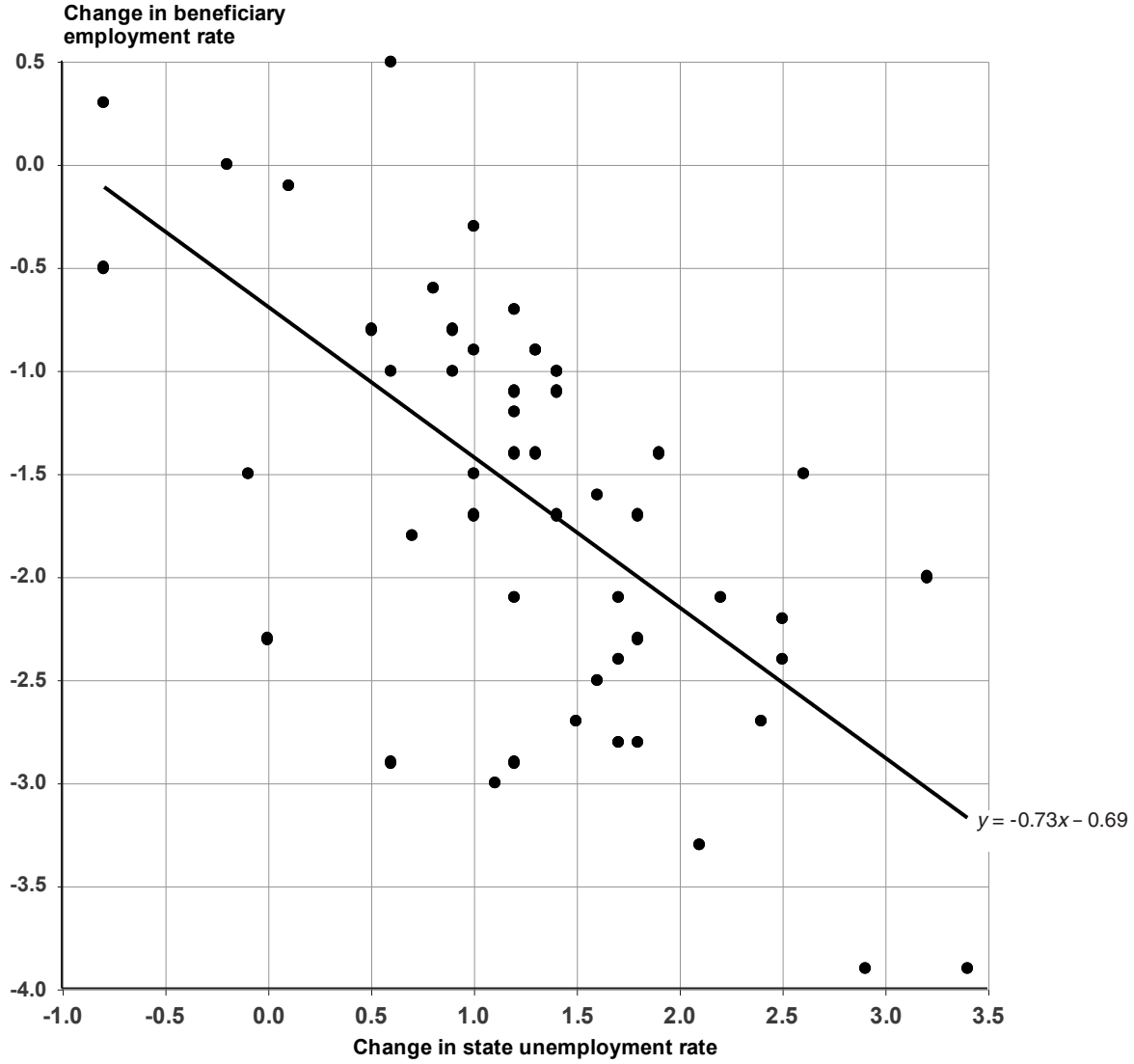
unemployment rates increased from 4 percent to 6.1 percent in Ohio; at the same time, Social Security beneficiary employment rates in the state fell from 16 percent to 13 percent.

State Differences in Employment Rates

In Table 4, we examine changes in the state Social Security beneficiary employment rates in 1996 and 2007 to assess whether state employment rates have changed substantively over time. There were changes in state employment rates during the 1996–2007 period, though the same regional patterns that existed in 2007 were also present in 1996. Some of the changes were large relative to the state employment rate in 1996. For example, Michigan's employment rate declined by 22 percent, while Vermont's rate increased by 25 percent. These relatively significant changes in employment rates over time suggest an area for further exploration to determine the extent to which state-specific policy changes and labor market conditions drive these trends. Despite these changes, the same general patterns noted earlier continue to be present across states: Northern states had relatively higher employment rates and Southern states had relatively lower rates. Hence, although there were some changes in state employment rates over time, there appears to be a strong persistent component across states that are driving these differences.

We further examine, using a multivariate model for 1996 and 2007, whether compositional changes explain the changes over time in state-level employment rates and find that the pattern of employment by state continued to be consistent over time (Chart 5). The state-of-residence coefficients represent the effect of residing in a particular state on beneficiaries' likelihood of employment while holding other demographic characteristics constant. Our findings indicate that for almost all of the states, the state-of-residence effects had the same direction—and in many cases the same magnitude—in 1996 and 2007. These estimates further underscore the effects of state-specific factors influencing employment

Chart 4.
State changes in Social Security disability beneficiary employment and changes in unemployment rates from 2000 to 2004



SOURCES: Authors' calculations based on SSA's 2007 TRF data linked to MEF data. Source for unemployment-rate data is available at http://www.bls.gov/lau/lastrk00.htm.

NOTES: Social Security disability beneficiaries include SSI and DI beneficiaries who were in current-pay status for at least 1 month in the observation years (from 2000 to 2004) and had been receiving benefits from either program for at least 1 calendar year. Data on employment rates by year is summarized in the Appendix.

outcomes and build on our earlier findings for the 2007 estimates by suggesting that persistent differences in policies, conditions, and unobserved individual characteristics were driving the differences in employment rates (as opposed to short-term changes in policies).

Finally, for reference, in the Appendix (Tables A-1 through A-4), we present a full set of descriptive tabulations for employment rates by state for all beneficiaries and the three program groups for all years under study. The findings confirm the general patterns discussed earlier in this article and provide additional useful context for state differences in employment rates, as well as changes over time. Equally important, the findings provide information on state employment rates over time that was previously unavailable and supplement the annual information on state characteristics included in current SSA publications.

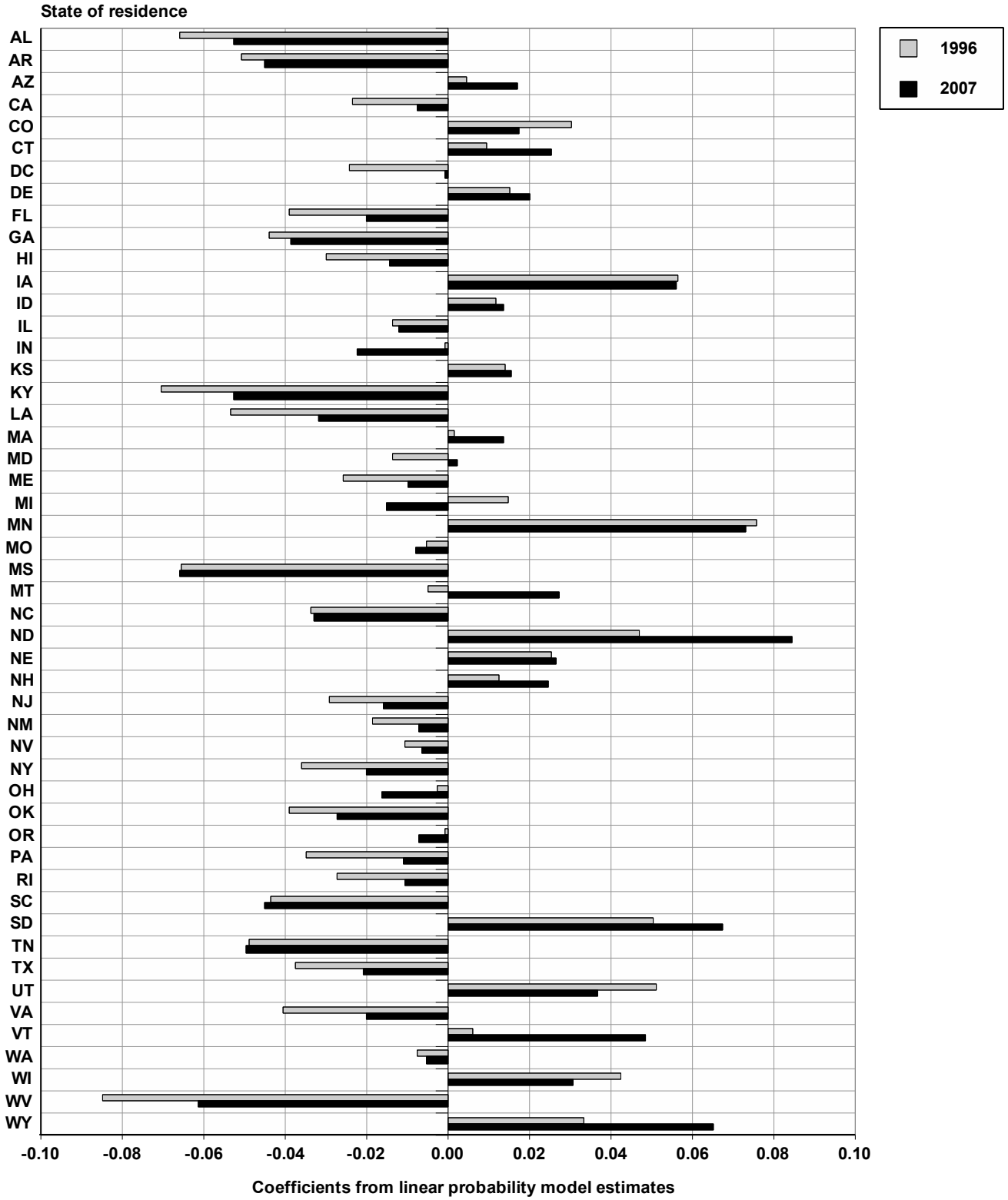
Table 4.
Comparison of state employment rates, 1996 and 2007

State	1996	2007	Difference	Percentage change
Alabama	7.7	9.1	1.4	18.2
Alaska	14.3	13.0	-1.3	-9.1
Arizona	14.6	15.8	1.2	8.2
Arkansas	9.3	9.9	0.6	6.5
California	9.9	10.7	0.8	8.1
Colorado	17.6	15.7	-1.9	-10.8
Connecticut	16.0	16.9	0.9	5.6
Delaware	16.9	17.3	0.4	2.4
District of Columbia	11.2	13.8	2.6	23.2
Florida	10.5	12.0	1.5	14.3
Georgia	9.9	10.6	0.7	7.1
Hawaii	9.5	11.0	1.5	15.8
Idaho	16.2	15.6	-0.6	-3.7
Illinois	13.3	13.2	-0.1	-0.8
Indiana	15.4	12.7	-2.7	-17.5
Iowa	21.1	20.1	-1.0	-4.7
Kansas	17.0	16.2	-0.8	-4.7
Kentucky	7.0	7.9	0.9	12.9
Louisiana	8.9	10.9	2.0	22.5
Maine	11.9	13.1	1.2	10.1
Maryland	13.4	15.1	1.7	12.7
Massachusetts	14.2	14.8	0.6	4.2
Michigan	16.4	12.8	-3.6	-22.0
Minnesota	23.1	22.0	-1.1	-4.8
Mississippi	7.7	7.9	0.2	2.6
Missouri	14.5	13.7	-0.8	-5.5
Montana	13.7	16.2	2.5	18.2
Nebraska	17.8	17.4	-0.4	-2.2
Nevada	13.6	13.7	0.1	0.7
New Hampshire	17.3	18.0	0.7	4.0
New Jersey	11.8	12.7	0.9	7.6
New Mexico	10.8	12.1	1.3	12.0
New York	9.8	10.7	0.9	9.2
North Carolina	11.4	11.5	0.1	0.9
North Dakota	19.6	22.9	3.3	16.8
Ohio	14.7	12.4	-2.3	-15.6
Oklahoma	10.3	11.3	1.0	9.7
Oregon	14.5	12.8	-1.7	-11.7
Pennsylvania	10.8	12.8	2.0	18.5
Rhode Island	11.5	12.4	0.9	7.8
South Carolina	10.3	10.3	0.0	0.0
South Dakota	19.3	20.6	1.3	6.7
Tennessee	9.5	9.1	-0.4	-4.2
Texas	10.1	11.7	1.6	15.8
Utah	20.6	18.6	-2.0	-9.7
Vermont	15.0	18.7	3.7	24.7
Virginia	10.8	12.9	2.1	19.4
Washington	13.5	13.1	-0.4	-3.0
West Virginia	5.8	7.0	1.2	20.7
Wisconsin	19.3	17.6	-1.7	-8.8
Wyoming	18.8	20.9	2.1	11.2

SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTES: For 2007, Social Security disability beneficiaries include the more than 10 million SSI and DI beneficiaries who were in current-pay status for at least 1 month in 2007 and had been receiving benefits from either program for at least 1 calendar year. Those beneficiaries are considered employed if they had at least $1,000 in earnings in 2007. For 1996, Social Security disability beneficiaries include the more than 7 million SSI and DI beneficiaries who were in current-pay status for at least 1 month in 1996 and had been receiving benefits from either program for at least 1 calendar year. Those beneficiaries are considered employed if they had at least $1,000 (in 2007 dollars, adjusted using the average wage index) in earnings in 1996.

Chart 5.
Comparison of state effects from state employment models for 1996 and 2007



SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTES: Coefficients on binary indicator variables for each state were taken from Table 3. States that seem to show data for 1 year actually have data for both 1996 and 2007; in these cases, state effects are so small (close to zero) that the bar is not visible on the chart.

Conclusions

Our findings for the overall employment rates provide important contextual information that should be considered in evaluating current and developing future return-to-work initiatives. The overall employment rate for Social Security disability beneficiaries in 2007 was 12 percent, although employment activity varies substantially across subgroups. Our multivariate findings indicate that substantial differences exist across age and program groups, as younger beneficiaries and those receiving DI-only were more likely to work relative to other Social Security disability beneficiaries. This finding is consistent with earlier findings from the TTW evaluation that younger beneficiaries and those who receive DI were more likely to use work supports and participate in the TTW program than other beneficiary groups (Stapleton and others 2008). The findings for DI beneficiaries are also consistent with the program eligibility rules that require applicants to have a substantial work history (and hence be more predisposed to work after receiving benefits) to qualify for benefits.

Results in this article also suggest that there was limited variation in employment rates by broad categories of impairment conditions. More research is needed to assess whether this variation exists within detailed categories of impairment (for example, within the mental impairment grouping, do employment rates vary across people with affective disorders, anxiety, or schizophrenia).

Our findings also indicate that employment rates of Social Security disability beneficiaries, although generally stable, fluctuate with the business cycle. Since 1996, the overall beneficiary employment rate has ranged between 11 and 13 percent, with lower rates during recessions and higher rates during economic expansions. This finding has important implications for ongoing return-to-work initiatives, such as TTW and several SSA demonstration projects. The TTW program rollout started near the trough of the 2001 business cycle, and several demonstrations started about the same time. TTW's new regulations were implemented near the beginning of the 2008–2009 recession, and it seems likely that SSA will launch the Benefit Offset National Demonstration project early in the recovery from the most recent recession. Hence, the business cycle could have a material effect on the impacts of these initiatives.

Finally, SSA and states can use the employment-rate statistics to target and monitor their efforts for improving employment at the state level and identify new approaches to providing supports. The substantial variation in state employment rates, which is consistent with broader trends in employment of individuals with disabilities, raises important questions about why those differences persist, even after controlling for beneficiary characteristics. For example, does the large variation in relative employment rates suggest a potential area for improving state programs for individuals with disabilities, by looking at the programs and policies of states that have relatively higher employment rates? SSA may detect progress toward reaching disability employment-rate goals or identifying a need to modify policies aimed at improving these rates, by tracking disability employment measures that have been consistently defined over time.

Appendix

For the 1996–2007 period, we present descriptive tabulations of employment rates by state for all Social Security disability beneficiaries (Table A-1) and the three program groups—DI-only, SSI-only, and concurrent beneficiaries (Tables A-2, A-3, and A-4, respectively).

Table A-1.
State-level employment rates for all Social Security disability beneficiaries, 1996–2007

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
All states	11.9	12.0	12.4	12.6	13.1	12.3	11.7	11.2	11.3	11.5	11.9	12.1
Alabama	7.7	7.9	8.2	8.2	8.3	7.7	7.2	7.2	7.5	8.0	8.7	9.1
Alaska	14.3	13.8	14.2	13.6	14.3	14.0	13.3	13.2	13.2	12.9	12.8	13.0
Arizona	14.6	14.7	15.0	15.1	15.8	15.1	14.4	14.2	14.3	14.8	15.6	15.8
Arkansas	9.3	9.5	9.6	9.9	10.2	9.5	9.0	8.9	9.1	9.3	9.6	9.9
California	9.9	10.2	10.5	10.8	11.3	10.9	10.2	9.8	9.9	10.1	10.5	10.7
Colorado	17.6	17.5	17.9	18.1	18.7	17.1	15.8	14.9	14.8	14.8	15.3	15.7
Connecticut	16.0	16.1	16.6	17.0	17.8	17.3	16.9	16.3	16.3	16.4	16.6	16.9
Delaware	16.9	17.8	18.8	18.9	19.8	18.5	18.0	17.0	16.9	16.9	17.1	17.3
District of Columbia	11.2	12.1	12.2	12.9	13.9	12.8	11.9	11.5	11.6	12.4	13.4	13.8
Florida	10.5	10.6	11.2	11.7	12.1	11.2	10.6	10.7	11.1	11.6	12.3	12.0
Georgia	9.9	9.8	10.2	10.7	11.0	10.1	9.5	9.4	9.6	9.7	10.2	10.6
Hawaii	9.5	9.2	9.0	9.0	9.5	9.4	9.0	9.4	9.8	10.1	10.8	11.0
Idaho	16.2	16.4	16.3	15.7	16.6	15.5	14.7	14.7	14.3	14.8	15.7	15.6
Illinois	13.3	13.3	13.7	14.2	14.5	13.3	12.3	12.4	12.4	12.5	12.9	13.2
Indiana	15.4	15.0	15.4	15.8	15.7	14.1	13.3	13.0	13.0	12.7	12.7	12.7
Iowa	21.1	21.2	22.0	22.3	22.5	21.2	20.1	19.7	19.7	20.0	20.1	20.1
Kansas	17.0	17.6	17.6	17.3	17.5	16.5	15.9	15.5	15.1	15.2	15.9	16.2
Kentucky	7.0	7.2	7.5	7.8	8.1	7.5	6.9	7.1	7.1	7.5	7.7	7.9
Louisiana	8.9	9.4	9.8	9.8	9.8	9.3	9.0	8.9	9.0	9.5	10.2	10.9
Maine	11.9	11.9	12.4	13.0	14.1	13.3	13.0	13.3	13.2	13.1	13.1	13.1
Maryland	13.4	13.6	14.2	14.9	15.6	14.7	14.2	13.9	13.8	14.3	15.0	15.1
Massachusetts	14.2	14.6	15.0	15.6	16.4	15.4	14.3	14.0	14.0	14.1	14.5	14.8
Michigan	16.4	16.1	16.7	17.2	17.3	15.6	14.5	13.7	13.4	13.2	13.1	12.8
Minnesota	23.1	22.7	23.1	23.6	24.4	23.2	21.9	21.9	21.7	22.0	21.9	22.0
Mississippi	7.7	7.9	8.2	8.4	8.3	7.4	7.3	7.2	7.3	7.4	7.7	7.9
Missouri	14.5	14.7	15.0	15.4	15.8	14.7	14.1	13.8	13.6	13.5	13.6	13.7
Montana	13.7	13.8	13.8	13.9	14.9	14.5	14.0	14.2	14.4	15.3	15.2	16.2
Nebraska	17.8	17.8	18.3	18.7	19.4	18.0	16.8	16.6	16.4	16.7	16.6	17.4
Nevada	13.6	13.1	13.0	13.3	14.1	13.1	12.3	12.0	12.6	13.2	13.9	13.7
New Hampshire	17.3	18.0	18.2	18.7	20.0	18.8	17.6	17.5	17.9	18.0	18.1	18.0
New Jersey	11.8	12.1	12.6	13.0	13.4	12.7	12.2	12.0	12.2	12.3	12.6	12.7
New Mexico	10.8	10.6	10.8	11.0	11.7	11.3	11.2	11.0	11.1	11.1	11.7	12.1
New York	9.8	10.0	10.2	10.5	11.0	10.4	10.1	10.0	10.1	10.3	10.6	10.7
North Carolina	11.4	11.7	12.1	12.2	12.3	11.2	10.7	10.4	10.6	10.7	11.1	11.5
North Dakota	19.6	20.1	19.9	19.8	20.8	20.5	20.2	20.9	21.3	21.0	21.7	22.9
Ohio	14.7	14.7	15.0	15.5	15.9	14.0	12.9	12.7	12.6	12.4	12.4	12.4
Oklahoma	10.3	10.7	10.9	11.1	11.3	11.0	10.3	10.0	9.9	10.3	10.8	11.3
Oregon	14.5	14.6	14.3	14.3	14.5	13.4	12.6	12.4	12.4	12.5	12.7	12.8
Pennsylvania	10.8	11.1	11.5	11.9	12.4	11.8	11.6	11.5	11.7	12.0	12.4	12.8
Rhode Island	11.5	12.1	12.9	13.6	14.3	13.5	12.6	12.4	12.6	12.1	12.6	12.4
South Carolina	10.3	10.6	11.0	11.1	11.7	10.6	9.9	9.6	9.7	9.5	10.0	10.3
South Dakota	19.3	19.5	20.1	20.4	21.1	20.4	19.5	19.9	20.2	20.3	20.5	20.6
Tennessee	9.5	9.4	9.6	10.0	10.1	8.9	8.4	8.3	8.4	8.4	8.7	9.1
Texas	10.1	10.6	10.8	10.9	11.3	10.7	10.0	9.7	9.7	10.0	10.8	11.7
Utah	20.6	20.0	19.8	19.7	19.5	18.1	17.0	16.5	16.7	17.3	17.9	18.6
Vermont	15.0	15.2	16.3	17.3	19.0	18.7	18.2	18.3	18.7	18.9	18.9	18.7
Virginia	10.8	11.2	11.5	12.1	12.8	11.9	11.8	11.6	11.8	12.0	12.6	12.9
Washington	13.5	14.1	14.4	14.5	14.7	13.5	12.3	11.9	11.8	12.1	13.2	13.1
West Virginia	5.8	5.8	6.0	6.3	6.4	6.2	6.1	6.2	6.4	6.6	6.8	7.0
Wisconsin	19.3	19.2	19.7	20.0	20.1	18.5	17.8	17.8	17.6	17.6	17.5	17.6
Wyoming	18.8	19.0	18.6	19.7	19.7	19.8	19.4	19.1	19.6	20.3	20.9	20.9

SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTE: Social Security disability beneficiaries include SSI and DI beneficiaries who were in current-pay status for at least 1 month in the observation year and had been receiving benefits from either program for at least 1 calendar year.

Table A-2.
State-level employment rates for DI-only beneficiaries, 1996–2007

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
All states	14.1	14.2	14.6	14.8	15.7	15.2	14.7	14.5	14.4	14.4	14.8	15.0
Alabama	9.0	9.3	9.7	9.9	10.4	9.9	9.7	9.3	9.4	9.7	10.2	10.6
Alaska	17.6	16.5	18.3	16.5	17.8	17.5	17.2	17.1	16.9	16.9	16.8	16.7
Arizona	17.7	17.7	18.2	18.2	19.6	19.3	19.0	18.1	18.0	18.2	18.7	19.0
Arkansas	10.4	10.3	10.6	11.0	11.8	11.6	11.5	11.2	11.3	11.5	11.7	12.0
California	14.5	14.6	15.1	15.3	16.4	16.4	15.7	14.8	14.7	14.6	15.2	15.6
Colorado	19.6	19.6	20.1	20.2	21.8	20.5	19.7	18.5	18.4	18.2	18.6	18.8
Connecticut	18.7	18.6	19.1	19.6	20.9	20.9	20.7	19.8	19.7	19.8	20.1	20.5
Delaware	19.1	19.5	21.0	21.1	22.3	21.6	21.6	19.9	19.6	19.4	19.3	19.8
District of Columbia	16.9	17.9	18.1	19.0	20.2	19.8	19.1	17.5	17.6	18.0	18.7	19.1
Florida	12.0	12.1	12.8	13.2	14.2	13.7	13.4	13.2	13.4	13.5	14.2	14.1
Georgia	11.9	11.8	12.5	13.0	13.9	13.5	13.3	12.5	12.5	12.5	13.0	13.3
Hawaii	12.0	12.0	11.4	11.5	12.7	12.6	12.1	12.0	12.3	12.3	13.4	13.7
Idaho	17.5	17.4	17.6	17.1	18.9	18.3	17.8	17.6	16.9	17.4	18.1	18.0
Illinois	16.1	16.0	16.4	16.6	17.7	16.9	16.3	16.2	16.0	15.8	16.1	16.3
Indiana	16.8	16.5	17.0	17.3	18.0	17.0	16.3	15.9	15.7	15.4	15.3	15.3
Iowa	22.9	23.2	24.1	24.3	25.6	25.1	24.7	23.8	23.6	23.7	23.8	23.7
Kansas	18.2	18.6	18.5	18.7	19.8	19.1	18.9	18.4	18.1	17.9	18.7	18.8
Kentucky	9.3	9.4	9.9	10.1	10.9	10.8	10.4	10.1	10.1	10.2	10.6	10.7
Louisiana	10.9	11.3	11.7	11.6	12.2	12.2	12.2	11.9	12.1	12.4	12.8	13.5
Maine	13.6	13.5	14.5	14.9	16.4	16.0	16.2	16.0	15.9	15.9	15.9	16.0
Maryland	15.5	15.7	16.4	16.7	18.2	17.6	17.6	17.0	16.7	17.0	17.7	17.9
Massachusetts	18.1	18.2	18.7	19.3	20.5	20.2	19.4	18.6	18.5	18.3	18.9	19.3
Michigan	19.1	18.7	19.3	19.8	20.6	19.6	18.7	17.8	17.2	16.8	16.6	16.1
Minnesota	25.2	24.9	25.5	25.9	28.0	27.5	26.5	26.5	26.2	26.3	26.2	26.2
Mississippi	9.1	9.2	9.3	9.7	10.1	9.7	9.8	9.3	9.3	9.3	9.6	9.7
Missouri	16.0	16.1	16.7	16.9	18.2	17.3	17.1	16.6	16.4	16.2	16.3	16.4
Montana	15.0	15.2	15.8	15.2	16.5	16.6	16.5	16.8	17.1	17.8	17.9	18.8
Nebraska	19.8	19.9	20.5	21.2	22.9	22.1	21.1	20.2	19.8	19.8	19.7	20.5
Nevada	14.4	13.9	14.1	14.2	15.5	14.9	14.2	13.8	14.1	14.4	15.1	15.4
New Hampshire	18.6	19.0	19.3	19.7	21.4	20.8	19.7	19.7	20.0	20.0	20.3	20.3
New Jersey	13.4	13.7	14.2	14.5	15.4	15.0	14.8	14.5	14.6	14.5	15.0	15.0
New Mexico	12.8	12.6	12.7	13.2	14.4	14.3	14.4	14.3	14.3	14.1	14.4	14.8
New York	12.8	12.9	13.1	13.1	14.1	13.8	13.7	13.5	13.4	13.5	14.0	13.9
North Carolina	14.0	14.4	15.0	14.8	15.3	14.5	14.1	13.2	13.2	13.1	13.5	13.9
North Dakota	21.3	21.3	21.7	21.7	23.2	23.4	23.5	24.4	24.5	24.6	25.2	26.8
Ohio	16.3	16.2	16.7	16.9	18.3	17.2	16.7	16.5	16.3	15.9	16.0	16.0
Oklahoma	12.1	12.3	12.6	12.7	13.5	13.5	12.9	12.5	12.3	12.5	13.1	13.6
Oregon	16.3	16.4	16.6	16.8	17.5	16.8	16.2	15.4	15.5	15.5	15.5	15.5
Pennsylvania	13.4	13.7	14.1	14.5	15.5	15.3	15.5	15.3	15.4	15.5	16.1	16.4
Rhode Island	13.5	13.9	14.7	15.2	16.6	16.3	15.8	15.7	15.9	15.2	15.7	15.6
South Carolina	11.4	11.8	12.2	12.5	13.6	13.0	12.4	11.7	11.6	11.4	11.7	12.0
South Dakota	22.2	21.8	22.9	23.4	25.3	24.9	24.3	24.6	24.4	24.4	24.4	24.8
Tennessee	11.2	11.1	11.5	11.8	12.4	11.7	11.4	10.8	10.7	10.6	10.8	11.1
Texas	12.9	13.5	13.8	13.8	14.8	14.6	14.3	13.3	13.2	13.2	13.9	14.7
Utah	22.9	21.9	22.0	22.2	22.7	21.4	20.8	19.9	20.1	20.5	20.9	21.5
Vermont	18.5	19.1	19.8	20.7	23.1	23.6	23.8	23.4	23.8	23.6	23.7	23.6
Virginia	12.5	12.7	13.1	13.7	14.8	14.2	14.4	13.9	14.0	14.2	14.9	15.1
Washington	15.9	16.5	17.1	17.1	17.9	17.3	16.1	15.5	15.2	15.3	16.4	16.0
West Virginia	7.6	7.6	7.8	8.2	8.6	8.6	8.7	8.5	8.7	8.8	9.1	9.4
Wisconsin	21.3	21.3	21.8	22.2	23.2	22.4	22.4	21.9	21.6	21.7	21.3	21.5
Wyoming	19.6	20.0	19.7	20.5	21.3	21.8	21.8	21.3	21.7	22.5	23.4	23.6

SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTE: DI-only beneficiaries include individuals who received DI benefits only, who were in current-pay status for at least 1 month in the observation year, and had been receiving benefits for at least 1 calendar year.

Table A-3.
State-level employment rates for SSI-only recipients, 1996–2007

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
All states	9.4	9.6	10.0	10.2	10.1	8.8	7.7	6.8	6.8	7.1	7.4	7.6
Alabama	6.9	7.2	7.4	7.4	7.0	6.1	5.2	4.7	5.0	5.8	6.7	7.2
Alaska	11.0	11.1	12.4	10.9	10.6	10.6	9.9	8.2	7.7	7.4	7.2	7.4
Arizona	10.3	10.5	10.6	10.7	10.4	9.0	7.7	7.1	7.2	8.0	9.0	9.1
Arkansas	8.7	9.2	9.4	9.7	9.2	7.7	6.5	5.6	5.7	5.6	6.0	6.1
California	7.4	7.7	8.0	8.3	8.5	8.0	7.2	6.4	6.4	6.7	7.0	7.0
Colorado	14.8	15.0	15.7	16.0	15.1	13.0	10.7	8.9	8.8	8.8	9.0	9.6
Connecticut	11.6	11.9	12.8	13.0	12.9	11.9	10.9	9.5	9.6	9.2	9.2	9.3
Delaware	13.5	15.2	15.6	16.0	16.4	13.7	12.3	10.5	11.0	10.8	11.8	11.1
District of Columbia	8.0	9.0	9.2	10.0	10.9	9.8	8.7	7.6	7.6	8.8	9.8	10.2
Florida	8.8	9.1	9.5	10.3	9.8	8.5	7.2	6.7	7.3	8.5	9.0	8.6
Georgia	8.4	8.2	8.5	9.0	8.5	7.2	6.0	5.4	5.5	5.8	6.0	6.4
Hawaii	6.9	6.1	6.3	6.2	6.2	6.1	5.9	5.8	6.4	7.3	7.5	7.1
Idaho	14.7	16.1	15.7	15.1	14.3	12.8	11.7	10.1	10.3	10.4	11.6	11.3
Illinois	10.4	10.4	10.9	11.8	11.3	9.8	8.4	7.5	7.5	7.7	8.1	8.5
Indiana	13.4	13.1	13.6	13.9	12.4	9.9	8.7	7.2	7.3	7.2	6.9	7.2
Iowa	18.9	19.2	19.8	20.2	18.6	16.1	13.9	12.3	12.3	12.8	12.6	12.6
Kansas	15.3	16.8	16.7	16.1	14.9	13.2	11.8	10.0	9.5	9.6	10.0	10.6
Kentucky	5.0	5.2	5.5	5.9	5.8	4.9	4.1	3.6	3.6	4.0	3.9	4.1
Louisiana	7.8	8.7	9.1	9.1	8.6	7.8	7.0	6.1	6.0	6.6	7.3	7.9
Maine	10.2	10.1	10.7	11.2	11.9	10.6	9.6	8.6	8.4	7.9	7.8	7.3
Maryland	11.0	11.3	11.8	13.0	12.9	11.9	10.7	9.7	9.7	10.2	10.6	10.6
Massachusetts	10.6	11.3	11.9	12.6	12.7	11.3	9.9	8.6	8.6	8.6	8.7	8.7
Michigan	13.1	13.1	13.7	14.2	13.5	11.1	9.4	7.8	7.6	7.5	7.3	7.2
Minnesota	19.5	19.5	19.5	20.0	18.8	16.6	14.5	13.3	13.1	13.1	13.1	13.0
Mississippi	7.3	7.5	8.0	8.2	7.6	6.3	5.6	5.0	5.0	5.0	5.4	5.4
Missouri	12.4	12.9	13.0	13.4	12.8	11.5	10.1	8.6	8.2	8.0	7.8	7.9
Montana	11.3	11.8	11.3	12.4	13.0	11.9	10.9	9.5	8.9	10.1	9.7	11.1
Nebraska	15.7	15.9	16.1	15.8	15.3	13.1	11.6	9.7	9.8	10.3	9.9	10.7
Nevada	12.7	12.2	11.7	12.3	12.3	11.2	9.5	8.7	9.5	10.6	11.4	10.0
New Hampshire	14.8	16.6	16.9	17.9	18.0	15.2	12.7	11.4	11.2	11.7	11.1	10.6
New Jersey	9.8	10.5	10.7	11.3	11.0	9.9	9.0	8.1	8.1	8.1	8.0	8.3
New Mexico	9.1	9.0	9.5	9.5	9.6	9.1	8.7	7.2	7.0	7.5	7.7	8.2
New York	7.0	7.1	7.6	8.1	8.2	7.6	6.8	6.3	6.3	6.5	6.6	6.9
North Carolina	8.1	8.3	8.7	9.1	8.4	7.1	6.1	5.4	5.7	6.2	6.4	6.9
North Dakota	17.2	19.2	17.6	17.3	16.8	16.5	15.8	14.2	14.5	12.9	13.3	13.6
Ohio	12.7	12.8	13.2	13.9	13.4	10.7	8.9	7.6	7.4	7.2	7.0	7.2
Oklahoma	8.4	9.2	9.4	9.8	9.0	8.4	7.4	6.3	6.1	6.5	6.7	7.0
Oregon	12.2	12.2	11.5	11.2	10.5	8.9	7.8	7.2	6.9	7.2	7.5	7.7
Pennsylvania	8.0	8.3	8.7	9.2	9.2	8.3	7.5	6.6	6.6	6.8	6.9	7.4
Rhode Island	9.1	10.0	11.2	12.1	12.0	10.8	9.4	8.4	8.2	7.9	8.2	7.9
South Carolina	9.4	9.8	10.2	10.2	10.0	8.2	6.9	6.2	6.2	6.0	6.5	6.7
South Dakota	14.8	16.2	16.6	17.1	15.9	15.2	13.9	11.6	12.7	13.1	13.3	12.7
Tennessee	8.1	7.9	8.2	8.7	8.1	6.4	5.4	4.7	4.8	4.9	5.2	5.6
Texas	7.6	8.1	8.3	8.7	8.2	7.3	6.1	5.2	5.4	5.9	6.6	7.6
Utah	18.4	18.3	17.8	17.3	16.4	14.2	12.2	10.6	10.7	11.5	12.1	12.9
Vermont	12.3	11.9	13.8	15.5	15.7	14.5	12.5	11.3	11.5	11.9	10.9	11.1
Virginia	9.0	9.6	9.9	10.7	10.5	9.4	8.5	7.6	7.9	8.1	8.4	8.6
Washington	11.0	11.6	11.7	12.1	11.4	9.7	8.3	7.0	7.1	7.4	8.0	8.4
West Virginia	3.9	4.0	4.1	4.3	4.1	3.8	3.5	3.2	3.3	3.4	3.4	3.5
Wisconsin	16.8	16.8	17.6	17.8	16.5	13.7	11.8	10.4	10.1	9.9	10.1	10.2
Wyoming	18.2	17.8	17.7	20.8	18.0	17.0	15.3	15.1	15.5	15.6	14.9	14.9

SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTE: SSI-only disability recipients include individuals who received SSI disability benefits only, who were in current-pay status for at least 1 month in the observation year, and had been receiving benefits for at least 1 calendar year.

Table A-4.
State-level employment rates for concurrent beneficiaries, 1996–2007

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
All states	9.2	8.8	8.9	9.0	8.7	7.8	7.4	6.9	7.2	7.6	7.8	8.0
Alabama	4.8	4.6	4.7	4.6	4.4	4.0	3.9	3.6	4.0	4.8	5.3	5.8
Alaska	11.0	11.0	11.1	11.5	12.2	10.9	9.3	9.5	11.5	9.9	10.3	11.1
Arizona	10.1	9.5	8.7	9.4	9.2	7.8	6.9	7.0	7.6	9.1	10.1	9.7
Arkansas	6.2	6.1	6.1	6.1	6.0	5.1	4.5	4.6	5.0	5.4	5.5	5.9
California	7.7	7.8	7.7	8.1	8.1	7.4	7.0	6.4	6.6	6.9	7.1	7.3
Colorado	14.3	12.7	12.4	12.7	11.2	10.3	8.8	7.2	7.6	8.2	8.4	9.6
Connecticut	13.2	12.6	12.9	12.9	13.0	12.1	11.6	10.5	10.8	11.5	11.7	11.8
Delaware	13.1	14.4	14.2	13.0	11.8	11.3	10.6	10.0	10.2	11.3	11.2	10.0
District of Columbia	9.1	8.9	9.5	9.3	9.3	8.8	8.7	7.4	7.3	7.9	9.0	9.4
Florida	7.2	7.0	7.5	7.7	7.4	6.4	6.1	5.9	6.3	7.2	7.8	7.4
Georgia	6.6	5.9	5.9	6.2	5.8	4.9	4.8	4.4	4.7	5.1	5.5	5.7
Hawaii	6.3	5.5	6.0	5.9	4.8	5.3	5.1	5.3	5.4	5.3	5.9	6.6
Idaho	13.5	12.1	11.9	11.0	11.5	10.1	9.2	9.2	9.0	9.7	11.2	10.4
Illinois	12.7	11.7	11.7	12.4	11.1	9.9	9.2	8.7	8.9	9.1	9.4	9.7
Indiana	12.9	11.2	11.2	11.7	10.6	8.5	8.0	7.5	7.8	7.8	7.7	7.8
Iowa	17.7	16.8	17.6	17.8	17.3	15.8	14.4	13.4	13.5	14.6	14.1	14.7
Kansas	15.3	14.7	15.1	14.0	13.0	12.7	12.1	11.2	10.1	11.0	11.9	11.9
Kentucky	5.2	5.0	5.4	5.4	5.1	4.4	4.2	4.1	4.2	4.7	4.8	5.0
Louisiana	5.4	5.6	6.0	6.0	5.5	5.3	5.3	5.4	5.6	6.0	7.0	7.6
Maine	9.6	9.0	8.4	9.9	10.3	9.4	9.4	9.4	9.2	9.1	8.8	9.0
Maryland	11.5	11.2	11.5	12.6	11.5	10.0	9.8	9.1	9.0	10.4	10.8	10.9
Massachusetts	10.9	11.1	11.1	11.5	11.6	10.3	9.2	8.5	8.7	9.0	9.3	9.3
Michigan	14.9	13.8	14.0	14.1	13.4	11.3	10.3	9.0	8.8	8.9	8.5	8.5
Minnesota	22.1	19.9	20.1	21.2	19.9	17.9	17.6	16.5	16.0	17.1	16.9	16.9
Mississippi	4.6	4.8	4.9	5.0	4.6	3.9	4.2	4.1	4.1	4.5	4.7	4.9
Missouri	12.9	12.3	12.1	13.1	11.8	10.9	10.5	9.8	9.8	9.7	10.1	9.7
Montana	12.6	11.2	10.5	11.5	10.9	11.0	10.1	10.1	11.3	12.4	11.6	12.3
Nebraska	13.0	12.5	12.8	13.8	12.6	11.1	10.1	9.7	10.1	10.8	10.7	11.1
Nevada	10.1	9.8	8.8	9.8	9.4	7.2	7.4	7.0	8.3	8.9	9.7	8.5
New Hampshire	13.4	13.3	13.0	13.5	13.6	11.4	11.6	10.3	12.6	13.1	11.6	12.2
New Jersey	9.1	8.7	9.2	9.7	9.1	8.1	7.5	7.1	7.6	8.2	8.5	8.4
New Mexico	7.8	7.2	6.9	7.0	7.0	6.9	6.8	6.8	7.6	7.4	8.8	9.3
New York	8.8	8.5	8.5	8.7	8.6	8.0	7.8	7.4	7.6	7.7	7.8	8.0
North Carolina	6.5	6.4	6.4	6.8	6.4	5.2	4.9	4.6	5.0	5.3	5.8	6.2
North Dakota	17.2	16.4	16.6	16.4	17.4	15.4	14.7	14.8	16.3	15.9	16.8	16.4
Ohio	14.7	13.7	13.4	14.0	12.8	11.0	10.2	9.5	9.3	9.7	9.5	9.2
Oklahoma	7.1	7.1	6.7	7.2	7.2	6.7	6.7	6.1	6.2	6.8	7.7	8.2
Oregon	12.0	11.7	10.5	10.5	10.0	9.4	8.6	8.1	8.0	8.3	8.8	8.4
Pennsylvania	9.2	8.9	9.2	9.6	9.2	8.4	8.0	7.6	8.2	8.4	8.3	8.8
Rhode Island	9.6	10.0	10.5	11.3	10.8	9.6	8.6	7.8	8.1	8.4	8.7	8.1
South Carolina	7.4	7.3	7.3	7.0	6.7	6.0	5.7	5.3	6.0	5.7	6.3	6.4
South Dakota	18.3	17.7	17.2	16.1	15.6	15.2	14.2	14.4	14.7	14.4	14.4	14.5
Tennessee	7.3	6.3	6.5	6.4	6.2	4.8	4.9	4.5	5.0	5.0	5.1	5.7
Texas	5.7	5.9	5.9	6.0	5.6	5.3	4.8	4.3	4.4	5.1	5.7	6.8
Utah	15.0	14.0	13.8	12.9	11.1	11.6	10.7	10.3	11.1	11.4	12.5	12.8
Vermont	10.1	9.8	10.6	11.0	12.2	11.0	11.3	10.7	11.1	11.9	12.4	11.3
Virginia	7.7	7.5	7.4	8.2	8.1	7.0	6.9	6.9	7.0	7.5	7.9	8.0
Washington	10.9	11.1	10.5	10.5	10.1	8.5	7.5	6.9	7.0	7.8	8.5	8.6
West Virginia	3.8	3.6	4.0	4.3	4.1	3.5	3.8	3.4	3.9	4.0	4.2	4.2
Wisconsin	17.7	16.7	16.7	16.9	16.0	14.7	13.6	13.5	13.0	12.9	12.6	12.3
Wyoming	15.7	15.8	14.9	13.3	15.0	15.4	15.9	13.4	14.6	15.0	16.3	15.4

SOURCE: Authors' calculations based on SSA's 2007 TRF data linked to MEF data.

NOTE: Concurrent beneficiaries include individuals who received both SSI disability and DI benefits, who were in current-pay status for at least 1 month in the observation year, and had been receiving benefits for at least 1 calendar year.

Notes

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[1] Individuals eligible to receive SSI disability payments are officially referred to as "SSI disability recipients," and individuals entitled to receive DI benefits are officially referred to as "DI beneficiaries." However, to facilitate easier communication, in this article we apply the word "beneficiaries" as well as phrases such as "SSI and DI beneficiaries" and "Social Security beneficiaries" loosely to indicate both SSI disability recipients and DI beneficiaries.

[2] While opportunities for, and barriers to, employment for individuals with disabilities may also vary at a county or more local level (for example, availability of support services in the county, or proximity of a locality to hubs of economic activity), we focus our analysis on state-level differences, given the current lack of information in this area.

[3] We define employment based on earnings greater than $1,000 to separate substantial work effort from small ad hoc earnings over the course of a year. We considered 12- and 3-month multiples of the trial work value ($640 in 2007), but concluded that doing so would set the limit too high and exclude too many beneficiaries. The monthly substantial gainful activity (SGA) level was $900 in 2007, so we settled on $1000 as a reasonable figure to indicate substantial work in a given year.

[4] SSI makes payments to children with disabilities and working-age adults in low-income households. In addition, certain low-income aged individuals (65 or older) can only qualify for SSI if they are disabled. However, we only included the working-age SSI population in this analysis.

[5] In 2007, earnings of DI beneficiaries had to exceed $640 per month to be counted as a trial work month. The threshold was $200 per month for the period from 1996 through 2000, and between $530 and $620 for the 2001–2006 period.

[6] There is also a $20 disregard for any income that can be applied to earnings if it has not been used to offset unearned income.

[7] For persons in the DI program, cash benefits stop when they earn more than the SGA level, but they can continue to receive Medicare benefits for at least 93 consecutive months. SSI disability recipients can earn more than the SGA level, but still receive payments. Even if their earnings are too high for an SSI payment, Medicaid coverage can continue until their gross earnings are sufficient to cover the cost of Medicaid.

[8] We accessed the MEF under rules established by the Internal Revenue Service. In accordance with those rules, SSA maintains a restricted access extract containing the earnings records of DI and SSI beneficiaries represented in the TRF. To comply with security requirements for the earnings data, SSA staff produced all statistics based on those records and verified that the statistics did not disclose personal information.

[9] Medicare earnings are not subject to the Federal Insurance Contributions Act (FICA) taxable limits like those used for the primary insurance amount (PIA) benefit calculation. Summary statistics using Medicare earnings thus provide a more accurate picture of actual earnings levels in the beneficiary population.

[10] The major groups that are not covered include those who are employed "off the books"; civilian federal employees hired before January 1, 1984; railroad workers; certain employees of state and local governments who are covered under their employers' retirement system; domestic and farm workers whose earnings do not meet certain minimum requirements; and persons with very low net earnings from self-employment.

[11] Note that this definition leaves open the possibility that we could consider a person a concurrent beneficiary in a year in which he or she was not a concurrent beneficiary during any one month. These cases, however, make up only a small proportion of the concurrent population in each year.

[12] SSA's data include detailed disability diagnostic codes, although we chose to use broad categories for this analysis, given our primary objective was to explore differences across broad groups.

[13] It is important to note that the findings on impairment might be related to our choice of impairment definitions. As noted earlier, we chose broad impairment categories to analyze outcomes across beneficiaries. Our findings indicate that there appears to be limited differences across those categories, but it is possible that further differences exist for more detailed diagnostic categories.

[14] Although we show conventional standard errors, we do not refer to statistical significance because the figures represent population estimates. Because the number of observations is so large, we would consider all differences significant if the data were treated as a sample.

[15] We cannot assess the effects that changes in the caseload composition or changes in SSA work incentives (for example, changes in the level of SGA or implementation of TTW) had on employment rates.

[16] We restricted the analysis to the economic downturn to illustrate variation in beneficiary employment rates during a period of large changes in unemployment rates.

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