

**Employment Among SSA
Disability Program
Beneficiaries: 1996–2007**

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I. INTRODUCTION

In recent years, there has been increasing interest in identifying interventions to promote employment for the more than 10 million working-age people with disabilities who receive cash benefits from the Social Security Disability Insurance (SSDI) program and the Supplemental Security Income (SSI) programs administered by the Social Security Administration (SSA). The need for identifying such strategies is driven by the increasing number of people who receive disability cash benefits, the general declines in employment rates for persons with disabilities, and shifts in public policies that seek to promote the full inclusion of people with disabilities in all activities.

However, there is very limited information on the employment outcomes of SSA beneficiaries in most available survey and administrative data sources. Although there is some limited information on beneficiary employment, these outcomes are not measured consistently across the SSI and SSDI programs. Additionally, there is almost no information on how employment varies over time or across states. 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 SSA disability beneficiaries.

This paper uses linked administrative data from program and earnings records to summarize the 2007 employment rates of SSA 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 SSDI beneficiaries across multiple years. We chose 2007 because it is the most recent year for which complete annual earnings information is available. The available program data provide information on cross-sections of beneficiaries who received benefits since 1996, including the more than 10 million beneficiaries who received SSI and/or SSDI 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. We then examine changes in employment rates from 1996 to 2007 at the national and state levels. The main text provides an overall summary of findings; the appendixes include more detailed employment rates for key subgroups, especially at the state level, which are comparable to 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 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 \$1000 as employed; under this definition of employment, the overall employment rate of SSA disability beneficiaries was 12 percent in 2007. Substantial variation in employment rates exists within the population. SSDI beneficiaries and those younger than 40 were much more likely to work relative to other SSA 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 employment rates; across states, employment rates ranged from 7 percent (West Virginia) to 23 percent (North Dakota). Employment rates were sensitive to the business cycle, with the overall employment rate for all SSA beneficiaries varying from 11 percent to 13 percent since 1996.

The overall employment rates for SSI and SSDI beneficiaries are low relative to the general population. This is not surprising given the program eligibility requirements for SSI and SSDI. The substantial variation that exists within subgroups, however, underscores the potential value of the data for informing SSA policies. For example, holding constant caseload differences in individual characteristics, the substantial employment variation across states suggests that environmental and

policy differences may explain why some states have much stronger employment outcomes relative to others.

II. SSA DISABILITY PROGRAMS AND RECENT EMPLOYMENT ESTIMATES

A. SSA Disability Programs Include Social Security Disability Insurance and Supplemental Security Income

SSDI is a social insurance program designed to replace the lost wages of adult workers with disabilities; SSI is an income maintenance program for low-income adults with disabilities. Both programs use the same administrative disability assessment process to determine whether an applicant

1. Has a medically determined impairment expected to last 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 in 2007 for all non-blind disability applicants (\$1,500 was the limit 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 these 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 people with disabilities to apply for benefits. The benefits provide an important source of income, as well as access to medical coverage. SSI beneficiaries (in most states) are categorically eligible for Medicaid;

SSDI beneficiaries are eligible for Medicare after a two-year waiting period. Although there are eligibility and health 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 SSDI and SSI.

The SSI and SSDI work rules differ in important ways that have implications for employment when benefits start. In the SSDI program, individuals are permitted to work and earn at any level for up to nine months without losing eligibility for SSDI cash benefits. This nine-month period is referred to as the Trial Work Period (TWP). After completing the TWP, beneficiaries enter a 36-month extended period of eligibility (EPE). If individuals earn more than the SGA level in any month during the EPE, they face a cash cliff in which they lose their entire cash benefit for that month (but remain eligible for Medicare). After completing the EPE, disability 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 benefits by \$1 for every \$2 of earnings.¹ Hence, unlike the SSDI cash cliff, SSI benefits 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 due to earnings (see Livermore et al. [2009] for more details).

The programmatic rules for continuing eligibility create challenges for promoting employment among SSDI and SSI beneficiaries (Stapleton et al. 2006). First, 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 SSA benefits can lead to persistently low expectations for work in the future and can cause

¹ 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.

participants to feel dependent on these programs. Additionally, low expectations for work can influence the expectations of staff who administer SSA programs and the rehabilitation providers that provide employment supports to these populations. Second, SSDI and SSI beneficiaries risk both the loss of benefits and health care coverage for excess earnings. Although both programs include the incentives noted above 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.

B. SSA Has Recently Implemented Several Employment Initiatives

In recent years, there has been an increasing emphasis on promoting return-to-work outcomes of Social Security beneficiaries. The largest of these efforts started in 1999 when policymakers implemented the Ticket to Work (TTW) program. A major program emphasis under TTW was to expand return-to-work services for SSDI and SSI beneficiaries. Prior to TTW, virtually all such publicly financed services were provided through state vocational rehabilitation (VR) 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 recently implemented several demonstration projects designed to promote employment outcomes of different subgroups of SSDI and SSI beneficiaries, including beneficiaries who are uninsured, younger, or working, or those with mental impairments. These interventions include the Accelerated Benefits (AB) Demonstration, which provides immediate health benefits (rather than these benefits being delayed for two years) and employment supports, when appropriate, to certain newly entitled SSDI beneficiaries; the Benefit Offset National Demonstration (BOND), which will test a \$1-for-\$2 benefit offset above SGA for SSDI; the Mental Health Treatment Study (MHTS), which provides mental health treatments (pharmaceutical and psychotherapeutic) and/or employment supports that are not covered by other insurance for study participants; and the Youth Transition Demonstration (YTD), 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 et al. (2008).

C. Recent Employment Estimates of SSA Disability Beneficiaries

Although SSA provides a variety of employment data through its statistical publications, the employment data in these publications are limited. One problem is that statistics on work and earnings are based on the information reported to SSA by beneficiaries. Such information may be incomplete if beneficiaries do not report their work in a timely manner. The data may also be measured inaccurately due to administrative procedures and workload constraints that can affect the amount and timeliness of information recorded in SSA's data systems. The administrative reporting procedures are particularly relevant to SSDI because earnings changes often do not have an immediate effect on monthly benefits, reducing the need for immediate data entry. For example, because of the TWP, consistent work above SGA can continue for up to a year before cash benefits would be affected. With competing workload priorities in SSA field offices, the recording of SSDI 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 recipient earnings levels for working beneficiaries, but the SSDI 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 SSI and SSDI beneficiaries that are uniform across the two programs. These reports rely on administrative data as well as a nationally representative survey of SSI and SSDI beneficiaries—the National Beneficiary Survey (NBS)—that was conducted in three annual waves between 2004 and 2006. The analysis of the administrative data has focused primarily on the characteristics and employment experiences of beneficiaries

participating in the TTW program, though the survey data provided a wealth of information on employment outcomes for all beneficiaries. Livermore et al. (2009), for example, used the NBS data to show that 13 percent of all beneficiaries worked during the previous year, with slightly higher rates of employment for SSDI and concurrent beneficiaries (13 and 15 percent, respectively) in comparison with SSI beneficiaries (11 percent). They 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 beneficiaries, there remain important gaps in knowledge of 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 subgroup, and no information on employment at the state level over time.

III. DATA AND METHODOLOGY

A. Administrative Records from the SSA Ticket Research File and Master Earnings File

Our approach addresses the limited information available on the employment experiences of disability program beneficiaries. We use linked program and earnings data to construct employment statistics for the full population of SSA beneficiaries receiving disability benefits from 1996 through 2007. We identify program participants using 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 disabled beneficiaries ages 18 to 64 who participated in SSI or SSDI programs at any time between 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 et al. (2009) provide full documentation on the TRF.

We used earnings data from the SSA’s Master Earnings File (MEF), which includes annual earnings data derived from tax reports.² We combined total Medicare wages and total Medicare self-employment earnings in the MEF to derive a measure of total earnings. The employment and earnings statistics do not reflect the employment and earnings of those whose earnings are not reported to the IRS.

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 SSDI and SSI programs and across all states. Because TRF data include program information on all beneficiaries, we can use this information to construct population estimates. This is very useful in examining overall trends, as well as for constructing state estimates.

B. Sample Selection and Definitions

For each cohort, we include only beneficiaries who were on the program at least one full calendar year to avoid capturing employment for beneficiaries from pre-award jobs. Within the SSA beneficiary population, we define three mutually exclusive program title groups: SSDI-only (Title II), SSI-only (Title XVI), and concurrent (SSDI and SSI) beneficiaries. The determination of program title is made independently in each observation year. A person was deemed to be a participant in a particular program if the person was in current pay status for that program for at least one month of the observation year. We identify a person as a concurrent beneficiary if the person has at least one month in current pay status for SSI and at least one month in current pay status for SSDI in the year

² We accessed the MEF under rules established by the Internal Revenue Service. In accordance with these rules, SSA maintains a restricted access extract containing the earnings records of SSDI and SSI beneficiaries represented in the TRF. To comply with security requirements for the earnings data, SSA staff produced all statistics based on these records and verified that the statistics produced did not disclose personal information.

in question.³ Distinguishing outcomes by program groups is important because different program rules apply at application and different work rules apply while receiving benefits. In general, SSDI-only beneficiaries must have substantial work histories, and SSI-only beneficiaries must have limited work histories, few resources, and low incomes. Concurrent beneficiaries have a sufficient work history to qualify for SSDI, but also must have sufficiently low incomes and resources to receive SSI.

In Exhibit 1, we summarize the characteristics of adult beneficiaries in 2007, which included more than 10 million SSA beneficiaries. Among these beneficiaries, 60 percent were SSDI-only, 29 percent were SSI-only, and 11 percent were concurrent beneficiaries. SSDI beneficiaries were predominantly male (54 percent), non-Hispanic white (72 percent), older than age 50 (67 percent), and receiving SSDI due to a physical impairment (such as a back disorders or “other” physical impairments). 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 mental retardation, affective disorders, or other psychiatric disorders. SSI and concurrent beneficiaries were equally as likely to be Hispanic or non-white as they were to be non-Hispanic and white.

In Appendix Exhibit A1, we summarize the caseload characteristics from the 1996 cohort to illustrate how the SSA beneficiary population has changed since the initial period included in our analysis. In 1996, there were 7 million SSA beneficiaries, among whom 52 percent were SSDI-only, 36 percent were SSI-only, and 12 percent were concurrent beneficiaries. Consistent with the findings cited earlier, SSDI beneficiaries tended be older, included more men, and had more physical impairments relative to the other subgroups. However, there have been important compositional

³ Note that this definition leaves open the possibility that a person could be considered 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.

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 in gender 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 earnings threshold of \$1,000 to identify SSA beneficiaries who had substantive employment experiences. For all years prior to 2007, we used the average wage index to adjust for inflation. Thus, in this paper a beneficiary is considered to have been employed in a particular year when he or she has more than \$1,000 (in 2007 dollars) annual earnings in that year.

Based on this threshold, 12 percent of all SSA beneficiaries were employed during 2007. Across program groups, SSDI beneficiary employment rates (15 percent) were substantially higher than those for SSI-only and concurrent beneficiaries (8 percent for both groups).

The earnings distribution in Exhibit 1 illustrates the sensitivity of employment rate estimates to the choice of earnings thresholds for all SSA beneficiaries and the program groups. For example, if we had used the \$0 threshold, 4.8 percent of beneficiaries earned between 0 and \$1,000 in 2007, which would have increased the overall employment rate for SSA 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 rates to 6 percent. The choice of threshold is very important for the employment estimates of program groups because SSDI beneficiaries have substantially higher earnings. For example, SSDI beneficiaries were almost three times more likely than beneficiaries in the other program groups to earn more than \$5,000 (9 percent for SSDI 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 in this paper and those estimated in Livermore et al. (2009) using survey data. Although our overall beneficiary estimates are comparable (approximately 12 percent), we find larger differences across program groups than Livermore et al. It is likely that these earnings thresholds and some of the information that might be self-reported in a survey, but not available in administrative records (such as earnings from sheltered workshops), explain most of the differences.

C. Approach to Producing Employment Estimates for the 2007 Beneficiary Cohort

We summarize the characteristics of the 2007 cohort and then generate employment estimates for the overall population and for program, demographic, impairment, and state subgroups using descriptive and multivariate methods. The descriptive summary 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 use a linear probability model to estimate the probability of whether a beneficiary was employed during the 2007. That is, we fit the following equation

$$(1) \quad Y_i = a + bX_i + cS_i + e_i$$

where Y_i is the employment outcome for individual i ; X_i is the vector of characteristics of individual i , namely, gender, age, race/ethnicity, primary disabling conditions, 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 .

D. Approach to Producing Annual Employment Trends and State Statistics from 1996 Through 2007

Statistics for the 2007 cohort were presented earlier. For the remaining cohorts, we examine changes in the national employment rates from 1996 through 2007 by program group. We examine

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.

IV. 2007 EMPLOYMENT STATISTICS

A. Employment Rates Are Highest for SSDI Beneficiaries and Younger Workers

In Exhibit 2, we summarize the 2007 employment rates for beneficiary subgroups by gender, age, primary disabling conditions, and 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, age groups, and years since first eligibility, as SSDI, younger, and new (that is, those who entered the rolls within the past two years) beneficiaries were substantially more likely to be working relative to their counterparts. Approximately 16 percent of beneficiaries who entered the program in the past two years were working and younger beneficiaries ages 18 to 39 had the highest employment rates (19 percent) in comparison with all other subgroups. Within program subgroups (data not shown), beneficiaries ages 18 to 39 had the highest employment rates (SSDI-only beneficiaries employment rates were 27 percent; SSI and concurrent beneficiaries both had employment rates of approximately 15 percent).

There was limited variation in employment rates across primary disabling conditions, with the exception of mental retardation. Beneficiaries with mental retardation 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 mental retardation 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 the regression-adjusted analysis.

B. Northern States Have Higher Relative Employment Rates, Especially In Comparison with Southern States

In Exhibit 3 we summarize the employment rates of SSA beneficiaries using a map to examine variations in employment rates by state and region. Appendix Exhibit A2 provides a detailed summary of state employment rates in the map.

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 SSDI, SSI, and concurrent beneficiaries living in states in the Appalachian Mountains range (see Appendix Exhibit A2). The substantial differences in employment rates might reflect differences in the compositions of caseloads, as well as state differences in economic climate and policies.

C. State-Level SSA Beneficiary Employment Rates Mirror Rates for the Broader Population of People with Disabilities

In Exhibit 4, we assess whether the variations in SSA beneficiary employment rates 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 et al. (2008), who constructed annual employment rates for ACS respondents who self-reported a disability in 2007. Appendix Exhibit A3 includes the employment rate data summarized in Exhibit 4.

In general, there is more variation across states in the employment rates of SSA beneficiaries and people with disabilities relative to those without disabilities. This finding is expected given that

most people without disabilities work in most states. For example, employment rates for people 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 SSA beneficiaries follow a similar pattern to the general population. States with the highest SSA beneficiary employment rates (North Dakota, Wyoming, and Minnesota) had relatively higher employment rates for people with and without disabilities. For example, North Dakota had the highest SSA beneficiary employment rate (23 percent), highest employment rate for people with disabilities (55 percent), and the fourth-highest employment rate for people 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; SSA beneficiaries (7 percent), people with disabilities (27 percent) and people without disabilities (76 percent)).

However, a stronger relationship exists between the employment trends of SSA beneficiaries and people with disabilities, particularly in states where the employment rate for people without disabilities is closer to the national average. For example, Utah had an average employment rate for people without disabilities (81 percent versus the national average of 80 percent), but had higher than national average employment rates for SSA beneficiaries (19 percent versus the national average of 12 percent) and people 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 SSA beneficiaries and people with disabilities, and a 79 percent correlation between the employment rates of SSA beneficiaries and people 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 people with

disabilities and SSA beneficiaries in general indicates that it is worthwhile to explore whether state policies are contributing to these employment differences.

D. Estimated Employment Rate Differences Persist Across Subgroups Even After Controlling for Demographic, Impairment, and State Characteristics

In Exhibit 5, we present coefficient estimates from a linear probability model to examine whether the descriptive relationships cited earlier change substantively when controlling for multiple factors. Appendix Exhibit A4 includes the full set of coefficient estimates, including the state fixed effects.

The signs of the regression estimates were consistent with the raw differences across categories from the descriptive analysis described earlier. However, the magnitude of the regression estimates for certain variables, especially SSDI and age, were larger than the raw differences, indicating that caseload composition has important implications in examining employment rates of subgroups.⁴ The highest point estimates were for the SSDI program group and the group ages 18 to 39, both of which indicated that beneficiaries with these characteristics were about 12 percentage points more likely to be employed than those in the comparison groups, which included SSI-only (for SSDI) and beneficiaries ages 50 to 59 (for ages 18 to 39). These estimates were larger than those from the descriptive tabulations in Exhibit 2, in which the corresponding differences between SSDI and SSI beneficiaries was 7 percentage points for the group ages 18 to 39 and 9 percentage points for the group ages 50 to 59.

In general, the employment rate differences across gender, impairment, race, and years from first eligibility are small and mirror the results from the descriptive analysis. There was only a one percentage point difference between male and female beneficiaries. The differences across

⁴ Although conventional standard errors are shown, we do not refer to statistical significance because the estimates represent population estimates. Because the number of observations is so large, all differences would be considered significant if the data were treated as a sample.

impairments groups were larger, as beneficiaries with mental retardation 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, years since first eligibility indicate that beneficiaries who were on the rolls for two years or fewer are about 2 percentage points more likely to be employed than those who were on the rolls for more than five years. We also find that non-Hispanic African Americans are 2–3 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 Appendix Exhibit A4 as we saw in the bivariate statistics. For example, the state coefficient for West Virginia's rate was 6 percentage points below that for the reference state (Alaska) the coefficient for North Dakota was 8 percentage points higher. In total the 14 percentage point difference between West Virginia and North Dakota is similar, but slightly lower, than the (16 percentage point) difference noted in the descriptive analysis.

E. A Multivariate Framework Can Be Used to Generate Additional Statistics at the State and National Levels for Several Subgroups

A useful feature of the regression results cited earlier is that they can be used to simulate employment rates for several subgroups at the state and national levels. Specifically, using the coefficients from this model, policymakers and researchers could enter information on the characteristics of the subpopulation within a particular state (for example, SSDI beneficiaries ages 18 to 39 in West Virginia) to obtain a reasonable estimate of employment. Although such information can also be generated using a descriptive analysis, the regression analysis provides the flexibility to generate estimates quickly without producing a large number of tables.⁵

⁵ The simulations will represent estimates that are based on the model assumptions. For example, the model assumes that there is a general effect of program group on all beneficiaries. If, however, the effects of program group on aggregate employment vary substantially by state (or some other factor), the simulations will be measured with error. We

V. EMPLOYMENT TRENDS: 1996–2007

A. National Employment Rates Are Sensitive to the Business Cycle and Vary by Program Group

In Exhibit 6, we present trends in employment rates for all SSA beneficiaries and each of the program groups since 1996. 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 how employment rates vary with the business cycle. Appendix Exhibit A5 includes a full summary of the data included in Exhibit 6.

The patterns in Exhibit 6 indicate that the SSA 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 two vertical lines in Exhibit 6), and continued to fall in the next three years as unemployment rates remained relatively high. The decrease in employment was greater among SSI-only and concurrent beneficiaries than SSDI-only beneficiaries. From 2005, with a stronger overall economy, employment rates for SSA beneficiaries started to improve. By 2007, SSA beneficiary employment rates were at 12 percent, approximately the same as the level in 1996. Within program groups, from 1996 to 2007, there has been a slight increase in SSDI employment rates by one percentage point (from 14 to 15 percent), and slight decreases in the SSI-only and concurrent beneficiaries (from 9 to 8 percent for both groups). We cannot assess the effects that changes in the caseload composition or changes in SSA work

(continued)

did not attempt to measure this error here, but the model provides a reasonable mechanism for producing employment estimates for most policy simulations.

incentives (for example, changes in the level of SGA or implementation of TTW) have on employment rates. The findings indicate that the general employment rates of SSA beneficiaries has been relatively consistent (between 11 to 13 percent) over time.

To illustrate the effects of a change in the business cycle on employment, in Appendix Exhibit A6 we present a scatter diagram with a regression line showing the relationship between the state employment rate among SSA beneficiaries and the overall state unemployment rate during the economic downturn from 2000 to 2004.⁶ During this 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 this period, illustrate the magnitude of this effect. From 2000 to 2004, unemployment rates increased from 4 to 6.1 percent in Ohio; at the same time SSA beneficiary employment rates in the state fell from 16 percent to 13 percent.

B. State Differences in Employment Persist Over Time

In Exhibit 7, we examine changes in the state SSA beneficiary employment rates from 1996 to 2007 to assess whether state employment rates have changed substantively over time. Given the overall employment rates from 1996 to 2007 were virtually the same (12 percent), if state rates do not change substantively over this period the findings provide information on whether there are longer-term factors across states that influence trends.

There were changes in state employment rates between 1996 and 2007, though the same regional patterns that existed in 2007 were also present in 1996. Some of the changes were large

⁶ We restricted the analysis to the economic downturn to illustrate changes in beneficiary employment rates during a period of large changes in unemployment rates.

relative to the state employment rate in 1996. For example, Michigan's employment rate declined by 22 percent; Vermont's employment rate increased by 25 percent. These relatively significant changes in employment rates over time suggest an area for further exploration to determine whether state-specific policy changes over time drove these trends. Despite these changes, the same general patterns noted above continue to be present across states: Northern states had relatively higher employment rates and Southern states had relatively lower employment 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 examined whether compositional changes explain the changes over time in state-level employment rates using a multivariate model for the 1996 and 2007 and found that the pattern of state results continued to be consistent over time (Appendix Exhibits A7 and A8). The state 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 effects had the same direction—and in many cases the same magnitude—in 1996 and 2007. These estimates further suggest that there were state-specific factors that influenced employment among SSA disability program beneficiaries, and their influence persisted over time.

Finally, for reference, in Appendix B (Exhibits B1–B4), we present a full set of descriptive tabulations for employment rates by state for all beneficiaries and by the three program groups for all years. The findings confirm the general patterns discussed earlier in this paper 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.

VI. 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 SSA disability program beneficiaries in 2007 was 12 percent, though 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 SSDI were more likely to work relative to other SSA beneficiaries. This finding is consistent with earlier findings from the TTW evaluation that younger beneficiaries and those who receive SSDI were more likely to use work supports and participate in TTW than other beneficiary groups (Stapleton et al. 2008).

Our findings also indicate that SSA beneficiary employment rates, although generally stable, fluctuate with the business cycle. Since 1996, the overall SSA 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 rollout started near the trough of the last business cycle, and several demonstrations started at about the same time. TTW's new regulations were implemented near the beginning of the current recession, and it seems likely that SSA will launch BOND early in the recovery from the current 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 people with disabilities, raises important questions about why these 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 people with disabilities by looking at the programs and policies of states that have relatively higher employment rates.² By tracking consistently defined disability employment measures over time, SSA may capture detect progress toward reaching disability employment rate goals or identify a need to improve policies aimed at improving this rate.

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Exhibit 1. Characteristics of SSA Disability Beneficiaries in 2007

Characteristics	All Beneficiaries	SSDI Only	SSI Only	Concurrent
Number of Beneficiaries (2007) (x1,000)	10,156	6,104	2,925	1,126
Percentage in Program Groups	100	60.1	28.8	11.1
Gender				
Female	49.9	45.6	56.4	55.8
Male	50.0	54.3	43.1	44.1
Age Groups				
18-39	20.7	11.1	37.1	30.3
40-49	23.0	21.7	23.3	28.9
50-59	35.9	41.1	27.6	28.8
60-64	20.5	26.1	12.0	12.1
Race/Ethnicity				
Hispanic	7.8	6.0	10.9	9.8
Non-Hispanic white	64.7	72.1	51.4	59.1
Non-Hispanic non-white	25.4	19.6	35.8	29.5
Missing	2.1	2.3	1.9	1.6
Disabling Conditions				
Affective disorders	14.1	13.9	13.7	16.3
Other psychiatric disorders	15.3	12.5	19.3	19.9
Mental retardation	11.6	5.9	19.9	21.2
Back disorders	10.7	15.1	3.1	6.5
Other musculoskeletal disorders	8.4	11.0	4.0	5.7
Other physical disorders	34.9	41.3	23.3	30.2
Missing	5.0	0.3	16.7	0.3
Annual 2007 Earnings Distribution				
\$0	83.1	80.5	87.4	86.3
\$1 - \$1000	4.8	4.5	5.1	5.7
More than \$1,000-\$5,000	5.6	6.3	4.3	5.5
More than \$5,000-\$10,000	3.6	4.7	1.9	1.8
More than \$10,000-\$20,000	2.0	2.6	1.2	0.7
More than \$20,000	0.9	1.3	0.2	0.1
Summary Employment Measures				
Any employment with more than \$1,000 annual earnings	12.1	15.0	7.6	8.0

Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries includes beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

Exhibit 2. Employment Rates in 2007, by Program Groups and Demographic Characteristics

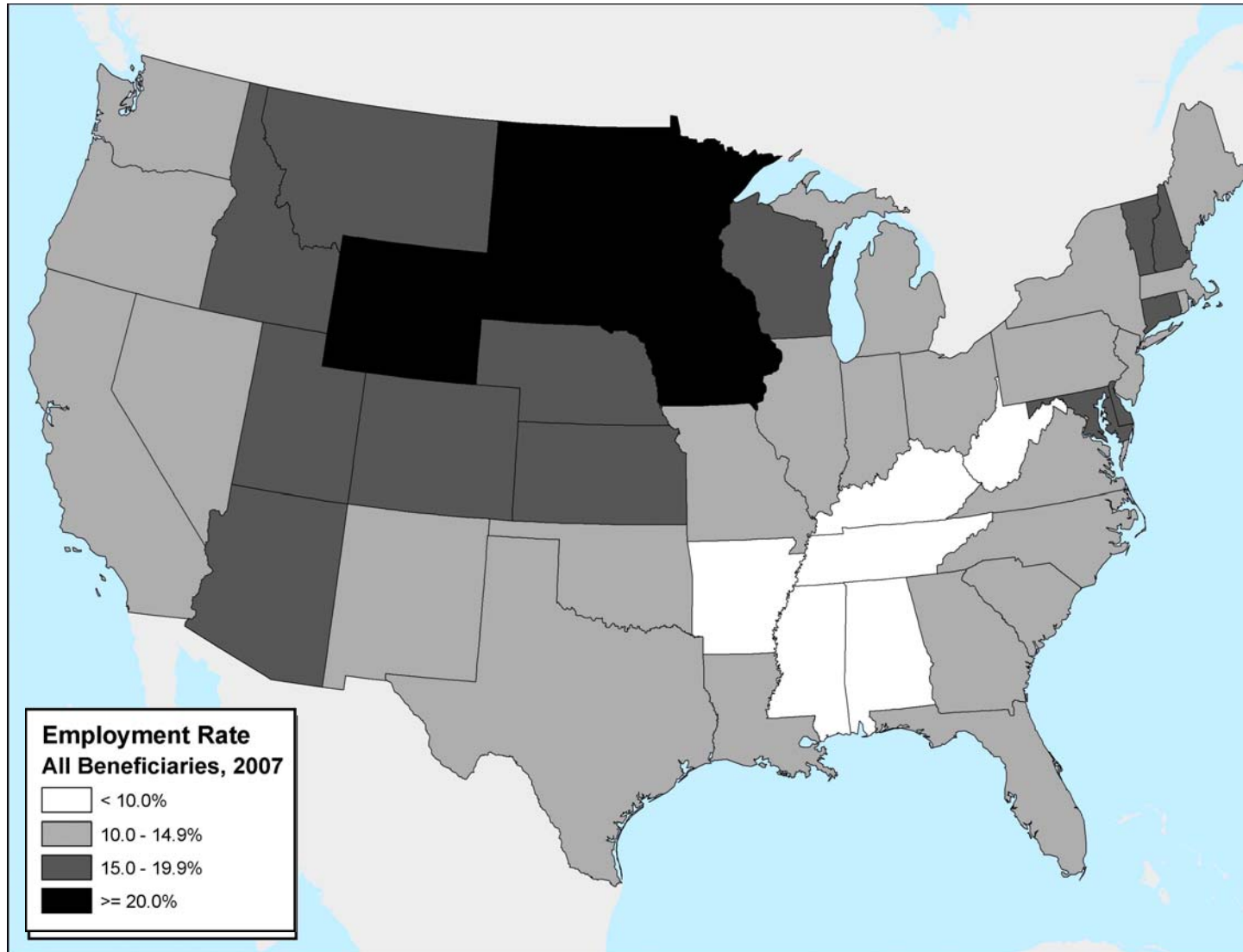
Characteristics	All Beneficiaries
Number of Beneficiaries (2007) (x1,000)	10,156
Overall	12.1
Program Group	
SSDI-only	15.0
SSI-only	7.6
Concurrent	8.0
Gender	
Female	12.0
Male	12.2
Age Groups	
18-39	18.7
40-49	12.4
50-59	9.8
60-64	9.1
Primary Disabling Conditions	
Affective disorders	12.3
Other psychiatric disorders	11.9
Mental retardation	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 to 2 years	15.6
3 to 5 years	13.5
6 to 9 years	12.9
10 or more years	10.2

Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. Beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries include beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

^a Other physical disorders includes 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; HIV/AIDS; and other diagnoses.

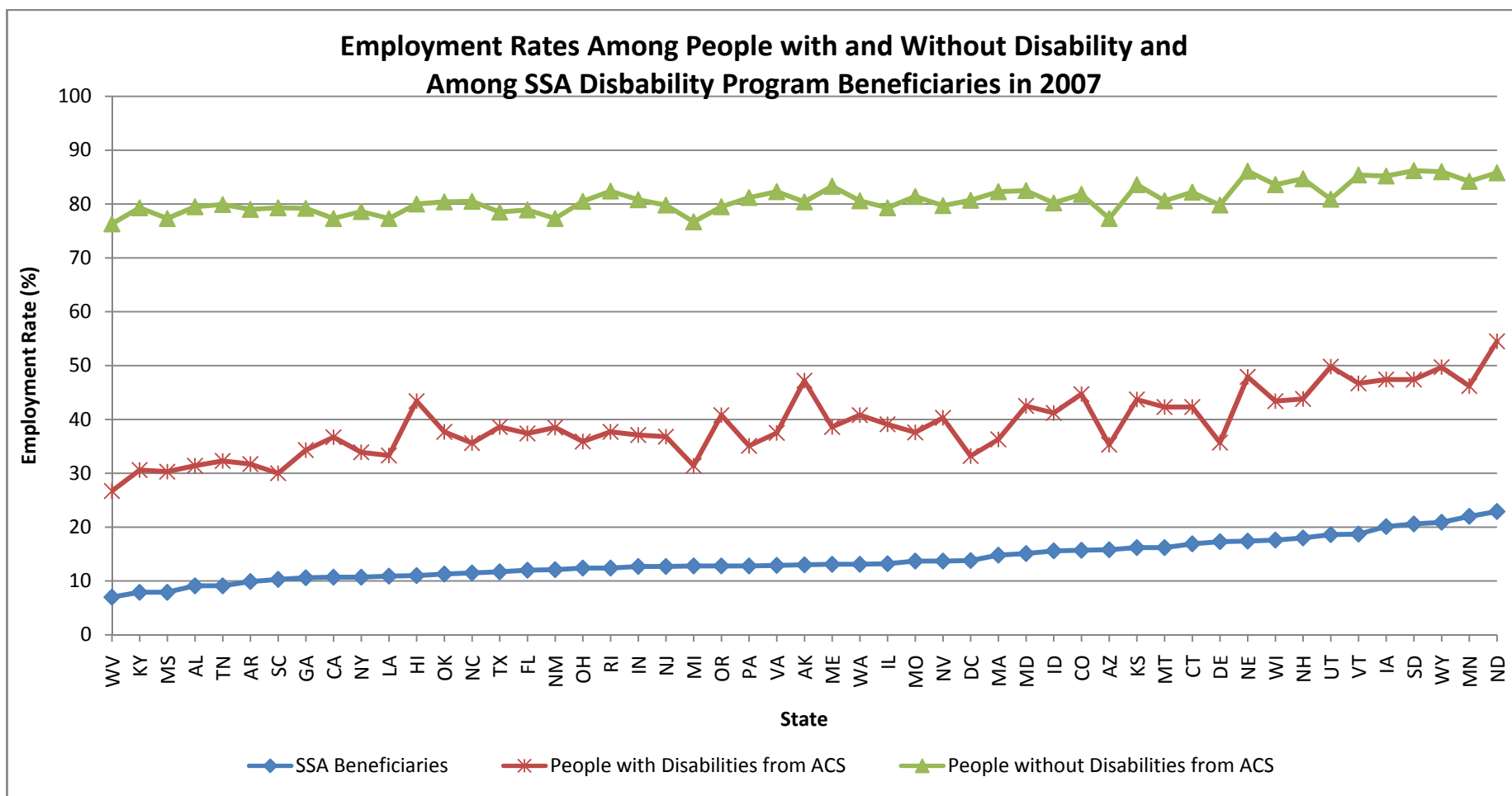
Exhibit 3. State-Level Employment Rates for All SSA Disability Program Beneficiaries, 2007



Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Notes: SSA beneficiaries include the more than 10 million SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. Beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007.

Exhibit 4. Comparison of 2007 Employment Rates of SSA Disability Beneficiaries with Employment Rates of People with and Without Disabilities from the American Community Survey



Source: Data from SSA beneficiaries based on authors' calculations using 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration. Data from the ACS is derived from Bjelland et al. (2008).

Notes: SSA beneficiaries include the more than 10 million SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. Beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007. The ACS estimates of employment include the percentages of noninstitutionalized individuals with and without a disability, aged 18 to 64 years, all races regardless of ethnicity, and of all education levels in the United States who were employed in 2007.

Exhibit 5. Coefficients from Linear Probability Models Regression for State-Level Employment Rates in 2007

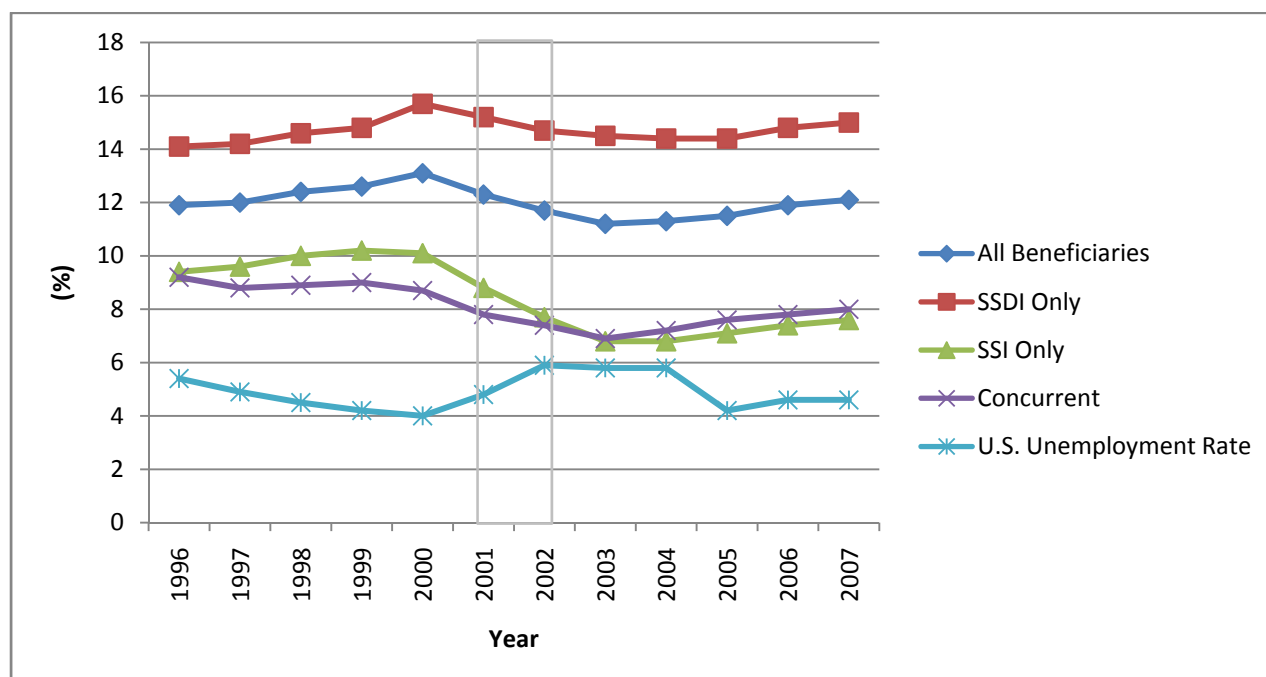
Characteristics	All Beneficiaries	
	Coefficient	SE
Disability Benefit Program Group (ref: SSI only)		
SSDI only	0.1174	0.0004
Concurrent	0.0124	0.0003
Gender (ref: male)		
Female	0.0111	0.0002
Age Groups (ref: 50-59)		
18-39	0.1188	0.0003
40-49	0.0364	0.0003
60-64	-0.0133	0.0003
Disabling Conditions (ref: Other physical disorders & missing)		
Affective disorders & other psychiatric disorders	-0.0055	0.0002
Mental retardation	0.0273	0.0004
Back disorders & other musculoskeletal disorders	-0.0212	0.0003
Race/Ethnicity (ref: non-Hispanic black)		
Hispanic	-0.0287	0.0004
Non-Hispanic white	-0.0213	0.0003
Other	-0.0315	0.0005
Years Since First Eligibility (ref: 6 or more years)		
0 to 2 years	0.0234	0.0003
3 to 5 years	0.005	0.0003
Intercept	0.0462	0.0026
State fixed effects	Yes	

Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration

Note: All parameter estimates presented in Exhibit 5 are statistically significant at the 1 percent level. SSA beneficiaries include the more than 10 million SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. Beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007. The dependent variable is equal to one if the beneficiary was employed during 2007; zero otherwise. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries include beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI

SE = standard error.

Exhibit 6. Trend in National Level Employment Rates Among SSA Disability Program Beneficiaries: 1996–2007



Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration. The U.S. 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: SSA beneficiaries include the more than 10 million SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. Beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries include beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

Exhibit 7. 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

Exhibit 7 (continued)

State	1996	2007	Difference	Percentage Change
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 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Notes: 2007 SSA beneficiaries include the more than 10 million SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. 1996 SSA beneficiaries include the more than 7 million SSI or SSDI beneficiaries who were in current pay status for at least one month in 1996 and had been receiving benefits from either program for at least one calendar year. 2007 SSA beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007. 1996 beneficiaries are considered employed if they had at least \$1,000 in 2007 dollars (adjusted using the average wage index) in earnings in 1996.

APPENDIX A
2007 DETAILED EMPLOYMENT STATISTICS

Exhibit A1. Characteristics of SSA Disability Beneficiaries in 1996

Characteristics	All Beneficiaries	SSDI Only	SSI Only	Concurrent
Number of Beneficiaries) x 1,000	7021	3,668	2,521	831
Percentage in Program Groups	100	52.3	35.9	11.8
Gender				
Female	46.1	38.1	55.9	51.4
Male	53.3	61.6	42.8	48.5
Age Groups				
18-39	29.8	17.4	44.3	40.9
40-49	24.1	25.3	22.0	24.9
50-59	28.9	34.7	22.4	22.8
60-64	17.2	22.6	11.4	11.3
Race/Ethnicity				
Hispanic	6.0	4.5	8.1	7.0
Non-Hispanic white	64.3	72.1	53.8	61.6
Non-Hispanic non-white	25.8	17.8	36.5	28.3
Missing	3.9	5.6	1.6	3.1
Disabling Conditions				
Affective disorders	8.5	9.2	7.0	10.5
Other psychiatric disorders	14.2	13.7	13.3	19.4
Mental retardation	10.7	6.6	13.2	20.8
Back disorders	7.1	11.5	1.4	4.9
Other musculoskeletal disorders	6.1	8.8	2.6	4.9
Other	36.9	48.8	19.1	38.2
Missing	16.5	1.4	43.4	1.3

Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in 1996 and had been receiving benefits from either program for at least one calendar year. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries includes beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

Exhibit A2. State-Level Employment Rates in 2007, by Program Groups

State	All Beneficiaries			
	All	SSDI Only	SSI Only	Concurrent
Alabama	9.1	10.6	7.2	5.8
Alaska	13.0	16.7	7.4	11.1
Arizona	15.8	19.0	9.1	9.7
Arkansas	9.9	12.0	6.1	5.9
California	10.7	15.6	7.0	7.3
Colorado	15.7	18.8	9.6	9.6
Connecticut	16.9	20.5	9.3	11.8
Delaware	17.3	19.8	11.1	10.0
District of Columbia	13.8	19.1	10.2	9.4
Florida	12.0	14.1	8.6	7.4
Georgia	10.6	13.3	6.4	5.7
Hawaii	11.0	13.7	7.1	6.6
Idaho	15.6	18.0	11.3	10.4
Illinois	13.2	16.3	8.5	9.7
Indiana	12.7	15.3	7.2	7.8
Iowa	20.1	23.7	12.6	14.7
Kansas	16.2	18.8	10.6	11.9
Kentucky	7.9	10.7	4.1	5.0
Louisiana	10.9	13.5	7.9	7.6
Maine	13.1	16.0	7.3	9.0
Maryland	15.1	17.9	10.6	10.9
Massachusetts	14.8	19.3	8.7	9.3
Michigan	12.8	16.1	7.2	8.5
Minnesota	22.0	26.2	13.0	16.9
Mississippi	7.9	9.7	5.4	4.9
Missouri	13.7	16.4	7.9	9.7
Montana	16.2	18.8	11.1	12.3
Nebraska	17.4	20.5	10.7	11.1
Nevada	13.7	15.4	10.0	8.5
New Hampshire	18.0	20.3	10.6	12.2
New Jersey	12.7	15.0	8.3	8.4
New Mexico	12.1	14.8	8.2	9.3
New York	10.7	13.9	6.9	8.0
North Carolina	11.5	13.9	6.9	6.2
North Dakota	22.9	26.8	13.6	16.4
Ohio	12.4	16.0	7.2	9.2
Oklahoma	11.3	13.6	7.0	8.2
Oregon	12.8	15.5	7.7	8.4
Pennsylvania	12.8	16.4	7.4	8.8
Rhode Island	12.4	15.6	7.9	8.1
South Carolina	10.3	12.0	6.7	6.4
South Dakota	20.6	24.8	12.7	14.5
Tennessee	9.1	11.1	5.6	5.7

Exhibit A.2 (continued)

State	All Beneficiaries			
	All	SSDI Only	SSI Only	Concurrent
Texas	11.7	14.7	7.6	6.8
Utah	18.6	21.5	12.9	12.8
Vermont	18.7	23.6	11.1	11.3
Virginia	12.9	15.1	8.6	8.0
Washington	13.1	16.0	8.4	8.6
West Virginia	7.0	9.4	3.5	4.2
Wisconsin	17.6	21.5	10.2	12.3
Wyoming	20.9	23.6	14.9	15.4

Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries includes beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

Exhibit A3. Comparison of State-Level Employment Rates of SSA Beneficiaries and People with Disabilities from the ACS in 2007

State	SSA Beneficiaries	People with Disabilities from ACS	People without Disabilities from ACS
Alabama	9.1	31.4	79.5
Alaska	13.0	47.2	80.4
Arizona	15.8	35.3	77.3
Arkansas	9.9	31.7	79.0
California	10.7	36.7	77.3
Colorado	15.7	44.7	81.8
Connecticut	16.9	42.3	82.2
Delaware	17.3	35.7	79.8
District of Columbia	13.8	33.2	80.7
Florida	12.0	37.4	78.9
Georgia	10.6	34.3	79.2
Hawaii	11.0	43.4	80.0
Idaho	15.6	41.2	80.2
Illinois	13.2	39.1	79.3
Indiana	12.7	37.1	80.8
Iowa	20.1	47.4	85.2
Kansas	16.2	43.7	83.6
Kentucky	7.9	30.6	79.3
Louisiana	10.9	33.3	77.3
Maine	13.1	38.6	83.3
Maryland	15.1	42.5	82.5
Massachusetts	14.8	36.3	82.3
Michigan	12.8	31.4	76.7
Minnesota	22.0	46.2	84.2
Mississippi	7.9	30.3	77.3
Missouri	13.7	37.6	81.4
Montana	16.2	42.3	80.6
Nebraska	17.4	47.9	86.1
Nevada	13.7	40.3	79.7
New Hampshire	18.0	43.8	84.7
New Jersey	12.7	36.8	79.8
New Mexico	12.1	38.5	77.3
New York	10.7	33.9	78.6
North Carolina	11.5	35.6	80.5
North Dakota	22.9	54.5	85.8
Ohio	12.4	35.9	80.5
Oklahoma	11.3	37.7	80.4
Oregon	12.8	40.8	79.5

Exhibit A.3 (continued)

State	SSA Beneficiaries	People with Disabilities from ACS	People without Disabilities from ACS
Pennsylvania	12.8	35.1	81.2
Rhode Island	12.4	37.7	82.4
South Carolina	10.3	30.0	79.3
South Dakota	20.6	47.4	86.2
Tennessee	9.1	32.3	79.9
Texas	11.7	38.6	78.5
Utah	18.6	49.8	80.9
Vermont	18.7	46.7	85.4
Virginia	12.9	37.5	82.3
Washington	13.1	40.8	80.6
West Virginia	7.0	26.7	76.3
Wisconsin	17.6	43.4	83.6
Wyoming	20.9	49.7	86.0

Source: Data from SSA beneficiaries based on authors' calculations using 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration. Data from the ACS is derived from Bjelland et al. (2008).

Notes: SSA beneficiaries include the over 10 million SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. Beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007. The ACS estimates of employment include the percentage of non-institutionalized, men & women, with a disability, aged 18 to 64 years, all races, regardless of ethnicity, with all education levels in the United States who were employed in 2007.

Exhibit A4. Full Set of Coefficients from Linear Probability Model Regression for State-Level Employment Rates in 1996 and 2007

	2007 Coefficients
Disability Benefit Program Group (ref: SSI only)	
SSDI only	0.1174
Concurrent	0.0124
Gender (ref: Male)	
Female	0.0111
Age Groups (ref: 50–59)	
18–39	0.1188
40–49	0.0364
60–64	-0.0133
Disabling Conditions (ref: Other physical disorders & missing)	
Affective disorders & other psychiatric disorders	-0.0055
Mental retardation	0.0273
Back disorders & other musculoskeletal disorders	-0.0212
Race/Ethnicity (ref: Non-Hispanic black)	
Hispanic	-0.0287
Non-Hispanic white	-0.0213
Other	-0.0315
Years Since First Eligibility (ref: 6 or more years)	
0 to 2 years	0.0234
3 to 5 years	0.005
Missing	-
Intercept	0.0462
State fixed effects (ref: Alaska)	
Alabama	-0.0524
Arizona	0.0171
Arkansas	-0.0447
California	-0.0074
Colorado	0.0178
Connecticut	0.0256
Delaware	0.0201
District of Columbia	-0.0006
Florida	-0.0197
Georgia	-0.0383
Hawaii	-0.0142
Idaho	0.0138
Illinois	-0.0118
Indiana	-0.0223
Iowa	0.0561
Kansas	0.0159
Kentucky	-0.0525

Exhibit A.4 (continued)

	2007 Coefficients
Louisiana	-0.0315
Maine	-0.0097
Maryland	0.0026
Massachusetts	0.0138
Michigan	-0.0148
Minnesota	0.0733
Mississippi	-0.0659
Missouri	-0.0077
Montana	0.0273
Nebraska	0.0268
Nevada	-0.0062
New Hampshire	0.0249
New Jersey	-0.0157
New Mexico	-0.0069
New York	-0.02
North Carolina	-0.0329
North Dakota	0.0848
Ohio	-0.016
Oklahoma	-0.0269
Oregon	-0.0071
Pennsylvania	-0.0109
Rhode Island	-0.0106
South Carolina	-0.0449
South Dakota	0.0677
Tennessee	-0.0495
Texas	-0.0208
Utah	0.037
Vermont	0.0486
Virginia	-0.0198
Washington	-0.005
West Virginia	-0.0613
Wisconsin	0.0308
Wyoming	0.0654

Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Note: All parameter estimates presented in the Exhibit are statistically significant at the 1% level. SSA beneficiaries include the more than 10 million SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 and had been receiving benefits from either program for at least one calendar year. Beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007. The dependent variable is equal to one if the beneficiary was employed during 2007; zero otherwise. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries includes beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

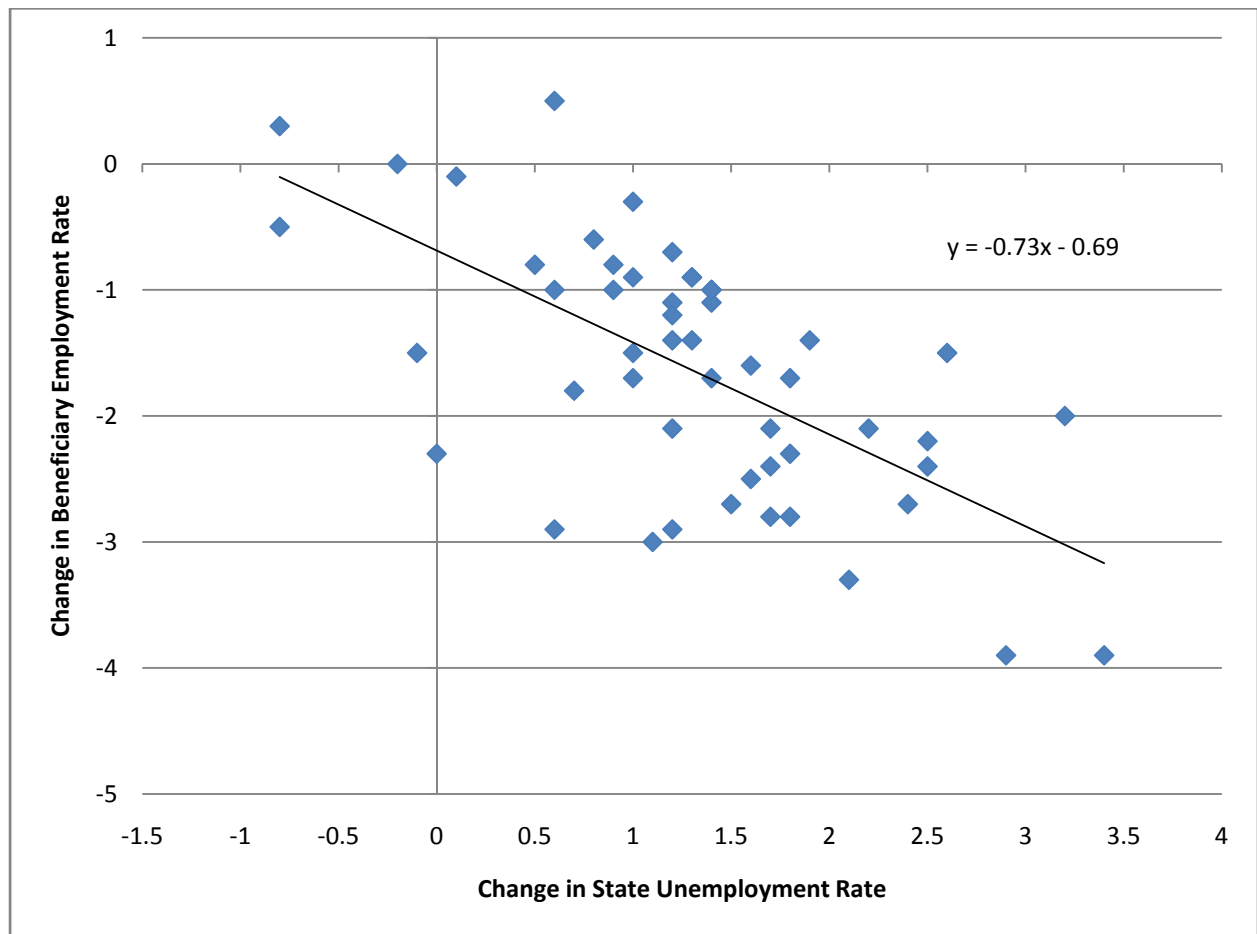
Exhibit A5. National Level Employment Statistics, by Program Groups: 1996–2007

Year	All Beneficiaries	SSDI Only	SSI Only	Concurrent
1996	11.9	14.1	9.4	9.2
1997	12.0	14.2	9.6	8.8
1998	12.4	14.6	10.0	8.9
1999	12.6	14.8	10.2	9.0
2000	13.1	15.7	10.1	8.7
2001	12.3	15.2	8.8	7.8
2002	11.7	14.7	7.7	7.4
2003	11.2	14.5	6.8	6.9
2004	11.3	14.4	6.8	7.2
2005	11.5	14.4	7.1	7.6
2006	11.9	14.8	7.4	7.8
2007	12.1	15.0	7.6	8.0

Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in the observation year and had been receiving benefits from either program for at least one calendar year. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries includes beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

Exhibit A6. State Changes in SSA Beneficiary Employment and Changes in Unemployment Rates: 2000 to 2004



Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration. Source for unemployment rate data is <http://www.bls.gov/lau/lastrk00.htm>.

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in the observation years (2000 and 2004) and had been receiving benefits from either program for at least one calendar year. Data on employment rates by year is summarized in Appendix B.

Exhibit A7. Coefficients from Linear Probability Model Regression for State-Level Employment Rates in 1996 and 2007

	1996 Coefficients	2007 Coefficients
Disability Benefit Program Group (ref: SSI only)		
SSDI only	0.0831	0.1174
Concurrent	0.0032	0.0124
Gender (ref: male)		
Female	-0.0016	0.0111
Age Groups (ref: 50–59)		
18–39	0.1104	0.1188
40–49	0.0321	0.0364
60–64	-0.0081	-0.0133
Disabling Conditions (ref: other physical disorders & missing)		
Affective disorders & other psychiatric disorders	-0.0028	-0.0055
Mental retardation	0.0486	0.0273
Back disorders & other musculoskeletal disorders	-0.0186	-0.0212
Race/Ethnicity (ref: Non-Hispanic black)		
Hispanic	-0.0318	-0.0287
Non-Hispanic white	-0.0031	-0.0213
Other	-0.0321	-0.0315
Years Since First Eligibility (ref: 6 or more years)		
0 to 2 years	0.0354	0.0234
3 to 5 years	0.0163	0.005
Missing	0.1193	-
Intercept	0.0528	0.0462
State fixed effects (ref: Alaska)		
Alabama	-0.0657	-0.0524
Arizona	0.0046	0.0171
Arkansas	-0.0506	-0.0447
California	-0.0233	-0.0074
Colorado	0.0304	0.0178
Connecticut	0.0097	0.0256
Delaware	0.0155	0.0201
District of Columbia	-0.024	-0.0006
Florida	-0.0388	-0.0197
Georgia	-0.0439	-0.0383
Hawaii	-0.0299	-0.0142
Idaho	0.012	0.0138
Illinois	-0.0133	-0.0118
Indiana	-0.0007	-0.0223
Iowa	0.0565	0.0561
Kansas	0.0142	0.0159
Kentucky	-0.0704	-0.0525

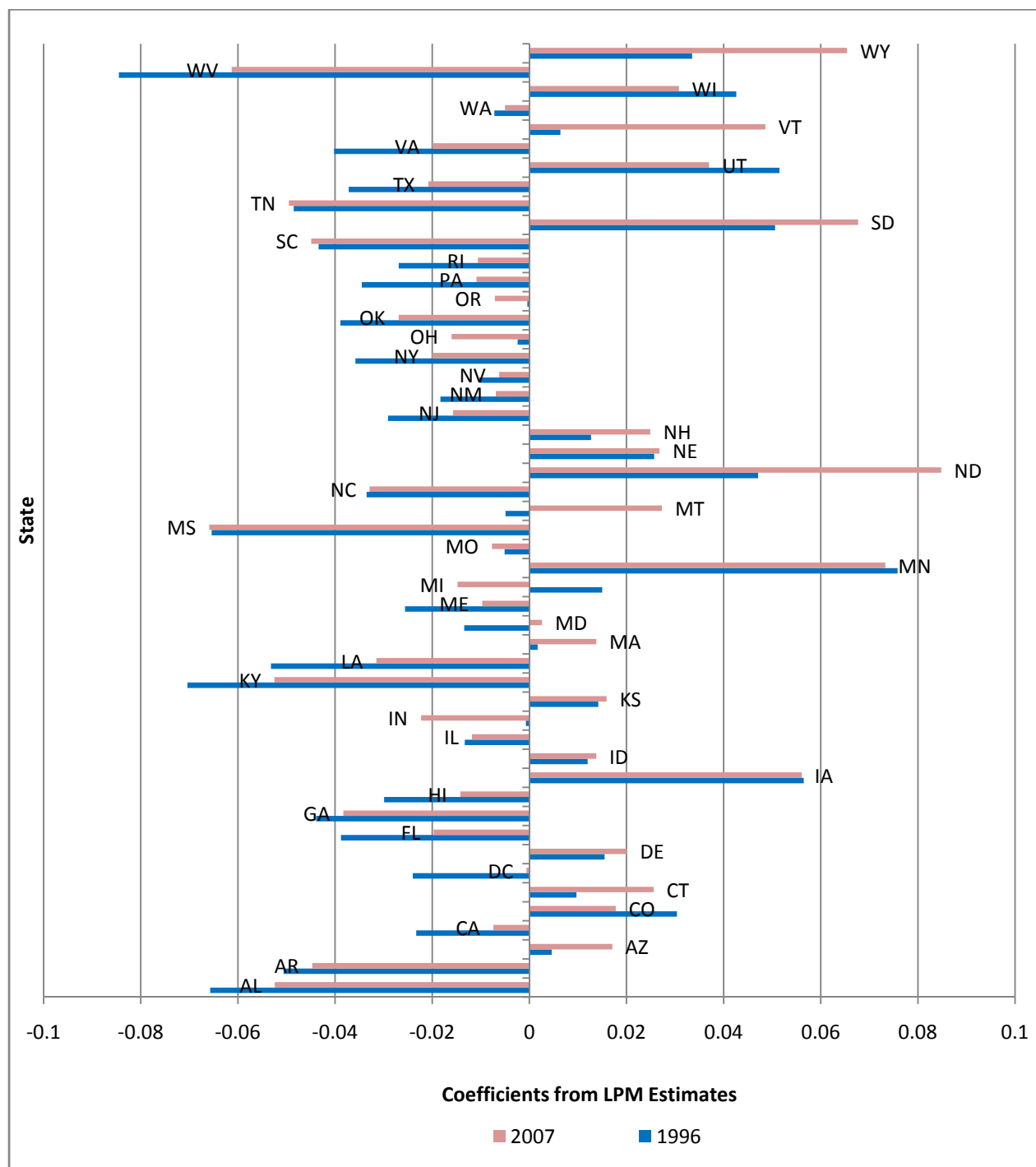
Exhibit A.7 (continued)

	1996 Coefficients	2007 Coefficients
Louisiana	-0.0532	-0.0315
Maine	-0.0256	-0.0097
Maryland	-0.0134	0.0026
Massachusetts	0.0017	0.0138
Michigan	0.015	-0.0148
Minnesota	0.0758	0.0733
Mississippi	-0.0654	-0.0659
Missouri	-0.0051	-0.0077
Montana	-0.0049	0.0273
Nebraska	0.0257	0.0268
Nevada	-0.0103	-0.0062
New Hampshire	0.0127	0.0249
New Jersey	-0.0291	-0.0157
New Mexico	-0.0183	-0.0069
New York	-0.0358	-0.02
North Carolina	-0.0335	-0.0329
North Dakota	0.0471	0.0848
Ohio	-0.0024	-0.016
Oklahoma	-0.0389	-0.0269
Oregon	-0.0004	-0.0071
Pennsylvania	-0.0345	-0.0109
Rhode Island	-0.0269	-0.0106
South Carolina	-0.0434	-0.0449
South Dakota	0.0506	0.0677
Tennessee	-0.0485	-0.0495
Texas	-0.0372	-0.0208
Utah	0.0515	0.037
Vermont	0.0064	0.0486
Virginia	-0.0402	-0.0198
Washington	-0.0072	-0.005
West Virginia	-0.0845	-0.0613
Wisconsin	0.0426	0.0308
Wyoming	0.0335	0.0654

Source: Authors' calculations based on 2007 Ticket Research File data that are linked to 2007 Detailed Earnings Files data from the Social Security Administration.

Note: SSA beneficiaries include the more than 10 million (7 million) SSI or SSDI beneficiaries who were in current pay status for at least one month in 2007 (1996) and had been receiving benefits from either program for at least one calendar year. Beneficiaries are considered employed if they had at least \$1,000 in earnings in 2007 (1996). The dependent variable is equal to one if the beneficiary was employed during 2007 (1996); zero otherwise. Earnings in 1996 are inflation adjusted to reflect 2007 dollars.

Exhibit A8. Comparison of State Effects from State Employment Models from 1996 and 2007 in Exhibit A6



Source: Authors' calculations based on 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration

Note: State fixed effects coefficients from Appendix Exhibit A6.

LPM = linear probability model.

APPENDIX B

STATE-LEVEL EMPLOYMENT STATISTICS, BY PROGRAM GROUPS FROM 1996 THROUGH 2007

Exhibit B1. State-Level Employment Rates for All Beneficiaries: 1996-2007

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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

Exhibit B.2 (continued)

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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 2007 Ticket Research File data that are linked to 2007 Detailed Earnings Files data from the Social Security Administration.

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in the observation year and had been receiving benefits from either program for at least one calendar year. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries include beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

Exhibit B2. State Level Employment Rates for SSDI Beneficiaries: 1996–2007

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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

Exhibit B.2 (continued)

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in the observation year and had been receiving benefits from either program for at least one calendar year. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries include beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.

Exhibit B3. State-Level Employment Rates for SSI Beneficiaries: 1996–2007

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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

Exhibit B.3 (continued)

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in the observation year and had been receiving benefits from either program for at least one calendar year.

Exhibit B4. State Level Employment Rates for Concurrent Beneficiaries: 1996-2007

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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

Exhibit B.3 (continued)

State	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
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 2007 Ticket Research File data that are linked to Detailed Earnings Files data from the Social Security Administration.

Notes: SSA beneficiaries include SSI or SSDI beneficiaries who were in current pay status for at least one month in the [observation?] year and had been receiving benefits from either program for at least one calendar year. SSDI beneficiaries include beneficiaries who received SSDI only, but not SSI; SSI beneficiaries includes beneficiaries who received SSI only, but not SSDI; and concurrent beneficiaries include beneficiaries who received both SSI and SSDI.