

# REPORT

FINAL REPORT

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## National and State Program Participation Ratios for Working-Age People with Disabilities

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Yonatan Ben-Shalom

David Stapleton

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National Institute on Disability and Rehabilitation Research

U.S. Department of Education

400 Maryland Ave., SW

Mailstop PCP-6038

Washington, DC 20202

Project Officer: Hugh Berry

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Submitted by:

Mathematica Policy Research

1100 1st Street, NE

12th Floor

Washington, DC 20002-4221

Telephone: (202) 484-9220

Facsimile: (202) 863-1763

Project Director: Debora Wright

Subcontract Number: 46292-A

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**CONTENTS**


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ABSTRACT .....	vi
I INTRODUCTION.....	1
II AGENCY INFORMATION ON PROGRAM PARTICIPATION.....	3
A. SSA.....	3
B. CMS.....	4
C. RSA .....	5
D. VA .....	6
E. Published program statistics and administrative data .....	6
III ACS ESTIMATES FOR THE WORKING-AGE POPULATION WITH DISABILITIES .....	8
A. The ACS six-question sequence on disability .....	8
B. State variation in the percentage of people with disabilities.....	9
C. Selected characteristics of the noninstitutionalized working-age population with disabilities .....	9
IV NATIONAL AND STATE PROGRAM PARTICIPATION RATIOS .....	11
A. Calculating participation ratios rather than rates.....	11
B. National program participation ratios.....	12
C. State program participation ratios .....	13
1. SSDI and SSI .....	13
2. Medicare and Medicaid .....	13
V CONCLUSION .....	15
REFERENCES.....	17
APPENDIX A: FIGURES .....	A.1
APPENDIX B: ADDITIONAL TABLES.....	B.1

---

**TABLES**

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II.1	Number of working-age (ages 18–64) disability program participants in 2010 from published program statistics and MSIS state summary datamart.....	7
B.1	Program participation data for the working-age population (ages 18–64) with disabilities in 2010, by state.....	B.2
B.2	Distribution of the working-age population (ages 18–64) with disabilities, by age, race/ethnicity, veteran status, and state, ACS 2008–2010.....	B.4
B.3	Estimated SSDI and/or SSI participation ratios for the working-age population (ages 18–64) with disabilities, 2010.....	B.6
B.4	Estimated Medicare and/or Medicaid participation ratios for the working-age population (ages 18–64) with disabilities, 2010.....	B.7

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**FIGURES**

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A.1	Estimated percentage of people with disabilities in the working-age (ages 18–64) population, by state, 2008–2010 ACS .....	A.2
A.2	Selected characteristics of the working-age (ages 18–64) noninstitutional population with and without disabilities, 2008–2010 ACS.....	A.3
A.3	Estimated program participation ratios for the working-age (ages 18–64) population with disabilities, 2010.....	A.4
A.4	Estimated SSDI and SSI participation ratios for the working-age (ages 18–64) noninstitutional population with disabilities, by age and race/ethnicity, 2010.....	A.5
A.5	Estimated SSI and SSDI participation ratios for the working-age (ages 18–64) population with disabilities, 2010 .....	A.6
A.6	Estimated Medicare and Medicaid participation ratios for the working-age (ages 18–64) population with disabilities, 2010 .....	A.7
A.7	Cross-state relationship between SSI and Medicaid participation ratios .....	A.8
A.8	Cross-state relationship between SSDI/SSI and Medicare/Medicaid participation ratios .....	A.9
A.9	SSDI/SSI versus Medicare/Medicaid participation ratios, selected states .....	A.10

**ABSTRACT**

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We produce national and state-level statistics on the number of participants in federal disability programs, drawn from administrative data, relative to the estimated size of the working-age population with any self-reported disability based on the American Community Survey (ACS). For Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) combined, cross-state variation in the participation ratio is remarkably wide, with the two highest estimates (Massachusetts and New York) being more than twice as large as the lowest estimate (Alaska). There is also considerable variation across states in the distribution of participants across the three program categories (SSDI-only, SSI-only, and concurrent SSDI and SSI). The variation in combined Medicare and Medicaid participation across states follows a similar pattern as for SSDI and SSI, but is somewhat greater, mostly reflecting the extent to which each state's Medicaid program covers individuals with disabilities who are neither SSDI nor SSI participants. The state-level statistics are important because they support assessments of how well each state is meeting the needs of its working-age disability population and how changes in states' policies and economic conditions affect participants and expenditures. The participation ratios may have biases that go in opposite directions; in combination, we are not able to determine whether they are biased upwards or downwards.

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## I. INTRODUCTION

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In this study, we produce national- and state-level statistics on the number of participants in federal disability programs drawn from administrative data, relative to the estimated size of the working-age population with any self-reported disability according to the American Community Survey (ACS) disability sequence. We focus primarily on participation in the Social Security Disability Insurance (SSDI), Supplemental Security Income (SSI), Medicare, and Medicaid programs.

Recent studies have extensively documented the participation of working-age people with disabilities in safety-net programs at the national level for major demographic groups (Houtenville and Brucker 2013; Burkhauser et al. 2014; Government Accountability Office 2012; Livermore et al. 2011). Less is known about state-level variation in program participation among people with disabilities, however. State-level statistics are important because they support assessments of how well each state is meeting the needs of its working-age disability population and how changes in states' policies and economic conditions affect participants and expenditures.

Recent attention by the media has focused on variation among states in the percentage of the total population that is receiving disability benefits (Joffe-Walt 2013) and the percentage of disability insurance applications that receive initial approval (Paletta 2011). The reported statistics do not account for state-level variation in disability prevalence, however. State variation in high school graduation rates, age, and the labor market also affect program participation, as program eligibility rules explicitly account for these factors; for SSI, Medicaid, and other means-tested programs, variation in poverty rates is also important (Ruffing 2012; Rupp 2012).

Producing state-level statistics on disability program participation rates poses multiple challenges. Houtenville and Brucker (2013) use survey data in their study of national-level participation rates—namely, the Current Population Survey (CPS). As the authors note, numerous studies have documented significant underestimation of program participation in survey data (see for example Meyer et al. [2009] and Wheaton [2008]). Survey respondents inaccurately report program participation, and some program participants are less likely than others to be interviewed—especially residents of institutions or noninstitutional group quarters (Stapleton et al. 2012). CPS-based estimates are also based on relatively small sample sizes; the resulting large sampling variance makes it difficult to compare participation rates across states, especially for demographic or other subgroups.

The objective of this study is to at least partially address these challenges. Building on Stapleton et al. (2009), we obtain state-level information on program participation—the numerator of interest—from published administrative reports and our own analysis of person-level administrative records, rather than from survey data. The use of administrative data sources eliminates the underestimation of program participation and reduces the margin of error for those numbers.

We obtain state-level estimates of the number of people with disabilities—the denominator of interest—from the ACS, currently the largest household survey in the U.S. In 2010, ACS interviews were completed by more than 2 million housing units. In comparison, about 75,000

households responded to the Annual Social and Economic Supplement to the CPS (CPS-ASEC). An additional advantage of the ACS is that it collects data on institutionalized and noninstitutionalized individuals living in group quarters, who have much higher disability prevalence rates than those residing in households (Stapleton et al. 2012).

Using the ACS to calculate the denominator for state-level participation rates is not without limitations, however. First, the denominator includes many people with disabilities who are not eligible for program participation. For example, an ACS respondent reporting a disability may not have a sufficiently severe impairment to qualify for SSDI or SSI, might lack sufficient work history to qualify for SSDI, or might not meet the SSI means test; undocumented immigrants do not qualify for either program but are included in the ACS. In addition, for those living in institutions, the state of record in the ACS might differ from the state of record in the administrative data (Stapleton et al. 2012).

Second, the ACS denominator also omits many who are eligible for and even participate in certain programs. In an analysis of CPS-ASEC data matched to Social Security Agency (SSA) administrative data, Burkhauser et al. (2012) found that the ACS six-question disability sequence captured only 66 percent of those receiving SSDI and/or SSI benefits. Although the six-question sequence and the work-limitation question in the CPS ASEC together captured close to 90 percent of SSDI and SSI beneficiaries, the work-limitation question is no longer included in the ACS questionnaire.

If only the first limitation existed, the estimated participation ratios would be biased downwards compared to actual participation rates that only count those eligible for the program in the denominator. If only the second limitation existed, the estimated participation ratios would be biased upwards compared to actual participation rates that count all those eligible for the program in the denominator. In combination, we are not able to determine whether our estimated participation ratios are biased upwards or downwards. Variation in estimated participation ratios across states is likely higher than variation in (unobserved) actual participation rates, but it seems likely that the former are highly correlated with the latter.

We find that, for SSDI and SSI combined, cross-state variation in the participation ratio is remarkably large, with the two highest estimates (Massachusetts and New York) being more than twice as large as the lowest estimate (Alaska). We also find considerable variation across states in the distribution of participants across the three program categories (SSDI-only, SSI-only, and concurrent SSDI and SSI). The variation in combined Medicare and Medicaid participation across states follows a similar pattern as for SSDI and SSI, but is somewhat higher, mostly reflecting the extent to which each state's Medicaid program covers individuals with disabilities who are neither SSDI nor SSI participants.

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## II. AGENCY INFORMATION ON PROGRAM PARTICIPATION

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In this section, we describe current data on working-age participants in the major federal and federal–state programs that serve people with disabilities. Specifically, we describe participation data available for SSA, the Centers for Medicare & Medicaid Services (CMS), the Rehabilitation Services Administration (RSA), and the Department of Veterans Affairs (VA). Each agency holds extensive administrative data on participants in its programs. These data have great value for management, policy analysis, and research. If maintained indefinitely in an accessible form, administrative files contain historical program information about every participant. The content of that information can be extremely rich and often includes extensive longitudinal information that is critical for understanding the dynamics of program participation. Each agency publishes substantial statistics on its program participants, including many state-level statistics. Each also provides restricted access to administrative data.

Administrative data have important limitations for studying program participation, however. These data accurately capture only information that is important for program operations. If there is no important programmatic reason for collecting a specific piece of information, the information will not be collected at all or, if collected, is likely to be of poor quality because it is not a priority for the agency. Comparable data are not available for nonparticipants, including eligible nonparticipants and those who are potentially eligible. Administrative data from any single agency contain little information about participation in multiple programs, even though multiple program participation is relatively common for people with disabilities.

### A. SSA

SSA administers the two most significant income support programs for working-age people with disabilities. SSDI is the disability component of the larger Old Age, Survivor, and Disability Insurance (OASDI) program (commonly known as Social Security) and pays benefits to workers with substantial work histories who are no longer able to engage in substantial gainful activity (SGA) because of an impairment that will last for at least one year or result in death.<sup>1</sup> The SSI program is means tested and provides income support to individuals unable to engage in SGA because of a significant impairment, regardless of work history.<sup>2,3</sup> SSA produces extensive statistics on working-age beneficiaries of each program in publications that are available on its website, and many of these are available at the state level. Statistics for the two programs are typically published separately; however, some publications include statistics on “concurrent beneficiaries” (that is, people who participate in both programs).

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<sup>1</sup> OASDI also pays disability benefits to disabled adult children (DAC) of qualified disabled workers, deceased workers or retirees and to disabled widow(er)s of deceased workers. Only DAC of disabled workers are formally under SSDI.

<sup>2</sup> SSI also provides income support to children with disabilities and to people age 65 or older in low-income households.

<sup>3</sup> After they attain eligibility for SSDI or SSI, the programs’ work incentives allow beneficiaries to engage in SGA to some extent without eligibility loss.

To support research on its programs, SSA has supported the development of a longitudinal analytical data file containing extensive records for individuals ages 10 to 65 who have been eligible to receive SSDI or SSI benefits in at least one month from 1996 forward: the Disability Analysis File (DAF).<sup>4</sup> The DAF is by far the largest longitudinal file with detailed information about people with severe disabilities ever assembled for research purposes. The 2011 version of the DAF, which we used in this study, contains a record for every working-age adult who participated in SSDI or SSI for at least one month from January 1996 through December 2011—more than 20 million beneficiaries (Hildebrand et al. 2013). Recent versions of the DAF also include a 10 percent extract and an extract of working beneficiaries.

SSA also sometimes conducts beneficiary surveys, driven by the need for specific information. The National Beneficiary Survey (NBS), for example, was conducted in support of the agency's effort to evaluate the Ticket to Work program and to obtain better information about the employment efforts of beneficiaries. The NBS is cross-sectional, but longitudinal benefit information can be added to the research file by matching to administrative data. We use data from Round Four of the NBS, conducted in 2010, to calculate national-level SSA disability program participation ratios by age and race/ethnicity.

## **B. CMS**

CMS is responsible for the Medicare and Medicaid programs. Medicare is a health insurance program for both those who are 65 or over and those under 65 who have been entitled to SSDI benefits for at least 24 months or who have end-stage renal disease.<sup>5</sup> Like SSDI, Medicare is financed by a payroll tax. The Medicaid program is a federal–state, means-tested health insurance program that provides health coverage to low-income families with children, people with disabilities, and those age 65 or over. Within federal guidelines, Medicaid eligibility and benefits vary substantially across states. A very large majority of SSI recipients automatically meet Medicaid eligibility criteria, but enrollment is not automatic for SSI recipients in all such states, and in a few states the means test for Medicaid is more stringent than that for SSI. The Medicaid Buy-In program, now available in most states, offers Medicaid coverage for workers with qualifying physical and mental conditions.<sup>6</sup> Some state-level Medicare statistics are available on the CMS website, by entitlement status (disability or age), but there is no other state-level information on demographics. Given the federal–state status of Medicaid, many more state-level statistics are available for that program. A CMS chart book has some state-level information on Medicaid enrollment, including dual eligibility for Medicare and Medicaid (CMS 2013a).

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<sup>4</sup> The DAF was initially called the Ticket Research File (TRF).

<sup>5</sup> The 24-month Medicare waiting period is also waived for beneficiaries with amyotrophic lateral sclerosis (Lou Gehrig's disease).

<sup>6</sup> See Kehn (2013) for information on the Medicaid Buy-in program.

CMS makes Medicare claims and enrollment data available to researchers and others through a system that allows for varying levels of access to personal and sensitive data, administered by a contractor.<sup>7</sup> Medicare Research Identifiable Files (RIF) and Limited Data Sets (LDS), which contain beneficiary-level protected health information (PHI), are available only to those who successfully obtain a Data Use Agreement (DUA) from CMS.<sup>8</sup> CMS has also developed an analytical Medicaid file, the Medicaid Analytic eXtract (MAX), and made it available to researchers in a controlled manner. The primary source file for MAX is the Medicaid Statistical Information System (MSIS). MAX incorporates a number of refinements to the MSIS data that improve its utility for researchers and analysts, but the data are available only after a considerable lag. Preliminary MAX files, known as Beta-MAX, are available more quickly for most states. CMS also makes MSIS data available to the public through the State Summary Datamart (SSD, CMS 2013b). SSD data are available on a fiscal-year basis beginning with FY 1999 (October 1998–September 1999). The SSD summarizes selected MSIS data on a national or state level and can be used to answer commonly asked statistical questions about enrollment, service use, and expenditures.

### **C. RSA**

RSA is responsible for federal oversight of state vocational rehabilitation (VR) agencies. State agencies are responsible for providing employment services to people with disabilities and are required to give priority to those with significant disabilities. RSA funds the state services under provisions of the Rehabilitation Act. SSA provides additional funding to pay for services provided to SSDI and SSI clients if those clients attain specified earnings levels over a sufficient period. States themselves provide additional funding in varying degrees. The VR program is the largest federally supported program designed to help people with disabilities work and live independently, though program expenditures account for a very low and declining share of federal expenditures for working-age people with disabilities—an estimated 1.2 percent in fiscal year 2008 (Livermore et al. 2011).

RSA statistics on VR participants differ conceptually from those for the other programs discussed above, in part because most VR clients participate in the program for two years or less, whereas the typical participant in the other programs is on the rolls for many years. The annual RSA statistics are for “closures,” that is, clients exiting the VR program during the year. The number receiving services during the year is substantially larger than the number of closures, but data on that number are not routinely published. RSA publishes substantial state-level closure statistics for VR clients based on data submitted by state agencies. It also produces a public-use version of closure data submitted by the state agencies. These are known as RSA 911 data, and state agencies are required to submit them when a client’s case is closed. The RSA data include demographic, disability, and program participation information about each client at the time of application and closure, information about service eligibility and receipt, closure status, and

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<sup>7</sup> See <http://www.resdac.org/cms-data> for more detailed information (accessed February 25, 2013). More recently, CMS has established the Chronic Condition Warehouse, which provides restricted research access to data from Medicare and Medicaid that have been processed in a variety of ways to make them useful to researchers. See <https://www.ccwdata.org/web/guest/home>.

<sup>8</sup> Requests for RIF data, but not LDS data, are reviewed by CMS’s Privacy Board as part of the DUA process.

employment at closure. Under an interagency agreement between SSA and the Department of Education, SSA and RSA have matched the RSA 911 records from 1998 forward to DAF records at the individual level (Hildebrand et al. 2013).

#### **D. VA**

The VA administers a number of programs for veterans.<sup>9</sup> The Veterans' Compensation (VC) program pays income benefits to veterans with service-connected disabilities, the Veterans' Pension (VP) program pays income benefits to low-income veterans with nonservice disabilities, and Veterans' Health Care (VHC) provides health care benefits to all eligible veterans who enroll. VHC eligibility and copayments depend on the veteran's priority group assignment. If funding is inadequate, those in the lowest priority groups are ineligible; VC participants are in the highest priority groups (1 to 3), and VP participants are in an intermediate group (5). Almost all veterans with service-connected disabilities are also eligible for the VA's Vocational Rehabilitation and Education program if they apply in the first 12 years after discharge from the military. The Veterans Benefit Administration (VBA) publishes a limited number of VC and VP participation and cost statistics every year. More detailed participant characteristics are published at the national level only.<sup>10</sup>

#### **E. Published program statistics and administrative data**

Currently, the most widely available data about participants in these programs come from the statistics published by the federal agencies responsible for them. These statistics include basic information about the numbers of program participants, their state of residence, their demographic characteristics, and expenditures for their support. The top panel of Table II.1 includes national-level disability program participation statistics that either are published or are based on published statistics (see Table B.1. for state-level statistics and sources). We use these statistics in combination with ACS-based estimates of the working-age population (ages 18–64) with disabilities to calculate basic estimates of program participation ratios both nationally and at the state level.

Additional statistics can be calculated from the individual records in the administrative data files described above. The bottom panel of Table II.1 includes disability program participation statistics for Medicaid, calculated directly from the MSIS datamart. The additional information available in the MSIS datamart allows us to calculate more refined participation statistics, such as participation in both Medicaid and Medicare and statistics on demographic subgroups. Later in this paper, we use such statistics from both the MSIS datamart and the DAF for the numerators of program participation ratios. First, however, we turn to a description of the denominators for those ratios.

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<sup>9</sup> See Miller and Kregel (2013) and West and Kregel (2013) for comprehensive descriptions of the wide array of supports and employment services available to veterans and members of the military.

<sup>10</sup> See, for example, Department of Veterans Affairs (2010).

**Table II.1. Number of working-age (ages 18–64) disability program participants in 2010 from published program statistics and MSIS state summary datamart**

<b>Published Program Statistics</b>	
SSDI	8,317,351
SSI	4,450,840
SSDI or SSI	11,455,339
Medicare	7,007,981
VR applicants	604,095
Veterans' Compensation	2,033,435
Veterans' Pension	121,100
MSIS State Summary Datamart	
Medicaid	7,050,416
Medicaid-only	3,782,448
Medicaid and Medicare	3,267,968

Note: "VR applicants" is the number of cases closed by state VR service agencies. "Veterans' Compensation" and "Veterans' Pension" are the estimated numbers of working-age recipients of veterans' compensation and veterans' pensions, respectively. VR closure statistics are conceptually not comparable to participant statistics for other programs because they represent a flow of participants through a relatively short-term program rather than the stock of participants in a long-term program.

Sources: Published program statistics, as detailed in Table B.1, and analysis of MSIS SSD data for December 2009.

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### III. ACS ESTIMATES FOR THE WORKING-AGE POPULATION WITH DISABILITIES

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In this section, we describe how disability is identified in the ACS, then go on to (1) document the wide range of variation in the prevalence of disabilities across states and (2) provide national statistics on the disability population's characteristics.

#### A. The ACS six-question sequence on disability

Research on people with disabilities must start by defining what is meant by disability. The International Classification of Functioning, Disability and Health (ICF) is emerging as the leading conceptual framework for much disability research (Jette 2009). According to the ICF, an individual has a disability if he or she experiences a functional limitation as a result of the interaction between his or her health, personal characteristics, and environment. A disability exists if the person has a decrease in the functionality of a body function or structure (an impairment), a decrease in the ability to perform an activity (an activity limitation), or a decrease in the ability to participate in basic social roles (a participation restriction). This is a very broad definition of disability, however, and does not provide a clear line between those with disabilities and those without.

For practical reasons, we identify disability using the Census Bureau's six-question sequence on disability, which is primarily based on the ICF conceptual framework and was first introduced in the 2008 ACS (Brault 2009). The six disability questions ask about physical, mental, or emotional conditions that cause serious difficulty with daily activities, including hearing; vision; concentrating, remembering, or making decisions; walking or climbing stairs; dressing or bathing; and doing errands alone, such as visiting a doctor's office or shopping. Notably, work limitations are not included in this sequence. Although research described earlier has shown that the included questions do not elicit positive responses from a sizeable share of individuals who would almost certainly be considered to have a substantial, long-lasting disability under the ICF model, it is not possible to improve on these estimates for our purposes.

We obtained the ACS-based estimates used in the calculation of the estimates presented below through the Census Bureau's American FactFinder tool.<sup>11</sup> The FactFinder tool includes state-level estimates for the number of all working-age people whose responses suggest that they have a disability, including those living in institutional group quarters such as nursing homes, correctional facilities, and psychiatric hospitals as well as those living in noninstitutional group quarters, such as college dormitories and group homes; however, it excludes the institutional population from subgroup estimates of the number of working-age population with disabilities (for example, age groups finer than 18–64, or by race/ethnicity). We use the more inclusive state-level numbers when possible, but are restricted to using the noninstitutionalized counts when examining subgroups.<sup>12</sup>

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<sup>11</sup> We used the FactFinder tool to extract tables with estimates based on 2008–2010 ACS three-year data. These estimates represent average characteristics of the relevant population over that three-year period.

<sup>12</sup> Nationally, about 4 percent of the working-age population with disabilities are in institutions.

## **B. State variation in the percentage of people with disabilities**

As shown in Figure A.1, there is wide variation across states in the percentage of the working-age population with disabilities, based on the ACS definition (see Table B.2. for state-level counts of the working-age population and the working-age population with disabilities). The estimates range from 7.7 percent in New Jersey to 17.7 percent in West Virginia; the national estimate is 10.3 percent. The error bars in Figure A.1 (representing 95 percent confidence intervals) indicate that there is considerable uncertainty regarding the percentage of people with disabilities in the states with smaller populations, such as Alaska and Delaware.<sup>13</sup> Because of this uncertainty, it is impossible to precisely rank all 50 states and the District of Columbia according to the estimated percentage of people with disabilities. Nevertheless, we can say with a reasonable amount of certainty that specific states or groups of states have higher percentages than other specific states or groups of states. For example, the estimates show that West Virginia has the highest percentage of people with disabilities, and that five other states (Kentucky, Arkansas, Mississippi, Oklahoma, and Alabama) have higher percentages than each of the remaining 43 states and the District of Columbia.<sup>14</sup>

## **C. Selected characteristics of the noninstitutionalized working-age population with disabilities**

The FactFinder provides ACS statistics by disability status for only a few select demographic characteristics. In Figure A.2, we present distributional statistics on the age, race/ethnicity, and veteran status for the working-age noninstitutionalized population with and without disabilities. At the national level and based on the ACS definition, 80.2 percent of the working-age noninstitutionalized population with disabilities are age 35 or older; this percentage is considerably higher than among those without disabilities, where only 61.7 percent are age 35 or older.<sup>15</sup>

Just over 66 percent of the working-age population with disabilities are white, 16.1 percent are black, 12.1 percent are Hispanic, and 11.2 percent are veterans. Relative to their percentages in the population without disabilities, blacks and veterans are overrepresented in the disability population and Hispanics are underrepresented; among those without disabilities, an estimated 11.5 percent are black, 15.8 percent are Hispanic, and 6.3 percent are veterans.

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<sup>13</sup> We calculated the 95 percent confidence intervals according to Census Bureau guidelines provided in Census Bureau (2010). First, we calculated the estimated standard error for each estimated count (both numerator and denominator) by dividing the provided margin of error (MOE) by 1.645 (the provided MOEs are based on a 90 percent confidence level). Second, we calculated the estimated standard error for the percentage of the working-age population with disabilities using the relevant formulas provided on page 22. Third, we multiplied the estimated standard errors for the percentages by 1.96 to obtain the 95 percent confidence intervals.

<sup>14</sup> It is always possible that some source of bias in the estimates contributes to the differences across states, but we have no reason to think that such a source could explain the large differences between estimated prevalence in the six states with the highest prevalence estimates and estimated prevalence in other states.

<sup>15</sup> We use the same age groups (ages 18–34 and 35–64) that are available for this set of statistics in the FactFinder tool.

The distribution of working-age population with disabilities by age, race/ethnicity, and veteran status varies widely across states (see Table B.2 for all state-level estimates). The percentage who are ages 18 to 24 varies from 16.7 percent in West Virginia to 27.7 percent in Utah; blacks range from 1.0 percent in Utah to 77.5 percent in Washington, DC, Hispanics from 0.6 percent in West Virginia to 44.8 percent in New Mexico, and veterans from 7.7 percent in New Jersey to 18.1 percent in Alaska.

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## IV. NATIONAL AND STATE PROGRAM PARTICIPATION RATIOS

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This section presents national and state statistics on program participation for working-age people with disabilities. We begin by describing our method for calculating participation ratios.

### A. Calculating participation ratios rather than rates

Ideally, we would like to know what percentage of those individuals meeting a program's eligibility criteria in each state are actually in the program (that is, the state's "participation rate"). Survey-based estimates of such rates are often produced for nondisability programs (for example, TANF and food stamps), made possible by the fact that surveys collect family demographic and financial information that can be used to approximate eligibility criteria. Participation rates are not available for disability programs, however, because surveys do not collect the detailed medical information needed to determine the disability-related components of eligibility for those programs. The difficulties of collecting such information became all too apparent in the 1990s, when SSA's effort to collect such data encountered technical obstacles and escalating costs that eventually led to termination of the project.<sup>16</sup>

It is possible, however, to produce state statistics on the number of participants relative to the estimated size of the working-age population with any self-reported disability included in the ACS disability sequence; hereafter, we call these "participation ratios." For each program, the number in the denominator for the participation ratios (those who self-report disability based on the ACS questions) is an estimate that includes many individuals who are not eligible to participate in that program (because determining eligibility is not possible with ACS data) and excludes some who are eligible (because some program participants do not report an ACS disability). Variation in participation ratios presumably reflects variation in unobserved participation rates; however, it also reflects the extent to which the (unobserved) set of persons eligible for the program overlaps with the set of persons reporting any disability (as estimated from the ACS). Because of variation in the extent of overlap, variation in estimated participation ratios across states is likely higher than variation in (unobserved) participation rates, but it is also likely that participation ratios are highly correlated with participation rates.

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<sup>16</sup> This project was initially called the Disability Examination Study and then renamed the National Study of Health and Activities. See Wunderlich et al. (2002) for discussion of the plans for this survey.

The participation ratios are subject to several additional limitations. First, the denominator is a survey-based estimate; therefore, it is subject to sampling error. For state-level participation ratios, we present error bars representing the sampling error (based on 95 percent confidence intervals).<sup>17</sup> Second, each statistic is constructed with data from two or more sources; the sources are usually not fully consistent with respect to the reference date, state (the state recorded in an administrative record might not match actual state of residence), age group categories, or possibly other factors, as detailed in the footnotes to Table B.1. Finally, the participation ratios for subgroups (e.g. by age and by race/ethnicity) exclude the institutionalized population.

## **B. National program participation ratios**

Estimated national program participation ratios are displayed in Figure A.3. The ratios are expressed as the number of participants per 100 persons in the working-age population with self-reported disabilities; the denominator for each ratio is the same. For the SSA and CMS programs, the height of each bar is the combined participation ratio for the two relevant programs. The bottom section of the bar is the SSDI- or Medicare-only participation ratio, the middle section is the concurrent participation ratio, and the top section is the SSI- or Medicaid-only participation ratio.

The 11.5 million working-age individuals receiving SSDI, SSI, or both in December 2009 are equivalent to 58 percent of the 19.9 million working-age people reporting disabilities in the 2008–2010 ACS. The ratio of working-age people with disabilities receiving Medicare, Medicaid, or both to working-age people with disabilities is somewhat lower (54 per 100). The fact that many more received both Medicare and Medicaid than received both SSDI and SSI reflects the fact that a substantial share of SSDI-only beneficiaries are enrolled in Medicaid. The fact that the number enrolled in Medicare (35 per 100) is 17 percent lower than the number enrolled in SSDI (42 per 100) reflects the 24-month Medicare waiting period for SSDI beneficiaries. Program participation ratios are much lower for VC (10 per 100) and VP (1 per 100), reflecting the fact that veterans represent less than 7 percent of the working-age population. The ratio for VR (3 per 100) is at least partly due to the fact that the numerator is based on the number of closures rather than on the number actually receiving services; it also reflects the typical duration of participation in VR, which is short relative to participation in the other programs.

The NBS data provide additional information on age and race/ethnicity for noninstitutional SSA disability program beneficiaries. We find that SSDI participation ratios are higher for people with disabilities ages 35–64 than for those ages 18–34, whereas SSI participation ratios are higher for the younger age group (Figure A.4). We also find that SSI participation ratios are considerably higher among blacks with disabilities than among Hispanics and whites with

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<sup>17</sup> We calculated the 95 percent confidence intervals according to Census Bureau guidelines provided in Census Bureau (2010). First, we calculated the estimated standard error for the denominator (the estimated number of people with disability) by dividing the provided margin of error (MOE) by 1.645 (the MOEs are based on a 90 percent confidence level). Second, we calculated the estimated standard error for the participation ratio using the relevant formulae provided on page 22. Third, we multiplied the estimated standard errors for the percentages by 1.96 to obtain the 95 percent confidence intervals.

disabilities. The relatively high participation ratio for blacks likely reflects relatively high rates of poverty for blacks (see, for example, Macartney et al. [2013]).

## **C. State program participation ratios**

### **1. SSDI and SSI**

In Figure A.5, states are ordered by the total SSDI and SSI participation ratio and an outlined bar for the U.S. as a whole appears near the middle. The range of the total participation ratio is remarkably wide, from 35 per 100 in Alaska to 73 per 100 in New York and Massachusetts. Thus, the two highest participation ratios are more than twice as large as the lowest ratio. The included error bars (representing 95 percent confidence intervals) show with a reasonable degree of certainty that Alaska has the lowest total ratio and Massachusetts has one of the three highest total ratios. The ratios for many states are statistically indistinguishable from each other, however. There is also considerable variation across states in the distribution of participants across the three program categories.

### **2. Medicare and Medicaid**

The pattern of Medicare and Medicaid participation across states is quite similar to that of SSDI and SSI participation, reflecting the links between these programs (Figure A.6). Variation across states in participation ratios for these two programs is even greater than the variation in participation in SSDI or SSI, however; the participation ratio is 31 per 100 for Alaska, compared to 81 per 100 in the District of Columbia. The additional variation in total Medicare and Medicaid participation compared to total SSDI and SSI participation reflects the extent to which Medicaid covers individuals with disabilities who are neither SSI nor SSDI participants. This reflects the fact that some states provide optional Medicaid categories, including medically needy programs, Medicaid Buy-In, and programs for which the state agencies have obtained Medicaid waivers. Some states also offer coverage to people with disabilities through state-only Medicaid categories. In addition, some individuals with disability may qualify for Medicaid based on eligibility categories other than blind/disabled; examples include low-income parents with minor children and low-income pregnant women.

The additional variation in Medicaid participation is also evident in Figure A.7, which depicts the cross-state correlation between the SSI and Medicaid participation ratios: the Medicaid participation ratio in Maine is more than twice the SSI participation ratio in that state, whereas the Medicaid and SSI ratios are much closer to each other in Nevada and California. This variation is reduced when Medicare and Medicaid are considered together and SSDI and SSI are considered together; however, the relatively high Medicare/Medicaid participation ratio in the District of Columbia is still notable (Figure A.8).

Figure A.9 directly compares the SSDI/SSI and Medicare/Medicaid participation ratios in five selected states. We include the District of Columbia, Massachusetts, and Maine in the figure as examples of states in which the Medicaid participation ratio is relatively high compared to the SSI participation ratio. Conversely, we include California and Nevada because their Medicaid participation ratios are low relative to their SSI participation ratios. In Figure A.9, comparison of the SSDI-only and Medicare-only participation rates is instructive about the extent to which SSDI-only beneficiaries are dually eligible for Medicare and Medicaid, although exact statistics on dual-eligibility for SSDI-only beneficiaries are not available from the administrative data.

States with ratios for Medicare-only participation that are low relative to the SSDI-only ratio must provide Medicaid coverage to a relatively large share of their SSDI-only beneficiaries. Nationally, the Medicare-only ratio (19 per 100) is 54 percent of the SSDI-only ratio (35 per 100). The corresponding values for the District of Columbia, Massachusetts, and Maine are all substantially lower (37, 33, and 37, respectively), implying relatively high Medicaid coverage for SSDI-only beneficiaries. The corresponding value for Nevada is much higher (64), implying relatively low Medicaid coverage for SSDI-only beneficiaries in that state. California's value (58) is somewhat above the national value.

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## V. CONCLUSION

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In this study, we produced national and state-level statistics on the number of program participants relative to the estimated size of the working-age population with any self-reported disability according to the American Community Survey (ACS) disability questions. We obtained information on program participation from published administrative reports and administrative data sources. We obtained national and state-level estimates of the number of people who self-report disabilities as defined by the ACS.

By using these sources, we were able to (1) circumvent the problem of well-documented underreporting of program participation in survey data; (2) reduce the margin of error for the estimates, depending on the source of data and the ratio being calculated; (3) calculate participation ratios for certain subgroups of interest; and (4) include, in most analyses, individuals with disabilities who live in institutional settings.

Notably, we used ACS-provided margin of error estimates to capture the considerable uncertainty regarding the percentage of people with disabilities in each state, especially the smaller ones. On the one hand, this exercise highlights the fact that it is impossible to completely and definitively rank all 50 states and the District of Columbia according to the estimated percentage of people with disabilities or program participation ratios. On the other hand, it allows us to say with a high degree of certainty that specific states or groups of states have disability prevalence rates or program participation ratios that are much higher or lower than national values. An important caveat is that the number of individuals eligible for each program might be higher or lower than the ACS statistic, and there is cross-state variation in the extent to which those eligible for the programs overlap with those meeting the ACS disability definition. The variation in the overlap likely accounts for some of the variation in the participation ratios.

For SSDI and SSI combined, we find that cross-state variation in the participation ratio is remarkably large, with the two highest estimates (Massachusetts and New York) being more than twice as large as the lowest estimate (Alaska). There is also considerable variation across states in the distribution of participants across the three program categories (SSDI-only, SSI-only, and concurrent SSDI and SSI).

The pattern of Medicare and Medicaid participation across states is quite similar to that of SSDI and SSI participation, reflecting the links between these programs; variation is greater for Medicare and Medicaid participation, however, reflecting the extent to which Medicaid covers individuals with disabilities who are neither SSI or SSDI participants. Massachusetts, Maine, and the District of Columbia are notable in that many SSDI-only beneficiaries are eligible for both Medicare and Medicaid services.

At the national level, our subgroup analysis shows that SSDI participation ratios are higher for people with disabilities ages 35–64 than for those ages 18–34, whereas SSI participation ratios are higher for the younger group. In addition, SSI participation ratios are considerably higher among blacks with disabilities than among Hispanics and whites with disabilities.

The statistics have several important limitations, however. First, the ACS denominator for the participation ratios includes many people with disabilities who are not eligible for program

participation, either because their impairment is not sufficiently severe to qualify them for SSDI or SSI or because they lack sufficient work history to qualify for SSDI, or for other reasons. Second, the ACS denominator omits many who are eligible for and even participate in certain programs, largely because they do not respond affirmatively to the six questions in the ACS disability sequence. If only the first limitation existed, the estimated participation ratios would be biased downwards compared to actual participation rates that only count those eligible for the program in the denominator. If only the second limitation existed, the estimated participation ratios would be biased upwards compared to actual participation rates that count all those eligible for the program in the denominator. In combination, we are not able to determine whether our estimated participation ratios are biased upwards or downwards. Variation in estimated participation ratios across states is likely higher than variation in (unobserved) actual participation rates, but it seems likely that the former are highly correlated with the latter.

The considerable variation in participation ratios across states reinforces the importance of a number of disability policy questions.<sup>18</sup> Is the participation ratio low in certain states because many people in those states are not receiving benefits for which they are medically and financially eligible, or are many of those who are medically eligible not financially eligible? If it is the latter, are they financially ineligible because they work and their earnings are too high? Or have they not worked enough in the past to qualify for SSDI, and have income from other sources or assets that make them ineligible for SSI? Is there a very large pool of medically eligible nonparticipants who are likely to become participants if their financial circumstances deteriorate? Other potentially important questions concern the variation in Medicaid eligibility among SSDI-only beneficiaries across states. Relative to SSDI-only beneficiaries in other states, are significant numbers of SSDI-only beneficiaries in states with relatively low Medicaid coverage for this group unable to obtain personal care and other services that Medicare does not cover, or experiencing significant hardship because of out-of-pocket expenditures? To what extent does this variation reflect variation in the availability of Medicaid Buy-In for SSDI-only beneficiaries who work? Accounting for variation across states in related factors, such as the poverty rate among those with disabilities, could start to shed light on these important questions.

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<sup>18</sup> These are also discussed by Stapleton et al. (2009) and reflect issues that have been of concern to policymakers for many years.

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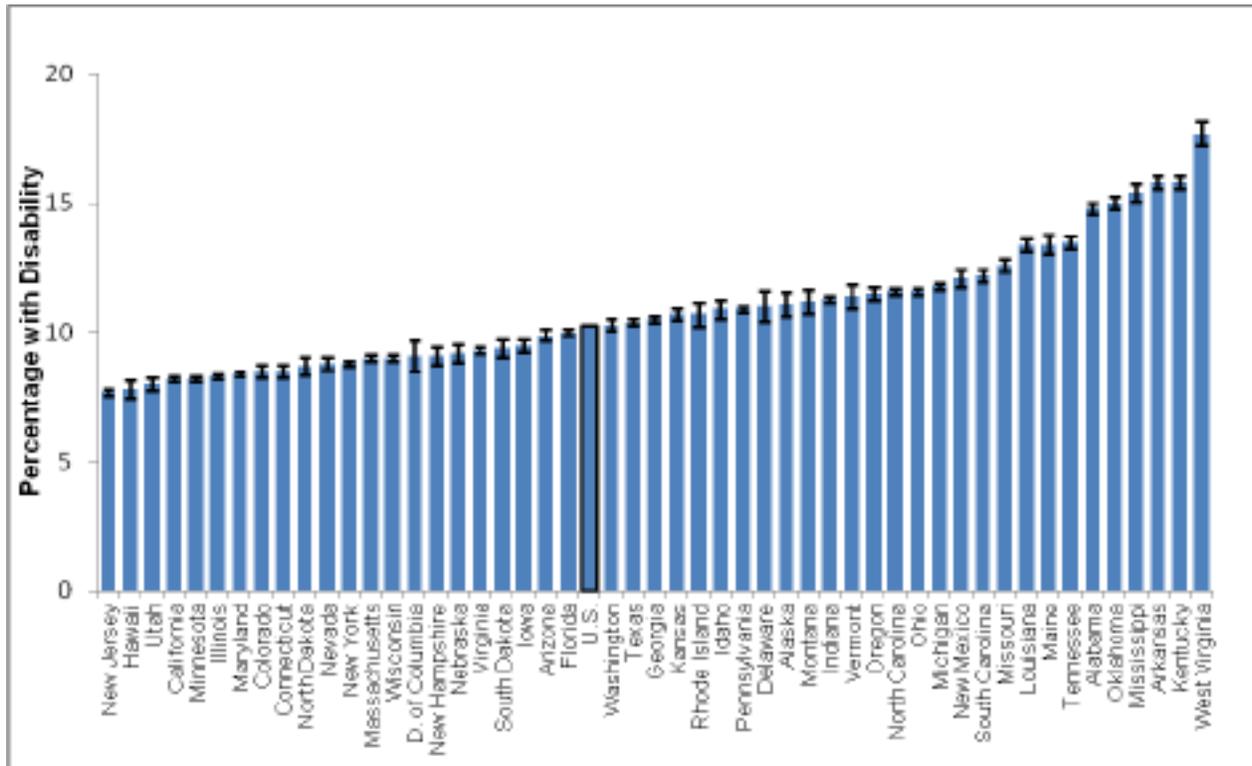
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## **APPENDIX A**

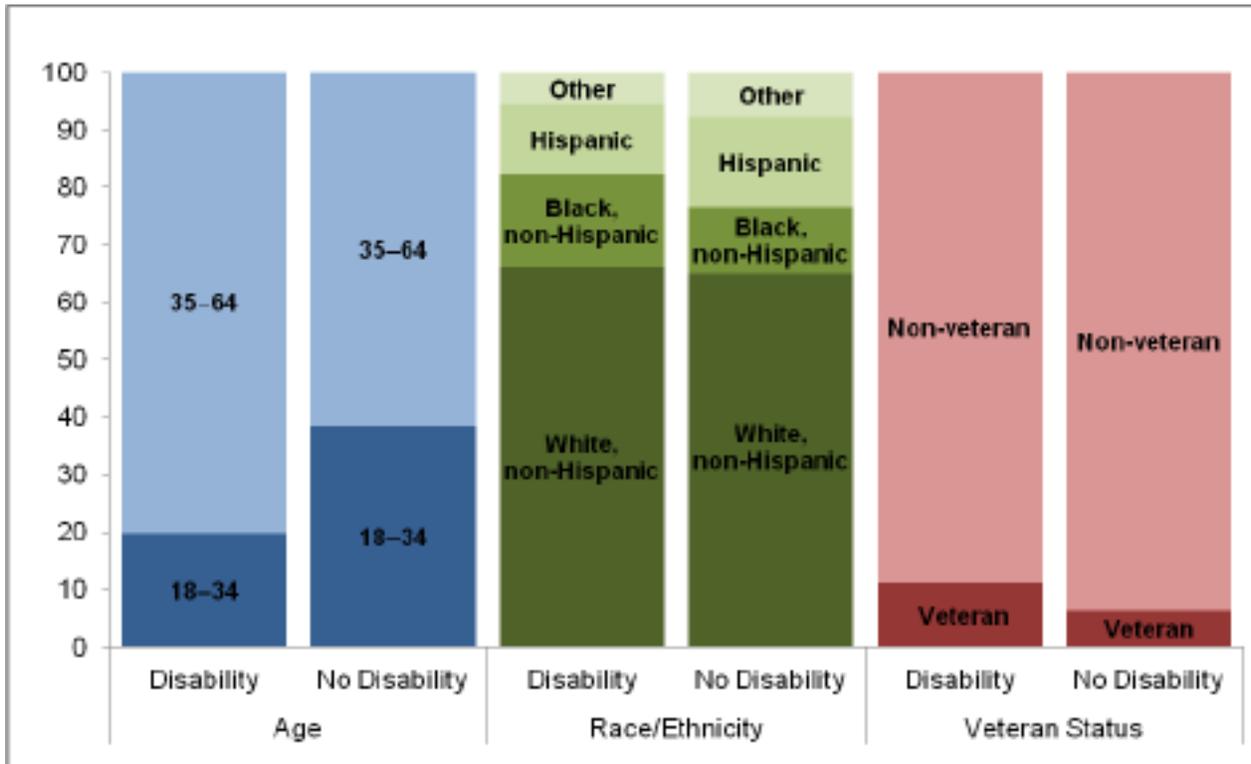
### **FIGURES**

**Figure A.1. Estimated percentage of people with disabilities in the working-age (ages 18–64) population, by state, 2008–2010 ACS**



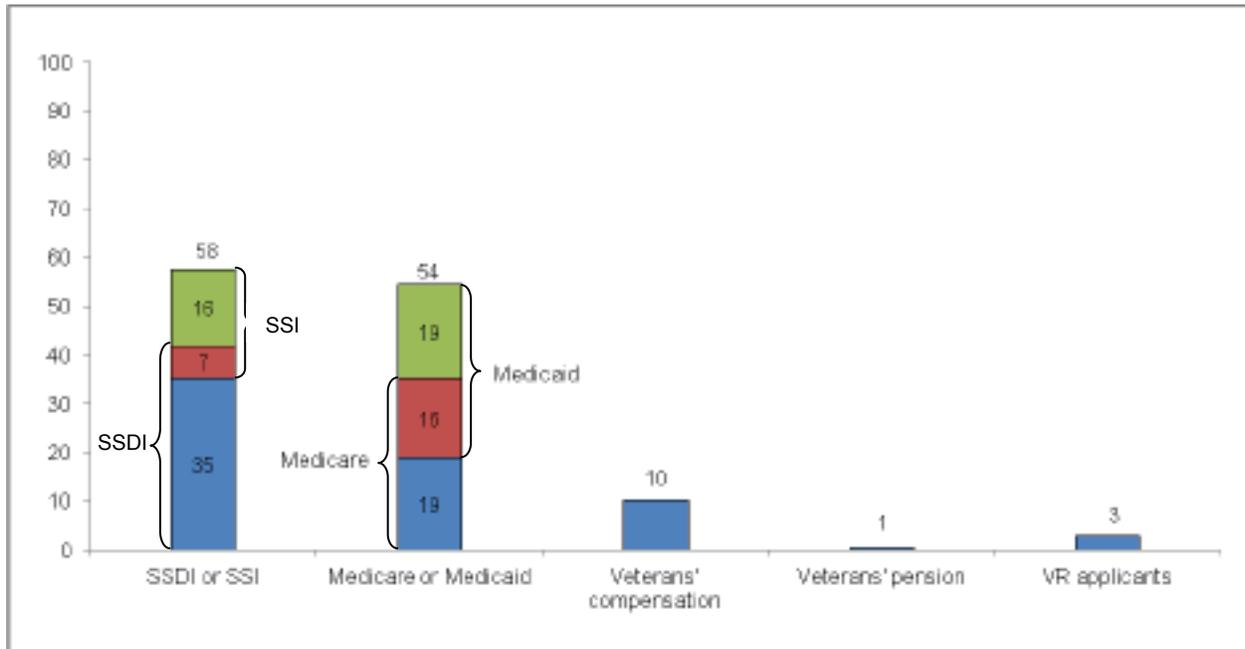
Note: The error bars represent 95 percent confidence intervals. The numerator and denominator for the percentages in this figure include both the noninstitutionalized and institutionalized working-age population with disabilities. The state of Wyoming is excluded from the figure because information on its institutionalized population is not available. Data are from 2008–2010 ACS three-year FactFinder tables.

**Figure A.2. Selected characteristics of the working-age (ages 18–64) noninstitutional population with and without disabilities, 2008–2010 ACS**



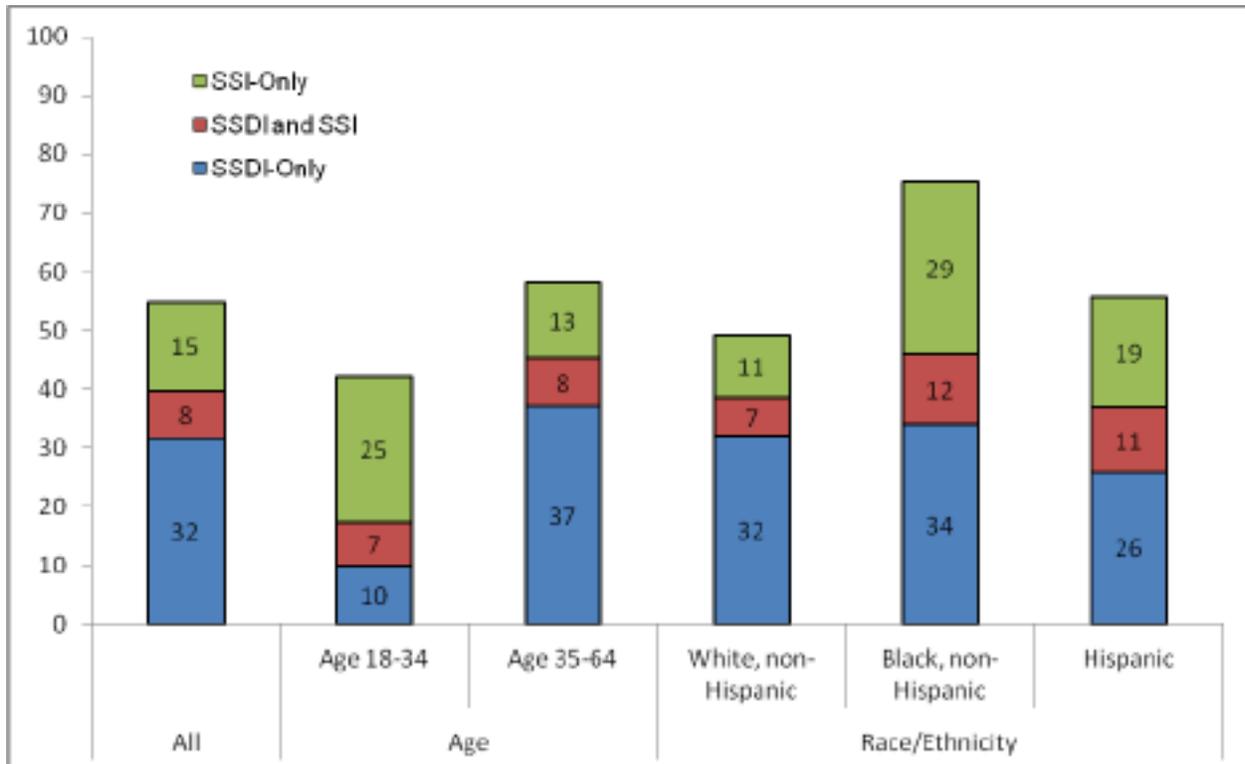
Note: This figure excludes the institutionalized working-age population with disabilities, because information by age and race/ethnicity is not available for that population. Data are from 2008–2010 ACS three-year FactFinder tables.

**Figure A.3. Estimated program participation ratios for the working-age (ages 18–64) population with disabilities, 2010**



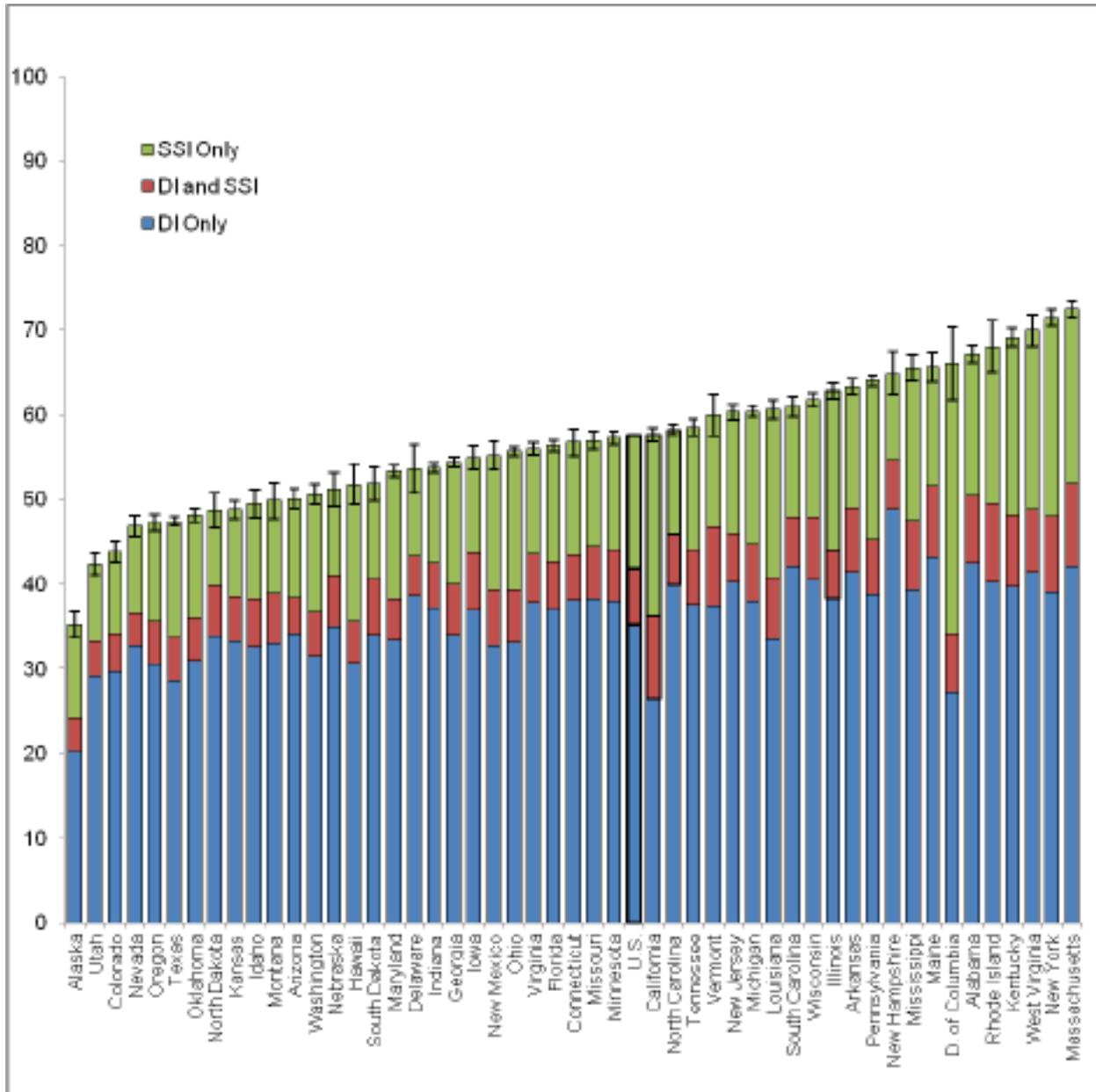
Note: For SSDI or SSI, SSDI-only is blue, both SSDI and SSI is red, and SSI-only is green. For Medicare or Medicaid, Medicare-only is blue, both Medicare and Medicaid is red, and Medicaid-only is green. The denominator of the participation ratios is the 2008–2010 ACS estimate of the size of the working-age population with disabilities (including those in institutions), many of whom are not eligible for the programs included. In addition, many who are eligible or even participating may not report a disability. Data are from 2008–2010 ACS three-year FactFinder tables and published program statistics as detailed in Table B.1.

**Figure A.4. Estimated SSDI and SSI participation ratios for the working-age (ages 18–64) noninstitutional population with disabilities, by age and race/ethnicity, 2010**



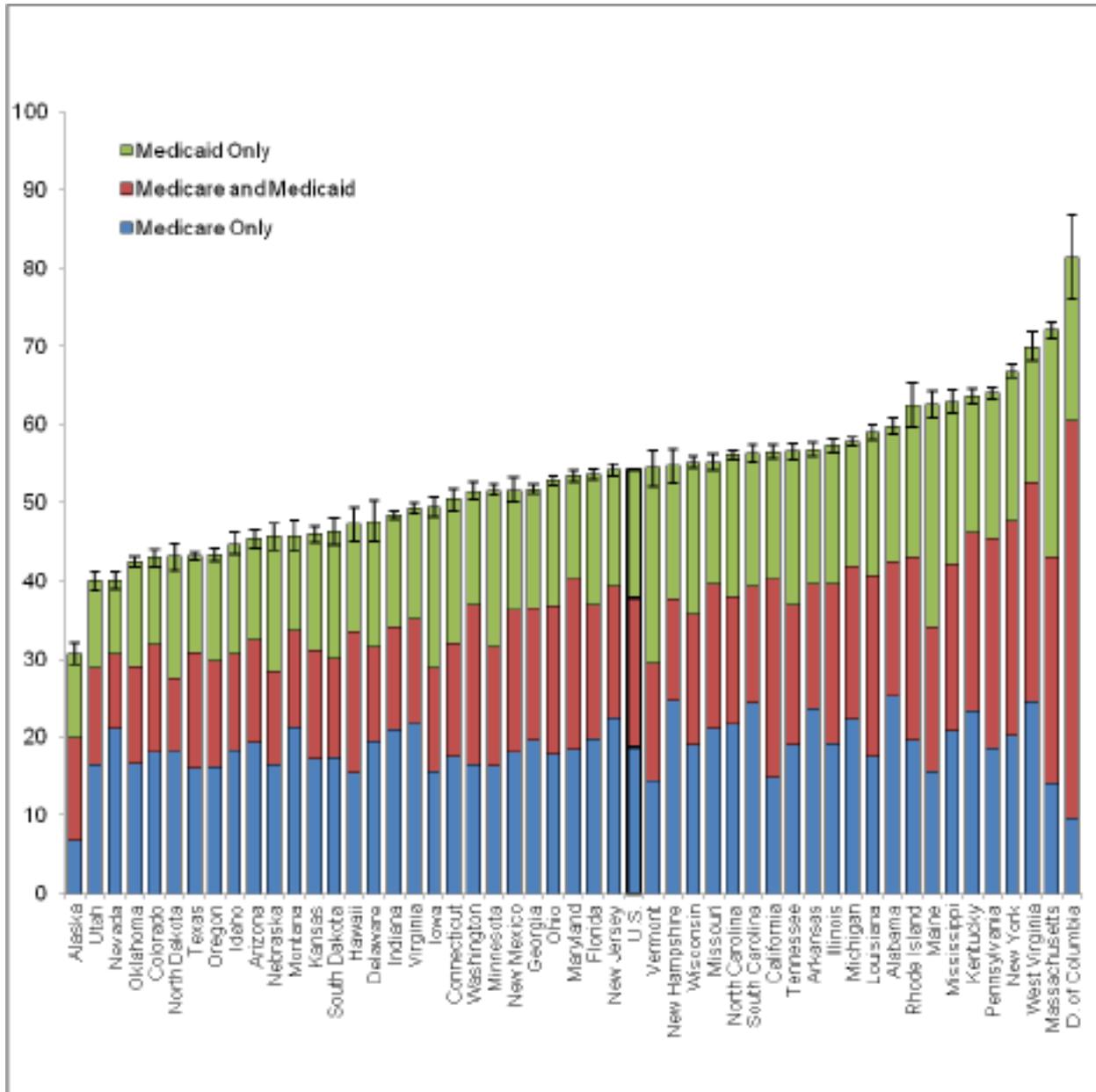
Note: The denominators for the participation ratios are 2008–2010 ACS estimates of the size of the working-age population with disabilities, including many who are not eligible for the programs. In addition, many who are eligible or even participating may not report a disability. Both the numerators and denominators exclude the institutionalized working-age population with disabilities, because information by age and race/ethnicity is not available for that population. Data are from 2008–2010 ACS three-year FactFinder tables and from Round Four of the NBS, conducted in 2010.

**Figure A.5. Estimated SSI and SSDI participation ratios for the working-age (ages 18–64) population with disabilities, 2010**



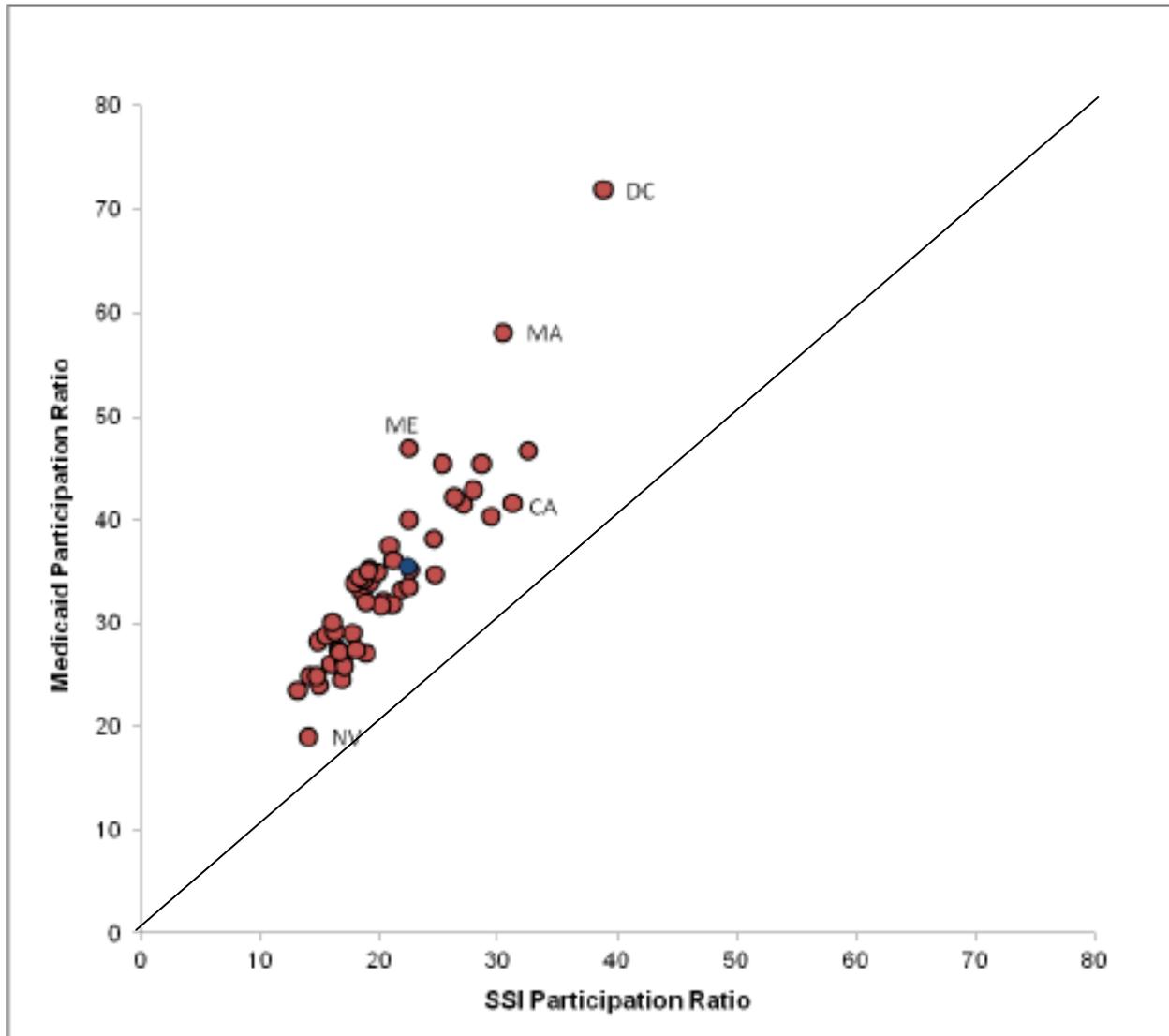
Note: The error bars represent 95 percent confidence intervals. The denominator of the participation ratios is the 2008–2010 ACS estimate of the size of the working-age population with disabilities, many of whom are not eligible for SSDI or SSI. In addition, many who are eligible or even participating may not report a disability. The denominator includes both the noninstitutionalized and institutionalized working-age population with disabilities. The state of Wyoming is excluded from the figure because information on its institutionalized population is not available. Data are from 2008–2010 ACS three-year FactFinder tables and published program statistics as detailed in Table B.1.

**Figure A.6. Estimated Medicare and Medicaid participation ratios for the working-age (ages 18–64) population with disabilities, 2010**



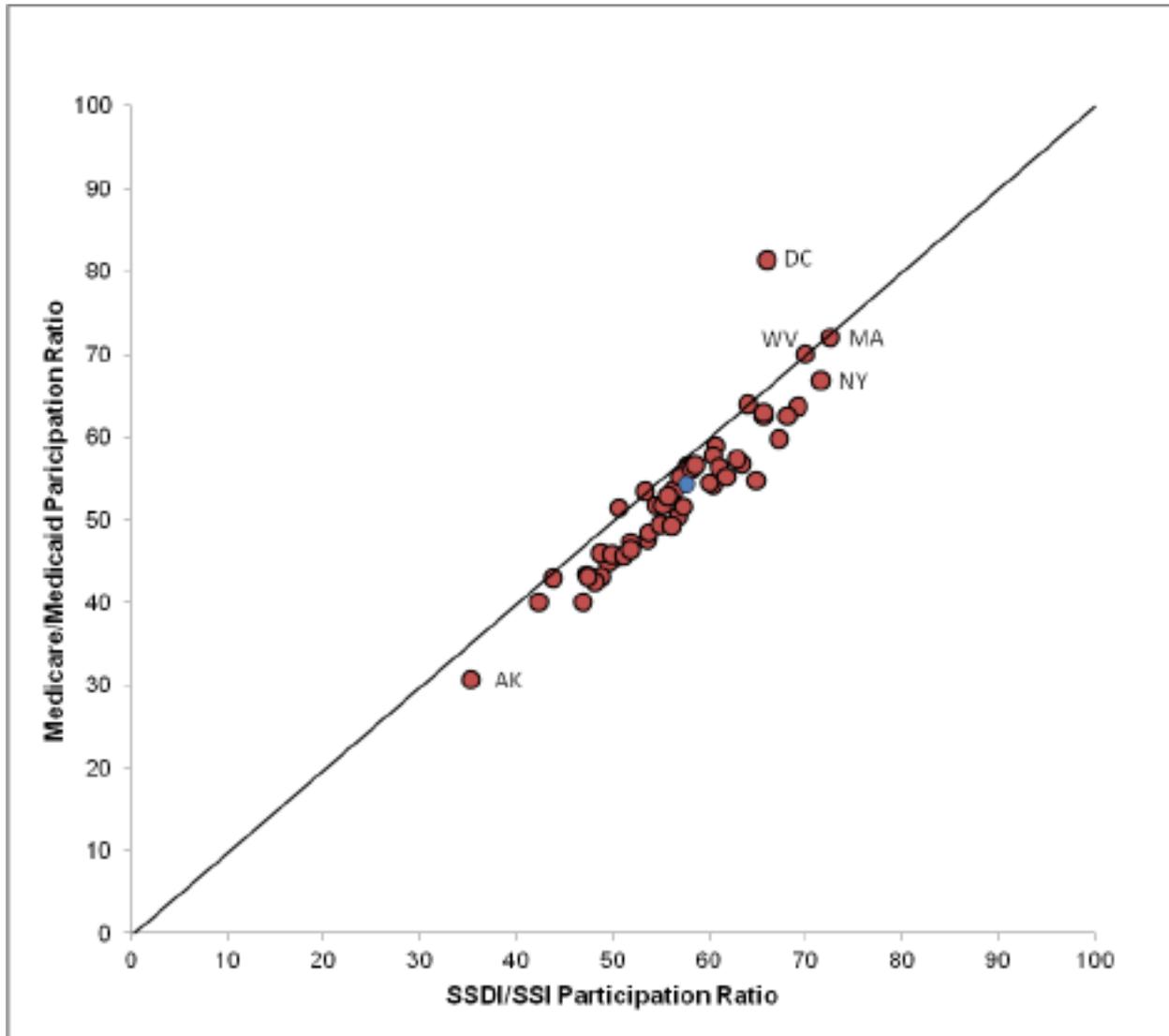
Note: The error bars represent 95 percent confidence intervals. The denominator of the participation ratios is the 2008–2010 ACS estimate of the size of the working-age population with disabilities, many of whom are not eligible for SSDI or SSI. In addition, many who are eligible or even participating may not report a disability. The denominator includes both the noninstitutionalized and institutionalized working-age population with disabilities. The state of Wyoming is excluded from the figure because information on its institutionalized population is not available. Data are from 2008–2010 ACS three-year FactFinder tables and published program statistics as detailed in Table B.1.

**Figure A.7. Cross-state relationship between SSI and Medicaid participation ratios**



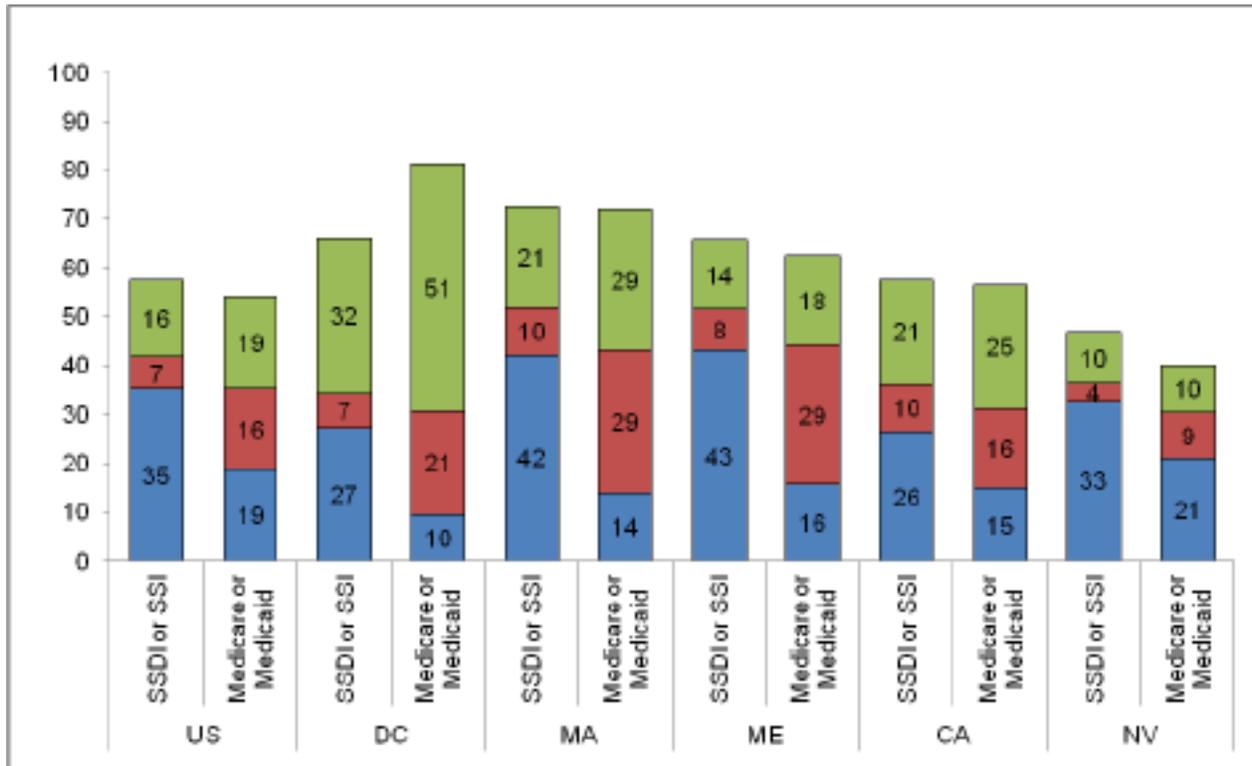
Note: Each red dot represents a state's values for the two ratios and the blue dot represents the national values. The denominator of the participation ratios is the 2008–2010 ACS estimate of the size of the working-age population with disabilities (including those in institutions), many of whom are not eligible for SSDI or SSI. In addition, many who are eligible or even participating may not report a disability. Data are from 2008–2010 ACS three-year FactFinder tables and published program statistics as detailed in Table B.1.

**Figure A.8. Cross-state relationship between SSDI/SSI and Medicare/Medicaid participation ratios**



Note: Each red dot represents a state's values for the two ratios and the blue dot represents the national values. The denominator of the participation ratios is the 2008–2010 ACS estimate of the size of the working-age population with disabilities (including those in institutions), many of whom are not eligible for SSDI or SSI. In addition, many who are eligible or even participating may not report a disability. Data are from 2008–2010 ACS three-year FactFinder tables and published program statistics as detailed in Table B.1.

**Figure A.9. SSDI/SSI versus Medicare/Medicaid participation ratios, selected states**



Note: For SSDI or SSI, SSDI-only is blue, both SSDI and SSI is red, and SSI-only is green. For Medicare or Medicaid, Medicare-only is blue, both Medicare and Medicaid is red, and Medicaid-only is green. The denominator of the participation ratios is the 2008–2010 ACS estimate of the size of the working-age population with disabilities (including those in institutions), many of whom are not eligible for SSDI or SSI. In addition, many who are eligible or even participating may not report a disability. Data are from 2008–2010 ACS three-year FactFinder tables and published program statistics as detailed in Table B.1.

**APPENDIX B**

**ADDITIONAL TABLES**

**Table B.1. Program participation data for the working-age population (ages 18–64) with disabilities in 2010, by state**

State	SSDI or SSI			Medicare or Medicaid			Veterans' Compensation	Veterans' Pension	VR Applicants
	SSDI <sup>a</sup>	SSI <sup>b</sup>	SSI <sup>c</sup>	Medicare <sup>d</sup>	Medicaid <sup>e</sup>	Medicaid <sup>f</sup>	Compensation <sup>g</sup>	Pension <sup>g</sup>	Applicants <sup>h</sup>
Total	8,317,351	4,450,840	11,455,339	7,007,981	7,050,416	10,790,429	2,033,435	121,100	604,095
Alabama	221,956	108,632	295,508	187,600	152,337	263,135	47,783	2,957	10,958
Alaska	12,405	7,671	18,068	8,945	12,314	15,721	11,365	181	1,781
Arizona	146,717	60,882	191,185	123,510	99,358	173,133	47,258	2,181	4,919
Arkansas	137,453	61,356	177,619	114,425	93,043	159,131	25,820	1,987	8,525
California	697,342	601,769	1,110,593	598,823	802,338	1,088,743	167,279	10,800	38,982
Colorado	93,536	38,856	119,939	79,685	68,087	117,415	46,429	1,597	6,712
Connecticut	82,711	35,387	108,072	68,205	62,678	95,895	11,625	577	3,430
Delaware	26,631	9,199	33,006	21,859	17,343	29,284	6,119	209	2,791
District of Columbia	13,155	14,910	25,383	11,745	27,632	31,303	2,694	325	3,111
Florida	488,461	221,055	645,867	417,155	389,374	615,027	151,119	8,570	35,393
Georgia	256,637	131,234	349,972	222,899	206,853	332,456	85,828	4,819	14,559
Hawaii	23,756	14,037	34,522	19,441	21,167	31,455	11,348	384	906
Idaho	39,166	17,336	50,613	33,240	27,018	45,772	12,959	546	5,943
Illinois	294,481	164,513	420,764	246,668	255,122	383,317	47,044	3,726	16,678
Indiana	192,920	75,217	244,159	160,066	124,762	219,810	39,203	1,978	15,754
Iowa	77,031	31,798	96,909	63,866	59,764	87,181	16,897	1,215	7,499
Kansas	71,916	29,114	90,972	59,656	53,651	85,623	18,823	1,114	8,040
Kentucky	207,056	126,697	297,552	175,468	173,353	273,676	34,113	2,381	13,495
Louisiana	154,235	102,717	229,706	135,683	157,039	223,332	28,314	3,029	10,123
Maine	58,382	25,469	74,245	49,974	53,108	70,792	13,946	973	3,325
Maryland	118,470	61,739	165,051	97,888	108,061	165,222	41,641	1,398	9,305
Massachusetts	196,040	114,949	274,026	162,716	219,419	272,220	25,561	1,471	8,956
Michigan	327,239	164,273	441,431	278,981	258,970	421,951	43,451	4,099	21,856
Minnesota	120,364	52,464	156,210	99,186	96,285	140,752	37,706	1,518	9,268
Mississippi	133,643	73,788	184,226	116,515	118,518	176,728	20,149	1,654	10,790
Missouri	207,983	87,179	266,098	171,250	159,642	257,726	41,500	3,001	16,452
Montana	26,832	11,695	34,451	22,999	16,944	31,602	11,636	655	3,909
Nebraska	41,995	16,684	52,444	34,550	29,891	46,777	19,640	653	5,193
Nevada	54,638	21,116	70,135	45,478	28,474	59,929	20,570	1,355	3,554
New Hampshire	42,330	12,456	50,224	32,207	23,229	42,307	9,392	263	3,107
New Jersey	194,710	85,606	256,194	158,313	134,515	229,827	24,864	949	12,984
New Mexico	59,746	34,132	83,827	50,905	50,934	78,401	19,303	1,149	5,902
New York	522,331	353,900	778,373	427,943	507,489	727,283	59,946	4,943	40,792
North Carolina	317,621	126,989	402,932	275,826	238,799	388,519	88,893	3,417	26,582
North Dakota	14,600	5,419	17,826	12,361	9,103	15,761	6,458	280	2,710
Ohio	326,854	188,026	463,314	280,594	292,533	439,644	60,413	7,313	22,732
Oklahoma	123,975	58,926	165,576	103,508	88,759	146,002	42,294	2,674	10,297
Oregon	99,086	46,355	131,403	82,525	75,444	120,385	31,369	2,581	6,685
Pennsylvania	390,151	217,878	551,867	321,001	391,778	551,903	55,601	4,886	26,590
Rhode Island	35,777	20,170	49,248	28,326	31,001	45,208	5,290	334	2,695

Table B.1 (continued)

State	SSDI <sup>a</sup>	SSI <sup>b</sup>	SSDI or SSI <sup>c</sup>	Medicare <sup>d</sup>	Medicaid <sup>e</sup>	Medicare or Medicaid <sup>f</sup>	Veterans' Compensation <sup>g</sup>	Veterans' Pension <sup>g</sup>	VR Applicants <sup>h</sup>
South Carolina	169,031	66,585	215,123	145,675	112,811	198,574	45,219	2,410	20,245
South Dakota	18,757	8,207	23,945	15,479	13,424	21,397	8,347	510	2,876
Tennessee	236,369	111,801	313,625	207,450	200,941	303,340	50,410	3,548	8,393
Texas	542,925	303,169	762,987	455,214	435,549	693,330	196,806	10,820	42,552
Utah	43,107	17,131	54,966	36,051	30,487	51,924	12,893	559	11,321
Vermont	21,586	10,390	27,684	18,172	18,456	25,114	3,678	182	4,209
Virginia	207,482	86,446	267,220	171,548	130,888	234,963	98,649	2,419	13,255
Washington	161,586	84,189	223,228	136,318	154,644	226,963	69,483	2,489	12,890
West Virginia	100,614	58,845	144,138	86,306	93,634	144,167	16,501	1,629	6,133
Wisconsin	153,434	68,032	197,901	123,791	115,472	176,660	34,340	2,160	16,446
Wyoming	12,128	4,452	15,012	9,992	7,981	13,649	5,463	233	2,492

<sup>a</sup> SSDI estimates for December 2009 from [www.socialsecurity.gov/policy/docs/statcomps/di\\_asr/2009/sect01b.html#table8](http://www.socialsecurity.gov/policy/docs/statcomps/di_asr/2009/sect01b.html#table8). Accessed February 22, 2013.

<sup>b</sup> SSI estimates for December 2009 from [www.socialsecurity.gov/policy/docs/statcomps/ssi\\_asr/2009/sect02.html#table10](http://www.socialsecurity.gov/policy/docs/statcomps/ssi_asr/2009/sect02.html#table10). Accessed February 22, 2013.

<sup>c</sup> Calculated by adding SSDI and SSI, then subtracting concurrent beneficiaries. Concurrent beneficiary data for December 2009 from [http://www.socialsecurity.gov/policy/docs/statcomps/ssi\\_asr/2009/sect03.html#table16](http://www.socialsecurity.gov/policy/docs/statcomps/ssi_asr/2009/sect03.html#table16). Accessed February 22, 2013.

<sup>d</sup> Medicare enrollees with disabilities (SSDI beneficiaries plus a relatively small number with end-stage renal disease). July 2010 enrollment for Medicare Parts A and B from [www.cms.hhs.gov/MedicareEnRpts/Downloads/10Disabled.pdf](http://www.cms.hhs.gov/MedicareEnRpts/Downloads/10Disabled.pdf). Accessed February 22, 2013.

<sup>e</sup> Medicaid enrollees ages 19–64 with blind/disabled basis of eligibility (BOE) in December 2009, according to the Medicaid Statistical Information System (MSIS) State Summary Datamart (SSD), available at [http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSources\\_GenInfo/MSIS-Mart-Home.html](http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSources_GenInfo/MSIS-Mart-Home.html). Accessed October 7, 2013. Numbers for Idaho and Missouri are from December 2008.

<sup>f</sup> Calculated as the number enrolled in Medicare plus the number enrolled in Medicaid minus the number of Medicaid beneficiaries ages 19–64 with BOE=blind/disabled and dual entitlement to Medicare in December 2009 according to the MSIS SSD.

<sup>g</sup> Veterans Compensation data were only available for veterans under age 75, and pension data were only available for those under age 70. For each, we estimated the number under age 65 by multiplying the value reported by the ratio of veterans under age 65 to veterans in the age range for the reported statistic. Veterans Compensation and Pension data for FY 2010 are from [www.vba.va.gov/reports/abr/2010\\_abr.pdf](http://www.vba.va.gov/reports/abr/2010_abr.pdf). Veterans as of September 30, 2010, are from [www.va.gov/VETDATA/docs/Demographics/New\\_Vetpop\\_Model/6IVetPop11\\_State.xlsx](http://www.va.gov/VETDATA/docs/Demographics/New_Vetpop_Model/6IVetPop11_State.xlsx)

<sup>h</sup> Original source: 2012 Annual Disability Statistics Compendium. Table 12.1: Vocational Rehabilitation—Applicants: Federal Fiscal Year 2010 from <http://disabilitycompendium.org/archives/2012-compendium-statistics/2012-vocational-rehabilitation/2012-12-1-vocational-rehabilitation-applicants>.

Table B.2. Distribution of the working-age population (ages 18–64) with disabilities, by age, race/ethnicity, veteran status, and state, ACS 2008–2010

State	Total Population	Civilian Noninstitutionalized Population						
	% with disabilities	% with disabilities	Ages 18–34	Ages 35–64	White, non-Hispanic	Black, non-Hispanic	Hispanic	Veteran
Total	19,879,428	18,984,266	3,765,278	15,218,988	12,550,979	3,056,109	2,306,288	2,121,245
Alabama	14.8	14.6	18.0	82.0	64.8	30.7	1.5	12.1
Alaska	11.1	11.1	19.9	80.1	64.8	3.0	4.6	18.1
Arizona	9.9	9.8	19.6	80.4	64.3	4.8	21.8	13.2
Arkansas	15.8	15.5	19.5	80.5	75.2	18.4	2.7	12.3
California	8.2	8.0	20.8	79.2	47.6	9.8	30.6	8.9
Colorado	8.5	8.2	21.1	78.9	69.9	5.3	19.7	14.1
Connecticut	8.5	8.3	18.6	81.4	67.2	11.9	16.4	7.8
Delaware	11.0	10.8	20.9	79.1	66.6	24.4	5.3	11.9
D. of Columbia	9.1	8.9	21.8	78.2	14.9	77.5	4.6	8.3
Florida	10.0	9.8	18.3	81.7	61.8	17.1	17.4	12.3
Georgia	10.5	10.3	19.5	80.5	57.8	35.0	3.8	11.7
Hawaii	7.8	7.9	18.0	82.0	25.3	N/A	9.9	12.2
Idaho	10.9	10.6	21.5	78.5	84.4	N/A	9.4	14.3
Illinois	8.3	8.0	19.3	80.7	62.5	22.7	10.6	9.3
Indiana	11.3	10.9	20.4	79.6	82.0	11.4	3.7	11.8
Iowa	9.5	9.2	20.0	80.0	89.6	4.1	2.8	12.5
Kansas	10.7	10.3	22.2	77.8	79.0	8.4	6.7	13.1
Kentucky	15.8	15.7	18.4	81.6	88.4	8.2	1.1	10.4
Louisiana	13.4	13.2	20.7	79.3	59.0	35.6	2.3	9.2
Maine	13.4	13.3	21.1	78.9	93.9	N/A	N/A	13.6
Maryland	8.4	8.2	19.7	80.3	56.6	33.6	4.2	10.8
Massachusetts	9.0	8.8	21.7	78.3	72.1	8.0	13.9	7.8
Michigan	11.8	11.6	20.3	79.7	71.5	21.1	3.1	10.1
Minnesota	8.2	8.0	22.1	77.9	81.7	7.7	3.4	12.2
Mississippi	15.4	15.2	18.5	81.5	54.5	42.0	1.2	9.9
Missouri	12.6	12.2	19.3	80.7	79.8	13.9	2.2	12.5
Montana	11.2	10.9	19.5	80.5	85.7	N/A	2.4	17.0
Nebraska	9.2	9.0	21.3	78.7	80.4	8.2	6.2	14.1
Nevada	8.8	8.7	18.3	81.7	64.4	9.5	16.4	13.8
New Hampshire	9.1	9.0	20.7	79.3	93.4	N/A	2.2	13.2
New Jersey	7.7	7.4	19.1	80.9	59.1	18.5	16.9	7.7
New Mexico	12.1	11.8	19.1	80.9	43.8	1.9	44.8	14.1
New York	8.8	8.5	19.7	80.3	56.9	17.9	19.2	7.8
North Carolina	11.6	11.4	17.8	82.2	65.3	26.7	3.5	12.6

B.4

Table B.2 (continued)

State	Total Population	Civilian Noninstitutionalized Population						
	% with disabilities	% with disabilities	Ages 18–34	Ages 35–64	White, non-Hispanic	Black, non-Hispanic	Hispanic	Veteran
North Dakota	8.7	8.6	21.5	78.5	84.2	N/A	N/A	14.5
Ohio	11.6	11.3	20.1	79.9	78.6	16.0	2.5	11.2
Oklahoma	15.0	14.7	19.4	80.6	70.5	8.3	4.5	14.1
Oregon	11.5	11.3	20.9	79.1	82.5	2.2	7.3	14.1
Pennsylvania	10.9	10.6	19.8	80.2	74.4	15.2	7.1	10.4
Rhode Island	10.7	10.5	21.1	78.9	74.1	6.6	14.8	8.6
South Carolina	12.2	12.1	17.0	83.0	63.0	32.8	2.0	12.8
South Dakota	9.4	9.2	21.5	78.5	81.6	N/A	2.5	14.8
Tennessee	13.5	13.3	17.8	82.2	78.3	17.2	1.7	12.0
Texas	10.4	10.1	21.0	79.0	48.4	15.1	32.8	11.4
Utah	8.0	7.8	27.7	72.3	83.8	1.0	9.5	10.7
Vermont	11.4	11.3	23.5	76.5	92.3	N/A	N/A	11.8
Virginia	9.3	9.0	18.9	81.1	67.2	24.2	4.0	12.7
Washington	10.3	10.2	21.1	78.9	77.8	4.6	7.2	14.9
West Virginia	17.7	17.5	16.7	83.3	93.8	2.9	0.6	12.4
Wisconsin	9.0	8.7	21.4	78.6	80.2	10.2	4.7	12.0
Wyoming	N/A	10.5	22.7	77.3	85.3	N/A	7.4	15.2

Notes: Based on 2008–2010 three-year estimates from Census FactFinder Tables S2601C (Characteristics of the Group Quarters Population In the United States), B18101 (Sex by Age by Disability Status), S0201 (Selected Population Profile in the United States), and C21007 (Age by Veteran Status by Poverty Status in the Past 12 Months by Disability Status for the Civilian Population 18 Years and Over).

Table B.3. Estimated SSDI and/or SSI participation ratios for the working-age population (ages 18–64) with disabilities, 2010

	SSDI-Only		SSDI and SSI		SSI-Only		SSDI or SSI	
	Ratio	SE	Ratio	SE	Ratio	SE	Ratio	SE
Alabama	42.5	0.35	8.0	0.07	16.7	0.14	67.6	0.55
Alaska	20.3	0.44	3.9	0.09	11.0	0.24	35.8	0.77
Arizona	34.1	0.42	4.3	0.05	11.6	0.14	50.5	0.62
Arkansas	41.5	0.32	7.6	0.06	14.3	0.11	63.7	0.49
California	26.4	0.20	9.8	0.07	21.4	0.16	57.9	0.43
Colorado	29.6	0.42	4.6	0.07	9.6	0.14	44.3	0.63
Connecticut	38.2	0.55	5.3	0.08	13.3	0.19	57.4	0.81
Delaware	38.7	1.07	4.6	0.13	10.4	0.29	54.8	1.48
D. of Columbia	27.2	0.91	7.0	0.23	31.8	1.06	67.2	2.21
Florida	37.1	0.23	5.6	0.03	13.7	0.08	56.6	0.34
Georgia	34.0	0.20	5.9	0.03	14.5	0.08	54.7	0.32
Hawaii	30.7	0.72	4.9	0.11	16.2	0.38	52.6	1.21
Idaho	32.5	0.54	5.8	0.10	11.2	0.19	50.1	0.83
Illinois	38.3	0.28	5.7	0.04	18.9	0.14	63.2	0.46
Indiana	37.2	0.20	5.3	0.03	11.3	0.06	54.0	0.29
Iowa	36.9	0.47	6.8	0.09	11.3	0.14	55.5	0.70
Kansas	33.2	0.38	5.4	0.06	10.2	0.12	49.2	0.55
Kentucky	39.7	0.31	8.4	0.06	21.0	0.16	69.5	0.53
Louisiana	33.5	0.30	7.2	0.07	19.9	0.18	61.0	0.55
Maine	43.1	0.59	8.5	0.12	14.0	0.19	66.3	0.89
Maryland	33.4	0.24	4.9	0.04	15.0	0.11	53.6	0.39
Massachusetts	42.1	0.28	9.8	0.07	20.6	0.14	72.9	0.49
Michigan	37.9	0.20	6.9	0.04	15.6	0.08	60.7	0.31
Minnesota	38.0	0.28	6.1	0.05	13.1	0.10	57.6	0.42
Mississippi	39.3	0.47	8.3	0.10	18.0	0.21	66.1	0.78
Missouri	38.3	0.37	6.2	0.06	12.4	0.12	57.4	0.55
Montana	33.0	0.72	5.9	0.13	11.0	0.24	50.7	1.08
Nebraska	34.9	0.69	6.1	0.12	10.2	0.20	52.0	1.01
Nevada	32.7	0.45	3.8	0.05	10.4	0.14	47.4	0.65
New Hampshire	48.8	0.98	5.9	0.12	10.2	0.20	66.0	1.30
New Jersey	40.2	0.32	5.7	0.04	14.5	0.11	60.7	0.48
New Mexico	32.7	0.49	6.6	0.10	15.9	0.24	55.8	0.83
New York	39.0	0.27	9.0	0.06	23.5	0.16	71.9	0.49
North Carolina	39.9	0.21	6.0	0.03	12.3	0.06	58.5	0.31
North Dakota	33.9	0.71	6.0	0.13	8.8	0.18	49.5	1.02
Ohio	33.1	0.17	6.2	0.03	16.4	0.09	55.9	0.29
Oklahoma	31.0	0.25	5.0	0.04	12.1	0.10	48.4	0.39
Oregon	30.6	0.32	5.0	0.05	11.6	0.12	47.6	0.50
Pennsylvania	38.7	0.22	6.5	0.04	18.8	0.10	64.3	0.36
Rhode Island	40.2	0.91	9.3	0.21	18.6	0.42	69.2	1.55
South Carolina	42.1	0.42	5.8	0.06	13.1	0.13	61.5	0.61
South Dakota	34.1	0.66	6.5	0.13	11.2	0.22	52.6	1.01
Tennessee	37.6	0.34	6.4	0.06	14.4	0.13	58.9	0.53
Texas	28.6	0.17	5.2	0.03	13.7	0.08	47.6	0.28
Utah	29.1	0.44	4.1	0.06	9.1	0.14	42.8	0.64
Vermont	37.5	0.80	9.3	0.20	13.2	0.28	61.0	1.28
Virginia	37.9	0.25	5.6	0.04	12.5	0.08	56.3	0.37
Washington	31.5	0.37	5.1	0.06	14.0	0.17	51.1	0.60
West Virginia	41.4	0.57	7.4	0.10	21.1	0.29	70.6	0.96
Wisconsin	40.5	0.27	7.4	0.05	13.9	0.09	62.1	0.42

Notes: Based on analysis of 2008–2010 ACS data and published program statistics for December 2009. The denominators for the ratios in this table include both the noninstitutionalized and institutionalized working-age population with disabilities. The state of Wyoming is excluded from the table because information on its institutionalized population is not available.

Table B.4. Estimated Medicare and/or Medicaid participation ratios for the working-age population (ages 18–64) with disabilities, 2010

	SSDI-Only		SSDI and SSI		SSI-Only		SSDI or SSI	
	Ratio	SE	Ratio	SE	Ratio	SE	Ratio	SE
Alabama	25.2	0.21	17.5	0.14	17.2	0.14	60.2	0.49
Alaska	6.6	0.15	10.8	0.24	13.2	0.29	31.0	0.67
Arizona	19.3	0.24	13.0	0.16	13.0	0.16	45.7	0.56
Arkansas	23.6	0.18	17.2	0.13	15.9	0.12	57.1	0.44
California	14.9	0.11	16.2	0.12	25.4	0.19	56.7	0.42
Colorado	18.0	0.26	11.1	0.16	13.8	0.20	43.3	0.61
Connecticut	17.4	0.25	18.4	0.26	14.5	0.21	50.9	0.72
Delaware	19.4	0.54	16.1	0.45	12.1	0.33	48.6	1.31
District of Columbia	9.5	0.32	21.0	0.70	50.9	1.70	82.4	2.72
Florida	19.7	0.12	16.7	0.10	17.3	0.10	53.9	0.33
Georgia	19.5	0.11	15.1	0.09	17.0	0.10	51.9	0.30
Hawaii	15.4	0.36	13.7	0.32	18.0	0.42	47.9	1.10
Idaho	18.3	0.31	14.2	0.24	12.3	0.21	45.3	0.75
Illinois	19.2	0.14	17.7	0.13	20.4	0.15	57.5	0.42
Indiana	20.9	0.11	14.3	0.08	13.2	0.07	48.6	0.26
Iowa	15.5	0.20	20.7	0.26	13.2	0.17	49.9	0.63
Kansas	17.2	0.20	14.9	0.17	13.9	0.16	46.3	0.52
Kentucky	23.3	0.18	17.5	0.13	22.8	0.18	63.9	0.49
Louisiana	17.5	0.16	18.3	0.17	23.1	0.21	59.3	0.54
Maine	15.6	0.21	28.5	0.39	18.4	0.25	63.2	0.85
Maryland	18.5	0.13	13.2	0.10	21.8	0.16	53.6	0.39
Massachusetts	14.0	0.09	29.1	0.20	29.0	0.20	72.3	0.49
Michigan	22.3	0.11	15.9	0.08	19.6	0.10	58.0	0.30
Minnesota	16.3	0.12	20.1	0.15	15.2	0.11	51.9	0.38
Mississippi	20.7	0.25	20.8	0.25	21.4	0.25	63.4	0.75
Missouri	21.0	0.20	15.7	0.15	18.5	0.18	55.5	0.53
Montana	21.2	0.46	12.1	0.26	12.5	0.27	46.5	0.99
Nebraska	16.5	0.33	17.2	0.34	11.9	0.24	46.3	0.91
Nevada	21.0	0.29	9.4	0.13	9.7	0.13	40.4	0.55
New Hampshire	24.7	0.49	17.0	0.34	13.1	0.26	55.5	1.10
New Jersey	22.5	0.18	14.8	0.12	16.8	0.13	54.4	0.43
New Mexico	18.1	0.27	15.4	0.23	18.1	0.27	52.1	0.78
New York	20.2	0.14	19.1	0.13	27.5	0.19	67.1	0.46
North Carolina	21.6	0.11	18.2	0.10	16.3	0.09	56.3	0.29
North Dakota	18.2	0.38	15.6	0.33	9.3	0.19	43.8	0.90
Ohio	17.7	0.09	16.0	0.08	19.1	0.10	53.0	0.28
Oklahoma	16.6	0.13	13.4	0.11	12.4	0.10	42.7	0.34
Oregon	16.2	0.17	13.5	0.14	13.6	0.14	43.6	0.46
Pennsylvania	18.6	0.10	18.7	0.10	26.8	0.15	64.2	0.36
Rhode Island	19.6	0.45	19.5	0.44	23.3	0.53	63.4	1.42
South Carolina	24.3	0.24	17.0	0.17	15.0	0.15	56.7	0.56
South Dakota	17.3	0.34	16.3	0.32	12.8	0.25	47.0	0.90
Tennessee	19.1	0.17	19.6	0.18	17.9	0.16	56.9	0.51
Texas	16.0	0.09	12.3	0.07	14.8	0.09	43.3	0.25
Utah	16.5	0.25	11.3	0.17	12.2	0.19	40.4	0.61
Vermont	14.4	0.31	24.9	0.53	15.0	0.32	55.2	1.16
Virginia	21.8	0.14	14.1	0.09	13.3	0.09	49.5	0.32
Washington	16.4	0.19	14.5	0.17	20.6	0.24	51.8	0.61
West Virginia	24.5	0.34	17.4	0.24	28.1	0.39	70.6	0.96
Wisconsin	19.1	0.13	19.5	0.13	16.5	0.11	55.4	0.37

Notes: Based on analysis of 2008–2010 ACS data, published Medicare statistics for July 2010, and MSIS SSD data for December 2009. The denominators for the ratios in this table include both the noninstitutionalized and institutionalized working-age population with disabilities. The state of Wyoming is excluded from the table because information on its institutionalized population is not available.

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