Disability Benefit Coverage and Program Interactions in the Working-Age Population

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Summary

Over three-fourths of the working-age population in the United States is insured for Disability Insurance (DI); this group is protected against a total loss of earned income typically associated with severe disability. However, little is known about the role the Supplemental Security Income (SSI) program plays in protecting against the financial consequences of severe disability for this population. We find that over one-third (36 percent) of the working-age population is covered by SSI in the event of a severe disability. Three important implications follow, which we discuss in sequence below: (1) SSI increases the overall coverage of the working-age population; (2) SSI enhances the bundle of cash benefits available to disabled individuals; and (3) interactions with other programs also enhance the safety net, most notably in the area of health insurance coverage. Ignoring these implications could lead to inaccurate inferences about disability program coverage, health insurance coverage, and the well-being of working-age individuals with disabilities.

The first major finding is that SSI substantially increases overall cash benefit coverage. Thus SSI dramatically increases protection against the financial risk of disablement in the working-age population. While roughly 23 percent of the U.S. working-age population was not insured for DI in November 1996, SSI provides coverage for more than half of this seemingly "uncovered" population. An important innovation of our analysis is that we account for the possibility that many of those who appear ineligible for SSI based on current income could become eligible as a result of a disability shock that causes their earnings to drop. Thus the estimated proportion that is protected by SSI increases when the possibility of earnings loss because of disability is considered.

Considering DI and SSI together, roughly 90 percent of the working-age population would be potentially covered for benefits in the event of a disability. Those who are covered by SSI—as opposed to those covered by DI alone—tend to be relatively young, less educated, and in relatively poor health. The remaining 10 percent or so are not covered by either DI or SSI. This group is economically vulnerable in some sense (they are poorer, older, and more likely to be women than those covered only by DI), but they are not as economically vulnerable in terms of income, resource holdings, and private health insurance coverage as those who are eligible for SSI. A disproportionate share of those who are not covered by either DI or SSI consists of married women.

The second major finding is that SSI substantially enhances the bundle of available cash benefits. Roughly one-third of those covered by DI are initially covered by SSI as well. SSI enhances the bundle of available cash benefits through two mechanisms: (1) SSI provides cash payments during the 5-month DI waiting period, and (2) SSI supplements the DI benefit after the DI waiting period for people whose initial SSI payment is larger than the DI benefit.

We find that the role of SSI cash payments is temporary for most of those who are initially covered by both SSI and DI: They would receive SSI during the DI waiting period, but would lose SSI eligibility afterwards because the higher DI benefit completely offsets the SSI benefit. However, a smaller group of DI beneficiaries with low DI benefit levels would continue to be covered by both SSI and DI after the DI waiting period because the relatively low DI benefit would not completely offset the SSI benefit.

The third major finding is that interactions with other programs also substantially enhance the safety net. The most important interactions involve health insurance coverage. In the working-age population, Medicare is available to DI beneficiaries, but only after a 24-month waiting period. By contrast, SSI is an important pathway to Medicaid benefits for severely disabled adults with limited income and resources and has no waiting period. SSI can provide a pathway to health insurance coverage during the 24-month Medicare waiting period for some DI beneficiaries through providing access to Medicaid.

Interactions with other programs, such as Temporary Assistance for Needy Families (TANF), Food Stamp, Unemployment Insurance (UI), workers' compensation (WC), and veterans' disability programs, modify the role of DI and SSI in protecting people against the adverse financial effects of disablement. The nature of the interactions with other programs differs depending on individual circumstances. Employment-related programs (including UI, WC, and veteran's disability programs) are particularly important for those who are covered by DI. By contrast, the means-tested programs (including TANF and Food Stamp) are more important for those who would be eligible for SSI.

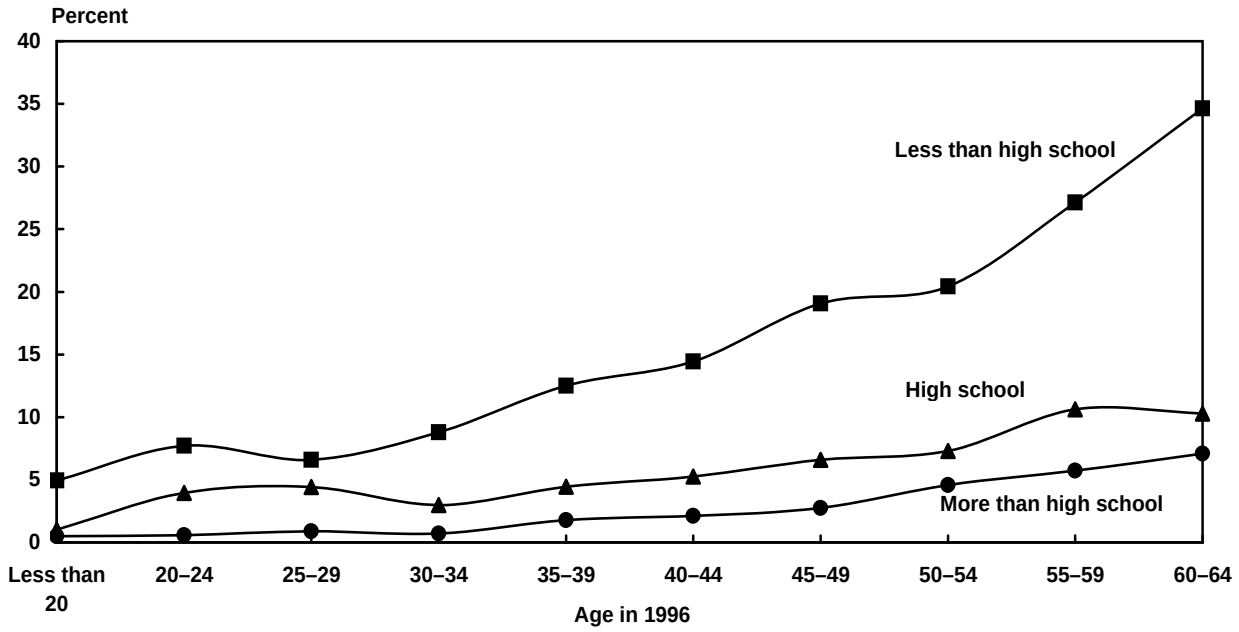
In conclusion, SSI plays a substantial role in protecting working-age people against the adverse financial consequences of disablement through three mechanisms: (1) providing coverage to many who are not DI insured; (2) providing additional cash benefits to many who are DI insured and also covered by SSI; and (3) enhancing the social safety net by interacting with other programs, most notably Medicaid. Through these mechanisms, the role of SSI is substantial enough that it cannot be safely ignored in econometric and policy research on DI.

Introduction

This article analyzes the role of the Supplemental Security Income (SSI) and Social Security Disability Insurance (DI) programs in protecting the working-age population against the adverse financial consequences of becoming disabled. Our focus is not limited to current participants in these two major disability programs administered by the Social Security Administration (SSA). We take a broader view. We are interested in the extent to which these two programs insure against the financial consequences of disability for the entire working-age population in the United States, most of whom currently are neither disabled nor SSI or DI participants. Adapting a term frequently used in the health care financing literature—insurance coverage—our focus here is "disability benefit coverage." Specifically, we are focusing on the coverage provided by the two major public disability programs in the United States: DI and SSI. We define a person as "covered" by DI if the person is "DI insured." Likewise, a person is "covered" by SSI for the working-aged if he or she meets the SSI income and resource screen in the event of potential disablement and meets citizenship and residency requirements. Note that this concept of "coverage" is broader than the concept of program participation. In fact, the bulk of those who are covered by SSI or DI are not current participants because they either have not applied for one or both, or have applied but do not currently meet the strict disability definition of these programs.

The risk of becoming disabled faced by the working-age population is difficult to determine; however, some information is given by observed patterns of DI and SSI participation over the working-age portion of the life cycle. Chart 1 shows the proportion of individuals in different age groups that has ever participated in DI or SSI by 1996.[1] The chart shows how the proportions vary by educational attainment. The risk of participation increases with age for all education-level groups, but the increase is most striking for those with less than a high school education. Among those aged 60–64 in 1996, nearly 35 percent had at some point participated in the DI or SSI program during their lifetime. These data suggest that the risk of disablement during the working-age years may

Chart 1.
Percent ever participated in DI/SSI by November 1996 among subgroups, by educational attainment and age



SOURCE: Survey of Income and Program Participation matched to Social Security Administration administrative records, November 1996.

NOTE: DI = Disability Insurance; SSI = Supplemental Security Income.

be substantial. Thus it is important to learn about the degree to which the working-age population is protected against the financial risks of disablement. This very issue is the focus of our article.

The size of the population that is currently covered by the DI program against the financial consequences of becoming disabled, called the "DI-insured population," is routinely estimated by the Social Security Administration. In contrast, there have been no previous studies to estimate the size and characteristics of the working-age population that is covered by the SSI program. In this study we provide the first estimates of the size and characteristics of the working-age population that is covered by SSI, DI, or both.

The rest of the article is organized as follows. In the next section we provide some programmatic background. The outline of the research questions follows, with a brief assessment of the extent to which they have been addressed by previous literature. This is followed by a description of the data and methodology. The substantive results are presented next, addressing (a) prevalence of DI/SSI coverage, (b) characteristics of population segments defined by patterns of coverage, and (c) access to alternative or complementary safety net protections. Finally, we identify issues for future research.

Programmatic Background

To qualify for DI benefits in the event of disablement one has to be "DI insured." DI-insured status is conditioned on the history of covered earnings. In general, DI-insured status requires both 20 quarters of coverage in the previous 10 years and a quarter of coverage for each year after the person reaches age 21.[2] The former requirement is modified for people younger than age 31, but generally follows the pattern of requiring one quarter of coverage for each two calendar quarters that have elapsed since the age of 21. A quarter of coverage is currently defined as a specific amount of earnings and was equivalent to $640 in 1996. Importantly, the DI program is not means tested.

The SSI program provides income support for some economically vulnerable aged, disabled, or blind persons and couples. In contrast to DI, SSI is means-tested: Program rules include an income and resource test. Federal SSI payments are calculated as the difference between the federal benefit rate (FBR) and countable income.[3] All elderly persons satisfying the financial eligibility rules are categorically eligible for

SSI payments. In contrast, working-age persons need to meet SSA's disability screen as well to qualify.

The SSI disability screen for the working-aged is identical to the screen used for the DI program. Under both programs, for a person to be considered disabled, he or she should not be able to engage in any substantial gainful activity (SGA)[4] because of a medically determined impairment that is expected either to result in death or last for at least 12 months. The impairment must be the primary reason for the inability to engage in SGA. This is a strict definition of disability in that the person must be not only unable to do previous work, but also any other type of work considering age, education, and work experience. It does not matter whether such work exists in the person's immediate area, whether there is a job vacancy, or whether the individual would be hired.

Although SSI payments have no effect on DI benefits, Social Security (Old-Age, Survivors, and Disability Insurance, or OASDI), is treated as countable income by SSI. Thus in most cases DI benefits reduce the size of SSI payments the person (or couple) would otherwise be financially eligible for on a dollar-for-dollar basis.[5] Interactions between SSI and OASDI also arise from other program features. Specifically, SSI payments start immediately upon meeting the means-test criteria and qualifying as categorically disabled, and DI benefits only begin after a 5-month waiting period from disability onset. Likewise, although SSI awardees in most cases immediately qualify for Medicaid,[6] there is a 24-month Medicare waiting period following entitlement to benefits among DI awardees. In fact, this may be better described as a 29-month waiting period because the 5-month DI waiting period and the 24-month Medicare waiting period are additive. Thus, SSI cash payments and associated Medicaid eligibility may enhance the DI safety net. The timing of applications and awards may also affect the potential benefits available from the different programs. For example, if the application occurs months after the onset of qualifying disabilities, DI benefits may be retroactively awarded for a period up to 12 months before the application date. By contrast, retroactive payments are not allowed for months before application in the SSI program.[7] The timing of final award decisions also affects the de facto availability of benefits. The wait for an award decision can be quite lengthy. For example, successful appeals of denials may take 500 days or more and result in retroactive lump-sum payments. According to SSA, the agency performance target for average processing time for hearing decisions was 524 days for fiscal year (FY) 2007, with an average of 541 days projected for FY 2008 (SSA 2007b).

Both the size of the DI program and the disability component of the SSI program have increased since the 1970s. From 1975 through 2005, the number of DI beneficiaries increased from 2.5 million to 6.5 million. Similarly, the number of working-age SSI recipients (including both disabled and blind) increased from 1.8 million to 4.1 million over the same period. In contrast, the aged component of the SSI program has been decreasing in size; the number of SSI recipients aged 65 or older decreased from 2.5 million to 2 million over this period.[8]

Research Questions and Previous Literature

The purpose of this article is to fill a gap in the literature by addressing the role of SSI in supplementing DI in terms of population coverage and the bundle of benefits available in case of severe disablement. We address three specific research questions focusing on (1) coverage provided by the SSI and DI programs in the working-age population, (2) characteristics of subpopulations identified by various patterns of access to SSI and/or DI, and (3) access to alternative or complementary safety net protections. We discuss each of these briefly here.

Our first research question addresses the relative size of the working-age population that is covered by the SSI and DI programs in the event of disablement. Specifically, we are interested in SSI's role in providing coverage for some people who are not currently DI-insured. In addition, we are interested in the role of SSI in enhancing cash benefits among those who have access to both SSI and DI. We also briefly explore the overall importance of these safety net protections during different time horizons using a 10-year follow-up window. This angle—the probability distribution of the risk of disablement—is relevant in that the overall value of safety net protections is a multiplicative function of three factors: the probability of coverage, the value of the benefit bundle conditional on coverage, and the probability of disablement conditional on coverage. The second research question addresses how the characteristics of the subpopulations defined by various patterns of DI and/or SSI coverage differ in terms of demographics, health and disabilities, and economic well-being. Our third research question addresses access to alternative or complementary safety net protections. We are particularly interested

in (1) access to other sources of cash income in the event of disablement and (2) access to Medicaid and Medicare, as well as other sources of health insurance. The role of Medicaid is of particular importance here. SSI may enhance the safety net for the DI-insured not only directly (cash payments), but also indirectly, through facilitating access to Medicaid.

This analysis fills an important gap in the research literature by focusing on the role of SSI and how it complements DI. Previous studies tend to concentrate on either one program or the other. For example, there have been excellent overviews of the DI program, such as that by Bound and Burkhauser (1999), but this literature has largely ignored SSI. Another gap filled by our article is its focus on SSI for working-age disabled persons. Most previous SSI studies have focused primarily on the elderly, such as those of McGarry (1996, 2002), Davies (2002), Davies and others (2002, 2004), and Rupp, Strand, and Davies (2003).

However, while the literature is sparse, there are a few previous studies with more direct relevance to the subject of our article. Mitchell and Phillips (2000, 2001) provide interesting analyses of the vulnerability to potential disablement among the working-age population, particularly the near elderly, by analyzing factors affecting DI-insured status or the lack of it. However, they do not explicitly account for the role of SSI. Rupp and Scott (1998) provide the first estimate of SSI financial eligibility among the working-age population and analyze some interactions between SSI and DI. Rupp and Davies (2004) look at the role of SSI and DI in providing a safety net for economically vulnerable segments of the working-age population and find that SSA's disability programs play a much larger role over the individual life cycle than one might infer from cross-sectional rates of participation. Meyer and Mok (2006) also provide a life-cycle perspective, analyzing the relationship between disability event history, earnings, income, and consumption.

Burkhauser and Wittenburg (1996) look at interactions between DI, SSI, and other disability programs, as well as Medicaid and Medicare. Honeycutt (2004) analyzes program and benefit paths to DI. Gruber and Kubik (2002) focus on the role of health insurance coverage in the DI application decision. Riley (2006) analyzes the role of Medicaid during the 24-month Medicare waiting period. Foote and Hogan (2001) and Riley, Lubitz, and Zhang (2003) also focus on health care, disabilities, and health care cost among working-age Medicare beneficiaries.

Our study builds on previous efforts that analyze the role of SSI and DI as safety net protections for the working-age population by comprehensively looking at the interactions between the two programs in providing coverage for disablement. Thus, our article breaks new ground in terms of estimating the size and characteristics of the working-age population covered by SSA's two disability programs, as well as by taking a broader view of important program interactions, most notably with Medicaid and Medicare.

Data and Methodology

The source of data for this study is the 1996 panel of the Survey of Income and Program Participation (SIPP) matched at the individual level to Social Security administrative records. The analysis sample is limited to persons aged 18–64 in the United States noninstitutional population in November 1996. The source of date of death is SSA's Social Security number identification (Numident) system.[9] DI and SSI beneficiary status is defined on the basis of current payment status in November 1996 using information from SSA's Master Beneficiary Record (MBR) and the Supplemental Security Record (SSR). The data are weighted to account for the complex SIPP sample design and for the lack of valid Social Security numbers for some SIPP sample members. The weighted estimates are designed to provide unbiased estimates of the relevant population values. We calculate standard error estimates that use a simple adjustment to account for the complex SIPP sample design effect (DEFF).[10]

Our research methodology is based on three components:

1. Measuring SSI financial eligibility status and DI-insured status using the SSA Office of Retirement and Disability Policy's Financial Eligibility Model (FEM),
2. Modifying the FEM to account for the role of own earnings in establishing both categorical and SSI financial eligibility for the working-age population, and
3. Modifying the concept of concurrent DI and SSI coverage to account for the dynamic interaction of the two programs arising from the 5-month DI waiting period.

Next, we briefly address the first of these components, which is a relatively simple adaptation of methods that have been used in other studies, and then

discuss the last two, more innovative, aspects of our methodology in greater detail.

Measurement of SSI Financial Eligibility Status and DI-Insured Status

The establishment of SSI financial eligibility status is based on a modified version of the FEM, which is a static simulation model focusing on SSI financial eligibility, participation, and the assessment of various SSI policy options. The key elements of the FEM are described in Davies and others (2002). The basic structure of the FEM is similar to the SSI model that was developed by McGarry (1996, 2002) except that the FEM utilizes administrative records matched to the survey data and contains a more detailed algorithm to establish SSI financial eligibility. The previous applications of the FEM have focused on the elderly. A key element of the FEM—as applied to the aged—is a financial eligibility calculator that estimates potential SSI income and resource eligibility for any sample member regardless of actual program participation. The eligibility calculator is based on detailed SSI income and resource eligibility rules applied to survey data on income and assets from the SIPP.[11] For those persons deemed financially eligible for SSI, the FEM calculates expected (hypothetical) federal SSI payments based on the applicable federal benefit rate (individual or couple unit) and countable income from the SIPP.[12]

We modified the FEM to add a DI benefit calculator that applies Social Security program rules to each sample member's earnings history as reflected in the Summary Earnings Record. The calculator establishes DI-insured status and computes expected (hypothetical) DI benefit amounts for all sample members aged 18–64, regardless of actual program participation. The calculator mimics program rules in determining DI-insured status based on "quarters of coverage." We note that DI-insured status and categorical eligibility as disabled are totally independent variables, which contrasts with the SSI program, where financial eligibility and categorical eligibility based on disability are interrelated. We explain this difference below.

The Substantial Gainful Activity Test and SSI Financial Eligibility

Our first innovation is to account for the role of own earnings in establishing SSI coverage among the working-age population. The relationship between the financial and categorical eligibility variables needs to be carefully considered for the working-age population. Among the elderly, SSI financial eligibility is independent of categorical eligibility, since all elderly citizens of the United States who meet minimum residency requirements are categorically eligible for SSI. In contrast, among the working-age population, the reference person's *own* earnings affect both SSI income eligibility and categorical eligibility as disabled in the initial eligibility determination because of the SGA test. The SGA test results in the presumptive denial of disability benefits for applicants with *own* earnings higher than the SGA threshold. As we explain below, this interdependence of the two eligibility screens warrants a modification of the SSI financial eligibility algorithm.

To address the role of SGA-level *own* earnings in affecting SSI financial eligibility, we construct two distinct measures of eligibility. Both measures use the same basis for determining resource eligibility but differ in the measurement of income eligibility. One is the conventional measure of income eligibility based on *current* countable income, which reflects income eligibility that is conditional on current earnings observed for the reference month. Our second measure is designed to capture *potential* income eligibility in the hypothetical event of categorically qualifying disablement. We conservatively assume that *own* earnings under this second scenario are "*SGA-constrained*." For people whose *current* earnings are below SGA, there is no difference between "current" and "potential" SSI income eligibility. For people whose *current* earnings are above SGA, a potential disability shock severe enough to result in categorical eligibility as disabled requires a drop in *own* earnings to below-SGA levels. This earnings drop, in turn, might result in potential SSI income eligibility for people whose (predisability) current earnings would result in failure to meet the income test.[13] Our "*potential SSI financial eligibility*" measure simply reflects hypothetical SSI income eligibility that is conditional on SGA-constrained *own* earnings combined with the conventional measure of resource eligibility.

In this recalculation we assume all other sources of income and resources are unchanged. Thus, we assume away potential changes in spousal labor supply, spend down of resources, qualifying and starting to receive employer-sponsored pension benefits, and so on. The various topics are all worthy of further research, but we believe that the shift to SGA-constrained earnings is distinct in that it is directly related to the SSA definition of categorical disability and also to SSI income eligibility. Therefore, it is of primary importance. In

the remainder of this article, unless otherwise stated, the term "SSI eligible" refers to people who are "covered" by the SSI program in the sense that their potential income under the assumption of SGA-constrained earnings would qualify them for SSI in the event of severe disablement.

Our approach is supported by some early findings from an emerging literature on the various effects of "health shocks" that use longitudinal data that are better suited to consider complex interactions. Coile (2004), for example, finds that health shocks result in dramatic reduction of the labor supply of the affected worker, but finds that the hypothesized spousal "added-worker effect" is small for men, and finds no evidence for women. Coile notes that the direction of the spousal labor supply effect is ambiguous for a variety of reasons including complementarity of spousal leisure and home production in the form of caregiving.

The 5-Month DI Waiting Period and Dynamic Program Interactions: Serial and Joint Eligibility

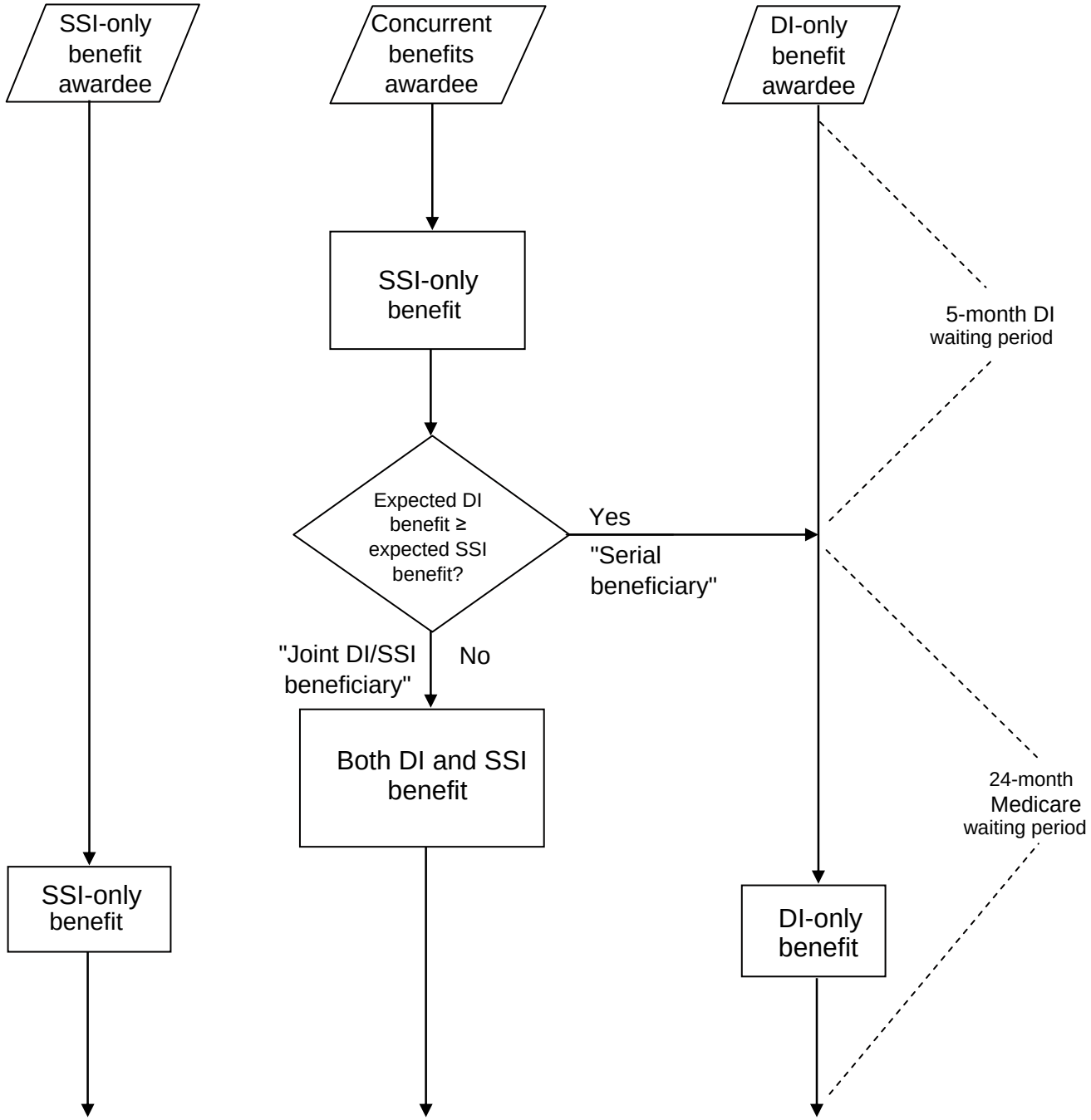
Our second methodological innovation is warranted by the existence of the 5-month DI waiting period, which complicates the determination of SSI financial eligibility because DI benefits need to be considered in establishing income eligibility for SSI. Thus SSI financial eligibility status may be different during the 5-month DI waiting period than after DI benefits begin. SSI coverage is relevant in terms of the value of safety net protections not only because of the potential SSI cash payment during the 5-month DI waiting period and beyond, but also because of the possibility of Medicaid coverage both during the 5-month DI waiting period and during the subsequent 24-month Medicare waiting period. SSI recipients are categorically eligible for Medicaid under most circumstances. In addition, Medicaid eligibility may continue even if SSI benefits discontinue as a result of DI benefits that may begin after the 5-month waiting period. For these reasons, we have considered the dynamic relationship between the 5-month DI waiting period and SSI financial eligibility in developing a refined classification of "concurrent" DI and SSI eligibility.

To address these interactions we consider what happens after the initial determination of eligibility to receive DI and SSI benefits. Because the categorical eligibility criteria are identical for the two programs (except for a lack of the SGA test for SSI blind individuals), a single process determines categorical eligibility as disabled. As Chart 2 shows, those persons who pass the SSA disability screen can be sorted into three groups by financial eligibility for SSI and DI benefits: SSI-only, concurrent, and DI-only. Assuming acceptance of SSI payments among those eligible and no changes other than the passage of time after initial award,[14] the chart shows the dynamic relationships in the benefit determination process. The financial eligibility and expected SSI payments of SSI-only awardees (left side of chart) are unaffected by the 5-month DI waiting period: SSI-only payments are to be rendered immediately following the onset of a qualifying disability. In contrast, DI-only awardees (right side) do not receive any disability benefits during the first 5-months after onset of disability, and receive DI-only benefits afterward.

The situation is more complex for concurrent benefit awardees (middle panel). For simplicity we ignore the fact that up to $20 a month of DI benefits may be excluded in the determination of SSI payments.[15] Concurrent awardees receive SSI-only payments during the 5-month waiting period, after which time, however, eligibility status and payment amounts are recalculated. Because DI benefits are completely offset in the SSI income eligibility determination, if expected DI benefits are greater than or equal to expected SSI payments (assuming the absence of DI), SSI payments stop as DI benefits begin after the 5-month DI waiting period. We call these people "serial beneficiaries" because they transition from SSI to DI beneficiary status. If the expected DI benefit is positive but less than the expected SSI payment, a reduced SSI payment reflecting the dollar-for-dollar DI offset continues after the 5-month DI waiting period. In effect, the person continues to receive combined cash benefits from the two programs that are equal to the SSI payment during the DI waiting period.[16] We refer to this second subgroup of concurrent beneficiaries as "joint beneficiaries."

An important caveat in interpreting Chart 2 is that it assumes disability application immediately upon the onset of a qualifying disability. However, unpublished Office of Retirement and Disability Policy tabulations and preliminary results from ongoing research indicate that this assumption may not hold in many cases. The implications differ by type of coverage. As noted previously, SSI rules prohibit retroactive payments for months before disability application and therefore potential SSI benefits are in effect forfeited. In contrast, DI benefits are payable for up to 12 months before application depending on the date of disability onset established by SSA. As a consequence, the por-

Chart 2.
Simplified DI and SSI benefit stream determination conditional on passing the SSA disability screen



SOURCE: Authors.

NOTE: DI = Disability Insurance; SSI = Supplemental Security Income; SSA = Social Security Administration.

tion of the DI waiting period for the post application period may be reduced or completely eliminated. This implies that the length of *serial* beneficiary status is reduced, or the applicant appears as DI-only as a result of forfeiting potential SSI payments because of the late date of application.

While Chart 2 illustrates what happens conditional on the establishment of categorical eligibility as disabled and benefit award, the underlying principles also can be used to classify current nonparticipants by coverage-status categories. We assign each sample member into one of the following five potential coverage-status categories:

1. DI-only coverage,
2. Serial SSI/DI coverage,
3. Joint SSI/DI coverage,[17]
4. SSI-only coverage, and
5. Neither DI nor SSI coverage.

The importance of distinguishing these five groups arises because they represent different patterns of cash safety net coverage. We note that coverage is unaffected by claiming behavior. As a result, the different DI and SSI program rules concerning onset of disability before application have no relevance for the establishment of coverage status. Membership in the five groups may affect the person's status in terms of noncash benefits as well—most notably, access to Medicaid and Medicare.

Empirical Results

In this section we provide empirical results addressing the three major study questions: (1) patterns of DI and SSI coverage, (2) characteristics of the population segments with various patterns of coverage, and (3) access to other safety nets.

Patterns of DI and SSI Coverage

The first column of Table 1 shows the basic results using our preferred, adjusted, potential SSI eligibility definition. According to our estimates, over one-third of working-age persons (36 percent) is covered by SSI.[18] This compares with our estimate that three-fourths (77 percent) of the working-age population is covered by DI.[19] Of course, there is an overlap because some people may be covered by both programs. The first column in the table provides a more detailed view of the distribution of the working-age population, both by DI and SSI coverage. Remarkably, the bulk (about two-thirds) of those who are covered by SSI are also DI insured.[20]

Perhaps most relevant is the combined role of SSI and DI. Mitchell and Phillips (2000) called attention to a substantial gap in DI-insured status among near-elderly men and for women in general. Looking at the working-age population as a whole and incorporating the role of the SSI program, we find that about 90 percent of the working-age population is covered by either or both programs. One way to look at the role of potential SSI financial eligibility is to note that it reduces the proportion of the working-age population that *appears* uncovered based on DI alone from about 25 percent (those who are not DI-insured) to roughly 10 percent. Over half (55 percent) of working-age persons who are not covered by DI[21] are covered by SSI.[22]

An important group is the almost one-quarter (24 percent) of the working-age population that is covered by both programs. For these people SSI enhances the cash safety net protection. As noted in the Data and Methodology section, it is important to distinguish between "serial" and "joint" eligibles because they fundamentally differ in the way that SSI supplements the DI cash benefit. Chart 3 shows the *serial* and *joint* subgroups separately. The vast majority of concurrent eligibles are *serially* eligible for the two programs (21 percent of the total working-age population), in contrast to the relatively small subgroup of *joint* eligibles (3 percent of the total working-age population).

Overall, these findings are consistent with the common view of DI as the main pillar of the safety net against the risk of severe disablement among the working-age population. What is new here is the finding that SSI plays a large role in supplementing this cash safety net in two principal ways: first, by reducing by half the percentage of the working-age population that is not protected against the adverse financial consequences of disablement; and second, by providing for almost one-third of the DI-insured additional SSI income to complement DI income.

Characteristics of Subgroups of Current Nonparticipants by Various Patterns of Coverage

What groups of the working-age population are affected by the availability of DI and/or SSI in the event of a disability? Those who are currently *participating* in either or both of SSA's disability programs are clearly protected, but form only a small fraction

Table 1.
Distribution of individuals aged 18–64, by SSI financial eligibility and DI-insured status based on alternative earnings assumptions, November 1996

SSI financial eligibility and DI-insured status	SSI income eligibility measure	
	Adjusted [a]	Unadjusted [b]
	Percentage distribution [c]	
DI-insured only	53.5	66.6
	(0.4)	(0.3)
SSI-eligible only	12.6	9.3
	(0.2)	(0.2)
Both DI insured and SSI eligible	23.5	10.4
	(0.3)	(0.2)
Neither	10.5	13.7
	(0.2)	(0.2)
Total percent	100.0	100.0
	Percent of total [c]	
SSI eligible, including DI insured	36.1	19.7
	(0.3)	(0.3)
DI insured, including SSI eligible	77.0	77.0
	(0.3)	(0.3)
SSI eligible and/or DI insured	89.6	86.3
	(0.2)	(0.2)
Total number [d]	44,384	44,384

SOURCE: Survey of Income and Program Participation (SIPP) matched to Social Security Administration (SSA) administrative records, November 1996.

NOTES: The universe for Table 1 includes both current participants and nonparticipants.

SSI = Supplemental Security Income; DI = Disability Insurance.

a. Own earnings adjusted to account for substantial gainful activity (SGA) ceiling of the SSA categorical eligibility screen.

b. Own earnings unadjusted for SGA ceiling of the SSA categorical eligibility screen.

c. Weighted. Estimated standard errors in parentheses. The standard error estimates assume a design effect of 2.34 to account for the complex SIPP sample design (see Census Bureau, 2001, Table 4, p. 22).

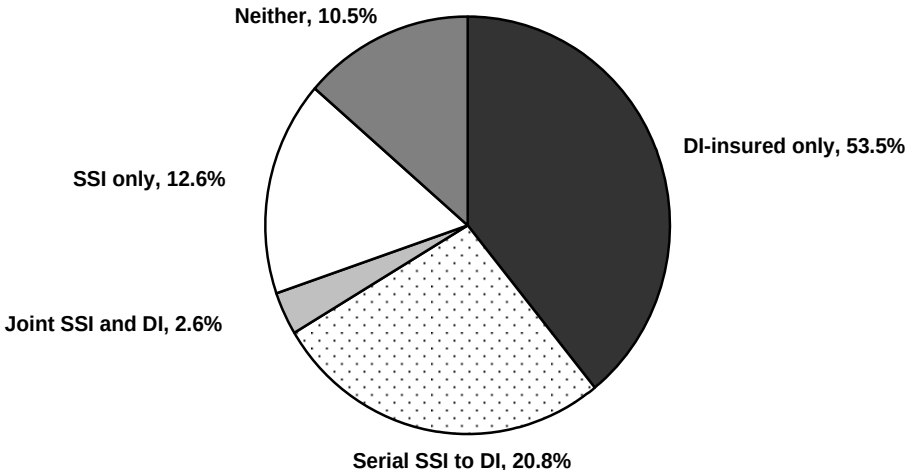
d. Unweighted number of sample observations.

of the working-aged. The bulk of the working-age population consists of current *nonparticipants*. In this section we focus on the characteristics of the nonparticipant population with various patterns of coverage.

Table 2 presents demographic characteristics of the five principal groups of DI and SSI nonparticipants by their patterns of coverage. Four of those groups are covered by DI and/or SSI, and a fifth group consists of people who are not covered by either program.[23] The demographic differences between those groups covered by SSI and/or DI can be understood in the context of associations with life-cycle differences in the attainment of DI-insured status, differences in labor force attachment, and other factors affecting SSI financial eligibility. For example, we can expect people in their twenties to be less likely to be DI-insured than others further ahead in their life cycle and to be the least likely to have accumulated assets above the SSI threshold. Likewise, low levels of education are expected to be associated with relatively weak labor force attachment and relatively low earnings, both increasing the probability of SSI eligibility and either the lack of DI-insured status or expected DI benefits low enough to assure long-term dependence on SSI in the event of potential disability. People with minor children are also expected to be more likely to be financially eligible for SSI than their peers who do not have minor children.

Thus it is not surprising that there is a clear contrast between the two groups that are covered only by one of the two programs. Compared with the group covered by DI alone, those covered only by SSI often are younger, women, nonwhite, unmarried, have less education, and no minor children. All of the relevant

Chart 3.
Percentage distribution of the working-age noninstitutional population, by potential SSI financial eligibility and DI-insured status, November 1996



SOURCE: Survey of Income and Program Participation matched to Social Security Administration administrative records, November 1996.
NOTE: SSI = Supplemental Security Income; DI = Disability Insurance.

subgroup comparisons indicate differences that are statistically significant, and most of them are large. Most of the characteristics listed above are historically associated with relatively low-earning potential (Sohota 1978).

Next we look at the two groups of concurrent eligibles. As expected, all SSI-covered groups tend to be relatively young compared with the DI-only group. Members of the two subgroups of concurrent nonparticipants in most cases have other characteristics that are in-between the DI-only and SSI-only groups. Also as expected, *joint* eligibles are often closer to SSI-only than are *serial* eligibles. They tend to be even younger than the SSI-only group.

An important and interesting group is the one not covered by either the DI or SSI programs. The noncovered group has the highest proportion of women among all of the groups, and—consistent with the findings of Mitchell and Phillips (2001) concerning the decline of DI-insured status among the near elderly—the highest proportion of nonparticipants in the oldest (aged 46–64) age group category. However, the noncovered group is fairly similar to the DI-only group on all other demographic measures. This suggests that an important subset of the noncovered group may include relatively old, predominantly white (non-Hispanic) women with relatively weak labor force attachment who are married to spouses whose earnings and assets may disqualify them from potential SSI financial eligibility. In effect, family resources may provide a nontrivial cushion for these people in the event of potential disablement. The data are also consistent with the hypothesis that others may be economically vulnerable for some of the same reasons that Mitchell and Phillips suggest. Older men and women who lose DI-insured status may have income and resources that marginally disqualify them from potential SSI financial eligibility. All in all, there may be substantial heterogeneity within the category of those who appear unprotected by the DI and/or SSI public cash benefit safety nets in terms of economic vulnerability. In the analyses below we present additional evidence that is directly relevant for the assessment of this internal heterogeneity.

Table 3 provides data on several health, disability, and mortality indicators. The overwhelming impression here is that current nonparticipants tend to have "excellent" or "very good" current health status, and low prevalence of individual disabling conditions and mortality risk (measured by mortality status 4 and 10 years after the survey reference month). There is a striking, but not surprising, contrast between findings from the literature on the health, disability, and mortality risk of *current* disability beneficiaries.[24] Note, however, that the numbers in Table 3 represent popula-

Table 2.
Demographic characteristics of DI and SSI nonparticipants aged 18–64, by potential access to DI and/or SSI, November 1996

Characteristic	Current nonparticipants by potential access to DI and/or SSI [a]				
			Concurrent DI/SSI eligibles		
	DI-insured only	SSI-eligible only	Serial SSI to DI	Joint SSI and DI	Neither DI insured nor SSI eligible
	Percentage distribution [b]				
Age group					
18-30	17.1	58.6	45.6	72.8	16.4
	(0.4)	(1.1)	(0.8)	(2.1)	(0.8)
31-45	47.6	28.2	39.3	18.3	39.5
	(0.5)	(1.0)	(0.8)	(1.8)	(1.1)
46-64	35.3	13.3	15.1	8.9	44.0
	(0.5)	(0.7)	(0.6)	(1.3)	(1.1)
Total	100.0	100.0	100.0	100.0	100.0
Sex					
Women	46.4	61.8	44.5	55.9	70.3
	(0.5)	(1.0)	(0.8)	(2.3)	(1.0)
Men	53.6	38.2	55.5	44.1	29.7
	(0.5)	(1.0)	(0.8)	(2.3)	(1.0)
Total	100.0	100.0	100.0	100.0	100.0
Race/ethnicity					
White, non-Hispanic	85.3	52.8	66.4	61.8	77.7
	(0.4)	(1.1)	(0.8)	(2.3)	(0.9)
Black, non-Hispanic	6.3	19.9	16.5	19.5	6.7
	(0.3)	(0.9)	(0.6)	(1.8)	(0.6)
Hispanic	5.2	20.1	13.7	13.8	8.8
	(0.2)	(0.9)	(0.6)	(1.6)	(0.6)
Other	3.3	7.2	3.4	4.9	6.8
	(0.2)	(0.6)	(0.3)	(1.0)	(0.6)
Total	100.0	100.0	100.0	100.0	100.0
Marital status					
Married	77.7	28.0	31.9	15.0	79.3
	(0.4)	(1.0)	(0.8)	(1.7)	(0.9)
Widowed, divorced, or separated	10.8	15.5	25.2	14.5	7.8
	(0.3)	(0.8)	(0.7)	(1.6)	(0.6)
Never married	11.5	56.5	42.9	70.5	13.0
	(0.3)	(1.1)	(0.8)	(2.1)	(0.8)
Total	100.0	100.0	100.0	100.0	100.0

(Continued)

Table 2.
Continued

Characteristic	Current nonparticipants by potential access to DI and/or SSI [a]				
	DI-insured only	SSI-eligible only	Concurrent DI/SSI eligibles: Serial SSI to DI	Concurrent DI/SSI eligibles: Joint SSI and DI	Neither DI insured nor SSI eligible
	Percentage distribution [b] (cont.)				
Education					
Less than high school	5.0	30.1	14.2	19.7	10.4
	(0.2)	(1.0)	(0.6)	(1.8)	(0.7)
High school graduate	28.6	38.8	39.7	30.6	30.3
	(0.5)	(1.0)	(0.8)	(2.1)	(1.0)
More than high school	66.4	31.2	46.0	49.6	59.3
	(0.5)	(1.0)	(0.8)	(2.3)	(1.1)
Total percent	100.0	100.0	100.0	100.0	100.0
Presence of child under age 18					
Yes	44.8	51.6	41.4	42.1	46.6
	(0.5)	(1.1)	(0.8)	(2.3)	(1.1)
No	55.2	48.5	58.6	57.9	53.4
	(0.5)	(1.1)	(0.8)	(2.3)	(1.1)
Total	100.0	100.0	100.0	100.0	100.0
Total number [c]	21,331	5,117	8,953	1,089	4,586

SOURCE: Survey of Income and Program Participation (SIPP) matched to Social Security Administration (SSA) administrative records, November 1996.

NOTES: The universe for Tables 2 through 6 includes only current nonparticipants; current SSI or DI participants are excluded from the tabulations.

DI = Disability Insurance; SSI = Supplemental Security Income.

a. In the calculation of SSI financial eligibility, own earnings was adjusted to account for the substantial gainful activity ceiling of the SSA categorical eligibility screen.

b. Weighted. Estimated standard errors in parentheses. The standard error estimates assume a design effect of 2.34 to account for the complex SIPP sample design (see Census Bureau, 2001, Table 4, p. 22).

c. Unweighted number of sample observations.

Table 3.
Health, disabilities, and subsequent mortality experience of DI and SSI nonparticipants aged 18–64, by potential access to DI and/or SSI

Characteristic	Current nonparticipants by potential access to DI and/or SSI [a]				
	DI-insured only	SSI-eligible only	Concurrent DI/SSI eligibles: Serial SSI to DI	Concurrent DI/SSI eligibles: Joint SSI and DI	Neither DI insured nor SSI eligible
	Percentage distribution [b]				
Reported health status (reference month)					
Excellent	35.7	31.1	31.0	36.5	31.6
	(0.5)	(1.0)	(0.7)	(2.2)	(1.0)
Very good	36.9	29.8	34.4	30.2	32.8
	(0.5)	(1.0)	(0.8)	(2.1)	(1.1)
Good	21.7	26.0	26.0	20.8	23.6
	(0.4)	(0.9)	(0.7)	(1.9)	(1.0)
Fair	4.9	9.5	7.2	8.9	8.8
	(0.2)	(0.6)	(0.4)	(1.3)	(0.6)
Poor	0.9	3.6	1.4	3.6	3.2
	(0.1)	(0.4)	(0.2)	(0.9)	(0.4)
Total	100.0	100.0	100.0	100.0	100.0
Work-limiting condition, reported in two waves					
Yes	2.1	5.3	2.3	5.6	6.4
	(0.2)	(0.5)	(0.2)	(1.1)	(0.6)
No	97.9	94.7	97.7	94.4	93.6
	(0.2)	(0.5)	(0.2)	(1.1)	(0.6)
Total	100.0	100.0	100.0	100.0	100.0
Work-preventing condition, reported in two waves					
Yes	0.4	3.1	0.7	2.9	3.5
	(0.1)	(0.4)	(0.1)	(0.8)	(0.4)
No	99.6	96.9	99.3	97.1	96.5
	(0.1)	(0.4)	(0.1)	(0.8)	(0.4)
Total	100.0	100.0	100.0	100.0	100.0
Number of reported ADL limitations (reference month)					
None	99.7	99.4	99.7	99.4	99.1
	(0.1)	(0.2)	(0.1)	(0.3)	(0.2)
One	0.1	0.2	0.2	0.3	0.4
	(0.0)	(0.1)	(0.1)	(0.2)	(0.1)
Two or more	0.2	0.4	0.1	0.3	0.6
	(0.0)	(0.1)	(0.1)	(0.3)	(0.2)
Total	100.0	100.0	100.0	100.0	100.0

(Continued)

Table 3.
Continued

Characteristic	Current nonparticipants by potential access to DI and/or SSI [a]				
	DI-insured only	SSI-eligible only	Concurrent DI/SSI eligibles: Serial SSI to DI	Concurrent DI/SSI eligibles: Joint SSI and DI	Neither DI insured nor SSI eligible
	Percentage distribution [b] (cont.)				
Number of reported IADL limitations (reference month)					
None	99.3	98.2	99.4	98.6	98.0
	(0.1)	(0.3)	(0.1)	(0.5)	(0.3)
One	0.4	1.0	0.4	0.7	1.1
	(0.1)	(0.2)	(0.1)	(0.4)	(0.2)
Two or more	0.3	0.8	0.2	0.7	0.9
	(0.1)	(0.2)	(0.1)	(0.4)	(0.2)
Total	100.0	100.0	100.0	100.0	100.0
Number of hospitalizations during previous 12 months					
None	93.0	91.6	93.0	89.2	91.8
	(0.3)	(0.6)	(0.4)	(1.4)	(0.6)
One to five	5.5	6.1	5.5	8.3	6.2
	(0.2)	(0.5)	(0.4)	(1.3)	(0.5)
More than five	1.4	2.3	1.5	2.5	2.0
	(0.1)	(0.3)	(0.2)	(0.7)	(0.3)
Total	100.0	100.0	100.0	100.0	100.0
Number of doctor visits during previous 12 months					
None	21.6	36.1	34.8	30.7	19.6
	(0.4)	(1.0)	(0.8)	(2.1)	(0.9)
One to ten	69.6	55.1	58.0	60.4	69.2
	(0.5)	(1.1)	(0.8)	(2.3)	(1.0)
More than ten	8.9	8.9	7.2	8.9	11.2
	(0.3)	(0.6)	(0.4)	(1.3)	(0.7)
Total	100.0	100.0	100.0	100.0	100.0
Number of disability indicators [c]					
None	81.2	75.3	81.1	74.4	73.8
	(0.4)	(0.9)	(0.6)	(2.0)	(1.0)
One of five	12.8	14.9	12.7	14.4	15.4
	(0.3)	(0.8)	(0.5)	(1.6)	(0.8)
Two or more of five	6.1	9.8	6.3	11.2	10.9
	(0.2)	(0.6)	(0.4)	(1.5)	(0.7)
Total	100.0	100.0	100.0	100.0	100.0

(Continued)

Table 3.
Continued

Characteristic	Current nonparticipants by potential access to DI and/or SSI [a]				
	DI-insured only	SSI-eligible only	Concurrent DI/SSI eligibles: Serial SSI to DI	Concurrent DI/SSI eligibles: Joint SSI and DI	Neither DI insured nor SSI eligible
	Percentage distribution [b] (cont.)				
Mortality status 4 years after survey reference month					
Died by November 2000	0.6	1.0	0.8	0.7	1.3
	(0.1)	(0.2)	(0.1)	(0.4)	(0.3)
Alive in November 2000	99.4	99.1	99.3	99.3	98.7
	(0.1)	(0.2)	(0.1)	(0.4)	(0.3)
Total	100.0	100.0	100.0	100.0	100.0
Mortality status 10 years after survey reference month					
Died by November 2006	2.1	2.6	2.5	1.7	3.6
	(0.2)	(0.3)	(0.3)	(0.6)	(0.4)
Alive in November 2006	97.9	97.4	97.5	98.3	96.4
	(0.2)	(0.3)	(0.3)	(0.6)	(0.4)
Total	100.0	100.0	100.0	100.0	100.0
Total number [d]	21,331	5,117	8,953	1,089	4,586

SOURCE: Survey of Income and Program Participation (SIPP) matched to Social Security Administration (SSA) administrative records, November 1996.

NOTES: DI = Disability Insurance; SSI = Supplemental Security Income; ADL = activities of daily living; IADL = instrumental activities of daily living.

a. In the calculation of SSI financial eligibility own earnings was adjusted to account for the substantial gainful activity ceiling of the SSA categorical eligibility screen.

b. Weighted. Estimated standard errors in parentheses. The standard error estimates assume a design effect of 2.34 to account for the complex SIPP sample design (see Census Bureau, 2001, Table 4, p. 22).

c. Index is sum of the five 0–1 variables. The value "1" is assigned to each of the following: (1) fair or poor self-reported health status; (2) presence of work-preventing or work-limiting condition, reported in two waves; (3) two or more ADL limitations or two or more IADL limitations; (4) hospitalized during previous 12 months; and (5) more than ten doctor visits during previous 12 months.

d. Unweighted number of sample observations.

tion averages for a wide cross-section of the working-age—most of which shows no current sign of serious health problems or disabling conditions, in contrast to a highly select group of beneficiaries defined on the basis of meeting a stringent disability test.

When we look at subgroup differences, SSI-only eligibles tend to be worse off on the various measures of health, disability, and mortality than DI-only eligibles. This is notable, because SSI-only eligibles tend to be much younger than DI-only eligibles. Again, *joint* eligibles tend to be closer to SSI-only eligibles, and *serial* eligibles tend to be closer to DI-only eligibles. However, the members of the noncovered group tend to have somewhat poorer health status and more disabilities than the DI-only group, and in fact are fairly close to the SSI-only group.[25] Keep in mind, however, that the health, disability, and mortality indicators are not adjusted for age differences, and SSI-only eligibles tend to be much younger than DI-only eligibles.

Table 4 presents several indicators of economic well-being, illustrating how the five groups compare in terms of official poverty status (based on the Census Bureau's official poverty thresholds) and asset indicators. There are marked differences here. As expected, the poverty rate based on current income (including observed own earnings)[26] is much higher (35 percent) among those who are SSI-eligible only than among those who are DI-insured only (3 percent). *Joint*

Table 4.
Economic well-being of DI and SSI nonparticipants aged 18–64, by potential access to DI and/or SSI, November 1996

Characteristic	Current nonparticipants by potential access to DI and/or SSI [a]				
			Concurrent DI/SSI eligibles		
	DI-insured only	SSI-eligible only	Serial SSI to DI	Joint SSI and DI	Neither DI insured nor SSI eligible
	Percentage distribution [b]				
Observed poverty status					
Poor	3.4	35.0	16.7	39.5	7.7
	(0.2)	(1.0)	(0.6)	(2.3)	(0.6)
Nonpoor	96.6	65.0	83.3	60.5	92.3
	(0.2)	(1.0)	(0.6)	(2.3)	(0.6)
Total percent	100.0	100.0	100.0	100.0	100.0
	Percent of total with characteristics [b]				
Asset indicators					
SSI-countable assets below threshold	9.8	100.0	100.0	100.0	11.8
	(0.3)	(0.0)	(0.0)	(0.0)	(0.7)
Owns car	85.6	41.3	65.4	34.7	82.2
	(0.4)	(1.1)	(0.8)	(2.2)	(0.9)
Owns home	79.5	48.8	51.1	58.9	79.0
	(0.4)	(1.1)	(0.8)	(2.3)	(0.9)
Total number [c]	21,331	5,117	8,953	1,089	4,586

SOURCE: Survey of Income and Program Participation (SIPP) matched to Social Security Administration (SSA) administrative records, November 1996.

NOTES: DI = Disability Insurance; SSI = Supplemental Security Income.

a. In the calculation of SSI financial eligibility, own earnings was adjusted to account for the substantial gainful activity ceiling of the SSA categorical eligibility screen.

b. Weighted. Estimated standard errors in parentheses. The standard error estimates assume a design effect of 2.34 to account for the complex SIPP sample design (see Census Bureau, 2001, Table 4, p. 22).

c. Unweighted number of sample observations.

eligibles have a poverty rate (40 percent) that is even higher than the SSI-only rate, whereas *serial* eligibles have a poverty rate (17 percent) that is clearly lower than the rate for the other two SSI-covered groups, but higher than the rate for the DI-only group. The poverty rate of those who are not covered by either program is 8 percent. This is higher than the poverty rate of the DI-insured only group, but much lower than the poverty rate of the three groups covered by SSI.

When we compare the four groups that are covered by one or both programs by automobile and home ownership (neither of which affect SSI financial eligibility because the primary residence and in most cases one automobile are not countable resources), a key finding is that DI-only eligibles are better off than the three groups covered by SSI. Importantly, the group that is not covered by either program stands out as almost indistinguishable from the DI-only group. This is consistent with our previous findings of similarities between the two groups and our hypothesis that marriage may provide an important link between these two groups of individuals. While home ownership may provide a financial cushion in the event of disablement for anyone, it may be especially important for this "uncovered" group.

Consistent with the patterns we observed previously, the proportion of nonparticipants with countable assets below the SSI thresholds is about the same—roughly 10 percent—for DI-insured only eligibles and those without either DI or SSI coverage.[27] Thus roughly 90 percent in both groups are ineligible for SSI based on their countable resources, regardless of income eligibility. However, the role of this disqualifying factor is very different for the two groups. The DI-only group is by definition "covered," although a small fraction of this group may lose potential SSI enhancements as a result of asset ineligibility. However, failure to meet the (fairly low) SSI asset threshold may be the sole reason for SSI financial ineligibility—and thus the lack of disability benefit coverage altogether—for some among those who are not covered by either DI or SSI.[28] We note that there is substantial room for changes in SSI coverage for these two groups over a longer time-horizon.

Access to Other Programs

Coverage by other programs may increase or reduce the perceived value of DI/SSI coverage. The perceived value may be affected not only by expected cash benefits, but also by other factors such as associated noncash benefits and the length of the award decision period.[29] Table 5 provides information on *current* participation in two means-tested cash-assistance programs (Temporary Assistance for Needy Families (TANF) and Food Stamp) and four employment-related programs. Three of the employment-related programs explicitly condition eligibility on some definition of disability (workers' compensation (WC), veterans' disability benefits, and employer-sponsored disability benefits), although Unemployment Insurance (UI) does not. Estimated participation in all but the two means-tested programs is low. This qualitative conclusion should hold despite possible SIPP undercounting (Meyer and Sullivan 2006). Not surprisingly, TANF and Food Stamp participation is highest among SSI-only eligibles, closely followed by *joint* eligibles. Though the rate of participation in work-related programs is low among DI-only eligibles across the board, the point estimates are higher than for any of the SSI-covered groups.

Table 5 reflects participation in other programs at a given point in time (November 1996). However, from a dynamic perspective these other programs may form a bridge towards DI or SSI *entry*.[30] More detailed data (not tabulated) on participation in the six programs by employment status are suggestive in this regard. For the DI-only subgroup, participation in UI is relatively high (6 percent) among those currently *not* employed. TANF participation among currently *not* employed SSI-only eligibles is 22.3 percent in contrast to 7.6 percent for the currently employed. Food Stamp participation among SSI-only eligibles shows a similar contrast: 34 percent for those *not* currently employed compared with only 16 percent for the currently employed. Participation among those *not* currently employed tends to be relatively high across the board, as we should expect.

A related limitation of the SIPP information is that it refers to observed current participation rather than a broader concept of "access" or coverage. For example, we would like to identify those who are covered by WC or UI, but unfortunately we cannot do so with the SIPP. However, we can rely on aggregate data to gauge coverage by these other programs. For example, in 2004, WC covered 67 percent of the working-age population. The federal/state UI and unemployment compensation for federal employees programs covered 69 percent of the working-age population (authors' calculations based on National Academy of Social Insurance (2006)).[31]

Workers' compensation is both a substitute and complement to the DI program. It is a complement in

Table 5.
Estimated receipt of cash benefits from various programs among DI and SSI nonparticipants aged 18–64, by potential access to DI and/or SSI, November 1996

Program	Current nonparticipants by potential access to DI and/or SSI [a]				
			Concurrent DI/SSI eligibles		
	DI-insured only	SSI-eligible only	Serial SSI to DI	Joint SSI and DI	Neither DI nor SSI
	Percent of total currently receiving [b]				
Temporary Assistance for Needy Families	0.41	14.09	2.85	10.57	1.08
	(0.07)	(0.74)	(0.27)	(1.43)	(0.23)
Food Stamp	1.11	24.08	7.94	20.15	2.70
	(0.11)	(0.91)	(0.44)	(1.86)	(0.37)
Workers' compensation	0.40	0.11	0.09	0.02	1.06
	(0.07)	(0.07)	(0.05)	(0.07)	(0.23)
Veterans' disability benefits	0.92	0.27	0.28	0.00	0.93
	(0.10)	(0.11)	(0.09)	(0.00)	(0.22)
Employer-sponsored disability benefits	0.18	0.02	0.03	0.00	0.25
	(0.04)	(0.03)	(0.03)	(0.00)	(0.11)
Unemployment Insurance	1.39	0.48	0.87	0.28	0.64
	(0.12)	(0.15)	(0.15)	(0.24)	(0.18)
Total number [c]	21,331	5,117	8,953	1,089	4,586

SOURCE: Survey of Income and Program Participation (SIPP) matched to Social Security Administration (SSA) administrative records, November 1996.

NOTES: DI = Disability Insurance; SSI = Supplemental Security Income.

a. In the calculation of SSI financial eligibility, own earnings was adjusted to account for the substantial gainful activity ceiling of the SSA categorical eligibility screen.

b. Weighted. Estimated standard errors in parentheses. The standard error estimates assume a design effect of 2.34 to account for the complex SIPP sample design (see Census Bureau, 2001, Table 4, p. 22).

c. Unweighted number of sample observations.

that people may receive WC during the 5-month DI waiting period and beyond or as a lump-sum payment. Access to WC benefits during the 5-month DI waiting period provides an alternative to SSI among those covered by both DI and SSI. In addition, WC may pay for medical care. DI benefits are offset for WC beneficiaries, which reduces the incentive to apply for DI. Alternatively, an injured person may not file for WC in the anticipation of DI. Workers' compensation coverage is employment-related, so we surmise that it is mostly relevant for the DI-insured and provides virtually no coverage for SSI-only eligibles. Based on a comparison of national coverage rates we infer that some DI-insured are not covered by WC.

Unemployment Insurance is clearly a complement for DI-only eligibles by potentially providing coverage during the 5-month DI waiting period. In contrast, among concurrent SSI/DI eligibles, UI could serve as a substitute for SSI during the DI waiting period. Note that there is an apparent inconsistency between the UI requirement of active job search and availability to work and the need for successful DI applicants to prove inability to work. However, UI can serve as a bridge to DI in some cases. Disablement is a process with uncertain outcomes, and a UI applicant's disability may get progressively worse. Unsuccessful job search can also provide evidence to the potential applicant—and to SSA —of inability to work. Similar to WC, UI is probably not relevant for most SSI-only eligibles because it is conditioned on the presence of a recent period of employment.

A comprehensive analysis of interactions with other cash-assistance programs is beyond the scope of this article. Assessing the interactions of SSI and DI with alternative cash-assistance programs ideally would require an analytic framework and data that support measurement of coverage by all of the relevant programs in a manner similar to our calculation of DI and SSI coverage. Short of such data, one can make some inferences from information on the scope of

coverage, offset provisions, eligibility requirements, and relative attractiveness of potential cash benefits from the various programs. With respect to scope of access, we can hypothesize that interactions with State Disability Insurance (SDI) programs are less important than interactions with workers' compensation, simply because the former are available only in five states. With respect to eligibility requirements, means testing limits TANF and Food Stamp coverage. Further, TANF is also limited to working-age adults with children, and access to veterans' disability benefits are limited to a nontrivial, but small fraction of men and to an even smaller fraction of women. Conditional on meeting program-specific eligibility screens, interactions with other programs will also differ depending on the amount of expected benefits (relatively low in TANF, relatively high in WC); rules limiting receipt of benefits from both programs (the same person cannot simultaneously receive benefits from both TANF and SSI); and benefit offset provisions (DI benefits offset by WC benefits).

Overall, we can reach several broad conclusions. First, although interactions with other cash-assistance programs are important, their overall importance probably does not match the importance of interactions between the SSI and DI programs (Burkhauser and Wittenburg 1996; Honeycutt 2004). Second, other programs can have features of both substitutes and complements, as is the case with WC. Third, some programs (for example, SDI programs and UI) may be a complement to DI but a substitute to SSI for concurrent eligibles during the 5-month DI waiting period. Fourth, the frequent lack of employment experience among SSI-only eligibles[32] makes work-related cash programs less relevant for them compared with those programs' importance for DI eligibles (including concurrents). Fifth, means testing in TANF and the Food Stamp program severely limits access to cash-benefit programs among the DI only. Finally, DI-offset provisions and the SSI income test reduce the relative attractiveness of access to other cash-assistance programs.

Access to Health Insurance

Access to health insurance is an important topic for a number of reasons. Of particular relevance is that SSI awardees are categorically eligible for Medicaid in most cases. Another factor is the 24-month Medicare waiting period for new DI awardees. These program features may increase the incentive to apply for SSI payments. Whether such incentives are important or not, however, critically depends on access to health insurance through other venues.

Table 6 provides the percentage of eligible nonparticipants reporting access to various private or public sources of health insurance and a summary row providing the percentage with access to health insurance from any source. The DI-insured and the SSI-eligible groups provide some clear contrasts. First, about 20 percent of SSI-only eligible nonparticipants are Medicaid beneficiaries, and Medicaid is a negligible source of health insurance for those covered by DI only. The SSI finding suggests that SSI-based access to Medicaid may not be critical for a notable minority of SSI-only eligibles, because they have access to Medicaid through other venues.[33] Second, health insurance through the employer of the reference person is very important for the DI-only group of nonparticipants, though it is relatively unimportant for the SSI-only group. Third, almost one-third of both groups have access to health insurance under someone else's plan. Finally, all except for a small fraction of the DI-only group have access to health insurance from some source, although over one-third of SSI-only eligibles appear to be uninsured.

We note that some DI-only eligibles might lose access to employer-provided health insurance as a result of a potential disability shock, and some SSI-only eligibles might gain eligibility for Medicaid through some non-SSI category of Medicaid eligibility. Still, the contrast between the two groups is suggestive of differential access to health insurance. The data also suggest that lack of access to Medicaid may not be a huge problem for most in the DI-only group, and categorical Medicaid eligibility attributable to SSI may be important only for about a third of SSI-only eligibles who are not currently covered by any health insurance. This is a sizable subgroup, but clearly much less than 100 percent. Nevertheless, the implications of these conclusions are not entirely straightforward, because they are based on cross-sectional data, and disability shocks may be related to changes, such as changes in employment status, that modify access to health insurance. Chart 4 (top panel) shows, for example, that currently employed DI-only eligibles are much more likely to have access to own employer-provided health insurance (70 percent) than those who are not currently employed (26 percent), but access to other private insurance (spouse or dependent coverage) may partially compensate for this.[34] Chart 4 (bottom panel) shows that access to health insurance among SSI-only eligibles through Medicaid and family mem-

Table 6.
Access to health insurance among DI and SSI nonparticipants aged 18–64, by potential access to DI and/or SSI, November 1996

Health insurance status	Current nonparticipants by potential access to DI and/or SSI [a]				
			Concurrent DI/SSI eligibles		
	DI-insured only	SSI-eligible only	Serial SSI to DI	Joint SSI and DI	Neither DI nor SSI
	Percentage distribution [b]				
Health insurance from any source [c]	94.5	63.8	68.6	65.9	89.2
	(0.2)	(1.0)	(0.8)	(2.2)	(0.7)
No health insurance [d]	5.5	36.2	31.4	34.1	10.8
	(0.2)	(1.0)	(0.8)	(2.2)	(0.7)
Total	100.0	100.0	100.0	100.0	100.0
	Percent of total with characteristics [b]				
Medicaid	0.6	20.2	5.3	16.1	2.0
	(0.1)	(0.9)	(0.4)	(1.7)	(0.3)
Medicare	0.2	1.0	0.4	0.8	0.9
	(0.0)	(0.2)	(0.1)	(0.4)	(0.2)
Health insurance in own name, private	4.3	2.7	3.6	4.5	4.2
	(0.2)	(0.3)	(0.3)	(1.0)	(0.5)
Health insurance in own name, employer	63.2	12.1	46.9	6.7	31.1
	(0.5)	(0.7)	(0.8)	(1.2)	(1.0)
Health insurance in own name, military	1.1	0.4	0.9	0.5	0.8
	(0.1)	(0.1)	(0.2)	(0.3)	(0.2)
Health insurance under someone else's plan	32.9	29.5	14.0	38.1	55.2
	(0.5)	(1.0)	(0.6)	(2.3)	(1.1)
Total number [e]	21,331	5,117	8,953	1,089	4,586

SOURCE: Survey of Income and Program Participation (SIPP) matched to Social Security Administration (SSA) administrative records, November 1996.

NOTES: DI = Disability Insurance; SSI = Supplemental Security Income.

a. In the calculation of SSI financial eligibility, own earnings was adjusted to account for the substantial gainful activity ceiling of the SSA categorical eligibility screen.

b. Weighted. Estimated standard errors in parentheses. The standard error estimates assume a design effect of 2.34 to account for the complex SIPP sample design (see Census Bureau, 2001, Table 4, p. 22).

c. Includes people with health insurance from more than one source.

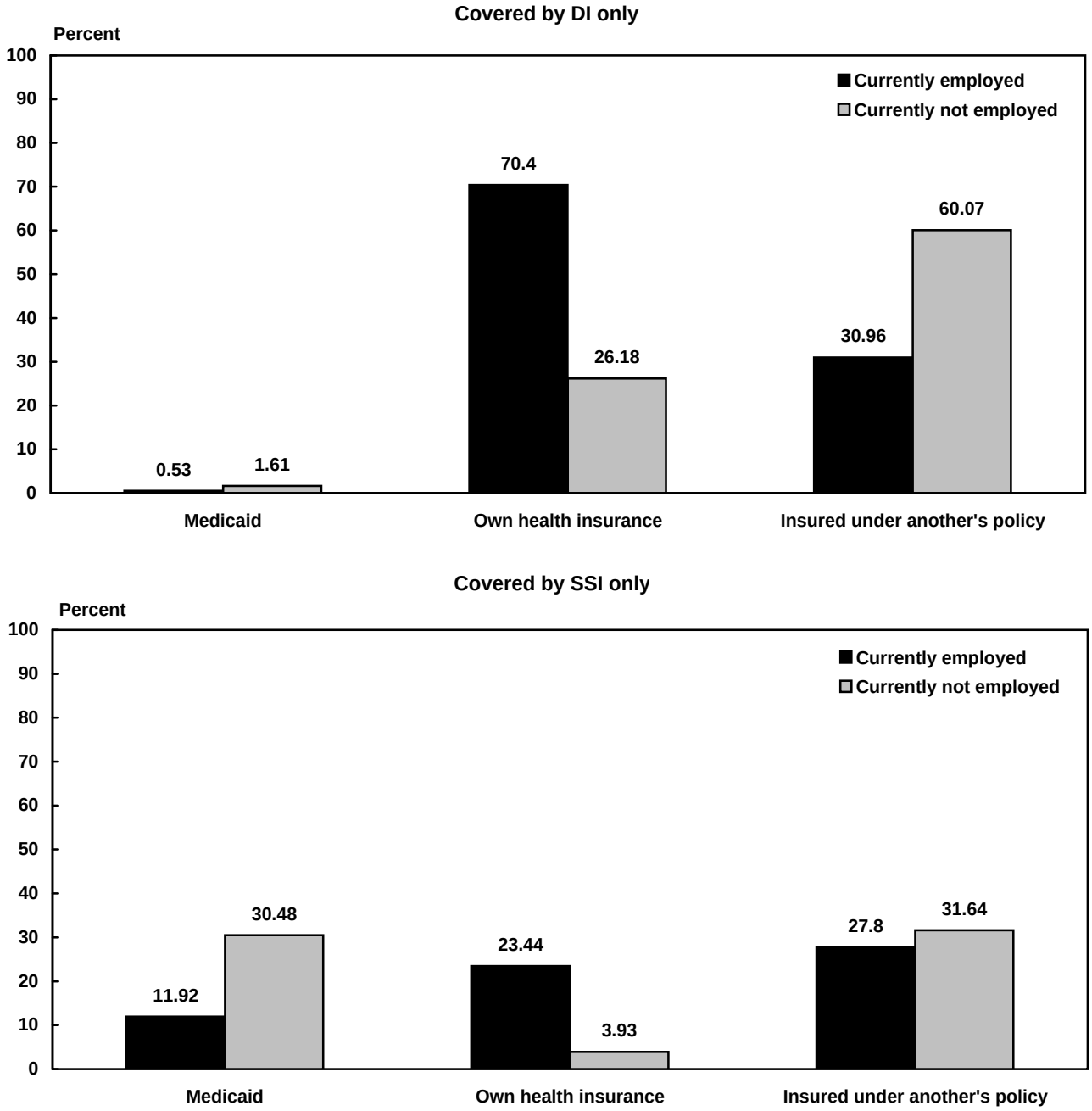
d. No health insurance from any of the six sources listed in bottom panel of table.

e. Unweighted number of sample observations.

bers is higher among those who are not employed than among those who are employed.[35] Among SSI-only eligibles, those who are not currently employed have greater access to Medicaid or health insurance under other people's policies than those who are employed. In contrast to the DI-only group, Medicaid and/or health insurance through family members more than fully compensate for the lower coverage through own health insurance among the not employed.

Generally, the two groups of concurrent eligibles are in between these two contrasting patterns. Importantly, both concurrent groups are fairly similar to the SSI-only eligibles in terms of the percentage uninsured, suggesting that SSI-conditioned Medicaid access may be almost as important for the concurrent groups as for the SSI-only group. Finally, one of the most fascinating findings concerning health insurance coverage is that those who are not covered by either disability program display a very high overall rate of health insurance coverage (89 percent), which is a close second to the DI-only group (95 percent of insurance

Chart 4.
Percent of DI-insured only and SSI-only eligible nonparticipants with health insurance from three major sources, by employment status, November 1996



SOURCE: Survey of Income and Program Participation matched to Social Security Administration administrative records, November 1996.

NOTES: Some persons may have coverage from more than one source; the percentages are not additive.

DI = Disability Insurance; SSI = Supplemental Security Income.

coverage).[36] Interestingly, these two groups contrast in terms of the proportion having health insurance coverage through their own insurance and through a family member. This provides another piece of evidence for the importance of the spouse as a source of safety net protection for some of those who are not covered by either the SSI or DI programs.

Those who are not covered by either SSI or DI are fairly similar to the DI-insured group in terms of overall access to health insurance, but display a somewhat different pattern with respect to the source of health insurance coverage; a family member—most likely a spouse—appears to be the dominant source of health insurance coverage.

Conclusions and Issues for Future Research

In this article we demonstrated that SSI provides coverage for over one-third of the working-age population against the financial risks of severe disablement. SSI supplements the DI safety net in two complementary ways: (1) it reduces the proportion of the working-age population who appear uncovered from about 23 percent to roughly 10 percent, and (2) it enhances the bundle of benefits available for a sizable group who are covered by both DI and SSI (about a quarter of the working-age population). SSI potentially fills a gap by providing temporary cash payments during the 5-month DI waiting period and also by supplementing DI benefits after the waiting period for some. In many states, optional state supplements enhance the role of SSI in complementing DI. In addition, access to Medicaid provides strong incentives to apply for SSI, although preexisting Medicaid eligibility and access to employer-provided health insurance dampens the incentives to apply in many cases. All in all, the role of SSI is substantial enough to question past practice in econometric and policy research on DI that essentially ignores SSI.

In this study we have focused on the potential availability of DI, SSI, and other safety net protections for the working-age population, most of which is currently not participating in either program. The "importance" or "relevance" of these safety net protections for current nonparticipants also depends on the risk of disablement that is severe enough to qualify for SSA's disability programs. Although the introduction gave some information about the retrospective risk of disablement, for those who were never disabled the relevant question is the probability distribution of the risk between the present time period and the time when they would qualify for benefits based on age alone.[37] We can actually observe DI and/or SSI disability program entry during the first 10 years after the survey reference month, based on SSA administrative records. Table 7 provides program entry probabilities for persons aged 18–54 using administrative records after the observation period of the SIPP. The first column shows entry probabilities for the five program coverage groups. The second column shows the overall percent that ever participated between the November 1996 reference month and October 2006. The difference is attributable to the stock of participants during the November 1996 reference month, most of which began program participation earlier. In general, the subgroups with higher cumulative entry probabilities also have higher probabilities of ever participating. Some subgroups of the working-age population have fairly high cumulative entry and participation probabilities. Those with less than high school education and three or more functional limitations stand out on both measures.

Chart 5 shows clear patterns of variation in 10-year trajectories for people aged 18–54 in November 1996, by disability program coverage groups.[38] The dynamic "importance" of the disability safety net varies substantially across subgroups defined by SSI and DI coverage. An important observation here is that disability program participation among those who are currently not eligible for either DI or SSI—although relatively low in comparison with the SSI-covered groups—is slowly moving upwards over time. This points to the importance of dynamic processes—such as asset depletion—that may affect changes in financial eligibility patterns. Chart 6 shows the cumulative entry probabilities over the 10-year follow-up period overall (all persons aged 18–54) and for two subgroups defined by educational attainment and disability status during the reference month, respectively. Similar to the overall average, the trajectory for the subgroups consisting of people with less than a high school education shows a fairly even gradual process of disability program entry. In contrast, people with three or more positive indications of disability in November 1996 have relatively high entry probabilities during the next couple of years. At the end of the 10-year follow-up period, we observe cumulative entry probabilities at more than twice the average (4 percent) for people with less than a high school education (9.5 percent). Almost one-third (32 percent) of people with three or more disability indicators during the reference month are observed to enter one or both disability programs during the same time period. In general, these patterns

Table 7.
Cumulative entry and participation probabilities among individuals aged 18–54 in November 1996, overall and for selected subgroups

Variable	10-year cumulative entry among November 1996 nonparticipants (December 1996 to October 2006)	Ever participated between November 1996 and October 2006
	Percent of total [a]	
All persons	4.0	7.4
	(0.2)	(0.2)
Eligibility group		
DI-insured only	3.4	6.3
	(0.1)	(0.2)
SSI financial-eligible only	6.0	14.3
	(0.2)	(0.3)
Serial SSI/DI	4.9	7.1
	(0.2)	(0.2)
Joint SSI/DI	4.6	11.3
	(0.2)	(0.2)
Neither DI nor SSI	2.7	3.3
	(0.1)	(0.1)
Education		
Less than high school	9.5	19.8
	(0.2)	(0.3)
High school graduate	4.9	8.8
	(0.2)	(0.2)
More than high school	2.6	4.1
	(0.1)	(0.2)
Disability indicators [b]		
None	2.3	2.8
	(0.1)	(0.1)
One or two	8.7	16.7
	(0.2)	(0.3)
Three or more	32.3	63.9
	(0.4)	(0.4)
Total number [c]	37,118	38,540

SOURCE: Survey of Income and Program Participation (SIPP) matched to Social Security Administration administrative records, November 1996.

NOTES: DI = Disability Insurance; SSI = Supplemental Security Income.

a. Weighted. Estimated standard errors in parentheses. The standard error estimates assume a design effect of 2.34 to account for the complex SIPP sample design (see Census Bureau, 2001, Table 4, p. 22).

b. Index is sum of the five 0–1 variables. The value "1" is assigned to each of the following: (1) fair or poor self-reported health status; (2) presence of work-preventing or work-limiting condition, reported in two waves; (3) two or more ADL limitations or two or more IADL limitations; (4) hospitalized during previous 12 months; and (5) more than ten doctor visits during previous 12 months.

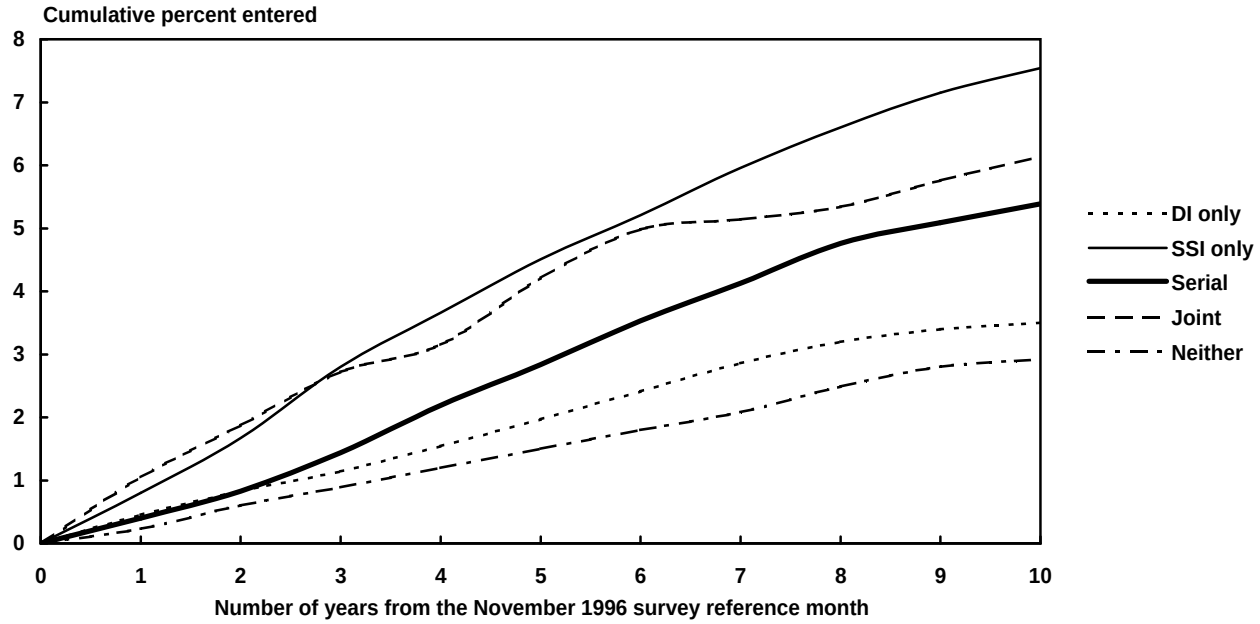
c. Unweighted number of sample observations.

are consistent with the results of Rupp and Davies (2004) that show that the disability safety net is enormously important from a life-cycle perspective for various vulnerable groups, such as the less educated. Overall, this preview of longitudinal patterns suggests the potential for future work using a life-cycle perspective.

Several specific areas of additional research are called for to enhance our understanding of the role of SSI in supplementing the DI safety net. Some important yet unexplored issues are as follows:

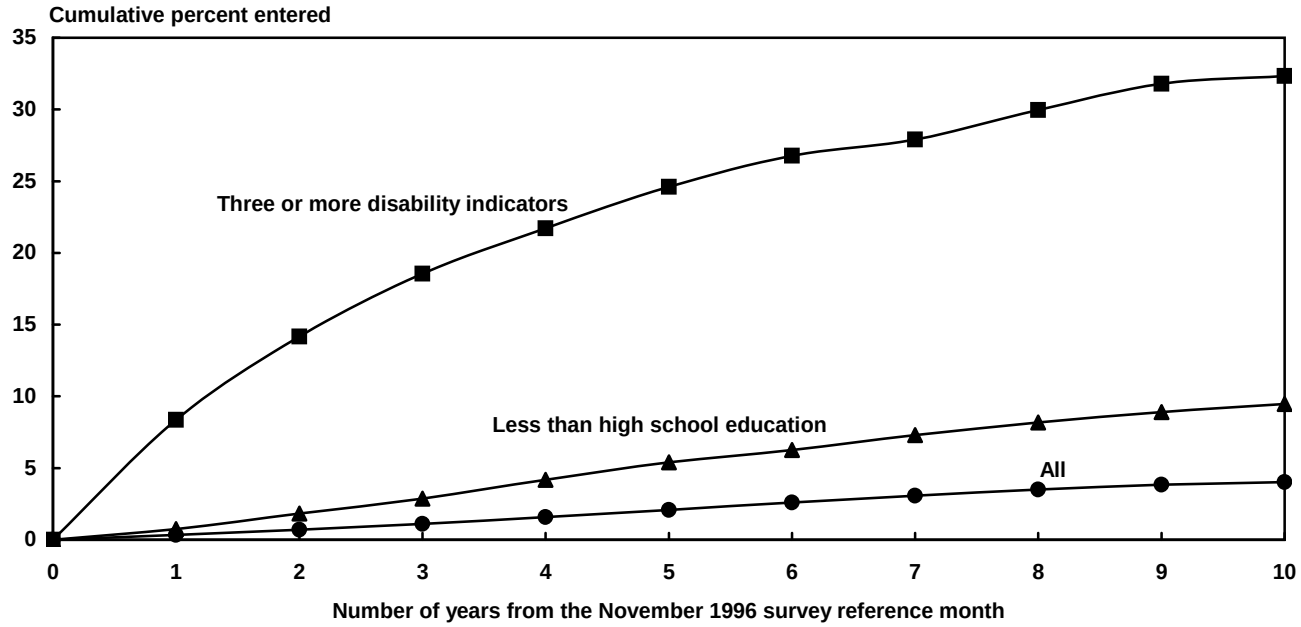
- *The effect of DI and SSI on income change associated with potential disability program entry.* This is clearly another important dimension of

Chart 5.
Cumulative disability program (SSI and/or DI) entry among nonparticipants aged 18–54 in November 1996, by DI-insured and SSI financial-eligibility status



SOURCE: Survey of Income and Program Participation matched to Social Security Administration administrative records, November 1996.
NOTE: SSI = Supplemental Security Income; DI = Disability Insurance.

Chart 6.
Cumulative disability program (SSI and/or DI) entry among nonparticipants aged 18–54 in November 1996, overall and for selected subgroups



SOURCE: Survey of Income and Program Participation matched to Social Security Administration administrative records, November 1996.
NOTE: SSI = Supplemental Security Income; DI = Disability Insurance.

the potential value of these safety net protections and should also help in understanding the financial incentives at work. The traditional concept of the DI wage replacement rate may be misleading because it ignores SSI/DI dynamic program interactions, is not applicable to people without labor force attachment, and ignores the broader family context. The broader, and more relevant, concept is net family income change attributable to qualifying disablement. Unlike the wage replacement rate, the net family income change concept can be applied both to persons with substantial labor force attachment and to others with little or no prior work experience. Finally, the wage replacement rate is not an indicator of distributional outcomes, yet net family income change is.

- *Long-term trends in disability coverage.* What changes can be expected in disability coverage in the future? What are the major factors underlying long-term trends in DI and SSI disability coverage? Relevant factors may include increased female labor force participation, changes in family structures, fertility, trends in real wages, and income distribution. Program design features, such as the wage indexing of initial DI benefits in contrast to the inflation-adjusted SSI income guarantee and the recent shift to wage indexing of the SGA threshold, may also affect future trends.[39]
- *Factors affecting disability program participation.* What are the differences in the rate of program participation among groups with varying patterns of SSI and DI coverage? Can such differences be attributable to differences in the demographic and disability/health status variables? Is there evidence to suggest that serial or concurrent coverage increases the propensity to participate? What are the implications of differences between the working-aged and the elderly for SSI simulation modeling?
- *The effect of DI and SSI coverage and potential benefit bundles on disability program entry that may result from a severe health/disability shock.* What are the longitudinal patterns of disability program entry? What are the effects of disability program entry on the financial well-being of subgroups with differential access to various programs, pension assets, and housing equity?
- *Longitudinal patterns of disability program participation and public health insurance coverage after first entitlement to benefits.* What proportion of new awardees has access to Medicaid before SSI or DI award? What is the role of Medicaid during the 24-month Medicare waiting period and beyond? What proportion of DI-only awardees eventually qualifies for SSI and Medicaid? What is the effect of the timing of disability applications and award decisions on the pattern of these safety net protections?

These and other topics can be addressed using a variety of data sources, such as the SIPP, the Health and Retirement Study, and linked Social Security, SSI, Medicare, and Medicaid records. Some issues can be fruitfully addressed using cross-sectional data, and others call for longitudinal designs.

Notes

Acknowledgments: This article is dedicated to Charlie Scott for his pioneering role in research and database development on the interactions of the DI and SSI disability programs. For useful comments and suggestions on earlier versions, the authors are indebted to Richard Balkus, Ben Bridges, Irena Dushi, Howard Iams, Linda Maxfield, John Phillips, Bob Weathers, and Susan Wilschke. We also acknowledge useful review comments received from SSA's former Office of Disability and Income Security Programs and Office of Legislative and Congressional Affairs. Any remaining errors are ours. The article reflects the authors' technical analysis and assessment; the opinions expressed do not reflect official positions of the Social Security Administration.

[1] In this chart, participation is restricted to participation in DI or in the SSI program as a disabled or blind working-age adult.

[2] DI-insured status does not require disablement. However, DI-insured status is necessary for a person to qualify for DI award. Once an applicant meets this test and is awarded benefits, we consider them to continue to have DI coverage.

[3] The FBR was $623 for a qualifying individual and $934 for a qualifying couple for calendar year 2007 and is subject to annual cost-of-living adjustments (COLAs). The corresponding values for 2008 are $637 and $956, respectively. In September 2007, the average SSI payment to recipients aged 18–64 was $482.40. In comparison, the average DI benefit to disabled workers in September 2007 was $979.70.

[4] The SGA is operationalized in terms of qualifying earnings at certain monthly levels. In 2007, for nonblind individuals, monthly earnings above $900 is treated as prima facie evidence of the applicant's ability to engage in SGA. The 2008 SGA is $940. The SGA determination is based on pretax earnings after deductions for impairment-related work expenses (if any) and considers some other factors as well. Since January 1, 2001, the SGA thresholds are subject to annual indexing to account for growth in average

wages. The 2007 SGA is about 1 percent above the monthly earnings of a full-time worker (assuming 2,080 hours of work per year) at the minimum hourly wage of $5.25 that has been in effect during recent years. In May 2007 the President signed a bill to increase the minimum wage in three steps. During the summer of 2007 the rate increases to $5.85 per hour: the 2007 annualized SGA amounts to only 89 percent of the annual wages of a full-time minimum wage earner at $5.85 per hour. (Authors' calculations based on http://www.dol.gov/esa/whd/, accessed on June 13, 2007.) The shift to a wage-indexed SGA in 2001 and the 2007 minimum wage legislation may affect the generalizability of the point estimates of disability benefit coverage we present later in the article, all based on 1996 data.

[5] There is a general income exclusion rule allowing for the disregard of up to $20 of income each month from any source.

[6] In fact SSI eligibility may lead to retroactive Medicaid eligibility for up to 3 months in some cases. States may establish Medicaid eligibility for the recipient as early as the first day of the third month preceding the month of application for SSI payments. (For more information, see SSA Program Operations Manual System (POMS) SI 01730.010).

[7] For further detail, see SSA POMS DI 25501.051 and SSA POMS SI 00601.009.

[8] For more information, see the *Annual Statistical Supplement to the Social Security Bulletin, 2006*, Tables 5.D3 and 7.A9.

[9] Also known as the Master File of Social Security Number Holders and Applications.

[10] The estimated standard errors of the proportions reported in this article were derived using the formula:

$$s.e. = \sqrt{[p*(1-p)/n]} * \sqrt{DEFF},$$

where s.e. = estimated standard error, p = estimated proportion, n = unweighted number of observations forming the base of the proportion, and DEFF = estimated design effect. Using information from the 1996 SIPP Source and Accuracy Statement (Census Bureau, 2001, Table 4, 22), we assume a constant DEFF = 2.34 to account for the complex SIPP sample design.

[11] In the current application of the FEM we ignore in-kind support and maintenance provisions that may affect financial eligibility.

[12] In our simulations we consider only the SSI federal cash benefit guarantee. Note that the SSI program also includes state supplementary benefits. Although state supplements are relevant to assess the expected total cash value of SSI benefits, they have a relatively limited effect on the determination of eligibility to receive SSI.

[13] Our measure is "conservative" because disability shocks may result in an earnings capacity reduced to zero or close to zero. Some may argue that the measure is not conservative in that people may have in-program earnings that are above SGA but do not lose benefit eligibility status as a result. However, the bulk of current beneficiaries have zero or below-SGA earnings, and only a small fraction has above-SGA earnings. More importantly, the key to the role of *own* earnings in estimating SSI coverage is this: For a person to transition from "nondisabled" to "disabled" status, it is necessary for earnings to be below or to drop below the SGA level. Before 2001, SGA had a "high" and "low" value. Persons with earnings below the "low" value are presumed to meet the SGA test. Those with earnings between the "high" and "low" values are subject to additional considerations, and persons with earnings above the "high" value are presumed not to be disabled. In 1996 the high and low SGA values were $500 and $300, respectively. We use the $500 value in our estimates, which results in somewhat more conservative estimates of the number of persons meeting the SSI financial eligibility test and the expected SSI benefits than the $300 value would render.

[14] If one allows for other changes over time, additional complexities arise. For example, some SSI-only awardees may gain DI-insured status because of work experience while in SSI benefit status. Likewise, DI-only awardees may become financially eligible for SSI as a result of asset spend down, changes in earned and unearned income, or marital status.

[15] We also ignore annual cost of living adjustments here to simplify the presentation.

[16] If the person has income amounting to $20 or more from other sources, our simplifying assumption that ignores the potential excludability of up to $20 of DI benefit makes no difference. In contrast, if the person has no income from other sources, the disposition as "serial" or "joint" beneficiary may be slightly different, and the combined monthly benefit after the 5-month waiting period will be up to $20 higher than the SSI-only benefit during the 5-month waiting period.

[17] Groups 2 and 3 combined are referred to as "concurrent eligibles."

[18] The second column of Table 1 presents the distribution using the unadjusted SSI financial eligibility measure (which is based on observed current income) to look at the sensitivity of the point estimates to the shift to our preferred eligibility measure (which accounts for the earnings loss that is a necessary condition of categorical eligibility) that is presented in the first column. Overall, the data show that the unadjusted measure substantially underestimates the proportion of the working-age population covered by SSI (20 percent versus the preferred estimate of 36 percent, and the difference is statistically significant). A salient detailed difference is the increase in the concurrent eligibles group and the corresponding decrease in the group that is only insured for DI as we move towards our preferred coverage estimate. Approximately one-fifth of those classified as DI-only under the unadjusted measure become concurrent eligibles under our preferred measure. Another important shift here is

from the "Neither" group to the SSI-only group for similar reasons. Almost one-fourth of those who appear ineligible for both programs under the unadjusted measure become SSI-only eligible under our preferred measure. All of the differences between the adjusted and unadjusted percentages of the four subgroups are statistically significant.

[19] This is comparable with the estimated 78 percent of the Social Security area population aged 20–64 that was DI-insured in 1995. (For more information, see Social Security Administration (2005), available at http://www.ssa.gov/policy/docs/chartbooks/fast_facts/2005/fast_facts05.html.) One reason for our estimate being somewhat lower is that we estimate the proportion for the population aged 18–64 representing a larger denominator without a tangible increase in the numerator. Adjusting for this difference in definition should increase the SIPP estimate to around 79 percent, which is slightly higher than SSA's estimate of 78 percent above, possibly because the SIPP sample frame excludes the institutional population.

[20] Authors' calculation: 23.5 / 36.1 = 65 percent.

[21] Author's calculation: 12.6 / (100-77) = 55 percent.

[22] We derived corresponding estimates for 1991 from the 1990 SIPP panel (wave 4, month 4 reference month). Overall the patterns were similar. We note that the proportion of DI-insured only (46 percent) and SSI-eligible only (10.8 percent) were relatively low in 1991. In contrast, a relatively high portion (30.3 percent) was classified as concurrent eligibles.

[23] Note that some of these people might transition to DI and/or SSI coverage at some point subsequent to the survey reference month.

[24] Rupp and Davies (2004) provide comparable information for both participants and nonparticipants.

[25] Mitchell and Phillips (2001) estimate probit models of DI-insured status and find that those who are in poor health are less likely to be DI-insured. Our findings here suggest that once SSI eligibility is explicitly accounted for, those who are not covered by either program are still more likely to be in poor health than DI-only and concurrent eligibles. Thus, while a big chunk of the seemingly uncovered population in the Mitchell-Phillips analysis is actually covered by SSI, their qualitative concern seems robust.

[26] Of course, the poverty rate can be recalculated using SGA-constrained *own* earnings and other assumptions about changes in family income such as changes attributable to disability program participation. This kind of exercise might be useful in some future study of net income replacement associated with disablement. However, in the current study we are focusing on the current characteristics of groups with different patterns of disability coverage. Therefore, the unadjusted poverty rate is the appropriate measure in this context.

[27] Actually, the DI-only group has an estimated proportion that is 2 percentage-points lower than for the other group. The difference is statistically significant, although the magnitude may not be meaningful.

[28] This may suggest some incentive for asset spend down. However, for those who are both income and asset ineligible this incentive is insufficient for gaining SSI eligibility. Also, many may simply spend down assets to substitute lost income associated with a disability shock or other factors, without engaging in strategic behavior. Both of these factors limit the potential scope of the moral hazard argument.

[29] The disability determination process is widely regarded as much longer and more cumbersome than the application process for many other programs, including TANF and Food Stamp.

[30] DI application may be delayed as a result of access to these alternatives; as discussed earlier this may result in forfeiting potential SSI payments. DI benefit eligibility would be affected only if the onset of a qualifying disability occurred 13 months or more before DI application.

[31] Although our primary interest here is coverage, other studies looking at the interaction among the various programs use different—and complementary—perspectives. The differences need to be considered in interpreting empirical results. For example, Burkhauser and Wittenburg (1996) look at simultaneous participation in several programs to gauge program interactions. Honeycutt (2004) also looks at participation, but uses a longitudinal design; his interest is in the antecedents of DI entry. Both of these perspectives are useful to describe realized (observed) participation patterns, but appear limited in terms of understanding the participation choices themselves. Information on coverage and other program parameters are relevant for describing the opportunity set of potential participants and the resulting decisions.

[32] Note that DI-insured status is conditioned on relatively stable prior employment experience. Conversely, SSI-only eligibility implies the lack of it. In addition, the SSI income test screens out people with substantial earnings.

[33] In some cases, people may lose such eligibility before actual disablement because of factors such as loss of TANF as a result of children passing age 18.

[34] In Chart 4 "Own health insurance" is the sum of "health insurance in own name, private" and "health insurance in own name, employer." The statistics may be a slight overestimate, because some people may have both. Note also that because some persons may have health insurance from several sources and others from none at all, the percentages in this chart do not necessarily add up to 100 percent.

[35] Both numbers reflect authors' calculation; data not shown.

[36] See Table 6.

[37] For our analytical sample, the full retirement age (FRA) and the SSI threshold of categorical eligibility as aged were identical—age 65. The two thresholds have been divorced more recently as a result of the gradual increase of

the FRA to 67. Another complicating factor is that people are eligible for early Social Security retirement benefits—with an actuarial reduction—at age 62. Thus the relevant life-cycle horizon definitely reaches age 62 for DI and age 65 for SSI, with the period between 62 years of age and the FRA characterized by the availability of both DI and Social Security early retirement benefits.

[38] Our interest is in disability program participation before reaching age 65. Persons aged 55 during the survey reference month would reach their 65th birthday by the end of the 10-year follow-up period, therefore we limited data in Charts 5 and 6 to persons aged 18–54 during the reference month.

[39] Under current law initial Social Security benefits are wage-indexed, but other indexing schemes have also been considered in recent discussions of Social Security reform options. The SGA threshold has been wage-indexed since January 2001; previously it was subject to ad hoc increases only. The SSI federal benefit rate is annually adjusted for changes in the consumer price index using the same formula that drives annual cost-of-living adjustments for Social Security benefits.

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