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Identifying Work Capacity and Promoting Work: A Strategy for Modernizing the SSDI Program

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Abstract

The Social Security Disability Insurance (SSDI) program, which provides income support to individuals who become unable to work because of a disability, has not been substantially reformed since the 1980s, despite sweeping changes in health, medical technology, and the functional requirements of jobs. I review how the SSDI program works, its history in terms of caseloads and reforms, and findings from the research evidence that offer lessons for the future. I then propose two interlocking reforms that would modernize the core functions of the program. The first is to improve SSDI's process for determining whether an applicant has remaining capacity to work by replacing the outdated medical-vocational "grid" with a new system of individual work capacity measurement. Second, I propose the introduction of partial disability benefits, which would make use of the new system for measuring work capacity, and allow beneficiaries to combine benefit receipt with work. Partial benefits could be paired with a generalized benefit offset to further encourage work by beneficiaries, and the Social Security Administration's complex array of work-related rules could be eliminated.

Keywords

Social Security Disability Insurance (SSDI); disability; work capacity; partial benefits

The U.S. Social Security Disability Insurance (SSDI) program provides income support to individuals who become unable to work because of a disability. SSDI is one of the largest social insurance programs in the United States. In 2017, it paid \$144.3 billion dollars in benefits to 8.7 million disabled workers and 3.0 million of their dependent family members (SSA 2018d). SSDI disabled workers as a group equate to 5.4 percent of the U.S. labor force (SSA 2018d; BLS 2019b).

The central policy tradeoff for the SSDI program is to provide protection against disability-related earnings losses, but in a way that does not induce labor force nonparticipation among people who could otherwise work. Balancing "insurance" against "incentives" is exceptionally difficult, and the political discourse surrounding SSDI throughout its history of expansion and retrenchment has reflected this deep tension. By 2014, the program had expanded in nearly every year since its birth in 1956, and was inching dangerously close to

insolvency. Some of the caseload growth was predictable, resulting from deliberate expansions of eligibility, rising labor force participation by women (increasing the number of SSDI-insured workers), or from population aging (Reno 2011; Liebman 2015). But much of the growth was due to the eroding labor market prospects of lower-skilled workers, who, despite significant health problems, might have otherwise worked (Autor and Duggan 2003; Liebman 2015). In 2014, the SSDI program began transitioning to a smaller steady-state size (Munnell et al. 2015), due to the natural fading of earlier demographic pressures and administrative changes at the appellate level. The program now appears solvent until 2052 (Board of Trustees 2019).

With the caseload contracting, the case for SSDI reform is no longer primarily a fiscal one.ⁱ As emphasized by Liebman (2015), the case for SSDI reform rests on the need to reoptimize the program to account for change in the composition of applicants. Originally a program for older men with clear-cut, permanent impairments (e.g., circulatory diseases), SSDI now serves men and women of all ages who more often than not have a musculoskeletal or mental impairment and diminished employment opportunities. Many of these individuals have some degree of residual work capacity. The case for reform is bolstered by the fact that the last major reform of the SSDI program was in the 1980s. The core structures that define who does and does not have work capacity have not been updated to keep pace with advancements in medicine, technology, or the functional requirements of jobs. SSA's listings of automatically qualifying impairments have been updated infrequently, despite decades of medical progress (SSA Office of the Inspector General 2015). Similarly, there have been no updates to the "medical-vocational grid" used by disability adjudicators to determine whether an applicant can do any other job in the national economy, despite broad structural change in the nature and skill demands of jobs.

Decades of research highlight five high-level takeaways that should guide reform. First, SSDI participation is not just a reflection of an individual's underlying health. It also reflects their labor market outcomes and prospects for future employment. Second, a significant portion of SSDI entrants have substantial work capacity. Third, they lose further work capacity during the SSDI application process because program rules require them to sit out of the labor market while they wait for a disability determination, a process that takes several years for some. Fourth, once people finally enter the SSDI program, they are unlikely to return to work, even when offered work incentives. Repeated policy efforts to incentivize work among beneficiaries have largely failed to increase work activity. Finally, SSDI provides immensely valuable social insurance benefits for American workers who experience a disabling health problem; it is essential to maintain this protection.

In light of these findings, the goals of reform should be to allow SSDI applicants to stay in the labor force for as long as possible, improve identification of what work capacity SSDI applicants have, and help them to use and augment their available work capacity before it is too late. I propose two major, interrelated reforms to the SSDI program that address these goals. The first is to improve measurement of work capacity and eliminate the outdated

ⁱLiebman (2015) argues the case was never primarily a fiscal one because SSDI's share of GDP grew by only 0.13 percent in the 30 years preceding the Great Recession—far slower than the SSDI caseload.

medical-vocational grid. The second is to award partial disability benefits for partial disabilities. Under a system that included partial benefits as well as full benefits, applicants could apply while still working, and the new system of work capacity measurement would more precisely identify their amount of remaining work capacity.

The article proceeds as follows. I first explain how the SSDI program works and how it has been changed over time. I then describe historical and recent trends, showing that the caseload has begun to decline after decades of unrelenting growth, while concurrently, employment among people with disabilities has risen. I next review the evidence from the literature that provides the basis for reform. I then present my reform proposals. I close by commenting on some of the other reforms that have been proposed in recent years.

Overview of SSDI

How SSDI works

SSDI is a federal social insurance program established in 1956 to protect individuals against loss of earnings due to a disability. Individuals and their employers pay SSDI insurance “premiums” in the form of payroll taxes, in the same way they contribute to the Social Security retirement program and to Medicare.ⁱⁱ Once individuals begin making payroll tax contributions, they become insured only after accruing sufficient “work credits.” The required number of credits increases with age, and at least half must have been earned recently.ⁱⁱⁱ

Although it is necessary to be insured for SSDI to obtain SSDI benefits, insured status is not enough to guarantee benefits. The Social Security Administration (SSA) must also determine that an applicant has a “medically-determinable mental or physical impairment” that *prevents* them from engaging in “substantial gainful activity” (SGA). SGA is defined as earnings of \$1,220 per month^{iv} or higher (in 2019), an amount roughly equivalent to a full-time job at the federal minimum wage. Individuals are not permitted to even apply for SSDI benefits if they are working at or above SGA. In addition, an applicant’s impairment must be severe and long-lasting—expected to result in death or last for at least 12 months. Importantly, partial disabilities resulting in partial loss of earnings capacity do not meet SSA’s definition of disability (unless the remaining work capacity is below SGA).^v

SSA’s medical review process is designed to identify and award benefits to two types of applicants: 1) those who have one or more especially severe medical impairments on the “listing of impairments;” and 2) those whose functional limitations in *combination with*

ⁱⁱSSDI payroll taxes are collected under FICA, the Federal Insurance Contributions Act. Self-employed individuals are responsible for the entire tax amount (12.4 percent of taxable earnings up to an annual limit) while wage-and-salary workers split the payments evenly with their employers.

ⁱⁱⁱOne work credit is earned for every \$1,360 in earnings (in 2019) and a maximum of 4 credits may be earned each year. Those who become disabled at ages 31–42 are insured for SSDI if they have accrued 5 years’ worth of work credits, and at least half the credits were earned in the most recent 10-year period. Those who become disabled before age 31 need fewer credits to be insured, while those disabled after 42 need more. The maximum number of credits required is 40, for individuals age 62 or older. The minimum number is 6, for individuals younger than 24. The requirement that credits be earned recently does not apply to individuals with statutory blindness.

^{iv}The SGA threshold is higher for statutorily blind individuals (\$2,040 in 2019).

^vThis stands in contrast with state workers’ compensation systems and disability insurance systems in many other countries that provide partial benefits for partial disabilities.

vocational background—their education, skills, and age—prevent them from performing any job in the national economy at or above the SGA level.^{vi} The initial disability review is performed by disability examiners in state agencies. If an applicant is initially denied SSDI benefits, he or she may appeal the decision.

Similar to Social Security retirement benefits, an individual's SSDI benefit is based on their average lifetime earnings, except there is no actuarial reduction in benefits for claiming before full retirement age. The average monthly benefit for a disabled worker was \$1,197 in 2018 (SSA 2018e). In addition to cash benefits, SSDI beneficiaries automatically qualify for Medicare following a 29-month waiting period.

Once benefits begin, SSDI beneficiaries are allowed to try working again, and a small number of beneficiaries are referred for SSA-financed vocational rehabilitation services. Beneficiaries may re-engage in work *above SGA* for up to nine months during what is called the trial work period.^{vii} But after that, any amount of earnings above SGA results in suspension of monthly cash benefits.^{viii} This abrupt loss of the entire benefit amount for as little as \$1 in additional earnings is often called the “cash cliff.” Once cash benefits are stopped because of work activity, the beneficiary enters a 36-month “extended period of eligibility,” during which time benefits can be restarted whenever earnings fall below SGA. After that, benefits are terminated but can be reinstated on an expedited basis during the next five years.

The early years of the SSDI program were marked by intentional program expansions. Benefits that were originally only for disabled workers aged 50–64 were quickly extended to disabled workers of all ages, as well as their dependent spouses, children, and disabled widow(er)s, and disabilities no longer had to be permanent, just “long lasting,” which was defined as lasting at least 12 months (SSA, n.d.). SSDI's first work incentive initiative, the trial work period, was established in 1960.

The caseload growth that followed this period of expansion was met with concerns about fiscal solvency. To curb program costs, in the late 1970s SSA tightened the medical eligibility criteria and pressured states to reduce initial allowance rates. As a result, the award rate fell from 45 percent in 1976 to 32 percent in 1980 (Autor and Duggan 2003). Adding to this effort, Congress passed the 1980 Social Security Amendments, which placed a cap on family benefits, revised the benefit computation formula, and established several work incentive initiatives (Kearney 2005/2006).^{ix} To encourage work, the SGA earnings test would now be applied to beneficiary earnings *net of* impairment-related work expenses, and if benefits were suspended for work activity, individuals could keep their Medicare coverage for an extended period. Furthermore, cash benefits could be re-started if a former beneficiary

^{vi}These medical criteria are the same as those used by the Supplemental Security Income (SSI) Program, the means-tested disability insurance program for individuals with low incomes and minimal work history.

^{vii}The nine months of the trial work period may be non-consecutive, and are followed by a three-month grace period, before benefits are suspended.

^{viii}Although cash benefits are suspended, Medicare benefits are maintained for 93 months. After this period ends, Medicare benefits may be continued under buy-in provisions. Some states offer premium assistance through Medicaid.

^{ix}The 1980 amendments also included performance standards to improve decisional consistency among adjudicators at the initial and appellate levels.

became unable to continue working during the new extended period of eligibility (originally just 15 months but extended to 36 months in 1987).

More controversially, the 1980 amendments added a requirement that beneficiaries be reassessed regularly to ensure continued qualification for benefits (called continuing disability reviews [CDRs]) (SSA, n.d.). The reassessment requirement, which resulted in a large number of terminations (especially among people with mental disorders), was met with intense resistance by states, administrative law judges, the courts, and the public. This backlash led to further amendments in 1984 that limited benefit terminations to cases of demonstrated medical improvement, or error in the initial determination. In addition, the functional capacity of applicants with multiple impairments was to be assessed taking into account the *combined effect* of all impairments (even if no one impairment was sufficiently severe on its own), the list of automatically qualifying mental impairments was to be revised, and it was clarified that pain could be a contributing (though not sole determining) factor in a disability award (SSA, n.d.).

Since the 1980s, Congress has enacted no major reforms of the SSDI program. Incremental changes include the elimination of substance abuse disorder as a qualifying disability in 1996, and the creation of the Ticket to Work and Self-Sufficiency Program in 1999, which provides employment services and supports to SSDI beneficiaries interested in returning to work. The most impactful program change has come not from Congress, but from SSA itself. Beginning in 2010, SSA's Appeals Council launched a management initiative to improve policy compliance and decisional consistency among administrative law judges, who hear appeals of denied claims (Ray and Lubbers 2014).^x The initiative, which included case reviews, direct feedback to individual judges, and a redesigned judge training curriculum, was associated with a large decline in the hearing-level allowance rate (Maestas, Mullen, and Strand 2018)—from 52 percent in 2010 to 38 percent in 2016 (SSA 2018d). Although the causes of the decline are not known with certainty, it appears the SSDI program may have recently undergone a major tightening.

SSDI trends

SSDI has long been characterized as a program undergoing unsustainable growth (see, e.g., Autor and Duggan 2006). Indeed, the DI trust fund was on course for depletion in 2016, when Congress averted benefit cuts of 19 percent by temporarily shifting a larger share of payroll tax revenues to the DI trust fund.^{xi} Since then, however, two surprising trends have shifted the narrative about the SSDI program. The first is that the SSDI caseload is unexpectedly and persistently declining. The second is that employment among people with disabilities is steadily rising, a surprising reversal of a decades-long downward trend. This section discusses these new facts in greater detail.

^xOther notable changes by SSA included a ruling in 2015 that all evidence relating to a disability claim must be submitted—including unfavorable evidence, and, in 2017, elimination of the long-standing rule that the treating physician's opinion should carry the most weight.

^{xi}See Fichtner and Seligman (2019, 4) for further information about the payroll tax reallocation legislated in the Bipartisan Budget Act of 2015, Pub. L. No. 114–74, 129 Stat. 584).

Figure 1 shows the SSDI disabled worker caseload from 1960 to 2017. The caseload increases during the 1960s and 1970s reflect the early expansions in eligibility, and the sharp decline in the early 1980s reflects the controversial terminations. The subsequent backlash restored the caseload to its upward trajectory. Between 1982 and 2013 the caseload more than tripled—from 2.6 million to 8.9 million, the latter number equivalent to 5.8 percent of the U.S. civilian labor force (BLS 2019b). Correspondingly, annual expenditures on cash benefits for disabled workers grew from \$13.8 billion to \$123.0 billion during this period (SSA 2018d). In 2014, the SSDI caseload plateaued, and in 2015 it began declining—for only the second time ever.

Initially, the growth in new SSDI awards was concentrated among people with circulatory system impairments (e.g., cardiovascular disease), as shown in Figure 2. The policy changes that followed the terminations in the 1980s made it easier for people with mental impairments and with pain to qualify, which shifted growth to mental impairments, followed by musculoskeletal impairments (e.g., back pain). The figure also shows a recent, sharp reduction in the number of new awards—primarily awards due to mental and musculoskeletal impairments—reflecting the sharp reduction in the hearing allowance rate (discussed above) and suggesting that sharply reduced inflows are at least part of the reason for the recent caseload decline.

But the recent caseload decline is also in part due to an increase in exits. Figure 3 plots the annual number of awards and exits (right axis), against the caseload stock (left axis), focusing on the period since 2001. The annual number of exits has nearly doubled (from 459,073 in 2001 to 859,020 in 2017) and beginning in 2014 has exceeded the annual number of new awards. Figure 4 shows that the vast majority of SSDI exits are accounted for by ever-larger numbers of Baby Boomers aging out of the program (and into the Social Security retirement program) at full retirement age, in demographically predictable fashion. Not predicted, however, was the surprising rise in program exits due to successful return to work, as shown in Figure 5. Although work exits are rare (just 0.5 percent of beneficiaries exit in this manner), it is nonetheless striking that work exits have nearly doubled since 2013.

It is possible that the strong labor market is driving the trend in work exits. During this period, there has been an unexpected and remarkable increase in employment among people with disabilities. Figure 6 shows the employment rate for people with and without work-limiting disabilities from 1988 to 2018. In approximately 2014, the employment rate among people with disabilities began to rise, after several decades of decline. The shaded areas denote the timing of recessions. While the employment rate has risen during the long recovery since the Great Recession, there was no such rise during the recovery from the 2001–2002 recession (shown) or prior recessions (not shown). Although speculative, this may point to structural changes in employers' willingness to hire individuals with disabilities, perhaps in response to growing labor demand pressures associated with population aging (Maestas, Mullen, and Powell 2016).

What the Research Evidence Tells Us

The research evidence to date points to five high-level findings that provide a basis for crafting future disability reforms. The first finding is that SSDI participation is not just a reflection of an individual's underlying health. It also reflects their labor market outcomes and prospects for future employment, both of which are affected by cyclical and structural labor demand conditions (see, e.g., Black, Daniel, and Sanders 2002; Autor and Duggan 2003; Charles, Li, and Stephens 2018; Maestas, Mullen, and Strand 2018), and which interact with SSDI program features. That economic factors should play an important role in SSDI participation is not surprising: nonparticipation in the labor market (technically, earnings below SGA) is a pre-condition for application, and SSA's decision rules are based on assumptions about the number of jobs for unskilled workers in the national economy (this is described in detail in the next section). Nonetheless, experts have disagreed about how much of the program's growth has been due to nonhealth factors, such as economic incentives. On one hand, as the program expanded after the mid-1980s, there was no evidence of a decline in population health (Autor and Duggan 2010; Burkhauser and Daly 2011), but strong evidence of weakening demand for low-skilled workers that occurred just as the 1984 amendments made the program more lenient and rising earnings inequality made the SSDI benefit more generous relative to the earnings of low-skilled workers (Autor and Duggan 2003). In contrast, others argued that even though the percent of the population in poor health had not increased, the *number* of people insured for disability benefits had risen dramatically—primarily women (who were acquiring work credits in greater number) and Baby Boomers (who were reaching middle age in ever-larger number) (Reno 2011). Liebman (2015) resolved the debate by showing that the sources of program growth differed over time. During 1985–1993 (the period immediately following the 1984 amendments),^{xii} women becoming insured and population aging accounted for very little program growth, implying that non-health factors were the primary drivers. But from 1993 to 2007, women becoming insured and population aging accounted for two-thirds of the growth, thus ascribing a smaller, though still important, role to nonhealth factors such as economic incentives.^{xiii}

The second take-away follows from the first: many SSDI beneficiaries retain (or recover) “residual” work capacity, indicating that for many, SSDI participation is an alternative to employment. But how much work capacity is retained or recovered has been the subject of considerable debate. Parsons (1980) found the SSDI program was responsible for the entire increase in labor force *non*participation among men aged 45–54 between 1948 and 1976.^{xiv} In other words, had the SSDI program not been established (and subsequently expanded), all of the additional nonworking men would have been able to work to some degree. This

^{xii}This is largely the time period examined by Autor and Duggan (2003).

^{xiii}It is difficult to precisely identify the relative contribution of economic factors from Leibman's (2015) analysis for two reasons. First, the effects of the business cycle on the SSDI program are held constant by the inclusion of the annual unemployment rate as a control variable. Other research demonstrates the importance of cyclical effects (see e.g., Black, Daniel, and Sanders 2002; Charles, Li, and Stephens 2018; Maestas, Mullen, and Strand 2018). Second, the effects of (noncyclical) economic conditions are not estimated separately but are captured by the portion of the disability incidence rate that is not explained by the demographic factors. The “disability incidence rate” is not the incidence of disability in the working-age population but, following SSA convention, the incidence of *SSDI award* in the working-age population.

^{xiv}Labor force nonparticipation by males 45–54 rose from 4.2 percent to 8.4 percent between 1948 and 1976 (Parsons 1980).

finding was critiqued for its reliance on nonrandom variation in the SSDI benefit amount, which, as a function of lifetime earnings, was potentially confounded with underlying health and labor force attachment (Haveman and Wolfe 1984a, 1984b; Bound 1989; Gruber 2000). Bound (1989) countered that the SSDI program was responsible for, at most, one-quarter of the rise in male nonparticipation. To obtain this estimate, he used denied applicants as a control group for SSDI beneficiaries, arguing that since denied applicants were healthier than beneficiaries (by virtue of having failed to meet SSDI's medical criteria), their post-denial labor supply was an *upper bound* on the work capacity of SSDI beneficiaries. Specifically, he found that the employment rate among SSDI beneficiaries would have been at most 35 percentage points higher, had they not been awarded SSDI benefits.^{xv} In response, Parsons (1991) argued that Bound's (1989) estimate was not an upper bound on the total effect of the SSDI program if denied SSDI applicants had *lower* labor force attachment than allowed applicants, or if the long SSDI application process eroded human capital. Evidence of both effects has since emerged.

Recent advances have made use of quasi-experimental variation and administrative data to pin down the residual work capacity of SSDI beneficiaries. Maestas, Mullen, and Strand (2013) found that approximately 23 percent of applicants were "on the margin" of an SSDI award, meaning that their chances of SSDI receipt depended entirely on the allowance propensity of the disability examiner to which they were randomly assigned.^{xvi} Using the examiner's allowance propensity as an "instrumental variable" for an applicant's chances of receiving an SSDI award, Maestas, Mullen and Strand (2013) found that the employment rate among this subset of SSDI beneficiaries would have been 26 percentage points higher in the absence of SSDI receipt. Furthermore, the employment rate would have been as much as 50 percentage points higher in the absence of SSDI receipt among the least impaired applicants in the group. Overall, their estimates imply that 43 percent of SSDI applicants have residual work capacity, of which about 18 percent ultimately qualify for benefits (calculations based on Maestas, Mullen, and Strand 2013), sometimes under the listings but more often under the outdated medical-vocational criteria. That said, the residual work capacity of these beneficiaries is a *partial* capacity, in the sense that their potential earnings in the absence of SSDI are substantially less than their pre-disability earnings; that is, even though many could work, they have nonetheless experienced a significant, disability-induced loss in potential earnings (see, e.g., Maestas, Mullen, and Strand 2013).^{xvii}

The third high-level finding relates to the second: residual work capacity declines even further the longer people spend out of the labor force (Autor et al. 2015). Although initial SSDI decisions are rendered in a matter of months, applicants who are initially denied and file an appeal often wait several years, during which time most do not risk disqualification by working, even though, strictly speaking, they could work as long as their earnings were below the SGA level. During this time out of the labor force waiting for a disability

^{xv}Von Wachter, Song, and Manchester (2011) corroborated Bound's (1989) estimate in more recent data.

^{xvi}French and Song (2014) obtain a similar estimate using the award propensities of disability judges who hear appeals of initial denials. Specifically, employment among SSDI beneficiaries would be 26–48 percentage *points* higher in the absence of SSDI receipt (Maestas, Mullen and Strand 2013; French and Song 2014; Autor et al. 2015).

^{xvii}Unfortunately, the available evidence does not reveal what specific types of work these individuals could perform; only what they could potentially earn in the absence of SSDI.

determination, their work capacity declines, likely due to skill depreciation or loss of attachment to employers or employment networks. If they are ultimately denied, they are less likely to work *because they applied for SSDI benefits*. If they are ultimately awarded benefits, they are less likely to work because they applied and also because (as discussed above) receiving benefits deters employment for some.^{xviii} This means the SSDI program reduces the subsequent employment of applicants—both allowed *and* denied—by far more than the prior literature suggests. Furthermore, Autor et al. (2015) find that accounting for the effect of processing delays *increases* the magnitude of the deterrent effect of SSDI receipt on labor supply: indeed, the employment rate of SSDI beneficiaries on the margin of award would be *48 percentage points higher* had they not received SSDI benefits (compared to 26 percentage points in Maestas, Mullen, and Strand [2013]). In other words, their residual work capacity was also far greater than previously estimated.

The decay in work capacity that occurs with time out of the labor force may offer an important clue as to why policy efforts to incentivize work among SSDI beneficiaries have repeatedly failed. Indeed, the fourth high-level finding is that we still do not understand how to increase work effort among SSDI beneficiaries, despite decades of research. Early studies noted low levels of work activity, limited awareness of work incentives like the trial work period and extended period of eligibility, low rates of benefit termination, and a high likelihood of re-enrollment among those who did terminate (Muller 1992; Hennessey and Muller 1994). Similarly, the Ticket to Work Program has suffered from low participation and has had little impact on beneficiary employment and earnings (Livermore et al. 2013). More recently, the Benefit Offset National Demonstration (BOND) Project to test the effect of replacing the SSDI “cash cliff” with a less abrupt “benefit offset” or partial reduction in benefits (\$1 for every \$2 in earnings) found no impact of the weakened work disincentive on employment and earnings (Gubits et al. 2018). What these policies have in common is that they target individuals only after they have enrolled in SSDI, having already spent significant time out of the labor force.^{xix}

Last, despite long-standing concerns about moral hazard among some beneficiaries (who choose not to work even though they have work capacity) and perhaps also among some employers (who choose not to provide reasonable accommodations to disabled workers), an emerging body of economic research finds that the *benefits* associated with the SSDI program are substantial (Low and Pistaferri 2015; Deshpande, Gross, and Su 2019), and may offset the distortionary costs (Low and Pistaferri 2015). It is important to note that this in turn suggests that the optimal SSDI program is *not* no SSDI, but rather an SSDI program that retains its protective aspects while at the same time reducing its labor-market efficiency costs.

Reforms to Identify and Promote Work

The implication of the major research findings I have reviewed here is that an effective reform strategy must achieve three goals. First, we should encourage individuals to stay

^{xviii}These program-induced losses in employability occur in addition to losses arising from the disability itself.

^{xix}The same is true for federally-financed vocational rehabilitation services; individuals become eligible for these services only *after* they are awarded SSDI benefits.

engaged in the labor force when reasonably possible, while increasing access to vocational rehabilitation and other supports while they still have an employer or they still have skills that employers value. Second, we should identify who has work capacity and specifically what jobs they could do. Currently, we know work capacity exists in the SSDI population, but the available evidence does not offer any specificity about who has what capacities and what alternative jobs use those capacities. Third, we should help individuals to use and even augment their available work capacity before it is too late.

In this section, I propose two interrelated reforms to the SSDI program that address these goals: 1) improve measurement of work capacity and eliminate the medical-vocational grid; and 2) award partial disability benefits for partial disabilities. The reforms are interrelated in the sense that payment of partial benefits would be greatly facilitated by replacing SSA's current method of determining work capacity with a modernized approach with greater discriminatory power. In addition, I discuss several reform proposals put forth by others, highlighting those that are complementary with those that I have proposed.

Proposed Reform #1: Improve measurement of work capacity and eliminate the “grid”

The medical-vocational guidelines, also known as the “grid,” are used by SSA to determine whether an applicant can perform any other job in the national economy. In their recent proposal to eliminate the grid, Warshawsky and Marchand (2015) argue that the grid is “no longer fair, necessary, or reflective of current conditions” (33). Instead, disability determinations should be focused solely on remaining earnings capacity combined with an evaluation of potential jobs suitable for the claimant (and without relaxed standards for older, less educated and non-English speaking workers). In this spirit, my first proposal is to eliminate the medical-vocational grid and replace it with a robust system for measuring earnings capacity.

Estimating applicants' remaining earnings capacity is the core objective of the SSDI determination process. The current process is sequential. SSA first checks whether the applicant has a listed impairment.^{xx} Applicants with listed impairments are presumed to have *no* earnings capacity (as opposed to the less stringent standard of less-than-SGA capacity) and therefore they qualify on medical grounds alone. If the applicant's impairment is not listed but it nonetheless prevents them from performing any of their “vocationally relevant” past jobs, then SSA assesses whether the applicant's skills are *transferable* to *other* occupations that fall within the applicant's functional capacity range. SSA makes these skill transferability assessments by first determining the applicant's level of residual functional capacity based on medical evidence, and then determining whether the applicant is disabled by applying the medical-vocational guidelines (2018). The guidelines are a “grid” of rules specifying whether an applicant is disabled based on combinations of residual functional capacity, age, education, and skills gained from work experience. Table 1 shows how SSA defines these factors. Residual functional capacity has just four categories that describe the applicant's maximum exertional capability (i.e., strength): sedentary work, light work,

^{xx}SSA's Listing of Impairments includes over 100 impairments, such as serious and persistent depressive disorders, major dysfunction of a joint, inflammatory bowel disease with obstructions, epilepsy, chronic kidney disease with impairment of kidney function, metastatic cancers. For the complete list, see <https://www.ssa.gov/disability/professionals/bluebook/AdultListings.htm>.

medium work, and heavy work. Age is divided into “closely approaching retirement age” (60+), “advanced age” (55–59), “closely approaching advanced age” (50–54), and “younger individual” (age 18–49). Education has three categories: “illiterate or unable to communicate in English,” “limited” (high school nongraduate), and “high school graduate or more.” Work experience also has three categories: “unskilled or none,” “skilled or semiskilled—skills not transferable,” and “skilled or semiskilled—skills transferable.”^{xxi}

To illustrate how the grid rules work, Table 2 shows several segments of the grid. For someone with sedentary functional capacity, limited education, and skills that are not transferable, the disability decision hinges on age: if the applicant is 45–49, they are not disabled, but if 50–54, they are disabled. If the applicant with sedentary capacity is illiterate and unskilled—the disability-age cutoff is 45 instead of 50. If the individual has capacity for light work (i.e., more work capacity than sedentary), but limited education and nontransferable skills, they are not disabled if 50–54, but they are disabled if 55–59. For someone who can handle “light” work but is illiterate and unskilled, the disability-age cutoff is 50 instead of 55.

While the grid is a convenient heuristic that enables adjudicators without medical or vocational training to render disability decisions, it has major limitations.^{xxii} The first is that the grid has not been updated to reflect changes in the functional demands of jobs. The regulations indicate that if a particular grid rule directs a decision of *not* disabled, it is to be assumed that a reasonable number of “unskilled” jobs^{xxiii} are available to an applicant with that medical-vocational profile across the national economy. But this assessment of job availability is based on the Dictionary of Occupational Titles (DOT), which saw its final publication in the 1990s. The ensuing decades have seen a dramatic shift in the nature of work; most relevantly, the rise in industrial automation has eliminated many physically demanding tasks and made others less demanding. Furthermore, advances in medical care and assistive technologies have likely altered the set of tasks that can be performed in a given range of functional capacity. Although SSA has a decade-long initiative to create an updated occupational information system, disability decisions today continue to use grid rules based on the obsolete DOT.^{xxiv}

The second limitation of the grid is that the medical-vocational combinations it delineates are coarsely defined and lack consideration of individual variability. The grid’s reliance on fixed age thresholds to distinguish the disabled from the nondisabled is particularly problematic given the individual variation in health at any given chronological age (see e.g., Mitnitski 2018; Sudharsanan and Bloom 2018), dramatic gains in life expectancy (Oeppen

^{xxi}According to SSA, transferable skills are “skilled or semi-skilled work activities done in past work that can be used to meet the requirements of skilled or semi-skilled work activities of other jobs or kinds of work. This depends largely on the similarity of occupationally significant work activities among different jobs. Transferability is most probable and meaningful among jobs in which (i) the same or a lesser degree of skill is required; (ii) the same or similar tools and machines are used; and (iii) the same or similar raw materials, products, processes or services are involved” (Skill requirements 2018).

^{xxii}See also Warshawsky and Marchand (2015) for a detailed review of the grid’s many limitations.

^{xxiii}The grid is calibrated to the number of unskilled jobs in the national economy because it is used when the applicant can no longer perform “vocationally relevant” occupations. Unskilled jobs require no particular skills, training or education.

^{xxiv}The DOT was replaced by the Occupational Information network (O*NET). O*NET collects occupational information through national surveys of workers who self-report about their job requirements. O*NET has less occupational coverage than the DOT.

and Vaupel 2002), and secular improvements in many dimensions of health (Crimmins 2015).

A third limitation of the grid is that residual functional capacity is conceptualized in terms of a single ability domain—the ability to exert physical strength.^{xxv} In determining an applicant's maximum exertional level, adjudicators are instructed to consider whether the applicant can also perform the *non-exertional* requirements of unskilled occupations at that level,^{xxvi} but this is a secondary consideration and the grid otherwise provides little direct guidance for disability cases that are primarily non-exertional—cases involving mental impairments, sensory disorders, skin disorders, or pain symptoms. Perhaps not surprisingly, mental impairments and those associated with pain have been a major driver of program growth (see Figure 2).

I propose SSA modernize its method of assessing skill transferability. Several principles should guide this effort. First, the assessment should be individualized. Second, it should measure the full range of remaining work abilities possessed by the individual. Third, the assessment should use validated data collection methods and evidence-based guidelines for assessing function. The more systematic and comprehensive the measurement system, the greater will be the potential gains in efficiency and equity as standardization enhances consistency across adjudicators and provides decision support to enhance application processing speed.

In practice, the system would measure the applicant's functional capacity across a full range of ability domains, use that information to query a database of job requirements, identify the set of jobs the applicant has the functional capacity to perform, and then assess whether the applicant's education and skills are transferable to any of those jobs with only a limited amount of on-the-job retraining.^{xxvii}

The key to the approach is to measure individual function in the same terms as the functional demands of occupations. The disability assessment system in The Netherlands offers an informative model. First, an applicant's functional capacity across a range of domains is assessed by a social security physician using a specially designed survey instrument. The applicant's information is then compared to a database of occupations that exist in all regions of the country, and which have been rated along the same functional dimensions as the survey instrument. An algorithm combines the applicant information and the occupational information to identify a list of feasible occupations for the applicant. A social security labor expert reviews the list of feasible occupations, pruning the list to take into account any extenuating information not captured by the algorithm. The feasible occupations are then ranked by average earnings, and the average earnings of the second-ranked

^{xxv}Specifically, the grid takes account of strength available for sitting, standing, walking, lifting, carrying, pushing, and pulling (Exertional and nonexertional limitations 2018).

^{xxvi}The non-exertional capacities consist of postural and manipulative abilities, vision, hearing or speaking abilities, tolerance for environmental exposures, and the mental requirements of unskilled work (defined as ability to understand, carry out, and remember simple instructions, make simple decisions, respond appropriately to supervision, coworkers and work situations, and deal with routine changes).

^{xxvii}SSA's disability criteria ("unable to do any job in the national economy") does not take account of local job availability. That said, the grid rules are based on the notion that a given alternative job should be reasonably prevalent across the national economy.

occupation become the applicant's estimated residual earnings capacity. The percent difference between the applicant's prior earnings and their estimated earnings capacity is the applicant's estimated percent earnings loss, which then determines their benefit amount.

There are at least two promising efforts underway in the United States that could be integrated to create a modern system of work capacity measurement based on the principles above. First, SSA has already invested in development and testing of an instrument for measuring individual work capacity. The instrument, known as the *Work Disability Functional Assessment Battery* (WD-FAB), was developed over a 10-year period by experts at the National Institutes of Health and Boston University under an interagency agreement with SSA (Marfeo et al. 2013). The WD-FAB has many advantages. It is broad, measuring function across eight physical and behavioral domains.^{xxviii} It provides coverage across the continuum of function within each domain by using computerized adaptive testing to iteratively select relevant items from a bank of more than 300 hierarchical items (Marfeo et al. 2015). Precisely because it is adaptive, it can be administered in just 15–20 minutes in different modes (e.g., in-person, phone, or online). In extensive testing in samples of SSDI applicants and the general adult population, WD-FAB displayed good test-retest reliability, measurement accuracy, and convergent validity with legacy instruments (Marfeo et al. 2015; Chan 2018). Last, the WD-FAB was designed to evolve over time with ongoing research and development; items can be added and removed, measurement precision can be adjusted, and scoring algorithms can be modified.

The drawback of the WD-FAB is that its items reference functional tasks performed in the home domain, rather than in work settings. This was intentional because people who apply for disability benefits are not working and might not be able to reference their functioning against work-related tasks. But this feature makes it difficult to identify which specific work tasks—and thus which occupations—an applicant can perform. Nonetheless, the WD-FAB could be adapted to this purpose if a team of occupational analysts created a cross-walk between WD-FAB items and specific job demands.

A second promising effort is the Occupational Requirements Survey (ORS) being developed by SSA and the Bureau of Labor Statistics. ORS is an establishment survey designed to elicit detailed information about job requirements from the employer perspective. ORS is part of the occupational information system SSA is building to replace the DOT. The DOT was maintained by a team of analysts who visited workplaces around the country to observe and record the requirements of jobs. In contrast, ORS collects data by interviewing employers and establishment representatives, an approach that yields similar measurements as direct observation while being less costly and time-consuming (Smyth 2018). Further, by randomly sampling establishments, ORS is nationally representative; as of 2018, ORS represents about 90 percent of civilian employed workers (BLS 2019a, 2019c) (although a substantially smaller percent of occupations). To fulfill its potential, the ORS should be synchronized with a functional measurement system like the WD-FAB so that it can be used

xxviii: The WD-FAB domains are: Basic Mobility, Upper Body Function, Fine Motor Function, Community Mobility, Communication and Cognition, Mood and Emotions, Resilience and Sociability, and Self-Regulation.

to produce realistic, individualized, and multidimensional assessments of work capacity and a complete list of feasible jobs.

In addition to enhancing equity and efficiency across the SSDI system, the use of a modern, integrated work capacity measurement system would open the door to new types of interventions to improve outcomes for people with disabilities. For example, such data would facilitate targeting of return-to-work interventions to precisely those individuals with residual work capacity. The data generated by the system could be used to identify re-training opportunities for individuals who have the functional capacities for other occupations but who lack the necessary vocational skills or certifications. It would also make possible other types of SSDI reforms, such as my second proposal, to allow for partial disability benefits.

Proposed Reform #2: Allow partial disability benefits

The SSDI program uses an all-or-nothing definition of disability when in reality medical conditions reduce some abilities but not others, and the reductions may be full or partial. Although there is no definitive estimate, it is possible that 20 percent of SSDI beneficiaries are only partially disabled (see e.g., Benitez-Silva, Buchinsky, and Rust 2004). For those who have experienced partial loss of work capacity, the optimal arrangement would be to combine partial earnings with partial disability benefits. Without a partial option, these individuals must either forego disability benefits or attempt to qualify as fully disabled. Typically, such applicants stop working altogether, further weakening their labor force prospects should they be denied or subsequently attempt to return to work.

I propose the SSDI program add partial disability benefits for individuals with partial disabilities. There are many ways to structure partial benefits, with examples from the U.S. Workers Compensation system, the Veterans Affairs Disability Compensation system, and the disability systems in several other countries.^{xxix} The core component is estimation of the applicant's residual earnings capacity—that is, the amount they could be expected to earn given their remaining functional abilities. Anyone with residual earnings capacity below the SGA floor would receive a disability rating of 100 percent, as under the current system. Those with residual earnings capacity above the SGA floor would receive a disability rating equal to $[(1 - \text{residual earnings capacity} \div \text{pre-disability earnings}) \times 100]$ percent. A ceiling could be placed on predisability earnings to restrict insurable earnings to a desired multiple of the SGA level.^{xxx} Under this structure, an applicant with residual earnings capacity of \$30,000 and predisability earnings of \$50,000 would receive a disability rating of 40 percent. If instead her residual earnings capacity were \$10,000, the disability rating would be 100 percent because \$10,000 is below SGA. If her predisability earnings were \$100,000 (and residual earnings capacity \$30,000), then her disability rating would be 70 percent if there were no ceiling on predisability earnings, but 60 percent if a ceiling on pre-disability earnings were set at, for instance, $5 \times \text{SGA}$ (approximately \$75,000). The estimation of

^{xxix}Countries with partial benefit provisions include Sweden, Netherlands, Finland, Norway, Germany, Switzerland, Czech Republic, Greece, Hungary, Korea, France, Poland, Portugal, Spain (Yin 2015), Japan (Mitra 2008), and Slovenia (OECD 2016).

^{xxx}With a ceiling on insurable earnings set at $5 \times \text{SGA}$, the disability rating would be $[(1 - \text{residual earnings capacity} \div \min(\text{pre-disability earnings}, 5 \times \text{SGA})) \times 100]$ percent.

residual earnings capacity would be greatly facilitated by a modernized system for measuring work capacity (see Proposal #1).

Disability ratings could correspond to exact percentage reductions in an individual's full SSDI benefit amount, or they could be grouped into ranges defining discrete benefit levels, say 25 percent, 50 percent, 75 percent, and 100 percent. The choice of benefit schedule should depend on the precision with which work capacity can be measured. The more precise the measurement instrument, the more articulated the benefit schedule can be.

Such a system would have several advantages. Most importantly, people could apply while still working and receive a partial disability rating. This would preserve unique employer accommodations and attachment to the labor force while providing replacement of lost earnings. Beneficiaries would maintain their SSDI entitlement until their full retirement age, as long as they continued to be medically eligible. Regular continuing disability reviews (CDRs) would be used to ensure ongoing *medical* eligibility at the initially determined level or to revise the initial disability rating up or down as needed.^{xxxix} "Work" CDRs would be eliminated.^{xxxix} Eligibility for Medicare benefits would be extended indefinitely, even for those whose employers offer health insurance coverage.^{xxxix} Allowing employers to be the secondary insurer would create an incentive for employers to retain and hire people with disabilities.^{xxxix}

Partial benefits could be usefully paired with a "generalized benefit offset" to provide beneficiaries with a strong incentive to increase work effort beyond their partial rating, if they can. Unlike a standard benefit offset that imposes a tax on earnings (albeit lower than the sky-high tax rate implied by the cash cliff), the generalized benefit offset taxes earnings only when earnings are low and *subsidizes* earnings when earnings are higher. The earnings subsidies act as a strong work incentive (see Gokhale 2015 for a detailed proposal). With the possibility of entitlement to partial benefits and postentitlement incentives to increase work levels above the initial rating level—and without risk of entitlement termination—there would be no need for a Trial Work Period, the Extended Period of Eligibility, or provisions for Expedited Reinstatement.^{xxxv}

The biggest drawback of partial benefits is the possibility that they would *increase* SSDI expenditures by inducing program entry by people who currently choose work instead of SSDI participation. To see the issue, consider the hypothetical individual above who had predisability earnings of \$50,000 and residual earnings capacity of \$30,000. Under current rules, if she works and earns \$30,000, she does not qualify for SSDI benefits. If she does not work, she may qualify, depending on her impairments, age, and vocational background. If

^{xxxix}As Fichtner and Seligman (2016) put it, beneficiaries would have a right to due process that guarantees a timely CDR.

^{xxxix}Elimination of work CDRs will be tested under SSA's planned Work Incentive Simplification Pilot (WISP).

^{xxxix}Indefinite continuation of Medicare coverage will be tested by WISP. Current law already provides for extended Medicare eligibility for at least 93 months (7.75 years) after SSDI benefits are suspended for work activity.

^{xxxix}Requiring employers to be the primary insurer would tend to disincentivize hiring because individuals with disabilities have relatively high medical expenditures.

^{xxxv}Research is currently under way that may shed light on the value of such simplifications. The Promoting Opportunity Demonstration, which is testing a \$1 for \$2 benefit offset without a Trial Work Period or Extended Period of Eligibility, includes one treatment arm in which beneficiaries maintain entitlement indefinitely no matter how long their benefits are suspended due to work. The other treatment arm terminates entitlement after 12 consecutive months of fully suspended benefits.

successful, she would receive *full* SSDI benefits, or approximately \$15,000 on average. But if she were awarded partial benefits of 40 percent, she would receive \$6,000 in SSDI benefits in addition to \$30,000 from employment. The individual is financially better off under partial benefits, which allow her to combine employment with SSDI receipt for a total income of \$36,000. But the SSDI system saves money only if she would have received full benefits under current rules. It loses money if she would have worked.^{xxxvi}

Nonetheless, this risk could be managed with careful analysis to determine optimal program parameters (e.g., the ceiling on insurable earnings). Indeed, recent research finds that a system of partial benefits would *reduce* disability expenditures on net (Yin 2015). On one hand, more people would apply for benefit support when partial benefits are available than when only full benefits are available. But these increases in caseload and costs are more than offset by two factors. First, some new beneficiaries who would receive full benefits under the current system would receive partial benefits instead.^{xxxvii} Second, even though the SSDI caseload would increase, the expected program duration at full benefits would shorten since transitions to full benefits are postponed to later in life and the total years spent receiving full benefits decreases on average (Yin 2015). Other important concerns are administrative complexity and the need to process more applicants than under the current system. While these are real concerns, partial benefits implemented along with several of the administrative simplifications noted above would help to offset the added complexity.^{xxxviii}

Because partial benefits allow beneficiaries to work, they complement and even enhance other proposed SSDI reforms. For example, partial benefits and the generalized benefit offset both provide for reduced benefits with employment, but partial benefits are established at entitlement while the generalized benefit offset allows further flexibility during the postentitlement period. Together they deliver incentive-compatible programmatic flexibility; they combine formal disability assessment with an incentive for individuals to reveal their true work capacity at a given point in time by allowing them to self-select into higher work activity. But because SSDI eligibility is maintained at the last established level, beneficiaries are not penalized if they are no longer able to sustain employment at higher levels or if they are laid off. Individuals whose conditions worsen, would have a right to be reassessed for a higher disability rating through a medical CDR. Another example would be a pairing of partial benefits with an early intervention system of integrated employment and eligibility services (see, e.g., Stapleton, Ben-Shalom and Mann 2016), which would emphasize rehabilitation and supported work attempts with the goal of increasing employment to the degree possible while maintaining access to the SSDI safety net.

xxxvi: Although she would earn more from employment than SSDI participation under current rules, other factors influence claiming decisions, such as whether her employer would allow her to work part-time, whether she would qualify for employer-sponsored health insurance, the probability of future layoff, and her disutility of work (often a function of pain).

xxxvii: For humanitarian reasons, partial benefits should be considered for new beneficiaries, with current beneficiaries grandfathered in. This would extend the period of transition to the program's new steady-state size.

xxxviii: WISP will test similar simplifications of work incentive rules. Like this partial benefits proposal, the Promoting Opportunity Demonstration is testing elimination of the Trial Work Period and Extended Period of Eligibility.

Other possible reforms

Making employers put skin in the game—SSDI's work incentives are misaligned not only for disabled workers (many of whom work less than they are able), but also for employers. Although employers are required by law to provide reasonable accommodation to employees with disabilities, accommodation can be costly, and firms pay no penalty should their employees enter the SSDI program instead. Several reforms have been proposed to make employers internalize the costs of not accommodating their employees. These include requiring employers to cover the cost of SSDI benefit payments during the first two years, as is currently done in The Netherlands (Fichtner and Seligman 2019); requiring employers to provide temporary disability insurance to their workers (Autor and Duggan 2010); and introducing experience rating through the payroll tax system (Burkhauser and Daly 2011).

All these proposals would make employers internalize costs they do not currently bear. But there are at least three reasons for caution. First, by making employers cover costs associated with a worker becoming disabled, firms may avoid hiring workers with disabilities or those who might plausibly become disabled.^{xxxix} Detrimental effects on hiring have been attributed to the employer-responsibility policy in The Netherlands (Hulleger and Koning 2015; Koning and Lindeboom 2015), although not to antidiscrimination laws in the United States that have required employers to provide reasonable accommodations to employees with disabilities (Neumark, Song, and Button 2017).

Second, the idea of experience rating is rooted in an economic theory that implies employers whose former employees enter SSDI at a relatively high rate should pay higher SSDI payroll taxes (or “premiums”) than those who send employees at relatively low rates. Experience rating is used in insurance settings and in state workers' compensation systems. For experience rating to work, there needs to be enough pooling of individuals with high and low disability risks within firms to promote a stable system. The system breaks down if the high-risk types cluster in the same firms, while the low-risk types cluster in different firms. As firms have evolved in recent years, workplaces have become more fissured, with support occupations clustered in subcontractor firms (Weil 2014). Further research is needed to assess whether the structure of occupations within firms would support adequate risk-pooling. Last, SSDI is not the same as workers' compensation, where employers can control injury rates to some degree by improving workplace safety. It seems unlikely that employers could prevent disability onsets that arise from genetic predisposition or environmental factors beyond the workplace, and accommodation may be unreasonably costly for some kinds of disabilities in some work settings.

Early interventions to promote return-to-work—Currently, people with disabilities do not have access to federally financed vocational rehabilitation services until after they are awarded SSDI benefits. People who are denied benefits never receive such federal support. Intervention after the long SSDI application process comes too late for many and misses

^{xxxix}: One way to offset a negative hiring effect of payroll tax penalties would be to include payroll tax *discounts* to employers who hire (or retain) disabled workers (Fichtner and Seligman 2019).

earlier opportunities to restore work capacity, develop transferable skills, or identify potential accommodations while the individual may still be attached to an employer.

Several have proposed reforms designed to take advantage of opportunities for early intervention, in the hopes of avoiding (or at least delaying) SSDI entry. In general, early intervention would complement partial benefits, since efforts would be made to restore as much work capacity as possible while the individual was still partially employed. In addition, the new work capacity assessment system could be used to identify specific areas where work capacity could be generated or restored. Stapleton, Ben-Shalom, and Mann (2016) propose an integrated employment/eligibility services (EES) system where once a worker experiences a serious medical condition, she would undergo triage and be fast-tracked to either SSDI benefits, employment supports, or neither benefits or supports. The triage decision would be based on the severity of the condition and the individual's work history. If the individual is assigned supports, she would only be awarded SSDI benefits if she attempted to return to work but was unable to do so, even with the work supports. The EES system differs from the current system by providing individuals with work supports quickly after the onset of their medical condition, *before* an SSDI determination is made.

Similarly, Christian, Wickizer, and Burton (2019) propose a Health and Work Service (HWS) that would coordinate various resources and supports—such as referrals for specialized services and creation of a stay-at-work and return-to-work (SAW/RTW) plan—for individuals who experience a serious medical condition. The goal is to provide these supports as soon as a week after the onset of the work disability. Additionally, there is empirical evidence for the effectiveness of the HWS. The HWS is partly modeled on the Centers of Occupational Health and Education (COHE) in Washington State, which reduced long-term work disability for workers with musculoskeletal injuries by 30 percent (Wickizer, Franklin, and Fulton-Kehoe 2018). Moreover, early intervention efforts might also be particularly effective for mental health disorders, in part compensating for the wide variation in mental health service availability across states (Manchester 2019).

Yet another way to keep individuals connected to the labor force after onset of a work disability is to offer transitional jobs, as Kerkick, Riemer, and Williams (2016) propose. Under this system, both SSDI applicants and current beneficiaries would have an opportunity to work in subsidized, wage-paying jobs tailored to their work capacity. These jobs would pay an amount greater than the benefit amount (e.g., the authors propose \$10 per hour) to encourage uptake. The authors further propose modifying the Earned Income Tax Credit to increase the credit for workers without children and who are unmarried—a subpopulation that makes up a large portion of individuals with disabilities. Both proposals would increase the incentive to work and keep applicants more connected to the labor force to prevent deterioration of skills.

Temporary benefits—Making SSDI benefits temporary for all new beneficiaries has been proposed as a way to limit long-term dependence by those who might benefit from return-to-work interventions (Fichtner and Seligman 2016, 2019). Under a temporary benefits scheme, all new beneficiaries would receive SSDI benefits for a time-limited period (e.g., two years), during which time they would receive rehabilitation and other return-to-work interventions,

such as the early interventions described above. At the end of the temporary benefit period, all beneficiaries would be reassessed to determine their eligibility for long-term benefits. Long-term benefits would not be time-limited. Temporary benefits would complement a system of partial long-term benefits, so that those who recover partial work capacity can transition to partial benefit support and partial work (Fichtner and Seligman 2016, 2019). Temporary benefits can also be paired with employer responsibility requirements, such as a requirement that employers finance the temporary benefit period. However, in this case, the same cautions apply about the risks of creating hiring disincentives or destabilizing employers with many high-risk workers.

\$1-for-\$2 benefit offset—The “benefit offset” proposal is less creation of a work incentive than it is weakening of an existing work *disincentive*. Instead of losing their entire benefit when their earnings exceed the SGA level, beneficiaries would lose \$1 in benefits for every \$2 in earnings above an earnings disregard amount.^{x1} Although, this implicit 50 percent marginal tax rate on earnings is much less than the astronomically high implicit tax rate associated with the current cash cliff, it nonetheless represents a substantial tax on earnings.

Of all the disability reforms that have been proposed, the \$1-for-\$2 benefit offset has been studied the most (per congressional mandate), first during the decade-long BOND Project and currently through the Promoting Opportunity Demonstration. As noted above, a weakness of the standard benefit offset policy is that applicants still have to demonstrate that they are fully disabled by not working during their long application period; the inducement to re-engage in work comes *after* benefits are awarded, which is too late for many. Perhaps not surprisingly, the BOND showed no positive employment effects (Gubits et al. 2018). A generalized benefit offset (Gokhale 2015) is an appealing alternative, but it should be paired with a partial benefit scheme that would allow applicants to continue working during the application process (see Proposal #2). Otherwise, it too is likely to target individuals too long after they have left the labor market.

Conclusion

The reforms proposed here are not about requiring SSDI beneficiaries to work. Rather, their intention is to encourage people who retain work capacity to work while they maintain complementary SSDI support in the amount needed, for as long as it is needed, and with the flexibility to adjust to changes in beneficiary health and employment prospects over time.

In this article, I have proposed two interrelated reforms. First, I propose SSDI eliminate the outdated and incomplete “grid” framework for assessing disability. In its place would be a new system that would measure residual functional capacity across an array of multidimensional abilities, and would make use of this information to identify potential new jobs and estimate potential earnings.

^{x1}The disregard amount can be the SGA level (as was tested by the BOND) or another level. The Promoting Opportunity Demonstration is testing a disregard amount that is less than SGA (either an amount equal to the beneficiary’s impairment-related work expenses or \$810 in 2016).

Second, I propose that partial benefits be offered to applicants who have partial disabilities. Residual earnings capacity would be assessed during the application process, using my proposed work capacity measurement system. Those with partial earnings capacity would receive a partial benefit proportional to their lost earnings capacity. Applicants who have lost their entire earnings capacity would continue to receive full benefits, as they would currently. Importantly, any applicant could apply for SSDI benefits while still working to whatever degree they are able. Beneficiaries would be reassessed regularly to ensure continuing medical eligibility for SSDI, and to adjust their disability rating up or down as needed. SSDI entitlement would continue until beneficiaries age out of the program, or are found to no longer be medically eligible. A generalized benefit offset—which features a true work incentive unlike the standard benefit offset—would further enhance the proposed partial benefits scheme by providing all beneficiaries (both full and partial) with *post-entitlement* flexibility to further increase work effort when employment opportunities arise.

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References

- Autor David H., and Duggan Mark G. 2003 The rise in the disability rolls and the decline in unemployment. *The Quarterly Journal of Economics* 118 (1): 157–206.
- Autor David H., and Duggan Mark G. 2006 The growth in the Social Security Disability rolls: A fiscal crisis unfolding. *Journal of Economic Perspectives* 20 (3): 71–96. [PubMed: 17176528]
- Autor David H., and Duggan Mark G. 2010 Supporting work: A proposal for modernizing the U.S. disability insurance system. Washington, DC: Center for American Progress and The Hamilton Project.
- Autor David H., Maestas Nicole, Mullen Kathleen J., and Strand Alexander. 2015 Does delay cause decay? The effect of administrative decision time on the labor force participation and earnings of disability applicants. No. w20840. National Bureau of Economic Research, Cambridge, MA.
- Benitez-Silva Hugo, Buchinsky Moshe, and Rust John. 2004 How large are the classification errors in the Social Security Disability award process? No. w10219. National Bureau of Economic Research, Cambridge, MA.
- Black Dan, Daniel Kermit, and Sanders Seth. 2002 The impact of economic conditions on participation in disability programs: Evidence from the Coal Boom and Bust. *American Economic Review* 92 (1): 27–50. [PubMed: 29058388]
- The Board of Trustees, Federal Old-Age And Survivors Insurance and Federal Disability Insurance Trust Funds (“Board of Trustees”). 2019 The 2019 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. Washington, DC: Board of Trustees.
- Bound John. 1989 The health and earnings of rejected disability insurance applicants. *American Economic Review* 79 (3): 482–503.
- Burkhauser Richard V., and Daly Mary. 2011 The declining work and welfare of people with disabilities: What went wrong and a strategy for change. Washington, DC: AEI Press.
- Chan Leighton. 2018 The WD-FAB: Development and validation testing. Available from <https://www.eumass.eu/wp-content/uploads/2018/03/Leighton-Porcino.pdf> (accessed 24 May 2019).
- Charles Kerwin Kofi, Li Yiming, and Stephens Melvin Jr. 2018 Disability benefit take-up and local labor market conditions. *The Review of Economics and Statistics* 100 (3): 416–23.

- Christian Jennifer, Wickizer Thomas, and Burton Tim. 2019 Implementing a community-focused Health and Work Service (HWS). Available from <http://www.crfb.org/project/ssdi/developing-social-security-disability-ssdi-reform-demonstrations-improve-opportunities> (accessed 13 May 2019).
- Crimmins Eileen M. 2015 Lifespan and healthspan: Past, present, and promise. *The Gerontologist* 55 (6): 901–11. [PubMed: 26561272]
- Deshpande Manasi, Gross Tal, and Su Yalun. 2019 Disability and distress: the effect of disability programs on financial outcomes. No. w25642. National Bureau of Economic Research, Cambridge, MA.
- Fichtner Jason, and Seligman Jason. 2016 Beyond all or nothing: Reforming Social Security Disability Insurance to encourage work and wealth In *SSDI Solutions: Ideas to strengthen the Social Security Disability Insurance Program*, eds. Jim McCrery and Earl Pomeroy, 357–388. West Conshohocken, PA: Infinity Publishing.
- Fichtner Jason, and Seligman Jason. 2019 Developing Social Security Disability (SSDI) reform demonstrations to improve opportunities and outcomes based on lessons learned. Available from <http://www.crfb.org/project/ssdi/developing-social-security-disability-ssdi-reform-demonstrations-improve-opportunities> (accessed 13 May 2019).
- Flood Sarah, King Miriam, Rodgers Renae, Ruggles Steven, and J. Robert Warren. 2018 Integrated Public Use Microdata Series, Current Population Survey: Annual Social and Economic Supplement (1988–2018), Version 6.0. Available from 10.18128/D030.V6.0 (accessed 08 May 2019).
- French Eric, and Song Jae. 2014 The effect of disability insurance receipt on labor supply. *American Economic Journal: Economic Policy* 6 (2): 291–337.
- Gokhale Jagadeesh. 2015 SSDI reform: Promoting return to work without compromising economic security. Wharton Public Policy Initiative Issue Brief 37.
- Gruber Jonathan. 2000 Disability insurance benefits and labor supply. *Journal of Political Economy* 108 (6): 1162–1183.
- Gubits Daniel, Stapleton David, Bell Stephen, Wood Michelle, Hoffman Denise, Croake Sarah, Mann David R., Geyer Judy, Greenberg David, Nichols Austin, Andrew McGuirk Meg Carroll, Kattel Utsav, and Judkins David. 2018 BOND implementation and evaluation: Final evaluation report, Volume 1 Cambridge, MA: Mathematica Policy Research, for Social Security Administration.
- Haveman Robert H., and Wolfe Barbara L. 1984a The decline in male labor force participation: Comment. *Journal of Political Economy* 92 (3): 532–41. [PubMed: 11617445]
- Haveman Robert H., and Wolfe Barbara L. 1984b Disability transfers and early retirement: A causal relationship? *Journal of Public Economics* 24 (1): 4766.
- Hennessey John C., and Scott Muller L 1994 Work efforts of disabled-worker beneficiaries: Preliminary findings from the new beneficiary followup survey. *Social Security Bulletin* 57 (3) 42–51. [PubMed: 7871455]
- Hullegie Patrick, and Koning Pierre. 2015 Employee health and employer incentives. IZA DP No. 9310.
- Kearney John R. 2005/2006 Social Security and the “D” in OASDI: The history of a federal program insuring earners against disability. *Social Security Bulletin* 66 (3). Available from <https://www.ssa.gov/policy/docs/ssb/v66n3/v66n3p1.html>.
- Kerksick Julie, Riemer David, and Williams Conor. 2016 Using transitional jobs to increase employment of SSDI applicants and beneficiaries In *SSDI Solutions: Ideas to strengthen the Social Security Disability Insurance Program*, eds. Jim McCrery and Earl Pomeroy. West Conshohocken, PA: Infinity Publishing.
- Koning Pierre, and Lindeboom Jan-Maarten. 2015 The rise and fall of disability insurance enrollment in the Netherlands. *Journal of Economic Perspectives* 29 (2): 151–72. [PubMed: 28443648]
- Liebman Jeffrey B. 2015 Understanding the increase in disability insurance benefit receipt in the United States. *Journal of Economic Perspectives* 29 (2): 123–50. [PubMed: 28443324]
- Livermore Gina, Mamun Arif, Schimmel Jody, and Prenovitz Sarah. 2013 Executive Summary of the Seventh Ticket to Work Evaluation Report. Cambridge, MA: Mathematica Policy Research.

- Low Hamish, and Pistaferri Luigi. 2015 Disability insurance and the dynamics of the incentive insurance trade-off. *American Economic Review* 105 (10): 2986–3029.
- Maestas Nicole, Mullen Kathleen J., and Strand Alexander. 2013 Does disability insurance receipt discourage work? Using examiner assignment to estimate causal effects of SSDI receipt. *American Economic Review* 103 (5): 1797–1829.
- Maestas Nicole, Mullen Kathleen, and Strand Alexander. 2018 The effect of economic conditions on the disability insurance program: Evidence from the Great Recession. No. w25338. National Bureau of Economic Research, Cambridge, MA.
- Maestas Nicole, Mullen Kathleen, and Powell David. 2016 The effect of population aging on economic growth, the labor force and productivity. No. w22452. National Bureau of Economic Research, Cambridge, MA.
- Manchester Joyce. 2019 Targeting early intervention based on health care utilization of SSDI beneficiaries by state, with emphasis on mental disorders and substance abuse. Available from <http://www.crfb.org/project/ssdi/developing-social-security-disability-ssdi-reform-demonstrations-improve-opportunities> (accessed 13 May 2019).
- Marfeo Elizabeth E., Ni Pengsheng, Chan Leighton, Rasch Elizabeth K., McDonough Christine M., Brandt Diane E., Bogusz Kara, and Jette Alan M. 2015 Interpreting physical and behavioral health scores from new work disability instruments. *Journal of Rehabilitation Medicine* 47 (5): 394–402. [PubMed: 25729901]
- Marfeo Elizabeth E., Haley Stephen M., Jette Alan M., Eisen Susan V., Ni Pengsheng, Bogusz Kara, Meterko Mark, McDonough Christine M., Leighton Chan, Brandt Diane E., and Rasch Elizabeth K. 2013 Conceptual foundation for measures of physical function and behavioral health function for Social Security work disability evaluation. *Archives of Physical Medicine and Rehabilitation* 94 (9): 1645–1652. [PubMed: 23548543]
- Mitnitski Arnold B. 2018 Epigenetic biomarkers for biological age In *Epigenetics of aging and longevity*, eds. Alexey Moskalev and Vaiserman Alexander M., 153–70. London: Academic Press.
- Mitra Sophie. 2008 Temporary and partial disability programs in nine countries: What can the United States learn from other countries? *Journal of Disability Policy Studies* 20 (1): 14–27.
- Muller L. Scott. 1992 Disability beneficiaries who work and their experience under program work incentives. *Social Security Bulletin* 552. [PubMed: 1387981]
- Munnell Alicia H., Abraham Katharine G., Autor David, Brown Jeffrey R., Diamond Peter, Goldin Claudia, Gutterman Sam, Teitelbaum Michael S., Rindfuss Ronald R., and Silvestri Joseph J. 2015 2015 Technical Panel on Assumptions and Methods: Report to the Social Security Advisory Board. Washington, DC: Social Security Advisory Board.
- Neumark David, Song Joanne, and Button Patrick. 2017 Does protecting older workers from discrimination make it harder to get hired? Evidence from disability discrimination laws. *Research on Aging* 39 (1): 29–63. [PubMed: 28181873]
- OECD. 2016 Assuring work motivation and work incentives in the Slovenian benefit system In *Connecting people with jobs: The labour market, activation policies and disadvantaged workers in Slovenia*. Paris: OECD Publishing.
- Oeppen Jim, and Vaupel James. 2002 Broken limits to life expectancy. *Science* 296 (5570): 1029–1031. [PubMed: 12004104]
- Parsons Donald O. 1980 The decline in male labor force participation. *Journal of Political Economy* 88 (1): 117–34.
- Parsons Donald O. 1991 The health and earnings of rejected disability insurance applicants: Comment. *American Economic Review* 81 (5): 1419–26.
- Ray Gerald K., and Lubbers Jeffrey S. 2014 A government success story: How data analysis by the Social Security Appeals Council (with a push from the Administrative Conference of the United States) is transforming social security disability adjudication. *George Washington Law Review* 83:1575–1608.
- Reno Virginia P. 2011 Securing the future of Social Security Disability Insurance program. Available from <https://www.nasi.org/research/2011/testimony-virginia-p-reno-securing-future-social-security-di> (accessed 10 July 2019).

- Smyth Kristin. 2018 Observational collection compared to critical task threshold interview collection in the Occupational Requirements Survey. Available from <https://www.bls.gov/ors/research/collection/pdf/observational-collection-compared-interview-2018.pdf> (accessed 15 May 2019).
- Social Security Administration (SSA). No date (n.d.). Legislative history of the Social Security Disability Insurance Program. Available from <https://www.ssa.gov/legislation/DI%20legislative%20history.pdf>. (accessed 25 February 2019).
- Social Security Administration (SSA). 2018a 20 C.F.R. 404.1568: Skill requirements. Available from https://www.ssa.gov/OP_Home/cfr20/404/404-1568.htm (accessed 21 June 2019).
- Social Security Administration (SSA). 2018b 20 C.F.R. 404.1569a, 416.969a: Exertional and nonexertional limitations. Available from https://www.ssa.gov/OP_Home/cfr20/404/404-1569a.htm (accessed 21 June 2019).
- Social Security Administration (SSA). 2018c 20 C.F.R., Part 404, Subpart P, Appendix 2: Medical-vocational guidelines. Available from https://www.ssa.gov/OP_Home/cfr20/404/404-app-p02.htm (accessed 21 June 2019).
- Social Security Administration (SSA). 2018d Annual Statistical Report on the Social Security Disability Insurance Program, 2001–2017. Available from https://www.ssa.gov/policy/docs/statcomps/di_asr/ (accessed 26 April 2019).
- Social Security Administration (SSA). 2018e The facts about Social Security's Disability Program. Available from <https://www.ssa.gov/disabilityfacts/materials/pdf/factsheet.pdf> (accessed 27 February 2019).
- Social Security Administration, Office of the Inspector General. 2015 The Social Security Administration's listing of impairments, A-01–15-50022. Available from <https://oig.ssa.gov/sites/default/files/audit/summary/pdf/Summary%2050022.pdf> (accessed 05 March 2019).
- Stapleton David, Yonatan Ben-Shalom, and David Mann. 2016 The employment/eligibility service system: a new gateway for employment supports and social security disability benefits In SSDI solutions: Ideas to strengthen the Social Security Disability Insurance program, eds. Jim McCreery and Earl Pomeroy, 51–82. West Conshohocken, PA: Infinity Publishing.
- Sudharsanan Nikkil, and Bloom David E. 2018 The demography of aging in low-and middle-income countries: chronological versus functional perspectives In Future directions for the demography of Aging: Proceedings of a workshop, eds. Hayward Mark D. and Majmundar Malay K., 309–38. Washington, DC: National Academies Press.
- U.S. Bureau of Labor Statistics (BLS). 2019a Civilian employment level [CE16OV]. Available from <https://fred.stlouisfed.org/series/CE16OV#0> (accessed 05 June 2019).
- U.S. Bureau of Labor Statistics (BLS). 2019b Civilian labor force [CLF16OV]. Available from <https://fred.stlouisfed.org/series/CLF16OV> (accessed 14 May 2019).
- U.S. Bureau of Labor Statistics (BLS). 2019c Occupational requirements survey: Handbook of methods. Available from <https://www.bls.gov/opub/hom/ors/pdf/ors.pdf> (accessed 05 June 2019).
- von Wachter Till, Song Jae, and Manchester Joyce. 2011 Trends in employment and earnings of allowed and rejected applicants to the Social Security Disability Insurance program. *American Economic Review* 101 (7): 3308–3029.
- Warshawsky Mark J., and Marchand Ross A. 2015 Modernizing the SSDI eligibility criteria: A reform proposal that eliminates the outdated medical-vocational grid. Mercatus Working Paper, George Mason University.
- Weil David. 2014 The fissured workplace: Why work became so bad for so many and what can be done to improve it. Cambridge, MA: Harvard University Press.
- Wickizer Thomas M., Franklin Gary M., and Deborah Fulton-Kehoe. 2018 Innovations in occupational health care delivery can prevent entry into permanent disability. *Medical Care* 56 (12): 1018–1123. [PubMed: 30234763]
- Yin Na. 2015 Partial benefits in the Social Security Disability Insurance Program. *Journal of Risk and Insurance* 82 (2): 463–504.

Figure 1. Number of SSDI Disabled Worker Beneficiaries, 1960–2017

Source: Annual Statistical Report on the Social Security Disability Program, 2017. Table 19.

Figure 2. Number of New SSDI Awards to Disabled Workers by Diagnostic Group, 1960–2017
 Source: Annual Statistical Report on the Social Security Disability Program, 2017. Table 40.

Figure 3. SSDI Inflows and Outflows

Source: Annual Statistical Report on the Social Security Disability Insurance Program, 2001–2017. Tables 19, 40, and 49.

Note: Exits include exits due to death, attainment of retirement age, return to work, election of a lower retirement benefit, entitlement to an equal or larger benefit, medical improvement, failure to cooperate, miscellaneous medical reasons, and other.

Figure 4. Exits Due to Age, Death, and Return-to Work among SSDI Disabled Workers 2001–2017

Source: Annual Statistical Report on the Social Security Disability Insurance Program, 2001, Table 39; 2002, Table 45; 2003–2004, Table 46; 2005–2017, Table 50.

Figure 5. Number of SSDI Beneficiaries who Exited Due to Successful Return-to-Work
Source: Annual Statistical Report on the Social Security Disability Insurance Program, 2001, Table 39; 2002, Table 45; 2003–2004, Table 46; 2005–2017, Table 50.

Figure 6. Employment Rate of People with and Without Disabilities (Ages 16–64)

Source: Current Population Survey: Annual Social and Economic Supplement, 1988–2018, retrieved using IPUMS.

Note: “Work disability” is defined as a disability or health problem which limits or prevents work. Beginning in 2016, the wording of this question in the Annual Social and Economic Supplement of the Current Population Survey changed by covering the entire previous year and including issues that affected work even for short periods of time.

Table 1.

Grid Categories Used to Determine Skill Transferability

Dimension	Categories (Ordered from Least to Most Transferable)
Residual Functional Capacity	Sedentary work Light work Medium work Heavy work
Age	Closely approaching retirement age (60+) Advanced age (55–59) Closely approaching advanced age (50–54) Younger individual (18–49)
Education	Illiterate or unable to communicate in English Limited (high school non-graduate) High school graduate or more
Work Experience	Unskilled or none Skilled or semiskilled—skills not transferable Skilled or semiskilled—skills transferable

Source: Medical-Vocational Guidelines, Code of Federal Regulations, Part 404, Subpart P, Appendix 2, https://www.ssa.gov/OP_Home/cfr20/404/404-app-p02.htm

Table 2.

Example Grid Rules

Rule	Residual Functional Capacity	Education	Previous Work Experience	Age	Decision
201.19	Sedentary work	Limited or less	Skilled or semiskilled—skills not transferable	45–49	Not Disabled
201.10				50–54	Disabled
201.23	Sedentary work	Illiterate/No English	Unskilled or none	18–44	Not Disabled
201.17				45–49	Disabled
202.11	Light work	Limited or less	Skilled or semiskilled—skills not transferable	50–54	Not Disabled
202.02				55–59	Disabled
202.16	Light work	Illiterate/No English	Unskilled or none	18–49	Not Disabled
202.09				50–54	Disabled

Source: Medical-Vocational Guidelines, Code of Federal Regulations, Part 404, Subpart P, Appendix 2, https://www.ssa.gov/OP_Home/cfr20/404/404-app-p02.htm