

Disability Insurance Recipients have Capacity to Work: A Review of Existing Research and a Discussion on how Policies can be Improved

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Abstract: This paper reviews existing research on Disability Insurance (DI) policies in order to explore how they can be improved. A key finding is that many DI recipients, especially those that are marginal cases, have the capacity to work and that there are benefits to the individuals and the program if they return to work. The paper also discusses policy implications based on these findings.

Introduction

A Disability Insurance (DI) program that is funded and administered by the government is now widely used around the world as an employment policy for both physically and mentally disabled people. However, from its early beginnings (which, in the United States, was not until 1956), there have been great concerns over the difficulty with determining the eligibility of applicants and with the financial costs for running and funding such a potentially vast program. Furthermore, many economists have serious concerns that DI programs can become disincentives to work. Most governments have tried different methods for encouraging DI recipients and applicants to return to work, including with provisions of publicly-funded rehabilitation programs.

The history of DI programs has been a balancing act between a clear societal need to help disabled persons and the difficulty to fund and operate such a DI program fairly and effectively. This difficult balance can be illustrated by the outrage over findings in 1980 that 20% of DI recipients in the US were no longer medically eligible (Kearney 2005), which resulted in the government conducting greater reviews of recipients, and by perhaps even greater subsequent outrage that many apparently disabled people were having their benefits removed. One infamous case involved a war veteran to whom Reagan had presented the Congressional Medal of Honor that Reagan had to personally intervene to restore his benefits (Berkowitz 1987, 129). The history of DI therefore has tended to swing between periods of rising rolls until the concerns grow over the huge costs to taxpayers (and indeed over potential program abuse), followed by periods of particularly strict administration of the system (e.g., additional reviews for applicants and high denial rates) until there is concern that many disabled people are being abandoned by the 'system'. In this context, it is easy to appreciate the importance of efforts to induce disabled people to work: the ultimate goal of course being a situation where government expenses are reduced while disabled people's incomes-- and self-esteem-- improve.

Making sure the largest proportion of unemployed disabled people get back to work should therefore be the number one priority for everyone's benefit. In addition to being beneficial in

an economic sense, going to work instead of staying home and receiving benefits would mean that disabled people are making the most of their skills and possibly developing them further, including their social skills that could be useful outside of work. The disabled person would also have much greater self-confidence and a more rewarding life in the long run.

The main purpose of this paper is to review the existing research on DI policies in order to assess whether disabled people actually have capacity to work. Different governments have tried various incentives to encourage disabled people (i.e., recipients of DI benefits) to engage in significant work, or what economists call taking part in substantial gainful activity (SGA). I will focus on the research done on the Norwegian and US DI policies through a critical analysis of a Norwegian study, *How Financial Incentives Induce Disability Insurance Recipients to Return to Work* by Andreas Ravndal Kostøl and Magne Mogstad (Ravndal and Mogstad 2014), and a US paper, *Does Disability Insurance Receipt Discourage Work? Using Examiner Assignment to Estimate Causal Effects of SSDI Receipt* by Nicole Maestas, Kathleen J. Mullen, and Alexander Strand (Maestas, Mullen and Strand 2013).

I will discuss the general effectiveness of the DI policies in Norway and the US and how the authors of each paper estimated the extent to which DI recipients actually have the capacity to work. I will explore the importance of those cases that are considered marginal and the implications for encouraging these marginal cases to return to work.

I will also speculate on what the researchers may have overlooked or misunderstood about disability through the use of my personal experience with mentally disabled people given that my own brother is severely autistic and I have spent a lot of time around mentally disabled people. I will also explore potential policy implications of the key findings in the literature. Ultimately, I intend to come to a conclusion of what disability insurance has achieved so far and what could possibly be done in order to improve DI programs and the lives of the disabled.

The Norwegian and US Studies (Kostøl and Mogstad 2014, and Maestas, Mullen, and Strand 2013)

How Financial Incentives Induce Disability Insurance Recipients to Return to Work by Andreas Ravndal Kostøl and Magne Mogstad (2014).

In January 2005, the Norwegian government announced a return-to-work incentive program for DI recipients who were already receiving benefits before January 2004 (i.e., a full year before the announcement of the new program). These DI recipients would be allowed to keep about \$0.40 for every \$1 of earnings above the SGA (benefits would still be provided in full if earnings are below the SGA threshold). This sharp retroactive cut-off date allowed the authors to study the effects of this program more cleanly without the potential side effects often seen in studies with other incentive programs, including the possibility of recipients manipulating the program to 'game' the system. For example, by making the program retroactive, the Norwegian government did not have to worry about 'marginally disabled' people who might otherwise not have applied for DI benefits at all if they had not known about this return-to-work incentive.

The sharp cut-off date in DI policy was ideal for the authors to study the incentive program by using a local randomized design which is a regression discontinuity (RD) design comparing the recipients before and after January 1, 2004. Those just before the cut-off date were the treatment group and those after the cut-off date were the control group. Overall, the findings indicated that the incentive program had a significant positive effect on encouraging employment.

There were three general conclusions. First, many DI recipients have the capacity to work and that capacity can be induced by incentives (such as by the Norwegian return-to-work program). For example, three years after the program started, the labor force participation of those on DI benefits increased by 8.5 percentage points for those aged 18-49, vs. a 3.4% increase for the control group. Second, the incentive resulted in a large increase in earnings for DI recipients, accompanied by a substantial decrease in cost to the DI program (made up of a significant reduction in benefits paid and a slight increase in taxes paid by the recipients). Third, the authors found that there was heterogeneity in how each demographic group responded to the incentive. For older recipients (aged 50-61), there was generally little

effect at all, while for the younger recipients (18-49) there was a large range of responses, with the greatest positive effect seen for men, individuals with higher education levels and more work experience, as well as those in areas with low unemployment.

The authors of the Norway paper made a comparison between the Norwegian DI program with the much larger US program and found them to be quite similar, with three key differences. First, the incidence of receipt of DI benefits is much lower in the US even though the trend of increase is similar. For example, from 1961 to 2005, the rate of receipt in the US increased from 0.8% to 4.2% while in Norway it increased from 2.2% to 10.4%. Second, the US program is less generous. Even though the SGA thresholds are similar (about \$1,000 per month), any earnings above the SGA threshold in the US would be taken as a sign of ability to work and made these candidates ineligible for DI, unlike in Norway. This would clearly have important implications for inducing marginal cases to return to work in the two countries. Third, the DI recipients in Norway tend to be older and with slightly higher earnings prior to receiving DI benefits. However, interestingly, both countries had a similarly high proportion of recipients with so-called 'difficult-to-verify' disorders such as mental disease and musculoskeletal disease (57.4% in US and 61.4% in Norway), implying that there are similarly high incidence of marginal cases that could in theory be induced to return to work.

The authors also applied their findings to the existing literature on the effects of financial incentives in encouraging DI recipients to return to work. To consider an 'upper limit' to work capacity and to study the elasticity of the labor supply, they used an approach proposed by Bound (1989), which was to look at the employment rate of rejected applicants for DI benefits (arguing that this subset of rejected applicants should form an upper limit because logically they should be more likely to have work capacity than successful applicants for DI), and found that the Norwegian data was consistent with US evidence. The general conclusion is that the response from the Norwegian incentive program confirms that the incentives are fairly effective in inducing DI recipients to return to work and that the labor supply is fairly elastic with respect to financial incentives. However, other studies have

shown that depending on the stigma costs associated with DI (i.e., some disabled people are too 'proud' to apply for or receive disability benefits), the results can be mixed. For example, the 'Ticket to Work' program in the US did not appear to encourage many people to return to work (Autor and Duggan 2006), while a study on the '\$1 for \$2 offset' policy showed that it may encourage some DI recipients to work but it could also induce others into entering the DI program who would otherwise not have (Benitez-Silva, Buchinsky and Rust 2010).

Overall though, the authors of the Norwegian paper found that financial incentives induce DI recipients to return to work and that many DI recipients indeed have considerable capacity to work. Importantly, there was a significant increase in disposable income for the recipients while program costs were reduced.

Does Disability Insurance Receipt Discourage Work? Using Examiner Assignment to Estimate Causal Effects of SSDI Receipt by Nicole Maestas, Kathleen J. Mullen, and Alexander Strand (2013)

The US paper was written within the context of a US Social Security system with a long-term fiscal imbalance and an urgent need to encourage DI recipients to return to work. The authors tried to study whether Social Security Disability Insurance (SSDI) benefits discourage work, and to what degree they may discourage work, and also tried to determine what portion of the SSDI recipients are in fact 'marginal' cases and therefore most likely to have a capacity to work.

To achieve this, they exploited the benefits examiners' individual propensity to approve or deny SSDI applications to estimate the effects of DI benefits on the labor supply. The study had a 'judges design': the DI applicants are randomly assigned to a judge, meaning that there is an element of personal subjectivity in deciding whether an applicant is accepted into the DI program. This is significant because the study found that among the 23% of applicants who are on the margin of program entry, employment would have been 28 percentage points higher had they not received benefits.

The background to this study was a sharp rise in SSDI caseload and a fall in disabled workers' employment rate. In the previous two decades, caseload grew threefold while the relative employment rate of disabled workers dropped by half. This had happened despite new employment protections for disabled workers and jobs in general becoming less physically demanding (Autor, Levy and Murnane 2003). While most experts believed the SSDI program had a negative impact on employment, it was difficult to determine the magnitude of SSDI's impact because of a lack of exogenous variation in SSDI receipt. In other words, it was difficult to separate the causal effect of SSDI on employment from other confounding factors such as trends in employment and earnings.

For the first time, the authors of the US paper provided a first causal estimate of the effect of SSDI benefits on employment using a dataset of all SSDI applicants in the system. The sample consisted of over 2.1 million applications and about 8,700 examiners. This was the first study to use a research design to estimate the causal effect of SSDI receipt on labor supply by comparing the subsequent labor supply of similar applicants who were approved or denied DI benefits only because of the examiners their applications were assigned to since each examiner had their own propensity for a stricter or more lenient tendency when reviewing DI applications. Because of the appeals process which could take two to four years, the authors studied the employment outcomes up to six years after the initial decision.

The authors found that about 23% of SSDI applicants were marginal cases in the sense that their success in obtaining SSDI benefits depended on which examiner their application was initially assigned to. This estimate has important policy implications because it is the applicants in these borderline cases that would most likely have some capacity to work. The study also estimated that about 57% of applicants were 'always takers' (i.e., virtually all examiners whether lenient or strict would approve their applications) and about 20% were 'never takers' (i.e., denied by all examiners).

The authors applied two regression techniques, ordinary least squares (OLS) and instrument variable (IV), to find a range of estimates of the direct effect of SSDI receipt on labor supply.

Overall, the authors' estimates imply SSDI benefits have very large labor supply effects. OLS estimates show a drop of 34-35 percentage points in employment two years after the initial decision, a 24-25 percentage point drop in the likelihood of participating in SGA and \$7,000 drop in annual earnings. The IV estimates suggest SSDI receipt causes a 28 percentage point drop in employment two years after the initial decision, an 18-19 percentage point drop in employment above SGA and a \$3,800 to \$4,600 drop in annual income. It also suggests a 16 percentage point drop in employment four years after the initial determination.

One key finding of the study was that the employment rate of these marginal cases would have been on average 28 percentage points higher two years later if they had never received SSDI benefits. Employment above SGA would have been 19 percentage points higher and earnings would have been \$3,781 higher. These findings showed that a significant subset of SSDI recipients still had some capacity for work.

As with the Norwegian paper, the US study also found that the effect of DI receipt on employment is heterogeneous. For example, employment capacity rises as high as 50 percentage points for marginal cases and as low as zero for those with serious disabilities.

Interestingly, the authors found that among the marginal cases, 16% of musculoskeletal cases were marginal cases while 32% of mental disorder cases were marginal cases. The study also estimated that marginal applicants were 43% more likely than average applicants to have a mental disability. The marginal case was also 43% more likely to be either quite young or old (under 29 or over 60). These findings would imply that the US government should try to induce the younger applicants, particularly those with mental impairments, to work. The other important factor from a policy point of view is that mental impairments tend to involve much higher medical costs, about three times higher costs than for people with relatively mild but common physical impairments such as back and joint problems (Foote and Hogan 2001). Prior studies have also concluded that people with mental impairments spend about 50 percent more time on DI rolls compared to those with musculoskeletal impairments (Rupp and Scott 1996). These findings suggest that the US government should

spend more resources on the mentally disabled, especially given the importance of focusing on marginal cases for government policy purposes.

Conclusion

Overall, the findings in both papers and in the existing literature in general provide evidence that a significant subset of DI recipients have some capacity to work and that programs to induce DI recipients to return to work can be successful. The effectiveness of the programs, however, depends on the design of such programs. There needs to be enough financial incentive to encourage DI recipients to work while not providing excessive incentives in which case more people may apply for DI benefits than would have otherwise in the absence of the incentive program. Both the Norway and US papers were important in that they were studying the behaviors of DI recipients regarding their attitudes towards returning to work in the absence of confounding factors.

The findings also show that a significant portion of all DI recipients are marginal cases, often with difficult-to-verify conditions, who in fact have significant capacity for work. This would suggest there is substantial potential for governments to reduce the costs to their DI programs by inducing the DI recipients in these marginal cases to return to work.

I think a particularly interesting point is that there is a higher incidence of mental disorders in these marginal cases. Since mental disabilities can incur much higher medical costs than the relatively mild physical impairments of the other marginal cases, there is additional motivation for governments to focus on these cases due to their important policy implications.

I believe that it is worth sharing my personal connection and experience with mental disabilities in order to fully understand my view of disability insurance policies and how they affect the people applying for them. My younger brother Andrew suffers from severe autistic spectrum disorder (ASD). Andrew is 14 and goes to a special needs school in HK. He is very kind at heart but can often be impatient and frustrated when he does not get what he wants

or is denied something he wants to do. This makes it difficult for him to learn and develop the skills required to do daily tasks such as going to school by himself or brushing his teeth. He struggles to communicate and can only verbalise basic phrases such as asking for food when he is hungry, telling us when he wants to leave home to go somewhere to play and regular 'good mornings' and 'good nights'.

Despite his not being particularly shy and often managing to communicate in some way to others through gestures, it is unlikely for people like Andrew to be employed in the future. This means that in all likelihood, he would be collecting disability insurance benefits (if available in the country that he will reside in). Also, financial incentives to work would not affect him and he would be an example of the group of severely disabled DI recipients who just receive the benefits regardless of likely changes in the scheme.

Andrew's situation has influenced my thinking on this subject and I now believe it is even more important for disabled people to have some sort of work, however low their capacity for work may be (at least to begin with). This would not only improve their personal economic situation in the short run but also develop skills that can improve their quality of life in the long run. In addition, maintaining employment for a longer period of time has been linked to a slower decline of cognitive ability and reduced risk of dementia. According to Carole Dufouil, a scientist at INSERM, the French government's health research agency, the risk of getting dementia is reduced by 3.2% for each additional year of work.

Despite social interaction often being challenging and an area that puts people with physical and mental disabilities in uncomfortable situations, most professions could provide jobs that encourage low-stress social interaction with colleagues and should help improve their general job capacity over time. Thus potential DI recipients could gradually improve their social and work skills by participating in SGA instead of staying unemployed and living a lifestyle which would likely predominantly consist of staying home and interacting with the same few family members or caretakers.

One other general strategy for potential improvements to DI programs would be for governments to focus on the rapidly changing working environment and also appreciate how technology has transformed how work itself is done. The Covid-19 pandemic has also played a crucial role in making work-from-home and other virtual employment opportunities acceptable to employers in both the public and private sectors. Governments could encourage companies-- for example, through subsidies or tax breaks-- to allow disabled people to work from home in order to increase employment of DI recipients.

Many current DI recipients are capable of participating in SGA in terms of their skills but are still unemployed simply because they might not be able to commute to work or cannot handle being in a traditional office for long hours due to their medical conditions, including disorders such as ASD that make interacting with colleagues for prolonged periods particularly difficult. Working from home would allow more flexibility for working hours and also the benefit of being able to tailor one's working environment to be most suitable for the individual as this can often be a factor that prevents disabled people from participating in SGA.

The government could also provide subsidies for the private sector to provide training for remote jobs to be as effective and inclusive as possible. Although there would initially be a cost for the training, if done well, it would be rewarded in the long term by a higher proportion of DI recipients being employed and therefore decreasing the financial burden these individuals place on the program. Training for work from home jobs for the disabled is an example of a supply side policy which would increase productivity and efficiency in the economy as well as having the benefits of encouraging more disabled people to be employed as discussed earlier in the paper for reasons such as improving social skills and enabling participants to have a more rewarding life in the long run.

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