

DOES DELAY CAUSE DECAY? THE EFFECT OF ADMINISTRATIVE DECISION TIME ON THE LABOR FORCE PARTICIPATION AND EARNINGS OF DISABILITY APPLICANTS

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September 2011

An influential body of research analyzes the causal effect of receipt of Social Security Disability Insurance benefits (SSDI) on employment and earnings by comparing the post-application labor force participation of those awarded benefits relative to those denied benefits. Implicit in this analytic approach is the assumption that the SSDI determination process affects applicants' labor supply exclusively through a single causal channel — the allowance or denial decision. While this channel is undoubtedly of first-order importance, the SSDI determination process may affect post-application labor supply through other channels as well. Of particular note is the fact that SSDI applicants must engage in a prolonged period of labor force non-participation while they seek benefits. If applicants' employment potential deteriorates while they are out of the labor force, then the observed post-application labor supply of denied and allowed applicants may understate their employment potential at the time of SSDI application. Moreover, if either the rate of deterioration or average SSDI determination time differs between allowed and denied applicants, a comparison of their post-SSDI determination labor supply may not identify the pure effect of the SSDI award on employment outcomes.

From the time that an SSDI application is filed to the time a final determination is made, the applicant is effectively barred from earning more than \$1,000 per month in paid employment, since this would exceed the Substantial Gainful Activity (SGA) threshold and result in a summary denial of benefits. The SSDI application process is typically lengthy, with several levels of determination and appeal. In our administrative sample of SSDI applicants, discussed below, the average time from SSDI application to final determination exceeds one year. Surprisingly, the mean determination time for allowed applicants significantly exceeds that of denied applicants (14.1 versus 9.7 months) because half of beneficiaries are allowed only after a lengthy appeal. Hence, both for those ultimately awarded and denied benefits, it appears plausible that the substantial time spent out of the labor force while applying for benefits may potentially have deleterious effects on skills, job readiness, and employability.

Due to the scale of the SSDI program, even modest deleterious effects of the SSDI application process on the subsequent labor force participation of applicants would have potentially economically significant implications. More than 22 million Americans applied for SSDI benefits in the past ten years, with approximately six million applications filed in the most recent eight calendar quarters alone.

In this paper, we test whether the duration of the SSDI determination process affects the subsequent employment of allowed and denied applicants. We use a unique Social Security Administration workload database to identify exogenous variation in applicants' initial decision times induced by differences in processing speed among the disability examiners to which they are randomly assigned. The average examiner in our sample spends 3 months reviewing a case prior to making an initial determination. Mean determination times differ substantially across examiners, however, with the 90/10 range in mean examiner time equal to 2.2 months. Notably, the characteristics of applicants assigned to each examiner and geographic variation in processing times explain only a modest portion of cross-examiner variation. The remaining variation is likely primarily attributable to productivity differentials among Social Security Administration (SSA) employees.

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Critical to our identification strategy, we show that this examiner-level variation in average processing times significantly affects applicants' total processing time, but is uncorrelated with initial allowance and denial outcomes. In combination with the random assignment of applicants to examiners within a Disability Determination Service (DDS) office, these findings validate our use of examiner-specific mean processing times as instrumental variables for the realized processing time of the cases to which they are assigned.

Exploiting examiner-level variation, we find that longer processing times significantly reduce the employment and earnings of SSDI applicants in the years after their initial decision. Our main estimates indicate that a one standard deviation (2.4 months) increase in initial processing time reduces annual employment rates by about 1 percentage point (3.2%) in years two and three following the initial determination. This effect remains robustly significant into the fourth post-determination year (the final year of our observation window).

To contextualize these numbers, we use them to estimate the impact of average applicant processing times on labor force participation of SSDI applicants. This calculation suggests that the SSDI determination process directly reduces the post-application employment of denied applicants by an average of approximately 3.6 percentage points (6.8%) in years two and three following the initial determination and, similarly, reduces the average employment of allowed applicants by 5.2 percentage points (33%). These calculations are arguably conservative because they ignore the fixed cost of any labor force withdrawal on subsequent employment.

Importantly, this paper presents the first causal estimates of the effect of application processing time on the subsequent labor supply of disability applicants. We show that the employment decay effect is a distinct causal channel through which the SSDI program impacts post-application labor supply outcomes — separate from the benefit receipt effect, which has been the exclusive focus of the literature to date. Combining the labor supply decay effect with a credible estimate of the benefit receipt effect suggests that the SSDI program effect on employment is nearly 25 percent larger than previously thought.

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The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) through the Michigan Retirement Research Center (MRRC). The findings and conclusions expressed are solely those of the author(s) and do not represent the views of SSA, any agency of the federal government, or the MRRC.

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