

INDUCED ENTRY INTO THE SOCIAL SECURITY DISABILITY PROGRAM: USING PAST SGA CHANGES AS A NATURAL EXPERIMENT

NICOLE MAESTAS, KATHLEEN J. MULLEN, AND GEMA ZAMARRO *

August 2012

The fraction of American adults receiving benefits from the Social Security Disability Insurance (SSDI) program has increased dramatically over the past several decades. A proposed solution to rising program costs is to change program rules to encourage fully or partially recovered SSDI beneficiaries to return to work. An example of this type of policy is a benefit offset policy. Under such a policy, SSDI benefits would be reduced by \$1 for every \$2 of earnings above the Substantial Gainful Activity (SGA) threshold, rather than fully suspended, as under the current rules. Introducing a benefit offset could generate savings if current SSDI beneficiaries respond by increasing their earnings above SGA (thereby reducing benefits) or by exiting the rolls (e.g., if the policy encourages beneficiaries to successfully “test” their work capacity beyond the Trial Work Period). Yet it could also create unintended costs if the more generous work rules induce significant numbers of working individuals to apply for benefits.

This paper aims to provide evidence on the behavioral response on the application margin to past program changes. Specifically, we examine how changes in a closely related program parameter, the SGA threshold, have affected SSDI applications rates. We exploit both declines in the real SGA threshold arising from inflation as it erodes the value of the nominal SGA threshold over time, as well as two large increases arising from policy changes in 1990 and 1999.

While there exist no past policy changes that are exactly equivalent to introducing a benefit offset, changes in the SGA threshold are quite close inasmuch as they change the individual budget constraint in a similar hours/earnings region, and thus offer a potentially instructive natural experiment. Like the benefit offset, an increase in the SGA level may prompt some beneficiaries to venture into the workforce if the higher threshold makes available new options for combining work with benefit receipt; but the availability of new options may also make the SSDI program more attractive to new applicants who are currently working. In this paper, we exploit changes in the SGA threshold as a way to learn about possible induced entry effects from a benefit offset. In particular, we present a reduced form estimate of induced entry arising from variation in the SGA level.

* *Nicole Maestas* is head of the Economics and Statistics Group at RAND and Professor of Economics at the Pardee RAND Graduate School, where she teaches microeconomic theory. *Kathleen Mullen* is an Associate Economist at RAND and Professor of Economics at the RAND Graduate School, where she teaches Advanced Econometrics. *Gema Zamorro* is an economist at the RAND Corporation and a professor of Econometrics at the Pardee RAND Graduate School. This Research Brief is based on MRRC Working Paper WP2011-262.

To perform these analyses, we make use of administrative applications data from SSA's 831 Disability Files, which contain disability determination records for all SSDI applications from primary claimants only (excluding dependents and survivors) that pass an initial earnings screen performed at the local field office. The key variables included in the 831 files are filing date and state of residence, which we use to construct application counts by month and state. We examine applications filed between January 1, 1988, and December 31, 2000. To construct application rates, we obtained state and national population counts of individuals ages 18-64 from the U.S. Census Bureau. We also compiled time series for several variables which could influence SSDI applications, including unemployment rates and SSDI program statistics such as allowance rates, average benefit levels and recovery/termination rates. We used the Consumer Price Index to convert nominal SGA levels to real SGA levels and data on state-level average wages for all employees, also obtained from BLS, to construct measures of real relative SGA levels.

Finally, in order to examine how applications relate to applicants' earnings just prior to application, we obtained counts of applications filed in December conditional on annual nominal earnings in the current year (January-December) grouped into one of four categories: (1) below \$3,600, the annualized pre-1990 SGA threshold; (2) between \$3,600 and \$6,000, the annualized 1990 SGA threshold; (3) between \$6,000 and \$8,400, the annualized 1999 SGA threshold; and (4) above \$8,400. These counts were created using matched data from the 831 files and SSA's Detailed Earnings Record, which contains uncapped annual earnings from box 5 (Medicare wages and tips) of individuals' W-2 forms. Because the earnings data contain annual (calendar year) earnings, we focus on applications filed in December only in order to isolate earnings in the year prior to filing the SSDI application.

We take several approaches to estimating SGA-induced entry effects. First, we analyze monthly application counts at a national level controlling for macroeconomic trends and program-level variables such as allowance rate, benefit generosity and exit rate due to recovery as defined by SSA. The findings are consistent with a small positive effect, but the monthly frequency is too noisy to be able to draw meaningful conclusions. The next set of analyses switch to annual frequency and exploit variation in real relative SGA levels at the state level driven by state-by-state differences in annual average wages. Our preferred regression specification of the effect of real relative SGA on SSDI application rates in first differences controls for state-specific trends in SSDI application rates. We find that a 7 percentage point increase in the real relative SGA – the same magnitude of the 1999 increase in nominal SGA threshold from \$500 to \$700 per month – is associated with a 5% increase in SSDI applications. Our estimate is roughly in line with previous estimates of induced entry from a benefit offset. Finally, we attempt to decompose the estimated effect by dividing applications into earnings categories defined by the old and new SGA levels. However, we were unable to find patterns consistent with our hypotheses based on economic theory. In summary, although we find some evidence of SGA-induced entry effects, it is difficult to pin down the exact magnitude with precision and relate directly to potential induced entry from a proposed benefit offset policy.

University of Michigan Retirement Research Center
Institute for Social Research 426 Thompson Street Room 3026
Ann Arbor, MI 48104-2321 Phone: (734) 615-0422 Fax: (734) 615-2180
mrrc@isr.umich.edu www.mrrc.isr.umich.edu

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.

Regents of the University of Michigan: Julia Donovan Darlow, Laurence B. Deitch, Denise Ilitch, Olivia P. Maynard, Andrea Fischer Newman, Andrew C. Richner, S. Martin Taylor, Katherine E. White, Mary Sue Coleman, Ex Officio