The Effect of Public Insurance Eligibility for Childless Adults on Their Labor Supply[*]

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Abstract

This study provides the first plausibly causal estimates of the effect of public insurance eligibility on the employment and earnings of non-elderly, non-disabled adults without dependent children ("childless adults"). Our study uses both propensity score matching with differences-in-differences and a regression discontinuity approach that takes advantage of the sudden imposition of an enrollment cap to compare the labor supply of enrollees with applicants placed on a waitlist. We find that enrollment into public insurance leads to a 3-4 percentage-point reduction in the probability of employment 29 months later. In light of these results, policymakers should be prepared for a reduction in labor supply among those affected by the Medicaid expansion to childless adults under the Affordable Care Act (ACA).

I.   Introduction

Medicaid and other public insurance programs are the largest program for poor and low-income individuals. Understanding the impact of public insurance programs on the labor supply of recipients is, therefore, increasingly important. Cash and in-kind transfer programs have been found to reduce labor supply, but the literature on Medicaid (for children and parents) effect on labor supply is mixed.

In this study, we exploit a recent policy reversal in Wisconsin, during which a major public insurance expansion for childless adults was implemented and, several months later, abruptly frozen. Individuals who applied after the program was frozen were placed on a waitlist.

We find that public insurance enrollment reduces the employment of childless adults by 3-4 percentage points, relative to those on the waitlist.

II.   Background

Launched in January 2009, Wisconsin's BadgerCare Core Plan provides health insurance to adults with no dependent children who have incomes below 200% FPL. Once enrolled, members receive a managed care benefit package and face little cost-sharing. With few exceptions, coverage is not available to persons who already have any form of private health insurance, quit their job, or voluntarily dropped any health insurance in the last 12 months.

Enrollment started January 1, 2009 for limited groups and opened generally on July 15. Application levels immediately exceeded projections and program budget, with enrollment reaching a high of 65,057. As a result of this unanticipated demand for the program, an enrollment cap was abruptly imposed on October 9. Subsequent applications were placed on a waitlist and none of the waitlisted applicants have been enrolled (apart from a medical waitlist bypass for cancer and heart disease patients). The number of waitlisted applicants had reached 89,412 by December 2010. The State has sought to decrease overall enrollment to a sustainable level, and has thus not been enrolling waitlisted applicants as current Plan members leave the program.   The presence of a waitlist, imposed quickly based only on state budget criteria and not on participant characteristics, provides a natural and ready comparison group for those enrolled in the Core Plan.

Those on the waitlist wanted to and were eligible to enroll, but were not able to do so before the enrollment cap was reached.

III.   *Relevant Literature*

To date, researchers have been unable to explore the labor supply effects of Medicaid eligibility on childless adults, as states have only recently begun extending coverage to this population. The existing economics literature portrays a mixed picture of the impact of Medicaid eligibility on the labor supply of low-income parents, the most comparable population available. Ellwood and Adams (1990) and Moffitt and Wolfe (1992) find that single mothers on AFDC were less likely to exit coverage (and become employed) if the value of Medicaid to them was high. Subsequent work finds effect sizes of smaller magnitude (Yelowitz 1995, Ham and Shore-Sheppard 2001) and of the opposite sign (Ham and Shore-Sheppard 2005). Recent papers either find mixed effects (Hamersma and Kim 2009) or no effect (Hamersma 2010, Strumpf 2011). The inconclusive nature of the existing literature is suggestive of heterogeneous effects across populations and time periods studied, further motivating the need to study childless adults in isolation during recent years.

IV.   *Theory*

Income eligibility thresholds for public health insurance likely reduces the incentive to remain in or return to the workforce and, among workers, likely reduces the incentive to increase work hours. This negative effect on labor supply results from the reduced need for private, employer-sponsored coverage among recipients and the possibility that increased earnings would disqualify them for public coverage. We believe that these effects are more pronounced for a low-income childless adult population than for the low-income parents (most of whom are single mothers) examined in the existing literature, as the former have relatively greater labor force attachment. Accordingly, we hypothesize that we will find negative effects on both the *extensive* margin of labor force participation – whether an individual works at all – and the *intensive* margin – how many hours an individual works. We also hypothesize that the effects on the intensive margin are concentrated among workers near the income eligibility thresholds. Finally, we hypothesize that public insurance eligibility leads to an increase in job changes, as workers are better able to sort across employers that

do and do not offer private insurance coverage, relaxing any "job lock" that might exist (see Gruber and Madrian 2001 for a review of the seminal papers in the job lock literature).

V.   Data and Methodology

A.   Data

Using social security numbers, we will merge data from BadgerCare records on enrolled and waitlisted Core Plan applicants with records from Wisconsin's unemployment insurance (UI) system. UI data track quarterly earnings and employment at all covered firms; only employers not subject to unemployment insurance laws (for example, the self-employed) are exempt from reporting. The investigators have used similar merged administrative data in past work and the requisite IRB-approved data protocol is in place.

UI data exhibit superior accuracy over the survey-based data used in the existing literature. Virtually all employers are required to file quarterly wage reports for each employee on their payrolls. The wage reports include the employee's social security number and quarterly wages and the employer's federal tax identification number and industry classification code.   We can track quarterly earnings and employment at all covered firms, job changes, and periods of non-employment that last an entire quarter. Only employers not subject to unemployment insurance laws (for example, the self-employed) are exempt from reporting.   We will account for the omission using auxiliary data sets such as the Current Population Survey and the American Community Survey to analyze trends in self-employment among the target population over the study period. This heuristic exercise will be instructive regarding the potential presence of sample selection and will also suggest the likely magnitude and direction of any associated bias.

B.   Method

We identify the effect of the Core plan on two complementary sets of analyses, each with its own relative strengths. We will first use a regression discontinuity design (Lee and Lemieux, 2010). In essence, this approach involves comparing the labor supply of those who applied just prior to October 9, 2009 (just before the enrollment cap was implemented) with the labor supply of those who applied just after October 9, 2009 (just after the enrollment cap was set). As discussed above, eligible applicants who applied prior to October 9

were enrolled into the program while those who applied after October 9 were placed on a waiting list. Importantly, this date was announced precipitously (the cut-off was announced on October 5) and would have been unexpected by most applicants. We will take care to determine how sensitive our results are to the number of weeks prior to and following the October 9th cutoff date we include in creating our analytic samples.

The regression discontinuity (RD) approach enjoys a distinct advantage over a simple comparison of those enrolled in the Core Plan with those on the waiting list. That advantage is that we expect that both the observable and unobservable characteristics of the two groups to be quite similar. Since the cutoff date was imposed rather arbitrarily by the state (and was not an original feature of the program), it is reasonable to assume that the individuals applying just before the announced cutoff date were very similar to those applying just after the cutoff date. The disadvantage of RD is that it does not use the entire samples of those on the Core Plan and on the waitlist, so lack of sample size could limit our ability to conduct sub-analyses that further stratify by race, age, or sex of the applicant.

Our second approach involves the use of propensity score methods. This design involves making the Core group and waiting list groups as comparable as possible based on observable characteristics. In contrast to the regression discontinuity analysis, propensity score weighting has the advantage that it will use the entire samples of waitlisted and enrolled applicants. The drawback of propensity score weighting relative to the discontinuity approach is that it cannot guarantee an appropriate accounting for selection on unobservable characteristics. That said, there exists a rich methodological literature establishing the conditions under which the use of propensity scores is appropriate in examining labor market outcomes (examples include Card and Sullivan 1988; Dehejia and Wahba 1999; Deheija and Wahba 2002; Heckman, Ichimura, Smith and Todd 1996; Heckman, Ichimura and Todd 1997; Heckman and Smith 1999; and Smith and Todd 2005). A key finding from this body of work is that the underlying assumptions of propensity score methods are best met by including data on lagged labor market outcomes; indeed, lagged labor market measures have been found to be the single most important set of matching variables. We have access to historical UI data, which we will use to construct such measures for the study sample. Moreover, our data meet the other key conditions established in the aforementioned methodological literature: that matched treatments and controls are drawn from the same

geographical labor market and that their respective labor market outcomes are measured the same way (Heckman, Ichimura and Todd 1997; Heckman, Ichimura, Smith and Todd 1996). Also of note is a recent German study that finds that propensity score models including lagged labor market measures and a set of demographic covariates similar to our own perform just as well as models augmented with additional person-level measures such as personality traits and motivation (Biewen, Fitzenberger, Osikominu, and Paul 2010). Finally, we will implement a variety of propensity score approaches to assess the robustness of our results across specifications, including a difference-in-differences matching estimator, which will not only match treatment and control individuals on available observable characteristics but will also account for time-invariant unobservable differences between the two groups (Smith and Todd 2005).

The strength of the proposed study lies in our ability to implement complementary methodological approaches. While the regression discontinuity design (likely) exhibits superior internal validity relative to matching methods, the latter design is relatively better-powered. The ability to assess the robustness of the results across these two methods will provide more convincing evidence than implementing either approach on its own. These two methods together should provide a good picture of whether enrollment into public health insurance has any impact on the labor supply low-income childless adults.

VI.   Results

Our initial results suggest that those on the Core Plan have employment rates that are 3-4 percentage points lower than those on the waitlist.

VII.   Discussion

Learning about the likely labor market effects of the ACA on low-income childless adults is of critical policy importance. The ACA is projected to extend health insurance coverage to an additional 32 million people and relies heavily on an expansion of Medicaid to do this. Indeed, Medicaid expansions are expected to account for about half – 16 million people – of those who by 2019 will become newly eligible for health insurance, the large majority of whom are low-income childless adults. The research literature to date has not been able to

examine this important population, as this group is only recently gaining eligibility for Medicaid coverage. The proposed study will exploit the combination of a unique policy environment and excellent matched administrative data to produce the first causal estimates of the impact of Medicaid expansions on the labor supply of low-income childless adults.

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