Work-Study Employment and Student Outcomes: A Propensity Score Analysis of Heterogeneous Effects

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The Federal Work Study (FWS) program is one of the oldest federal financial aid programs—predating Pell Grants and Stafford Loans—established with the goal of improving college and labor market outcomes among low-income students. Despite this longevity there have been few empirical examinations of FWS, and the available rigorous research has not reached any consensus regarding its impact, highlighting the need for additional replication studies. However, the theoretical framework we develop in this paper suggests a critical role for effect heterogeneity, meaning that no matter how many small replication studies are done, it may be difficult to extrapolate from these localized studies to the effects of the program nationally. Moreover, prior findings have been limited to academic outcomes, despite the fact that potential returns in the labor market are an important motivation for the program.

Our analysis is not a simple replication of any existing study, but extends the literature on student employment and FWS in two ways. First, we present a new theoretical framework for understanding heterogeneity in FWS program effects, which derive from two distinct mechanisms: its influence on students’ likelihood of working, and its influence on the types of jobs students hold conditional on working. We estimate that approximately half of FWS participants are induced into employment because of the program, but other students will replace outside employment with a work-study job and may even reduce their overall hours worked as a result. The impacts of FWS participation in these two cases could plausibly go in opposite directions. As a result, not only are program effects likely to be heterogeneous across individuals (and across local labor markets), but the average effect is unlikely to apply to any individual. This highlights the importance of looking at program impacts nationally, rather than relying on small-scale studies in idiosyncratic settings.

Second, we use propensity score matching with two waves of the nationally-representative Beginning Postsecondary Student (BPS) survey to examine the academic and labor market outcomes of FWS participants compared against two separate counterfactuals: 1) other working students, and 2) non-working students. Our results suggest that FWS participation has positive academic impacts, but no employment impacts, for students who would have worked at other jobs in the absence of the program. For those who would not have worked at all, participation appears to have little effect on academics but a positive effect on post-college employment. One surprising and robust finding is that FWS participation is associated with a large increase in student loan take-up and amount regardless of which group we compare against, even after matching on an extensive set of individual and institutional characteristics. We find little evidence of negative effects for any outcome or subgroup, but because FWS participants are positively selected on important observables, the possibility of unobserved bias cannot be dismissed.