

Working your way through college: How does working while enrolled affect academic and labor-market outcomes for low-income college students?

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WT Grant Scholars Limited Submission Opportunity Proposal

I propose to examine how working during college affects persistence, completion and labor market access for students enrolled in public institutions. In 2015-6, tuition, fees, room and board at public four-year institutions *after* applying all grants and tax benefits was over \$14,000 (College Board, 2015), which was almost a quarter of the median household income in that year. Students relying on financial aid are forced to choose between taking out loans or working during the school year in order to cover the full cost of attendance. In 2014, approximately 53% of undergraduates enrolled in a two-year institution and 44% of students enrolled in a four-year institution worked at least part-time while attending college (Bureau of Labor Statistics, 2015). Moreover, the number of hours worked by college students is increasing (Scott-Clayton, 2012). Students at public two-year institutions (i.e. community colleges), where students of color and low-income students are disproportionately represented, are most likely to work (Center for Education and the Workforce, 2015), and these students are more likely to hold jobs unrelated to their field of study, such as service and retail jobs.

Despite the prevalence of students working while enrolled in college, very little is known about the effects of working on students' outcomes, and even less is known about how these effects vary by type of employment. On the one hand, working during the school year may take away from time students could spend on their studies. Sixty percent of college students working 20 hours or more a week report that work interferes with their studies (National Survey of Student Engagement, 2012). On the other hand, it is possible that working a reasonable number of hours gives students skills that make them more competitive when they enter the labor market after college, and this might be particularly true for students in jobs in some way related to their studies. A handful of authors have reported plausibly causal effects of working on college student outcomes. DeSimone (2008) finds that working while enrolled has a negative effect on students' GPAs and Darolia (2014) finds that working has a negative effect on credits earned. Other research has explored how on-campus employment affects academic outcomes and found similarly negative effects on GPA, at least for some subgroups (Stinebrickner & Stinebrickner, 2003; Scott-Clayton, 2011). Scott-Clayton and Minaya (2015) find that, when compared to students who are working off-campus, participating in work study has a positive effect on academic outcomes but no effect on future employment outcomes. On the other hand, when compared to students who did not work at all, participating in work-study has null or negative effects on academic outcomes but positive impacts on employment outcomes. This suggests that working during college may have different effects for different subgroups of students and for students working different types of jobs. Though each of these studies contributes evidence to this important question, each has limitations. In several of the studies the empirical approach relies on strong assumptions about the endogeneity of the estimating variation or sources of potential bias (DeSimone, 2008; Stinebrickner & Stinebrickner, 2003; Scott-Clayton, 2011; Scott-Clayton & Minaya, 2015; Darolia, 2014), and all of this research relies on older samples which might not reflect the current policy environment. The proposed projects will address these flaws in the literature as well as building on it by examining how the effect of working varies by type of job, particularly for low-income students.

For the first project, I propose to examine the impact of participating in the Federal Work-Study Program (FWS) on college students' academic outcomes using a randomized control trial (RCT). The FWS Program could be leveraged to reduce inequalities in college completion and labor market access by providing access to jobs related to field of study, particularly for low-income students. Moreover, this program provides an opportunity to randomly assign a treatment – employment – that would normally be difficult to manipulate.

Because the FWS Program is oversubscribed, i.e. more students qualify for FWS than institutions are able to fund, it is possible to randomly assign some portion of an institution's funding to target students who, in collaboration with institutional partners, I determine may be most likely to take up the work-study offer and who may be most likely to benefit from this opportunity. From survey research (National Association of Student Financial Aid Administrators, 2016), as well as anecdotal evidence gathered in the course of recruiting institutions, it is clear that some institutions give out FWS arbitrarily, but administrators are interested in distributing this aid more purposefully.

In order to have sufficient statistical power to detect effects, I plan to work with several large public two and four-year institutions around the United States. I and my collaborator have leveraged our contacts within public higher education systems and at the National Student Employment Association to begin recruiting for this study. We are currently in discussions with one large urban public higher education system as well as two other large public institutions who have all expressed interest in collaborating on this research. Using a random number generator, we will randomly assign a subset of an institution's FWS packages. We will then work with institutions to merge the random assignment indicator with institutional administrative data in order to track students' academic progress. At the end of each year of the study, we expect to receive a data extraction from the institution with de-identified student-level data for participants in the treatment and comparison groups. We will use multivariate regression to estimate the causal effect of receiving a work-study offer on students' probability of attaining a work-study job, and academic outcomes such as major choice and persistence. We will also use an instrumental variables model to isolate the effect of holding a work-study job for those who take up the offer. Because there is heterogeneity in the type of FWS jobs available to students, with some students having the opportunity to find jobs related to their field of study and others working more service-type jobs, assuming sufficient power, we will be able to examine whether the effect of working-while-enrolled varies by type of job. This research has important policy implications if better targeting aid and using FWS to provide low-income students access to higher quality jobs can improve the academic and labor-market outcomes of low-income students.

In order to better understand the typical student worker, my second project will examine the effect of working during college in a non-FWS job.

This study will make use of de-identified student-level administrative data merged with Unemployment Insurance data in order to identify students working while enrolled and estimate the effect of working on academic and labor-market outcomes. I am currently engaged in another collaboration with the Tennessee Higher Education Commission (THEC) and am confident I will be able to access the data for this additional project. If this study demonstrates that working while enrolled has negative impacts on students' academic progress, compared to those who took out loans, this implies it may be better for some students to finance their higher education by borrowing, rather than working long hours while enrolled.