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## How Receiving a Pell Grant Affects Students' Work Hours

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# POLICY BRIEF

## How Receiving a Pell Grant Affects Students' Work Hours

Michael S. Kofoed

### BRIEF HIGHLIGHTS

- Many college students work long hours, which may hinder their progress toward a degree.
- I use special features of the award formula for Pell Grants to study how this need-based aid program affects students' work decisions and academic performance.
- Receiving the minimum Pell Grant reduces labor force participation by 1.2 percentage points and weekly work time by 0.4 hours.
- Larger Pell Grants reduce student work hours even more, and Grant receipt also raises student GPA.
- Policymakers should consider increasing Pell Grant eligibility and amounts to offset students' need to work and increase their academic performance.

For additional details, see the full working paper at [https://research.upjohn.org/up\\_workingpapers/363](https://research.upjohn.org/up_workingpapers/363).

Completing a bachelor's degree often takes longer than four years, and this may be associated with the growing number of students working off campus (Darolia 2014). Students may be choosing to work more because of rising tuition costs, especially at institutions that serve many nontraditional or historically underrepresented populations. This increase in work can have either a positive or negative effect on academic and subsequent outcomes. Working off campus in an internship or within a student's field may reinforce learning and also lead to better employment opportunities after graduation. However, off-campus work also can be time intensive and could distract a student from studying, extracurriculars, or other academic opportunities (Liu 2020).

In a [related paper](#), I use the U.S. Department of Education's National Postsecondary Student Aid Study, a large-scale survey of student enrollment and financial aid, to investigate the relationship between receiving a Pell Grant and the likelihood a student works and how often. Pell Grants are the largest form of federally funded grant to help needy students afford college, and the federal government spends over \$25 billion annually on the program, with individual students receiving between \$200 and \$5,500 during the period I study. For some students this grant could offset the need to work. To understand how, I examine students with similar family incomes but who, due to peculiarities in the Pell Grant formula, receive different grant amounts or face different trade-offs for how their grants change with variations in household income. I find that students who just barely qualify for the minimum Pell Grant amount are about 2 percent less likely to be in the labor force, and on average work 2 percent fewer hours per week, than students whose family incomes are just high enough to make them ineligible for a Pell Grant. Moreover, I estimate that the average Pell Grant, about \$2,550, reduces the likelihood of being in the labor force by about 12 percent and weekly hours worked by 31 percent, relative to not having gotten the Grant at all. Pell Grant receipt and amounts also raise students' grade point averages (GPAs). These results imply that employment during college—at least of the type common among students on the margin of receiving Pell Grants—may be a net negative for student academic pursuits.

### Background on Pell Eligibility

To access a Pell Grant, students must first complete the FAFSA, a complex form that asks a series of questions to ascertain financial need.<sup>1</sup> Answers about students' own and their parents' incomes allows the Department of Education to calculate the student's Expected Family Contribution (EFC). The government then calculates a student's need by subtracting the student's EFC from a college's cost of attendance. This measure of need

<sup>1</sup>There is a long literature about the complexity of the FAFSA and its effects on college enrollment and completion. Kofoed (2017) shows that many families leave thousands of dollars on the table for not completing FAFSA. Bettinger et al. (2012) randomly assigned high school students to receive FAFSA assistance from an H&R Block employee and find that those with help were more likely to enroll in and complete college. Dynarski and Scott-Clayton (2006) show that these complexities are regressive and are an obstacle to the equitable distribution of aid.

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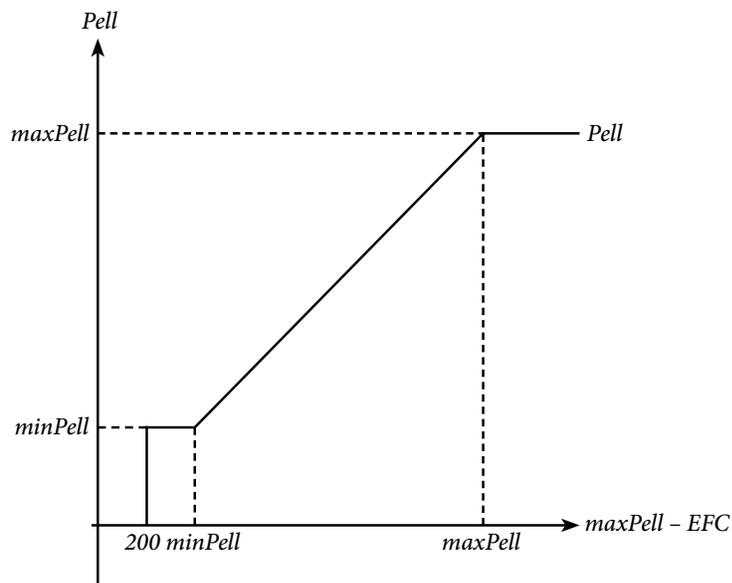
**Students whose financial needs are just below or just above the eligibility cutoff are nearly identical, but one group gets a Pell Grant and the other does not.**

in turn determines the eligibility for (and amount of) a Pell Grant, but the formula used to do so has some interesting features.

The first is that students whose need is between \$200 and \$400 all receive the minimum Pell Grant amount of \$400, while students with lower need aren't eligible for a Pell Grant at all.<sup>2</sup> This factor creates a discontinuity in the formula. Students whose needs are just below the eligibility cutoff and students whose needs are just above the cutoff are nearly identical in their incomes and presumably other factors, but one group gets a Pell Grant and the other does not. This creates a natural experiment where the formula essentially randomly assigns grant aid to (nearly) equally needy students.

Another interesting feature is that once student need is greater than minimum Pell Grant, the government increases the Pell Grant dollar for dollar up to the maximum amount (\$5,500 in 2012, the latest year in the study). This sharp increase in the amount of grant aid with need creates a "kink" at the minimum Pell Grant threshold that changes the relationship between need and the Grant amount. This also creates a natural experiment where Grant aid can change for students with similar levels of need. Figure 1 shows the award schedule for Pell Grants as a function of need, highlighting both features. I use both to estimate how Pell Grant receipt and dollar amount affect labor force participation, work hours, and GPA.

**Figure 1 The Pell Grant Award as a Function of Student Financial Need**



NOTE: The figure shows the dollar amount of the Pell Grant on the vertical axis and financial need, expressed as the difference between the maximum Pell Grant amount and EFC, on the horizontal axis.

### Results

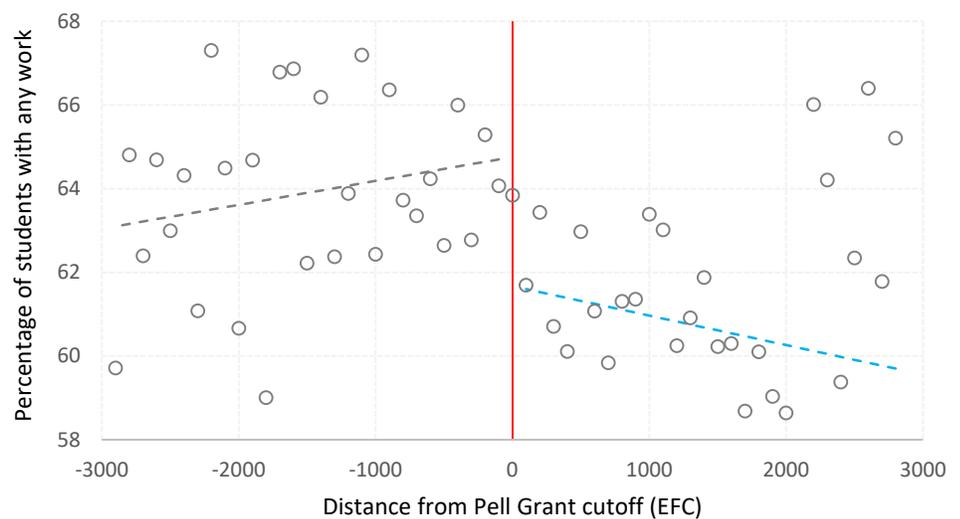
As shown in Figure 2, I find that students who are barely eligible for the minimum Pell Grant have labor force participation rates 1.2 percentage points (or around 2 percent) less than their peers barely ineligible for the grant.<sup>3</sup> This result shows that, although some

<sup>2</sup> In my sample, the minimum Pell Grant ranges from \$200 in 1996 to \$550 in 2012. However, for most years the minimum Pell Grant was \$400. For 2021–2022, the minimum Grant is \$650.

<sup>3</sup> In Figures 2 and 3, the difference between the dashed best fit lines at the red vertical line represents the impact of the minimum Pell Grant on labor force participation without accounting for the effect of larger Grant amounts. The text reports results that account for both effects.

Students barely eligible for the minimum Pell Grant have labor force participation rates 1.2 percentage points (or around 2 percent) less than their peers barely ineligible for the Grant.

**Figure 2 Students Just Eligible to Receive the Minimum Pell Grant Are Less Likely to Work**



NOTE: This scatterplot shows the fraction of students who are labor force participants, with students grouped into “bins” by \$100 increments of their financial need (a linear function of EFC). Circles to the left of the red vertical line represent students ineligible for the Pell Grant, while circles to the right represent eligible students.

SOURCE: Author’s calculations using National Postsecondary Student Aid Study (various years).

students do leave the labor force once they receive the minimum Pell Grant, the amount is insufficient to stop most from working.

Next, I examine the number of hours worked per week among working students, as the Grant could also affect the intensity of work. As shown in Figure 3, I find that the minimum Pell Grant induces a reduction of 0.4 hours per week. Given that the average student in my sample works 16.6 hours weekly, this marks a 2.4 percent reduction.

Moving beyond the impact of receiving the minimum Pell Grant, I turn to the impact of receiving an average Pell Grant (which is about \$2,550 in my sample). I estimate that the average Pell Grant reduces labor force participation by 7.6 percentage points, or around 12 percent. In terms of hours worked, the average Pell Grant reduces weekly work time by 5.1 hours, or 31 percent.

Finally, students who received Pell Grants not only worked less but also increased their academic performance. A minimum Pell Grant increases GPA by 0.025 GPA points (out of a 4.0 point scale), and each \$1,000 of Pell Grant increases a student’s GPA by 0.05 GPA points. These results suggest that Pell Grants may shift students’ time away from labor and toward studying.

### Discussion and Conclusion

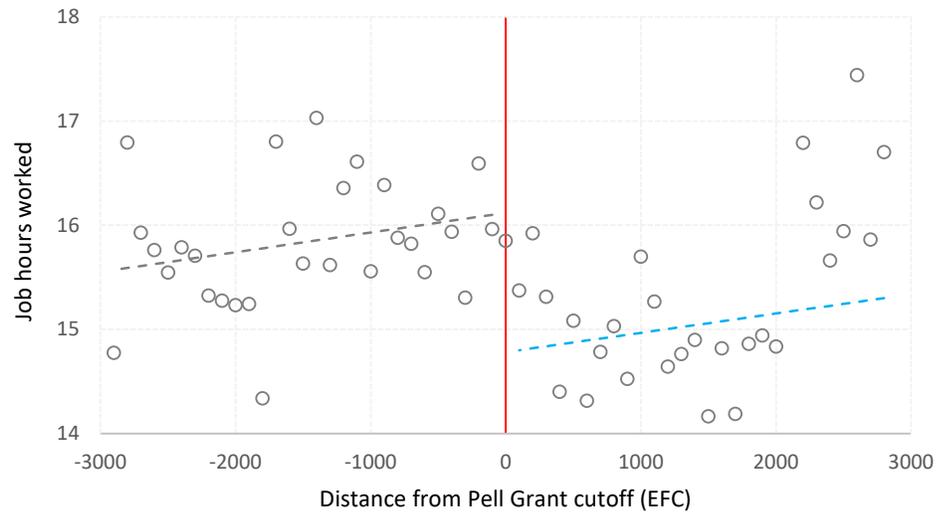
With the rising costs of tuition, many students may feel the need to work to keep up with the expense of their studies. Student work may lead to more on-the-job training and a larger professional network, but it can also divert time away from studying and reduce academic performance. For many students, Pell Grants defray a significant portion (if not all) of college costs. However, understanding the causal impact of receiving a Pell Grant on student work decisions is not straightforward, as Pell recipients and nonrecipients differ among many dimensions, especially family income.

The empirical approaches I use allow me to compare students who are similar on many characteristics, including family income. Thus, those students around the eligibility cutoff and kink are similar, and Pell Grant receipt and the amount received are as good as random for these students. This feature allows credible estimates of the effect of Pell Grants for students on the margin of receiving them.

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These results suggest that Pell Grants may shift students' time away from working and toward studying.

**Figure 3 Students Just Eligible to Receive the Minimum Pell Grant Also Work Fewer Hours, If They Do Work**



NOTE: See note to Figure 2, except the vertical axis here represents the number of weekly hours worked among student workers.

SOURCE: Author's calculations using National Postsecondary Student Aid Study (various years).

The results indicate that Pell Grants do induce students to participate in the labor force at a lower rate and, for those who still work, reduce their weekly work hours. Moreover, this reduction in labor hours also appears to increase students' academic performance. These findings imply that students near Pell Grant eligibility may currently work more than is optimal for their academic pursuits. Policymakers concerned about time to degree, academic performance, and ensuring a well-trained workforce should consider increasing the minimum Pell Grant, expanding Pell eligibility, and adopting other forms of financial aid to help students offset the increasing cost of college.

*Note: The views expressed herein are those of the author and do not reflect the position of the United States Military Academy, the Department of the Army, or the Department of Defense.*

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