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CENTER FOR ANALYSIS OF POSTSECONDARY EDUCATION AND EMPLOYMENT

Research Brief | March 2017

Does the Federal Work-Study Program Really Work—and for Whom?

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The Federal Work-Study (FWS) program is one of the oldest federal programs intended to promote college access and persistence for low-income students. Since 1964, the program has provided approximately $1 billion annually to cover up to 75 percent of the wages of student employees, who typically work on campus for 10 to 15 hours per week. The FWS program has an extensive reach, serving nearly 700,000 students per year, including one out of every 10 full-time first-year undergraduates (and three out of 10 at private nonprofit four-year colleges). Among recipients, the average annual award size is $2,270 (representing about 66 percent of published tuition and fees at a public two-year college or 24 percent at a public four-year college, but only 5 percent of published tuition and fees at a private nonprofit four-year college).[1]

Despite this longstanding reach, federal funding for the FWS program has been stagnant for more than a decade, and in inflation-adjusted terms it has actually declined by nearly 25 percent since 2000 (to $982 million in 2015–16, from $1.3 billion in 2000–01), even as student enrollment and student need have both grown (College Board, n.d.). This decline in support may reflect two persistent concerns: first, the lack of adequate evidence regarding the program's impact on student outcomes, and second, discomfort with its "campus-based" funding mechanism, which provides funds to institutions rather than students and disproportionately benefits selective private institutions. While some small private institutions are able to provide FWS to all eligible students, public institutions typically can provide FWS to only a fraction of students that qualify, and at some community colleges, FWS funds are effectively nonexistent.

In this brief, we discuss current research regarding both the effectiveness of the program and its equity in terms of the distribution of funds. We begin by highlighting findings from recent research by the Center for Analysis of Postsecondary Education and Employment (CAPSEE) which suggests that the program does positively influence students' college attainment and post-college outcomes. The evidence also suggests that these impacts may be greatest for low-income students and students at public institutions. We then discuss how the current process for allocating FWS funds to institutions leaves these very students—those who are most likely to benefit—with the least access to the program. We conclude with implications for policy, including potential channels that might be used to maximize the effectiveness of the program.

Latest Findings on the Impacts of FWS

CAPSEE researchers have conducted two recent studies of the impact of FWS. Scott-Clayton and Minaya (2016) examine the program using nationally representative survey data and a matching strategy that compares FWS participants to observably similar non-participants. Soliz and Long (2016) use administrative data from Ohio and a quasi-experimental strategy that compares eligible and ineligible students at institutions with greater or lesser availability of FWS funds.

One key observation from this new research is that a slight majority of FWS participants (52 percent) would have worked even in the absence of the program (Scott-Clayton & Minaya, 2016). This suggests that for many students the key effect of receiving FWS is not that they earn extra money to finance college or gain work experience, but rather that they gain access to a *different type* of job. The authors find that FWS jobs differ significantly from those of non-FWS jobs held by other working students: FWS participants actually earn *lower* wages than similar working students, but they are more likely to work on campus, work fewer hours per week, and are more likely to have a job related to their major (Scott-Clayton & Minaya, 2016). The authors note that impacts of the program may differ for students who use FWS to replace outside employment, versus students who would not have worked at all in the absence of the program.

Impacts on First-Year GPA

Both CAPSEE studies find suggestive evidence of modest negative effects of FWS participation on first-year GPA (of about -0.02 GPA points), although these effects are not generally statistically significant (Scott-Clayton & Minaya, 2016; Soliz & Long, 2016). Scott-Clayton and Minaya find that the negative effect on first-year GPA is most pronounced among students who would not have worked at all in the absence of FWS (-0.06 GPA points, $p < .05$). These findings are consistent with earlier quasi-experimental research finding lower first-year GPAs among students who work more (Scott-Clayton, 2011; Stinebrickner & Stinebrickner, 2003), and might imply that first-year students struggle to manage time and maintain a balance between work and studies.

Impacts on Persistence and Graduation

These mild negative effects in the short term, however, appear to be outweighed by positive effects on persistence and graduation over the longer term. Soliz and Long (2016) find positive FWS effects on credit accumulation (consistent with similar, though not statistically significant findings by Scott-Clayton, 2011), and Scott-Clayton and Minaya (2016) find a small positive effect on persistence to the second year. Most notably, Scott-Clayton and Minaya find that FWS participation increases the likelihood of completing a bachelor's degree within six years by 3 percentage points ($p < .05$). This positive impact is driven by a 5 percentage point increase among students who would have worked in the absence of the program.[2]

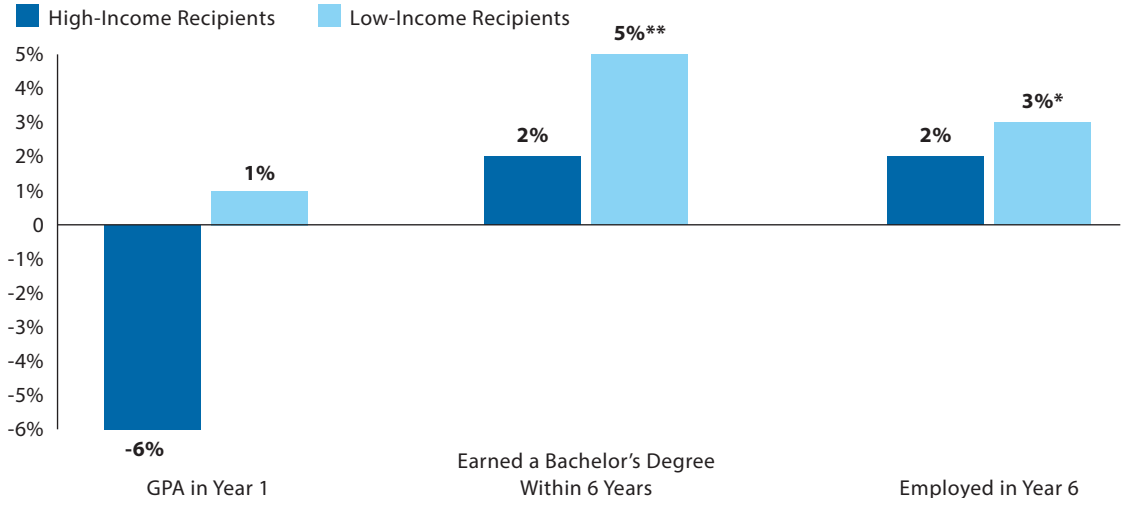
Impacts on Post-College Employment

Only Scott-Clayton and Minaya's (2016) study is able to examine students' labor market outcomes after graduation, although even their estimates should be considered very preliminary: they are measured six years after college entry, when many students may be still enrolled or only recently have left school. The authors find that FWS participation increases the likelihood of being employed six years after initial enrollment by 2 percentage points ($p < .05$), driven by an even larger effect for participants who would not have worked during school if not for FWS (4 percentage points, $p < .05$).

Heterogeneity in the Impacts of FWS

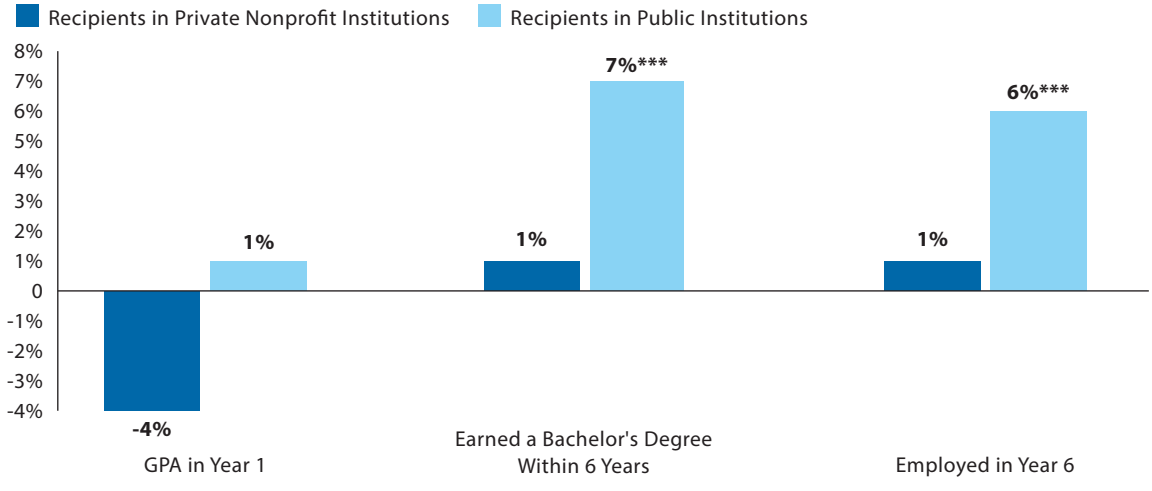
Scott-Clayton and Minaya (2016) further examine whether the effects of FWS vary among students from different socioeconomic backgrounds and/or at different types of institutions. As shown in Figure 1, while FWS participation appears to reduce first-year GPA and has no significant effect on graduation or employment for higher income students, lower income recipients are 5 percentage points more likely to earn a bachelor's degree within six years and 3 percentage points more likely to be employed six years later than similar non-recipients.[3] Figure 2 shows that among recipients in public institutions, FWS increases the likelihood to complete a bachelor's degree in six years by 7 percentage points, and the likelihood to be employed six years after college entry by 6 percentage points (Scott-Clayton & Minaya, 2016).

Figure 1. Impacts of FWS by Income Subgroup[4]



*$p < .1$, **$p < .05$, ***$p < .01$

Figure 2. Impacts of FWS by Type of Institution[5]



*$p < .1$, **$p < .05$, ***$p < .01$

Caveats on the Research

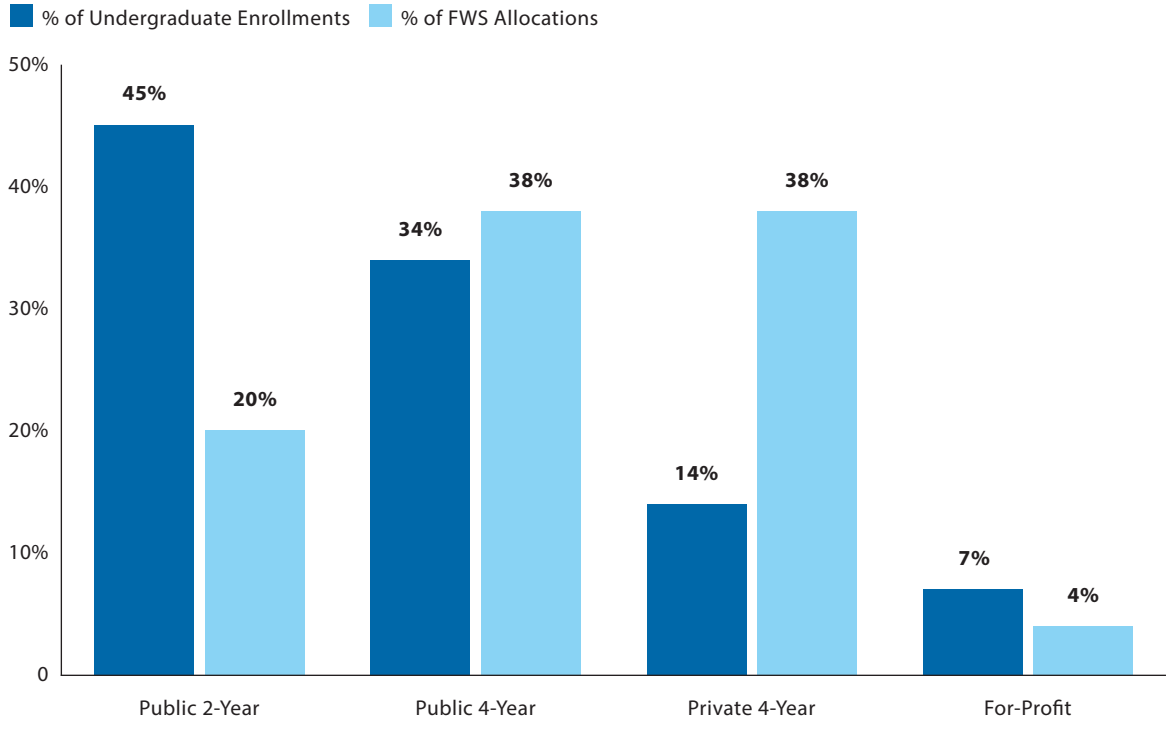
The FWS program has never been examined via a randomized controlled experiment, which would be the most rigorous way to isolate its causal effect. The findings discussed above are based upon either quasi-experimental studies that take advantage of naturally occurring variation in access to the program, or non-experimental studies which rely upon observable characteristics to match participants with similar non-participants and which assume that whatever determines participation after controlling for these characteristics is not also related to the outcomes under consideration. Additionally, the existing research focuses exclusively on first-year participants, so it cannot distinguish the effects of participating in later years.

The Inequitable FWS Funding Formula

Unlike most other types of student aid, the federal government allocates FWS funds directly to institutions, which then have great discretion in distributing funds among eligible students. Eligible students are not guaranteed funds, and a given student's likelihood of receiving FWS can vary dramatically depending upon how much funding the institution receives and how many of their classmates also qualify.

The allocation formula that determines institutional allocations is primarily based on how much the school received in the past, which researchers have documented to disproportionately benefit established and expensive institutions. For example, Figure 3 shows that public two-year colleges—which enroll almost half of undergraduates—receive only 20 percent of FWS funds. In contrast, private four-year institutions enroll only 14 percent of undergraduate students while receiving 38 percent of the funds (Kelchen, 2015). Furthermore, according to a national survey by the National Association of Student Financial Aid Administrators (2016), community colleges are the least likely to be able to find other funding for FWS students to remain employed when they run out of their allocated federal funds.

Figure 3. Allocations of FWS Funds to Institutions[6]



Institutions have great discretion in which students they offer FWS, as long as recipients have some unmet financial need. Unmet need is calculated as the total cost of attendance, minus the student's expected family contribution (EFC) and aid from other sources.[7] As a result, students attending high-cost schools may be eligible even if they have relatively high family incomes. And because expensive private institutions also tend to receive higher allocations of FWS to begin with, the average income of FWS recipients is substantially higher at private institutions.

Indeed, as shown in Figure 4, a full 33 percent of dependent students attending private four-year institutions participate in FWS, compared to just 2 percent of dependent students in public two-year colleges and 7 percent of students in public four-year colleges, and at private four-year colleges nearly half of recipients are from the upper half of the family income distribution.[8] In fact, as shown in Figure 5, a student at a private four-year institution from the top quartile of the income distribution is more likely to receive FWS (15 percent) than a bottom-quartile student at a public four-year institution (13 percent) and three times as likely to receive FWS as a bottom-quartile student at a community college (5 percent).

Figure 4. Income Composition of Dependent Undergraduates Receiving FWS Funds[9]

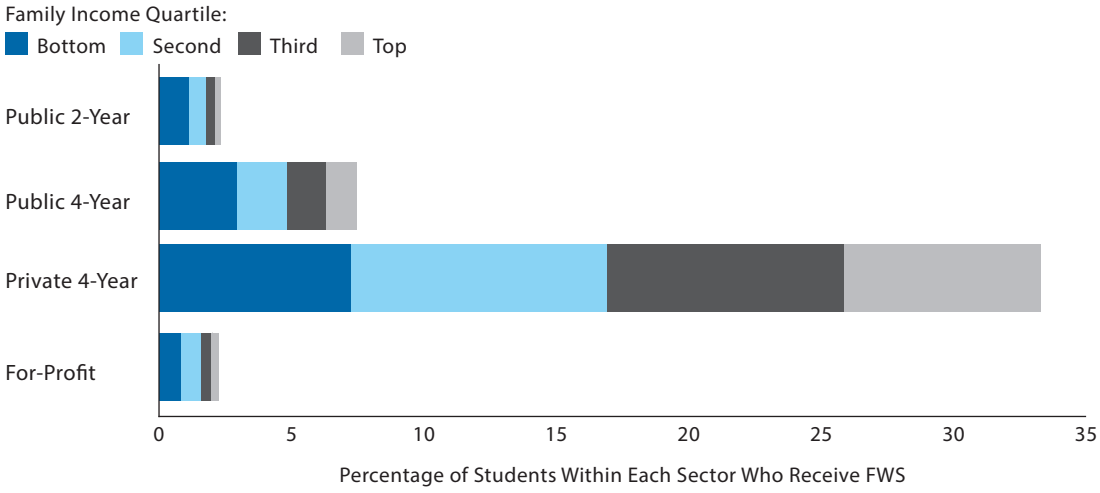
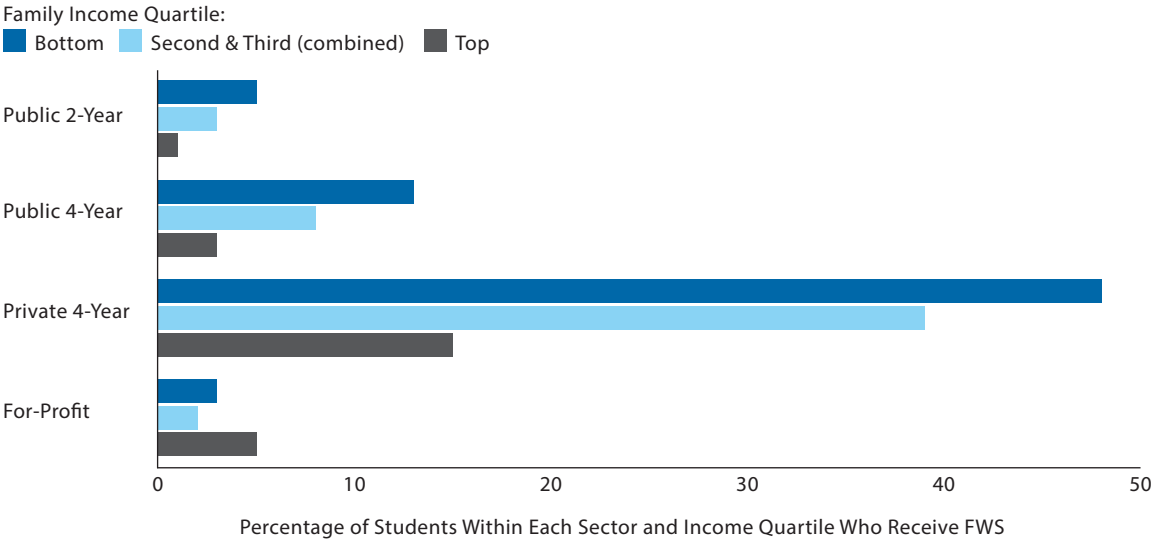


Figure 5. Likelihood of Receiving FWS Funds by Income[10]



Conclusion: Implications for Policy

To summarize key findings, although FWS may lower participants' first-year GPA, available research suggests it may have positive long-term impacts on persistence, graduation, and post-college employment. However, program effects differ by family income and institution type. Lower income students and recipients in public institutions—the very students who are disadvantaged by the current allocation formula—experience larger gains from the program than their counterparts.

This suggests a number of implications for policy. Federal policymakers may wish to consider either increasing FWS allocations for public two-year and four-year colleges or shifting the current formula to place these institutions at less of a funding disadvantage. At the institutional level, FWS might be more effective if schools, especially private institutions, were to identify lower income students and shift more FWS funds to them. Institutions might also consider other ways to better target funds—potentially giving priority to students who indicate a likelihood of off-campus employment in the absence of FWS—and to provide support for first-year students as they adjust to the challenge of balancing school and work.

Finally, stakeholders at all levels should consider ways of innovating, experimenting, and better evaluating the effectiveness of FWS funds. The program has been in place for more than 50 years; the time has come to better integrate the program with the current college completion agenda, and to rigorously evaluate the program in order to amplify its impact in the coming decades.

Endnotes

1. Average published tuition/fee charges are taken from the Baum, Ma, Pender, and Welch (2016). Average FWS award size is based on authors' calculations using National Postsecondary Student Aid Study (NPSAS) 2011–12 data on undergraduates, accessed via the National Center for Education Statistics (NCES) QuickStats online tabulation tool.
2. The only other study to examine effects of FWS on graduation is by Scott-Clayton (2011), who finds large but statistically significant *negative* effects on graduation. Scott-Clayton and Minaya (2016) interpret the discrepancy as a difference between the average effect they estimate using a national sample and the "localized" effect estimated in Scott-Clayton (2011) for students in West Virginia, very few of whom are estimated to have worked in the absence of the program.
3. Higher versus lower income subgroups are defined as students above versus below the median household income for FWS recipients nationally in 2003, about $49,000.
4. Based on results in Scott-Clayton and Minaya (2016).
5. Based on results in Scott-Clayton and Minaya (2016).
6. Based on results in Kelchen (2015). While the For-Profit category is primarily composed of two-year institutions, four-year and less-than-two-year for-profit institutions are included as well.
7. The EFC is computed using a federal formula based on financial information provided by the student via the Free Application for Federal Student Aid (FAFSA). Although the formula is complicated, family income, family size, and number in college are the primary determinants of the EFC.
8. These percentages are based on authors' calculations using NPSAS 2011–12 data, via the NCES QuickStats tool. Over 90 percent of FWS recipients are classified as dependent for financial aid purposes. The income distribution here is measured within the NPSAS 2011–12 sample, which is representative of college enrollees nationwide in 2011–12.
9. Total percentage of dependent undergraduates receiving FWS by sector are based on authors' calculations using NPSAS 2011–12 data via the NCES QuickStats tool. Income composition among dependent undergraduate FWS recipients is based on results from Kelchen (2015). While the For-Profit category is primarily composed of two-year institutions, four-year and less-than-two-year for-profit institutions are included as well.
10. Authors' calculations using the NCES QuickStats tool for dependent undergraduates from the 2011–12 Beginning Postsecondary Students survey. While the For-Profit category is primarily composed of two-year institutions, four-year and less-than-two-year for-profit institutions are included as well.

References

Baum, S., Ma, J., Pender, M., & Welch, M. (2016). *Trends in student aid 2016.* New York, NY: College Board. Retrieved from https://trends.collegeboard.org/sites/default/files/2016-trends-student-aid.pdf

College Board. (n.d.). Federal aid per recipient by program over time. Table 5: Number of recipients, total awards and aid per recipient for federal aid programs in current dollars and in 2015 dollars, 1976–77 to 2015–16. Retrieved from https://trends.collegeboard.org/student-aid/figures-tables/federal-aid-recipient-program-over-time-current-constant-dollars

National Association of Student Financial Aid Administrators (NASFAA). (2016). *National Association of Student Financial Aid Administrators' federal work-study research: National survey report.* Washington, DC: NASFAA and Public Agenda. Retrieved from https://www.nasfaa.org/uploads/documents/NASFAA_2016_Advocacy_Online_Survey_Findings.pdf

Kelchen, R. (2015). Campus-based financial aid programs: Trends and alternative allocation strategies. *Educational Policy.* Advance online publication. doi: 10.1177/0895904815604213

Scott-Clayton, J. (2011). The causal effect of federal work-study participation: Quasi-experimental evidence from West Virginia. *Educational Evaluation and Policy Analysis, 33*(4), 506–527. doi: 10.3102/0162373711421211

Scott-Clayton, J., & Minaya, V. (2016). Should student employment be subsidized? Conditional counterfactuals and the outcomes of work-study participation. *Economics of Education Review, 52*, 1–18. doi:10.1016/j.econedurev.2015.06.006. Note: A similar, previous version of this artilce is available at http://capseecenter.org/should-student-employment-be-subsidized/

Soliz, A., & Long, B. T. (2016). *Does working help or hurt college students? The effects of federal work-study participation on student outcomes* (CAPSEE Working Paper). New York, NY: Center for Analysis of Postsecondary Education and Employment. Retrieved from http://capseecenter.org/does-working-help-or-hurt-college-students/

Stinebrickner, R., & Stinebrickner, T. R. (2003). Working during school and academic performance. *Journal of Labor Economics, 21*(2), 473–491. doi: 10.1086/345565

The research reported here was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305C110011 to Teachers College, Columbia University. The opinions expressed here do not represent views of the Institute or the U.S. Department of Education.

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