Campus-Based Financial Aid Programs: Trends and Alternative Allocation Strategies

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Abstract: Two federal campus-based financial aid programs, the Supplemental Educational Opportunity Grant (SEOG) and the Federal Work-Study program (FWS), combine to provide nearly $2 billion in funding to students with financial need. However, the allocation formulas have changed little since 1965, resulting in community colleges and newer institutions getting much smaller awards than longstanding private colleges with high costs of attendance. I document the trends in campus-level allocations over the past two decades and explore several different methods to reallocate funds based on current financial need while limiting the influence of high-tuition colleges.

The majority of federal financial aid dollars are awarded to students instead of to colleges (e.g., Goldrick-Rab, Schudde, & Stampen, 2014).[2] For example, a student is awarded a Pell Grant, which can then be used at any of the over 7,000 institutions that participate in the federal government's Title IV student aid program.[3] These programs are large, with the Pell Grant disbursing over $32 billion and students taking out over $100 billion in federal loans in the 2012-13 award year (Baum & Payea, 2013).

But there are three types of federal financial aid that are distributed to colleges and universities instead of directly to students. Institutions then allocate the funds to students with remaining financial need. The Federal Work-Study Program (FWS) allocates over $900 million in federal funds per year to institutions to help fund on-campus or off-campus public service employment (Federal Student Aid, 2013a); colleges are typically required to cover 25% of the total program cost.[4] The Supplemental Educational Opportunity Grant (SEOG) allocates nearly $700 million per year to institutions, which also requires colleges to pay 25% of the total program cost. Institutions must allocate SEOG funds to students with the greatest financial need, as estimated by students' expected family contribution (EFC) and Pell Grant eligibility. Finally, the federal Perkins Loan program provides about $900 million per year in loans to students with financial need. However, this program has not received any new federal funding since fiscal year 2004 (loans are funded through the repayment of previous loans) and the interest rate (a fixed

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[2] Although federal grants and loans are awarded to qualifying students, this aid is still routed through the participating college of their choice. The only federal aid that goes directly to students is through tax credits and deductions.

[3] While participation in the Pell Grant program is essentially universal for colleges participating in the federal Title IV program, not all colleges choose to offer their students federal loans. While nearly all four-year colleges offer their students federal loans, community colleges serving approximately one million students did not participate in federal loan programs in the 2013-14 academic year (Cochrane & Szabo-Kubitz, 2014).

[4] For example, if a student makes $10 per hour in a work-study job, the college is responsible for funding $2.50 per hour and the federal government funds the rest. This means that total spending on work-study is closer to $1.2 billion once the institutional contribution is included. Additionally, colleges have to provide 50% of total work-study funds for students who work at for-profit businesses, and may be exempt from providing a match under certain circumstances.

rate of 5%) is higher than that for subsidized and unsubsidized loans to undergraduates between the 2013-14 and 2015-16 academic years (Miller, 2013). Therefore, I will not focus on Perkins Loans in this paper, although the allocation formula is similar to FWS and SEOG.

Institutions are allocated funding for campus-based aid based on two formulas specified in the Higher Education Act (HEA) of 1965 and slightly altered through its various reauthorizations. This funding is provided using a "base guarantee" that provides institutions with roughly the same funding it got the previous year and a "fair share" allowance that divides any remaining program funds across institutions based on unmet financial need (Higher Education Act of 1965, 2013). This general arrangement is little changed since 1979. The most recent changes tie aid to fiscal year 1999 allocations, which were then tied to FY 1985 allocations (Huff, 2004).

Both the base guarantee and the fair share allowance disproportionately benefit high-cost institutions (Smole, 2005). Although language in HEA authorizations sought to tie allocations based on unmet need rather than historical participation, the base guarantee is still prominent (Huff, 2004). The continuity of the base guarantee means that colleges that initially participated in campus-based programs still get the majority of funds, regardless of whether their students have the greatest amount of need. The fair share allowance provides some funds to institutions not eligible for the base guarantee, but the allocation based on unmet need rewards colleges with high sticker prices and high levels of unmet student need. It also results in students from middle-income families at more expensive institutions receiving more campus-based aid than very low-income students at community colleges (Scott-Clayton, 2011a; Smole, 2005).

Table 1 shows the distribution students receiving SEOG and FWS by institutional type (2-year public, 4-year public, 4-year private, and for-profit) in the 2011-12 award year using data

from the National Postsecondary Student Aid Study and campus-based aid program end of year reports (Miller, 2013). While both SEOG and FWS recipients within each sector were racially diverse, the vast majority of students receiving campus-based aid attended full-time. The only exception is in the two-year public sector, where about 30% of recipients attended part-time. The majority of students attending public and private nonprofit four-year colleges and receiving campus-based aid were classified as dependent on their parent(s) on the FAFSA, compared to less than one-third of students at community colleges or for-profit colleges.

[Insert Table 1 here]

Nearly all SEOG funds go to students from the bottom two income quartiles, and nearly all SEOG recipients also received Pell Grants as the SEOG is given to students with the lowest EFCs. However, a significant percentage of dependent students from higher-income families received FWS. While 71% of FWS recipients at community colleges and for-profit institutions and 63% of recipients at four-year public institutions also received a Pell Grant, just 47% of FWS recipients at four-year private institutions were Pell recipients. One in four students at private nonprofit colleges received FWS in 2011-12, compared to six percent of public four-year students and less than two percent of community college and for-profit college students. As a result, approximately one-fourth of all undergraduate FWS awards were to students at private nonprofit colleges who did not qualify to federal Pell Grants—three times the number of awards going to Pell recipients at community colleges. SEOG allocations were spread out somewhat more evenly across sectors, with 14% of for-profit students receiving SEOG compared to 10% of private nonprofit students and less than five percent of students attending public institutions.

The current allocation strategy has led for calls to change the formula to favor colleges with more low-income students (Marcus, 2014; Merisotis, 2011; Scott-Clayton, 2011b). But

unless funding for these programs increases significantly, some colleges will have to lose funds for others to gain. Well-resourced public and private institutions that benefit from the current allocation system have already shown their willingness to oppose any changes (e.g, Burd, 2003); in fact, an effort in the early 2000s to alter the allocation formula was unable to gain sufficient support in the U.S. House of Representatives in the face of an intense lobbying campaign. For example, a letter issued by the Association of American Universities noted that low-income students at some colleges would lose aid as a result of any changes, although others would benefit (Hasselmo, 2004).

Only one study has documented the current allocation of campus-based funds to individual institutions and how those allocations compare to student need. Smole (2005) used data from the 2004-05 award year to show that high-cost institutions receive a disproportionately large share of campus-based aid and that basing all allocations on the fair share formula would result in a slightly more equitable distribution of funds relative to student need. However, this work did not examine the implications of restricting the amount of tuition and fees that count toward the need allocation formula—an important consideration in the aid allocation process.

In this study, I use campus-level aid allocations from the 1991-92 to 2013-14 award years from the U.S. Department of Education merged with institutional data from the Integrated Postsecondary Education Data System (IPEDS) to answer the following research questions:

(1) How are campus-based aid funds currently allocated? How do these funds correlate with measures such as prior allocations, institutional resources, the percentage of students receiving Pell Grants, graduation rates, and selectivity?

(2) How much have FWS and SEOG allocations changed by institutional sector over the period of study?

(3) How would campus-based aid awards change if the allocation formula limited the influence of tuition and fees in the unmet need calculation? And how does that vary by institutional selectivity?

Campus-Based Aid Programs: Allocations and Effectiveness

In order to better understand the objections raised to campus-based aid programs as currently constituted, it is important to discuss exactly how the FWS and SEOG formulas work. In this section, I discuss the historical and current allocation processes for these programs as well as examine evidence regarding the effectiveness of these two programs in improving student outcomes.

Historical and Current Allocation Processes

At the inception of campus-based aid programs, allocations were given to regions; allocations to individual colleges within the region were determined by a panel of college presidents and financial aid administrators. Colleges were asked to provide basic information about the cost of attendance, available financial need, and an estimate of student ability to pay. The panels then distributed aid to states, and eventually to individual colleges (Huff, 2004). SEOG allocations were primarily based on enrollment instead of financial need (Sandler, 1981), while FWS took enrollment and need into account. But as demand for the aid programs grew, concerns were raised about the allocation process as some savvy, well-resourced institutions would routinely inflate their estimated need in order to receive adequate funds (Comptroller

General of the United States, 1974). This allowed colleges to meet actual need, even if only a percentage of the request was granted.

Dissatisfaction with the existing aid allocation system (Huff, 2004) led Congress to change procedures for SEOG allocation in the 1980 reauthorization of the Higher Education Act (HEA) (Education Amendments of 1980). This act created a conditional guarantee of state funding, defined as a percentage of the fiscal year 1979 allocation, which would be reduced to 20% as program funding increased over time (Huff, 2004). This formula change had little effect in addressing inequities, as funding during the period increased and private colleges gained a disproportionately large share of these new funds (McCormick, 1980). A set of technical amendments passed in 1982 reversed the 1980 amendment by fixing the ratio of state-level appropriations for both SEOG and FWS at 1981 levels (Student Financial Assistance Technical Amendments Act, 1982).

The modern allocation of campus-based aid funds came through the 1986 HEA reauthorization (Higher Education Amendments of 1986). This legislation created a base guarantee using institutional allocations in fiscal year 1985, which guaranteed institutions at least 90 percent of that allocation going forward. Any additional funding was split between a "fair share" allowance of institutional need (75%), which is designed to allocate more funds to colleges with greater levels of student need, and that institution's current share of total funds (25%). The 1998 HEA reauthorization changed the baseline to the 1999-2000 award year, and also changed the fair share allowance to be entirely based on institutional need (Higher Education Amendments of 1998).

The U.S. Department of Education currently maintains two sets of allocation rules for institutions, based on whether they participated in FWS or SEOG during the 1999-2000 award

year or joined after that time. The guidelines for the 2011-12 award year specify a base guarantee for institutions participating in 1999-2000 of its base guarantee and fair share increase from that year. Institutions that joined after 1999-2000 have a base guarantee of 90% of the funds received in their second year of participation; awards in the first two years are based on per-student aid at comparable institutions (Federal Student Aid, 2011). However, since the request of new base guarantees is rarely fully funded, institutions that initially participated after 1999 (or even 1985) get only a fraction of their potential base guarantee. Federal allocations for work-study reached their high in 2001 and fell after that, while SEOG allocations peaked in 2005 before slowly falling (Miller, 2013).

If any additional funds remain after the base guarantees have been fulfilled, they are awarded through the fair share process with separate formulas for SEOG (which is available for undergraduates only) and FWS (available for undergraduate and graduate students). Fair shares are determined by calculating a measure of financial need of the students at the program using a combination of a measure of the cost of attendance, student expected family contributions, and other federal grant awards (Federal Student Aid, 2011).[5] This measure of financial need is then compared to the total amount of financial need at all participating institutions. Fair share increases are then granted based on the percentage of the nation's total financial need any particular institution has after taking the base guarantee into account. However, since the cost of attendance is a key component in the fair share calculation, additional fair share allocations do not necessarily reflect students' ability to pay.

Effectiveness of Campus-Based Aid Programs

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[5] I will discuss the exact formulas later in the paper.

A relatively small body of literature has examined the effectiveness of federal work-study programs in encouraging student persistence and completion. A review of the literature by Hossler, Ziskin, Gross, Kim, and Cekic (2009) showed a mix of null to positive effects of work-study programs on student persistence. For example, among studies using regression techniques with national datasets, Alon (2005) found a statistically significant positive relationship between work-study aid and graduation, while Dowd and Coury (2006) estimated null effects among community college students. Scott-Clayton (2011a), who used quasi-experimental methods and data from West Virginia public colleges and universities to conclude that increased per-student work-study allocations and work-study participation improved academic outcomes for men, but worsened academic outcomes for women. Finally, Scott-Clayton and Minaya (2014) showed using propensity score matching and nationally representative data that four-year college students from lower-income families and having lower SAT scores saw gains from FWS participation.

There do not appear to be any empirical studies examining the effects of the SEOG program. This may be the case for several reasons. First, SEOG and Pell receipt are intertwined as nearly all SEOG recipients are also Pell recipients, making separating the effects of Pell and SEOG receipt difficult. Additionally, many studies have combined all types of need-based grant aid into one category because the effects of an additional Pell dollar are likely to be the same as an additional SEOG dollar. However, the causal impact of SEOG could be identified by looking at variation in SEOG funds across institutions among students with the same Pell eligibility. Chen (2008) urged the importance of separating types of aid into their separate components whenever possible, which would advance the body of research on the impacts of financial aid.

Data, Sample, and Methods

To explore trends in campus-based aid allocations and the implications of possible changes, I used over 20 years of data on FWS and SEOG allocations at degree-granting postsecondary institutions. I then modeled some alternative methods of aid allocation and examined heterogeneous effects by institutional selectivity.

Data

I used institutional-level data on campus-based financial aid program participation compiled by the United States Department of Education's Office of Federal Student Aid. This dataset included the amount of FWS and SEOG funds for each aid year from 1991-92 (the first year of data available from the Department of Education) through 2013-14, with the caveat that SEOG data for the 1992-93 aid year are missing. I then created measures of receipt by year, as well as the first year in which an institution received funds. The award values were adjusted for inflation to 2011 dollars using the Consumer Price Index.

The dataset of federal campus-based aid participation and inflation-adjusted awards was then merged with characteristics from the Integrated Postsecondary Education Data System (IPEDS) through the 2011-12 award year, including institutional level and control, size, race/ethnicity and gender, graduation rates within 150% of normal time (three years for two-year programs and six years for four-year programs) for first-time, full-time students, measures of a typical student's financial aid award and cost of attendance, and whether an institution was

active in each year of the panel. For four-year institutions, I also used median ACT/SAT scores, the percentage of students admitted, and an institution's selectivity rating from Barron's.[6]

Sample

The starting point for my sample was all institutions in the United States participating in the federal Title IV aid programs in the 2011-12 award year. I then limited the sample to non-specialty, degree-granting institutions serving undergraduate students as defined by the Carnegie basic and undergraduate classifications, as their missions may affect how federal work-study funding is used.[7] This results in a sample of 3,798 institutions. Because the campus-based aid data combines awards for certain branch campuses (such as the University of Phoenix or Pennsylvania State University campuses), I assumed that all branch campuses received FWS and/or SEOG funds if the main campus did and that funds are equally allocated on a per-student basis across campuses.[8] After making that correction, 3,486 of the 3,798 institutions in the sample had access to campus-based aid funds in the 2011-12 award year. Table 2 contains the summary statistics of those institutions receiving campus-based aid.

[Insert Table 2 here]

The average institution that received any campus-based aid funds received approximately $62 in FWS funds per student (undergraduate and graduate) and $70 per undergraduate in SEOG funds in the 2011-12 award year, which is a relatively small sum of money.[9] But the average

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[6] I used the median score for the ACT composite and SAT math and verbal scores; this was calculated by taking the average of the 25th and 75th percentiles. SAT scores were transformed into their ACT equivalents using the concordance guide from ACT, Inc. (2008).

[7] I eliminated colleges with basic Carnegie classifications of 24 or higher, including theological seminaries, medical schools, and other special-focus institutions.

[8] For more details on the matching process for branch campuses, see the Technical Appendix.

[9] A case can be made that a more appropriate measure of per-student funding should be based on the number of FAFSA filers instead of the overall number of students. However, because campus-based aid can be used to free up

participating institution received nearly $450,000 in campus-based funds, and this can be more than some public colleges award in institutional grant aid. For example, eight of the 11 non-research universities in the University of Wisconsin System received FWS and SEOG allocations of at least 80% of their institutional grant aid allocations; at four of the universities, the campus-based aid allocation was over 125% of institutional grant aid (University of Wisconsin System, 2013).

The bottom of Table 2 includes a measure for whether an institution was active (open) in 2001, 1991, and 1986, as both FWS and SEOG allocations are based in part on the previous year's allocation.[10] Nearly 80% of colleges participating in campus-based aid programs in the 2011-12 award year were active in fall 1986, compared to just 44% of colleges that were not participating in 2011-12.[11] Nearly four in ten colleges not receiving campus-based aid in 2011-12 were not even open ten years prior.

Methods

I began by examining trends in campus-based aid receipt by sector and year I then predicted work-study funds per student (undergraduate and graduate) and SEOG funds per undergraduate by using a series of blocked ordinary least squares regressions. Model (1) included a control for whether the college was active in 1986 and measures for institutional sector, size, and student characteristics. Model (2) added measures for net price, the percentage of students who received Pell Grants or student loans, and per-student endowment.

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institutional grant aid to give to non-FAFSA filers, I believe that including all students in the denominator is more appropriate.

[10] IPEDS data go back as far as fall 1980, but 1,355 colleges (mostly for-profit institutions and community colleges) first appeared in 1986. As a result, I consider 1986 the first year with reliable data on an institution's active status.

[11] Additional data on nonparticipating colleges are available upon request from the author.

The next step was to explore different ways to allocate the campus-based aid programs in comparison to the current system of base guarantees and fair share allocations. Both SEOG and FWS use student financial data from two years prior to determine that year's fair share award allocations, so I used financial data from the 2011-12 award year to estimate awards for 2013-14. My sample included 3,477 institutions with data on three key measures: the number of students enrolled, the number and value of Pell Grant awards, and tuition and fees. This excluded 321 colleges that were active in 2011 but did not have data on these three measures; the majority of these are small proprietary institutions. Colleges that did not participate in campus-based aid programs in 2011-12 were included in the analytic sample, although excluding them does not substantially affect the result. Institutions in this sample received $622 million of the $696 million in federal SEOG allocations in the 2013-14 award year, and $829 million of the $920 million in FWS allocations. I estimated aid allocations within the pool awarded by these colleges. I started by allocating all SEOG and FWS funds by the number of undergraduate students receiving Pell Grants, as well as the dollar value of awards received, before considering allocation strategies based in part on the current fair share formulas.

Estimating alternative SEOG allocations. I began by estimating a number of alternative fair share SEOG allocations for the 2011-12 award year. For the SEOG, these are calculated using a combination of cost of attendance, expected family contribution, and receipt of other federal need-based grants. Institutions with typical (9-month) allocation calendars have the following formula to determine total student need within each income category of students by dependency status j using data from two award years prior (Federal Student Aid 2013b):[12]

$$Need_j = .75COA_j - Pell_j - EFC_j, \tag{1}$$

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[12] For another explanation of the fair share allocation formulas, see Smole (2005).

where *COA* represents the cost of attendance (calculated as tuition and fees plus $10,575 in living allowances), *Pell* includes the value of Pell grants received by students, and *EFC* is a measure of a student's ability to pay. Notably, EFCs do not directly come from a student's FAFSA; rather, they are estimated by income brackets based on the FAFSA applicant database held by the U.S. Department of Education (Federal Student Aid, 2012). For example, dependent students with parental incomes between $9,000 and $11,999 are assigned an EFC of $131, while parental incomes between $12,000 and $14,999 are assigned an EFC of $129. If the estimated need is negative, it is truncated to zero. A college's allocation is then determined by its share of need compared to all other colleges in the sample. For example, if a college has $10 million in student need out of a total of $1 billion in total need, it would get one percent of all available funds.

Because IPEDS data does not have all of these measures exactly as specified in the need calculation formula, I made two simplifying assumptions.[13] First, I used tuition and fees for in-state students, which could understate the need estimated by the formula when out-of-state students are taken into account at public institutions. To estimate EFCs, I assigned all Pell recipients an EFC corresponding to zero income in 2013-14 ($202) and all non-Pell recipients the listed EFC of dependent students with household incomes of $60,000 or more ($22,839).[14] While independent students with higher incomes have a maximum EFC of $5,077, dependency statuses are not available in IPEDS data. This assumption is less problematic, however, because independent students are more likely to receive Pell Grants than dependent students.

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[13] The exact data the U.S. Department of Education uses to calculate fair share allocations by family income bracket may be available by filing an open records request, but that is beyond the scope of this paper.
[14] Estimates with alternative EFC values do not substantially change the results and are available from the author upon request.

I next considered alternative fair share allocation techniques that change the extent to which the cost of attendance factored into aid allocations. Under current rules, colleges with higher tuition and fees are eligible for larger SEOG fair share allocations. I considered three different cutoffs for tuition and fees, using the 25th, 50th, and 75th percentile separately considered for two-year and four-year institutions. At two-year institutions, the cutoffs were $2,744, $4,527, and $13,430 for the 25th, 50th, and 75th percentile of tuition and fees, while the corresponding four-year cutoffs were $8,698, $16,633, and $26,704.[15] Other than changing the allowed cost of attendance, formula (1) was unchanged for these analyses.

Estimating alternative FWS allocations. The first alternative FWS allocation explored the distributional impacts of a change to fair share allocations. Because FWS is available for both undergraduate and graduate students, two formulas are necessary to determine fair share allocations for college j. Both of these use the cost of attendance (as calculated before) and estimated EFCs:

$$UGNeed_j = \min(.25COA_j, COA_j - EFC_j) \tag{2a}$$

$$GradNeed_j = COA_j - EFC_j \tag{2b}$$

The two estimated need amounts are then added together to determine a college's need; an institution then receives a percentage of available funds based on its need compared to all other colleges. EFCs for undergraduate students are estimated in the same way as in the SEOG allocation, but little guidance exists about the proper EFC estimates for graduate students due to a lack of available data. As a rough estimate, I assigned half of all graduate students an EFC

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[15] An argument could be made to not make a distinction by institutional level in tuition and fee allowances, but such a distinction would likely be considered in public policy reforms. Although I included sector-specific tuition and fee allowances, it is worth noting that holding all colleges subject to the same tuition allowance would shift even more funds away from private nonprofit colleges and toward community colleges.

corresponding to zero income ($145) and the other half the largest possible EFC for graduate students ($11,068) (Federal Student Aid, 2012). Like the SEOG fair share formula, the FWS formula also awards more money to colleges with higher tuition and fees. Therefore, I estimated alternative models that capped tuition and fees at the 25th, 50th, and 75th percentile by sector (two-year and four-year) for undergraduate students and separately for graduate students.

The next set of allocation scenarios considered limiting work-study aid to the fair share need of undergraduate students only instead of combining undergraduate and graduate students, resulting in a fair-share formula more similar to that used for SEOG. Graduate students currently receive about ten percent of all FWS funds (Miller, 2013), but their full cost of attendance is included in an institution's fair share formula. Eliminating the influence of high-cost graduate programs would result in more funds being allocated to undergraduate-only institutions, and my scenarios consider the effects of limiting undergraduate tuition and fees at the 25th, 50th, and 75th percentiles.

Finally, I examined the implications of changing the campus-based aid formulas by institutional selectivity among four-year public and private nonprofit institutions to see if the potential effects of changing allocation formulas would be limited to highly selective institutions. I divided these institutions into three selectivity bands using the ratings from Barron's Educational Series (2009), which are based on the percent of students admitted, high school class rank, and standardized test scores. "Less-selective" colleges (166 public, 212 private nonprofit) were classified as noncompetitive, less competitive, or were not rated by Barron's. "Somewhat selective" colleges (249 public, 390 private) included the Barron's categories of competitive and competitive-plus. I classified all other colleges (123 public, 322 private) as "more selective."

Limitations

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The most substantial limitation of this work is that not all Title IV institutions may want to participate in campus-based aid programs. Both FWS and SEOG generally require institutional matching funds, which may cause some colleges to decline participation. Other colleges may choose not to participate because the small amount of available fair share funds may not be worth the perceived costs of complying with federal regulations. In my simulations, I allocate FWS and SEOG funds to all institutions in my alternative specifications, regardless of whether the college currently participates. This likely has the effect of awarding FWS funds to some institutions that primarily offer online programs and thus would be less likely to participate in the program. The potential result is a slight overestimation of FWS funds going to the for-profit sector.

Data on campus-based aid allocations only go back through 1991 and reliable data on an institution's active status are available starting in 1986. Both of these dates are after the change from a strict state-based formula, and hence I cannot compare allocations before and after the changes in the early 1980s. These allocations also may not necessarily reflect the actual awards received by students, as some colleges do not use all funds in a given year and nearly all colleges are required to provide matching funds to students. As a result, actual awards to students are likely larger than the federal allocations. Finally, campus-level aid allocations are estimated for colleges that are a part of a larger system where data are reported at the system level, which includes 1,076 colleges in the analytic sample. I assume that per-student allocations are the same across each branch campus, which likely underestimates the actual amount of variation across branch campuses. This could affect the regressions predicting per-student aid, but does not substantially affect allocations by institutional sector.

I can only approximate the amount of unmet need from the formula used to allocate fair share funds. My approximation (assigning the EFC corresponding to zero income for Pell recipients and the EFC corresponding to household incomes for dependent students over $60,000 per year for non-Pell recipients) likely has a substantial amount of error, but it is difficult to obtain an accurate estimate of unmet need given the lack of data on student dependency status by Pell Grant recipient in institutional-level data. The best alternative (using the number of first-time, full-time, degree-seeking students receiving federal financial aid in five household income brackets) includes a small proportion of undergraduates at many institutions and is hence less useful than the flawed, yet universal, measure of percent Pell.

Results

I first show the trends in campus-based aid funds by year and sector before exploring factors associated with per-student SEOG and FWS funding. Finally, I consider a series of alternative allocation strategies and their implications for funding.

Descriptive results

The two panels of Figure 1 shows the trends in the percentage of FWS and SEOG funding received by sector (two-year public, four-year public, four-year private, and for-profit) from 1991 to 2013 for degree-granting institutions active in 2011. FWS allocations by sector have been relatively consistent over time, with community colleges and for-profits seeing small increases (17% to 20% of total funds and 1% to 5%, respectively) private four-year colleges staying steady around 37%, and public four-year colleges slowly falling from 44% to 37%.

[Insert Figure 1 here]

SEOG allocations by sector changed more between 1991 and 2013 as enrollment grew at community colleges and for-profit institutions relative to the traditional four-year sector and the fair-share formula for SEOG does not consider graduate enrollment like the FWS formula does. The percent of SEOG funds rose for community colleges from 16% to 26% in this period, while SEOG funding to for-profits increased from 3% to 11%. At the same time, four-year public colleges' share of SEOG funds fell from 38% to 31% and private four-year colleges saw their share decline from 42% to 31%. It is worth noting that while the allocations changed by sector over time, these changes did not fully reflect changes in enrollment over time. Additionally, community colleges still received smaller shares and four-year private colleges received larger shares of both FWS and SEOG funds than their share of total enrollment.

The two panels of Figure 2 show the inflation-adjusted amount of per-student work-study and SEOG allocations from 1991 to 2011 for selected percentiles (10th, 25th, 50th, 75th, and 90th). The median institution active in 1991 received $48 per student (in 2011 dollars) in work-study funds and $45 per undergraduate in SEOG funds; those values fell to $38 and $42, respectively, by 2011. The per-student funds fell by nearly half at the 90th percentile, going from $211 per student in work-study and $238 per undergraduate in SEOG funds in 1991 to just $119 and $133, respectively, in 2011.

[Insert Figure 2 here]

Regression results

Table 3 contains the results of blocked regressions predicting per-student FWS and SEOG awards. Given aid allocation rules, it is not surprising that one of the strongest predictors of funds received in 2011 was whether an institution was active in 1986. Four-year colleges

received more work-study funds per student than two-year colleges, while private nonprofit colleges received more FWS and SEOG funds than both public and private nonprofit colleges. Smaller colleges, those with a higher percentage of full-time students, and colleges with a higher percentage of minority enrollment were also more likely to receive additional FWS and SEOG funds after controlling for other variables.

[Insert Table 3 here]

Alternative aid allocation scenarios

Potential reallocations of campus-based aid are explored in Table 4. Under current allocation rules, community colleges received 26% of the $622 million in SEOG funds and 20% of the $829 million in FWS funds allocated to colleges in the analytic sample in the 2013-14 award year. This is in spite of community colleges enrolling about 40% of the students in the sample. Public 4-year colleges got 32% of SEOG and 38% of FWS and for-profit institutions received 10% of SEOG and 4% of FWS funds; both sectors received funds roughly in proportion to their total enrollment. However, private four-year colleges got 32% of SEOG and 38% of FWS while enrolling about 15% of students in the analytic sample.

[Insert Table 4 here]

If FWS and SEOG funds were allocated solely based on the number of students in each sector receiving Pell Grants, community colleges would receive 45% of total aid dollars in the 2013-14 award year, public 4-year colleges would receive 31%, private 4-year colleges would receive 11%, and proprietary institutions would get 12%. These allocations would result in a distribution that more closely reflects enrollment by sector than the current SEOG or FWS

allocations. If funds were allocated based on the total Pell dollars, the results are similar to using the number of Pell recipients.

The next reallocation strategy was to award all SEOG and FWS funds through the existing "fair share" formulas. Because of the heavy reliance on cost of attendance in the fair share formula, a complete switch to fair share would result in even more funds going toward private nonprofit and for-profit institutions. The share of SEOG funds awarded to public institutions would fall from 58% to 48%, while their share of FWS funds would fall from 58% to 40%. This would result in a shift of about $158 million of the $1.45 billion in campus-based aid funds away from public colleges and universities and toward private nonprofit and for-profit institutions.

Limiting the cost of attendance measure to certain percentiles of the tuition and fee distribution swings aid allocations toward public institutions using the fair share formula. Restricting tuition and fees to the 75th percentile ($13,430 for two-year institutions and $26,704 for undergraduate programs at four-year institutions) capped the impact of tuition at nearly half of all private nonprofit four-year institutions and over 90% of for-profit two-year institutions. The cap had an additional impact on colleges with graduate programs, as the impact of tuition is capped (at $15,704) and the full cost of attendance is included in the fair share formula for work-study. This resulted in a drop in private colleges' share of SEOG from 36% to 30% and their FWS share from 49% to 38%.

Restricting tuition and fees to the 50th and 25th percentiles charged within sectors further shifted funds toward lower-cost public institutions. Using the 50th percentile, private colleges' SEOG allocations fell to 20% of total awards and FWS allocations fell to 34% of awards. With a cap of the 25th percentile (tuition and fees of $2,744 for two-year colleges and $8,698 for

undergraduates at four-year colleges), more public colleges and universities hit the tuition cap, and thus the shift of funds toward the public sector slowed down. Private colleges' SEOG allocations fell to 15% of all awards and FWS allocations fell to 30% of all awards, while the allocations of for-profit colleges are largely unchanged.

The use of a cap on tuition and fees had substantial effect on the allocations by sector compared to the fair share allocations without a cap. Compared to the fair share formula without tuition and fee caps, a cap at the 25th percentile would shift $132 million in SEOG and $161 million in FWS funds away from private nonprofit colleges and toward public institutions. Public four-year and two-year colleges would split the reallocated SEOG funds nearly equally, but public four-year colleges would get about 80% of the reallocated FWS funds.

Limiting work-study allocations to undergraduate students' need (excluding graduate students) would result in a drastic shift in funds across sectors. Compared to a cap of the 25th percentile in tuition and fees including graduate students, the same cap for undergraduate students only would nearly triple (from 14% to 38%) the allocation to community colleges while cutting the allocation to private four-year institutions from 30% to 14%. The allocation for public four-year institutions would fall from 45% to 35%, while for-profit institutions would see a slight increase.

The estimated changes in campus-based aid dollars vary across selectivity levels for both public and private nonprofit four-year institutions, as shown in Table 5. All three selectivity levels of public universities would lose SEOG funds relative to current allocations if the fair share formula was used without a tuition cap. SEOG allocations would increase slightly for less selective and somewhat selective public universities with a tuition cap at the 25th percentile and stay constant for more selective public universities. Somewhat selective and more selective

private colleges would see small gains in SEOG allocations under a fair share formula without a tuition cap, but would lose much of their allocation with a tuition cap. For example, more selective private colleges would see their total SEOG allocation fall from 17% of all aid dollars to 5%, while less selective private colleges would fall from 4% to 3%.

[Insert Table 5 here]

Moving from the current FWS allocation formula to a fair share-only formula (including both undergraduate and graduate students) would result in sizable decreases in funding for less selective and somewhat selective public universities, which tend to have lower tuition and hence relatively ness unmet need. Less selective public colleges would see their allocations fall from 7% of all funds to 5%, while somewhat selective public colleges would fall from 17% to 12%. Meanwhile, the proportion of FWS aid going to more selective private colleges, which enroll 4% of all Pell recipients, would go from 22% to 32% under a fair share formula. Compared to current FWS allocations, putting a cap on tuition and fees at the 25th percentile (for undergraduate and graduate students) would slightly increase funds for public colleges and decrease funds for private colleges across the selectivity distribution. Limiting funds to undergraduate students only would result in large decreases for somewhat selective and more selective private colleges, with those funds primarily going to the community college sector.

The potential impacts of changes to the campus-based allocation formulas to individual institutions are detailed in Table 6. Seven of the ten institutions for the top ten in SEOG funds would remain in the top 20 under any of the alternative aid allocation scenarios, although allocations would decline in some cases. The University of Phoenix would by far be the biggest beneficiary of a change, gaining between $8.7 million and $14.1 million across each of the allocations considered. But allocations for the Ivy Tech Community College System would also

increase, while Arizona State University would see roughly similar allocations. The three biggest losers in the top ten are Northeastern University, the University of Wisconsin-Madison, and the University of Pennsylvania. These colleges ranked 856th, 347th, and 1102nd, respectively, in the number of Pell recipients and would see 90% cuts in SEOG funds under a fair share model with a tuition cap at the 25th percentile across the two-year and four-year sectors.

[Insert Table 6 here]

Each of the top nine colleges for FWS funds in 2013-14 is a four-year private university, which is in stark comparison to the more diverse list of top SEOG colleges. (Northeastern University and the University of Pennsylvania were the only two colleges to make both top ten lists.) A shift to fair-share allocations without tuition caps would result in eight of the nine private colleges getting even larger FWS awards. Adding tuition caps at the 25th percentile of undergraduate and graduate tuition would result in fair share allocations being halved at all but Nova Southeastern University. The fair share allocation at the University of California-Los Angeles, the lone public university in the top ten, would increase by about $700,000 with the imposition of a tuition cap. Every college in the top ten would stay in the top 50 in FWS allocations with a tuition cap except for Northeastern and Cornell, which is a function of the size of the graduate programs at many of these institutions.

FWS allocations to the institutions currently in the top ten would drop sharply if funds were based on undergraduate need only instead of combined undergraduate and graduate need. Each of the private institutions in the top ten would see their FWS allocation drop by at least 80% when excluding graduate students from the fair share formula and using a 25% tuition cap. For example, Harvard's FWS funds would fall from $3.53 million to $168,000. Basing FWS awards on the number of undergraduates receiving Pell Grants would yield similar results.

The types of colleges that would gain the most from a reallocation of FWS and SEOG funds (in dollar terms) are large public institutions and for-profit institutions with high percentages of Pell Grant recipients (data tables available upon request). For example, using a fair share formula and a tuition cap at the 25th percentile, Florida International University's SEOG award would increase from $988,000 to $2.04 million and Colorado Technical University's award would go from $951,000 to $1.72 million. Using a tuition cap at the 25th percentile for FWS and limiting funds to undergraduates only, Kaplan University's award would go from $1.40 million to $3.82 million and Houston Community College would see an increase from $981,000 to $2.42 million.

Discussion

The two primary campus-based financial aid programs, the Federal Work-Study program and the Supplemental Educational Opportunity Grant, are often overlooked by policymakers due to their relatively small size. Although they combine to offer only about five percent of the funds available in the federal Pell Grant program, the $1.7 billion in annual spending could be better allocated to reward colleges and universities that are successfully serving larger numbers of students from low-income families. The 322 most selective private colleges receive 4% of all Pell Grant funds, but receive 17% of all SEOG funds and 22% of FWS funds. Many of these institutions have large endowments and enroll relatively small numbers of Pell Grant recipients, meaning that the campus-based aid programs currently do little to encourage college opportunity.

Moving away from the historical allocation formulas for FWS and SEOG and toward a fair share formula, in which funds are based on a calculation of institutional unmet need, will do little to direct funds to students with the greatest financial need unless colleges are not allowed to count their entire tuition and fee charges in the need calculation formula. If colleges are limited

to counting the tuition and fees of a college in the 25th percentile of their sector (roughly similar to the average tuition and fees at public colleges and universities), the allocation of campus-based financial aid better reflects the distribution of both student enrollment and Pell recipients across sectors of higher education. Eliminating the eligibility of graduate students to receive FWS would also reallocate significant amounts of money to undergraduate students with great financial need attending open-access institutions. However, taking away one of the few sources of federal non-loan aid for graduate students could have implications for equity regarding graduate-level access and persistence as the median graduate student had a household income of $32,700 in 2011-12 (author's calculation using the National Postsecondary Student Aid Study).

The political road to changing campus-based allocation formulas is likely to be a difficult one if past efforts are any indication. Unless additional money is made available in conjunction with reallocation, a significant number of well-resourced and well-connected private nonprofit colleges are likely to lose money while others gain. Temporary hold-harmless provisions that would allow for a longer transition to a new formula could be a way to reduce political tensions, but these provisions could also be extended indefinitely. This is what happened with an attempt to change the reallocation formula in the early 1980s (Huff, 2004). Associations representing community colleges and less-selective four-year public colleges would be best off pushing for an immediate change to the funding formula in order to prevent those in favor of the current system from delaying implementation.

Even though reallocating campus-based funds will be politically difficult, another push should be made to update the formulas to better reflect actual student need rather than posted tuition and fees. The next reauthorization of the Higher Education Act, which is due to be reauthorized but will likely extend beyond 2017, is an opportunity for this sort of policy change.

Colleges that currently receive large per-student campus-based aid allocations are more likely to have larger endowments than colleges with smaller allocations, and are therefore better able to replace the lost FWS and SEOG funds (typically less than a few hundred thousand dollars per year) with institutional grant aid.

Another potential strategy for reallocating campus-based aid funds is to tie funds to institutional performance measures, such as the President's proposed Postsecondary Institutions Ratings System (PIRS) or various budget proposals to provide larger Pell Grants to students attending higher-performing colleges. Providing these funds as an incentive for encouraging access, affordability, and improved student outcomes may also be a better use of funds than the current allocation. It also has the potential to reduce concerns about changing the formula in a way that will clearly reduce the allocations of colleges with higher tuition. Finally, the funds could simply be used to increase Pell Grants by a small amount and the campus-based programs could be disbanded.

Technical Appendix: Matching Branch Campuses to Aid Allocations

A complication of matching IPEDS data with campus-based financial aid data (which is collected by the U.S. Department of Education's Federal Student Aid (FSA) office instead of its National Center for Education Statistics) is that branch campuses are treated differently in the two data sources. Campus-based financial aid data are always aggregated to the system level in FSA data, while colleges typically report IPEDS data at the institutional level although they have the option to report at the system level (Jaquette and Parra, 2014).[16] This created analytical challenges in examining per-student funding by institution in this paper, although the estimates of aid allocation by sector and control are unaffected.

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[16] Another example of data reported at the system level is student loan default rate data.

Every college eligible to receive federal Title IV financial aid receives two unique identifying codes from the Department of Education. The IPEDS UnitID variable is typically used to identify institutions, but the Office of Postsecondary Education ID (OPEID) is a better gauge of whether an institution is a part of a system for financial aid purposes. Colleges with an OPEID ending in 00 are either independent entities or are the primarily reporting institution for Title IV purposes. Any institution with an OPEID that does not end in 00 is a branch campus, and will share the first five or six digits of the OPEID with a reporting institution. None of these institutions identified as branch campuses were directly awarded campus-based aid in FSA's datasets. It is worth emphasizing that some systems of higher education have one primary reporting institution for the entire system, while others have unique OPEIDs for each institution within the system. For example, Pennsylvania State University has one reporting institution for its entire system, while each institution within the University of Wisconsin System reports separately.

Of the 3,798 institutions in the analytic sample, 1,023 were a part of a system based on OPEID codes. However, relying on OPEID codes to generate a list of colleges reporting under systems generates an incomplete list of such institutions. A closer look at the institutions not receiving any campus-based aid in 2013-14 showed colleges in several other systems that were not caught in the OPEID flag. In three situations (the City Colleges of Chicago System Office, the City University of New York System, and the University of South Carolina's regional campuses), all campus-based funds are reported at the system level although each individual campus has its own OPEID for reporting purposes. CUNY is the most complex of the three systems, as institutions in the system grant degrees ranging from associate's to doctoral degrees.

Four other groups of institutions appear to function as systems although they are not marked as such. All of the campus-based aid funds awarded to community and technical colleges in Kentucky are listed as going to Bluegrass Community and Technical College, a part of the Kentucky Community and Technical College System. This appears to be a result of mergers that created the system in the late 1990s, and a check of institutional websites shows that other colleges in the system offer campus-based aid. Additionally, the University of Michigan's Dearborn and Flint campuses were assigned to the main campus of Ann Arbor. DeVry's Keller Graduate School of Management funds were all listed with one of their many campuses. Illinois Eastern Community College has four branches, but all were assigned to the main campus in Olney. After these campuses were classified, a total of 1,076 institutions were a part of systems.

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Table 1: Characteristics of campus-based aid recipients by sector, 2011-12.

Characteristic	Public 2-yr	Public 4-yr	Private 4-yr	For-profit
SEOG recipients (pct)				
Female	65.6	56.5	55.2	68.1
Race/ethnicity				
White	49.8	52.4	52.7	39.9
Black	24.8	18.4	21.6	27.1
Hispanic	17.3	13.9	14.2	24.5
Asian	4.3	10.2	5.8	1.8
Attending part-time	30.6	10.6	4.0	17.0
Dependent on FAFSA	29.2	61.8	76.8	22.0
Parent income quartile (dependent)				
Bottom	77.7	68.9	52.7	80.0
Second	20.6	27.2	42.0	19.3
Middle	1.7	3.5	4.7	0.5
Top	0.0	0.5	0.6	0.2
Pct with SEOG (within each sector)	3.3	5.1	10.1	14.4
Pct of all SEOG recipients (across sectors)	24.0	25.7	20.4	29.9
Pct of all SEOG funds (across sectors)	16.7	30.8	34.9	17.5
Undergraduate FWS recipients (pct)				
Female	55.0	56.4	55.5	52.8
Race/ethnicity				
White	48.1	55.7	63.2	43.0
Black	20.5	16.3	10.8	20.9
Hispanic	20.0	14.1	12.7	22.5
Asian	7.6	8.9	8.8	5.3
Attending part-time	30.6	5.5	1.6	12.4
Dependent on FAFSA	49.5	81.3	90.6	33.1
Parent income quartile (dependent)				
Bottom	46.4	38.7	21.6	36.3
Second	26.1	26.1	29.2	33.7
Middle	17.5	20.1	27.1	18.3
Top	10.0	15.2	22.1	11.8
Received Pell Grant	70.5	63.4	47.4	70.9
Pct with FWS (within each sector)	1.9	5.9	24.6	1.3
Pct of all FWS recipients (across sectors)	12.2	32.7	50.8	4.2
Pct of all FWS funds (across sectors)	14.6	35.0	44.4	6.0

Sources: Miller (2013) (pct of all SEOG/FWS recipients and funds by sector), National Postsecondary Student Aid Study (all others).

Table 2: Summary statistics of institutions receiving campus-based aid, Fall 2011.

Characteristic	Mean	St. Dev	N
Campus aid per student ($)			
Federal work-study (all students)	62	81	3486
SEOG (undergraduates only)	70	88	3486
Institutional characteristics			
Four-year (pct)	47.1	49.9	3486
Public (pct)	43.4	49.6	3486
Private nonprofit (pct)	29.7	45.7	3486
For-profit (pct)	26.9	44.4	3486
Graduation rate (pct)	43.4	22.4	3213
Undergraduate enrollment	4831	8090	3486
Graduate enrollment	738	2299	3486
Full-time students (pct)	70.7	25.0	3455
Female (pct)	59.9	15.8	3457
Race/ethnicity (pct)			
White	56.2	25.2	3457
Black	17.8	21.0	3457
Hispanic	11.3	15.3	3457
Asian	3.3	5.6	3457
Financial characteristics			
Net price ($)			
All students	15,586	7577	3392
Family income $0-$30,000	13,532	6937	3379
Pell recipients (pct)	48.4	20.6	3455
Took loans (pct)	54.4	26.6	3455
Endowment per FTE ($)	23,547	137,829	3486
Active institution by year (pct)			
2001	87.7	32.9	3486
1991	81.2	39.1	3486
1986	78.3	41.2	3486

Sources: U.S. Department of Education (FWS and SEOG receipt), Barron's (selectivity), Integrated Postsecondary Education Data System (IPEDS) (all others).

Notes:

(1) Missing endowment values (primarily at community colleges and for-profit institutions) were classified as zero.

(2) "Active institutions" are those which are open during the listed year.

Figure 1a: FWS Allocation by Sector and Year
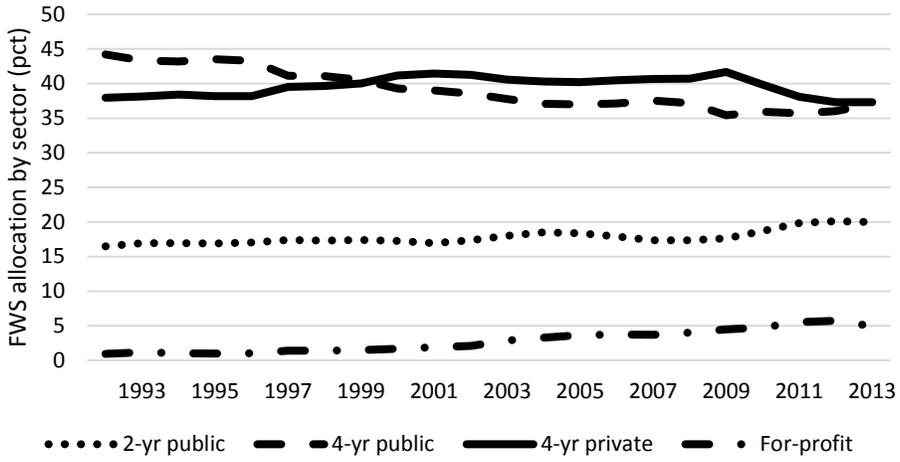
Figure 1b: SEOG Allocation by Sector and Year
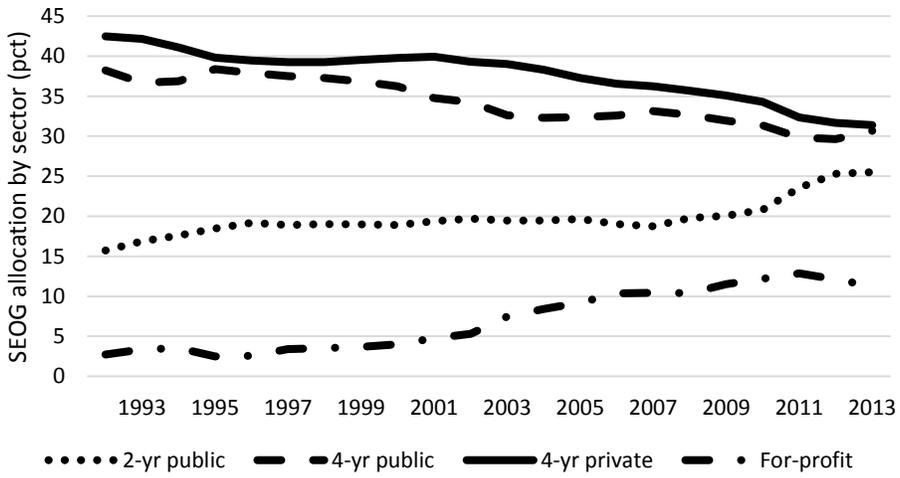
Figure 2a: Work-Study Aid Per Student by Percentile

Aid per student (2011$)

250
200
150
100
50
0

1993 1995 1997 1999 2001 2003 2005 2007 2009 2011

——— 10th %ile · · 25th %ile ━ ━ 50th %ile
· · · · · 75th %ile ━━━ 90th %ile
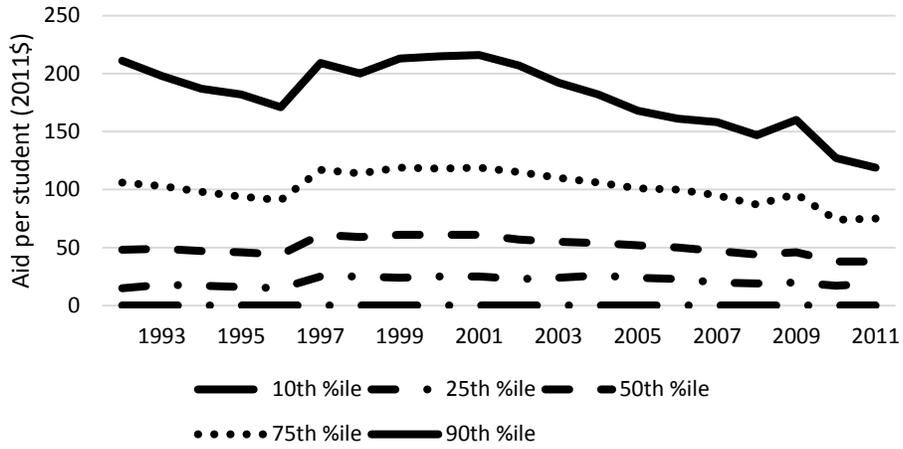
Figure 2b: SEOG Aid Per Undergraduate by Percentile

Aid per student (2011$)

300
250
200
150
100
50
0

1993 1995 1997 1999 2001 2003 2005 2007 2009 2011

━ · 10th %ile ━●━ 25th %ile ━ ━ 50th %ile
· · · · · 75th %ile ━━━ 90th %ile

Table 3: Predicting campus-based aid award amounts per student, Fall 2011.

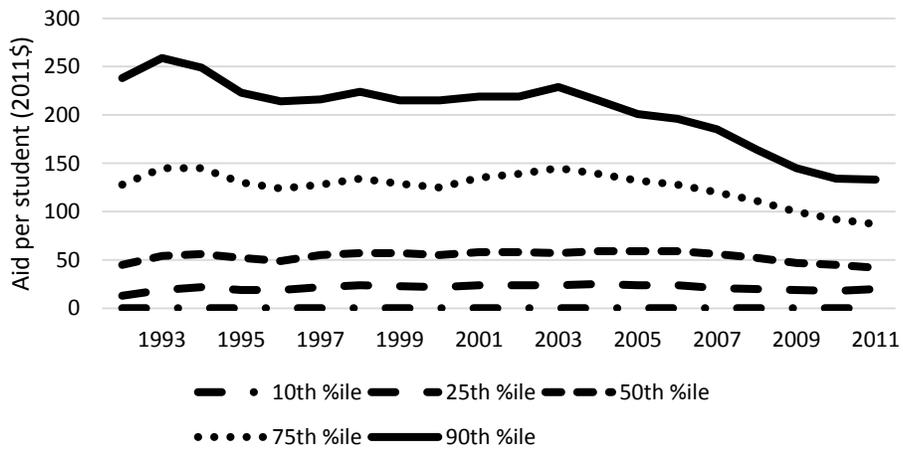| Characteristic	FWS per student, 2011-12 ($)		SEOG per undergraduate, 2011-12 ($)	
	Model (1)	Model (2)	Model (1)	Model (2)
Active institution in 1986 (pct)	28.1***	23.9***	30.2***	29.6***
	(3.6)	(3.7)	(4.0)	(3.8)
Four-year (pct)	23.3***	14.5***	11.3***	4.0
	(3.1)	(3.6)	(3.4)	(3.7)
Public (pct)	-31.5***	-24.9***	-43.0***	-37.4***
	(3.9)	(4.6)	(4.3)	(4.7)
For-profit (pct)	-45.0***	-34.0***	-18.5***	-16.5***
	(4.0)	(5.1)	(4.4)	(5.2)
Undergraduate enrollment (ln)	-8.9***	-9.6***	-12.0***	-9.7***
	(1.2)	(1.3)	(1.3)	(1.3)
Full-time students (pct)	42.0***	32.8***	33.2***	31.7***
	(5.5)	(6.1)	(6.1)	(6.3)
Female (pct)	-8.1	-12.4*	5.5	-2.5
	(7.3)	(7.4)	(8.1)	(7.5)
Black (pct)	76.3***	79.2***	70.0***	67.1***
	(5.9)	(6.7)	(6.5)	(6.9)
Hispanic (pct)	32.2***	37.1***	28.5***	29.3***
	(7.9)	(8.2)	(8.7)	(8.4)
Asian (pct)	16.4	39.7*	83.0***	55.5**
	(20.5)	(22.6)	(22.7)	(23.1)
Net price (ln $, all students)		0.8		7.6**
		(3.7)		(3.7)
Pell recipients (pct)		9.8		21.2**
		(10.2)		(10.4)
Took student loans (pct)		9.0		4.9
		(8.0)		(8.2)
Endowment per FTE (ln $)		2.7***		0.9*
		(0.5)		(0.5)
Adjusted R-squared	0.212	0.224	0.190	0.219
Sample size	3755	3654	3755	3654

Sources: U.S. Department of Education (FWS and SEOG receipt), Integrated Postsecondary Education Data System (IPEDS) (all others).

Notes:

(1) Missing endowment values were classified as zero.

(2) * represents p<.10, ** represents p<.05, and *** represents p<.01.

Table 4: Potential reallocations of campus-based aid awards, 2013-14.

Scenario (pct of total aid dollars)	Public 2-yr	Public 4-yr	Private 4-yr	For-profit
Based on Pell Grant recipients				
Number of recipients	45.4	30.6	11.2	11.6
Total Pell dollars	43.7	32.4	11.5	11.3
SEOG allocations				
Actual awards	26.2	31.6	32.2	10.0
"Fair share" formula only	23.5	24.3	36.3	13.7
"Fair share" with tuition limits				
75th %ile of sector cap	26.7	27.7	30.1	14.2
50th %ile of sector cap	31.6	33.0	19.7	14.8
25th %ile of sector cap	34.4	36.2	15.0	13.4
FWS allocations				
Actual awards	20.4	37.7	38.0	4.3
All students				
"Fair share" formula only	10.4	29.9	49.0	9.9
"Fair share" with tuition limits				
75th %ile of sector cap	11.1	38.6	37.7	11.9
50th %ile of sector cap	12.4	42.0	33.7	11.5
25th %ile of sector cap	13.9	45.2	29.6	10.7
Undergraduates only				
"Fair share" formula only	21.4	20.8	45.2	11.3
"Fair share" with tuition limits				
75th %ile of sector cap	27.5	25.8	30.6	14.8
50th %ile of sector cap	31.5	29.7	23.8	14.0
25th %ile of sector cap	37.7	34.8	13.8	12.7
Number of institutions	1012	538	922	848
Percentage of total enrollment	39.0	36.3	17.1	7.7
Percentage of undergraduate enrollment	44.9	33.9	13.8	7.4

Notes:

(1) Columns with percentages represent that sector's share of total aid receipt.

(2) Private 2-year colleges are excluded due to their small number.

Table 5: Potential reallocations of campus-based aid awards by institutional selectivity, 2013-14.

Scenario (pct of total aid dollars)	Public 4-year			Private nonprofit 4-year		
	Less selective	Somewhat selective	More selective	Less selective	Somewhat selective	More selective
Based on Pell Grant recipients						
Number of recipients	7.2	14.9	8.5	2.5	5.0	3.7
Total Pell dollars	7.6	15.8	9.0	2.5	5.1	3.9
SEOG allocations						
Actual awards	6.5	14.5	10.6	4.1	11.0	17.2
"Fair share" formula only	5.2	11.5	7.6	3.7	12.0	21.3
"Fair share" with tuition limits						
75th %ile of sector cap	5.9	13.1	8.6	4.1	12.3	13.7
50th %ile of sector cap	7.1	15.6	10.3	4.0	7.1	6.7
25th %ile of sector cap	8.1	17.5	10.6	3.3	6.8	5.0
FWS allocations						
Actual awards	6.5	17.3	14.0	4.1	11.8	22.1
All students						
"Fair share" formula only	4.5	12.2	13.2	3.9	13.7	31.5
"Fair share" with tuition limits						
75th %ile of sector cap	5.9	15.9	16.8	4.4	13.3	20.0
50th %ile of sector cap	6.5	17.6	17.9	4.2	11.9	17.6
25th %ile of sector cap	7.4	19.4	18.5	3.7	10.0	15.9
Undergraduates only						
"Fair share" formula only	4.3	9.5	7.0	4.1	15.5	25.7
"Fair share" with tuition limits						
75th %ile of sector cap	5.6	12.1	8.1	4.8	14.2	11.6
50th %ile of sector cap	6.4	14.0	9.3	4.4	11.1	8.3
25th %ile of sector cap	7.9	16.9	10.1	3.0	6.2	4.6
Number of institutions	166	249	123	212	390	322
Percentage of total enrollment	6.9	16.0	13.5	2.3	6.2	8.6
Percentage of undergrad enrollment	6.8	15.1	12.0	2.0	5.2	6.6

Notes:

(1) Columns with percentages represent that sector's share of total aid receipt.

(2) Selectivity ratings are from Barron's Educational Series (2009). "Less selective" includes noncompetitive, less competitive, and unrated colleges. "Somewhat selective" includes competitive and competitive+ colleges. All others are "more selective."

Table 6: Top ten SEOG and FWS allocations by alternative award specifications.

SEOG allocations ($1,000s)		Allocations under alternative plans		
Name	2013-14 award	Fair share allocation	Fair share, 25%ile tuition cap	Pell recipients
University of Phoenix	4880.5	14463.2	19038.0	13608.7
Ashford University	3816.9	3419.2	5017.7	3724.2
Kaplan University	3190.0	2948.2	3153.8	2300.8
Northeastern University	3097.6	2079.1	287.5	209.2
University of Wisconsin-Madison	2587.8	417.3	612.7	443.6
Everest University	2577.9	2573.1	1559.8	2103.3
Ivy Tech Community College	2512.5	3095.3	4534.4	5380.3
University of Pennsylvania	2411.8	1736.3	201.2	152.3
Miami Dade College	2390.5	1662.5	2476.5	3213.7
Arizona State University	2328.5	2001.5	2924.2	2153.5

FWS allocations ($1,000s)		Allocations under alternative plans			
Name	2013-14 award	Fair share allocation	Fair share, 25%ile tuition cap	Fair share, 25%ile UG tuition	Pell recipients
Columbia University in New York	6195.6	7486.4	3733.2	252.4	202.8
New York University	5271.4	9628.0	4653.7	706.4	567.7
University of Southern California	5038.2	8674.5	4402.0	593.9	477.3
Cornell University	4075.0	3515.7	1548.5	363.7	292.3
University of Pennsylvania	4072.5	4949.3	2747.1	252.8	203.2
Northeastern University	3956.5	4563.7	2236.8	347.2	279.1
Nova Southeastern University	3826.7	3964.2	4644.0	443.9	356.8
Harvard University	3749.4	7073.6	3532.1	167.6	134.7
Northwestern University	3434.6	5483.3	2406.6	196.2	156.7
University of California-Los Angeles	3346.0	2283.8	2998.2	1481.6	1190.7

Notes:

(1) The 25% tuition cap refers to capping tuition and fees at the 25th percentile of tuition and fees separately for two-year, four-year undergraduate, and four-year graduate institutions.

(2) The alternative allocations are based on enrollment, tuition, and Pell receipt data from the 2011-12 award year.