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Post-Secondary Financial Aid Foundational Report: 2013-14 to 2018-19

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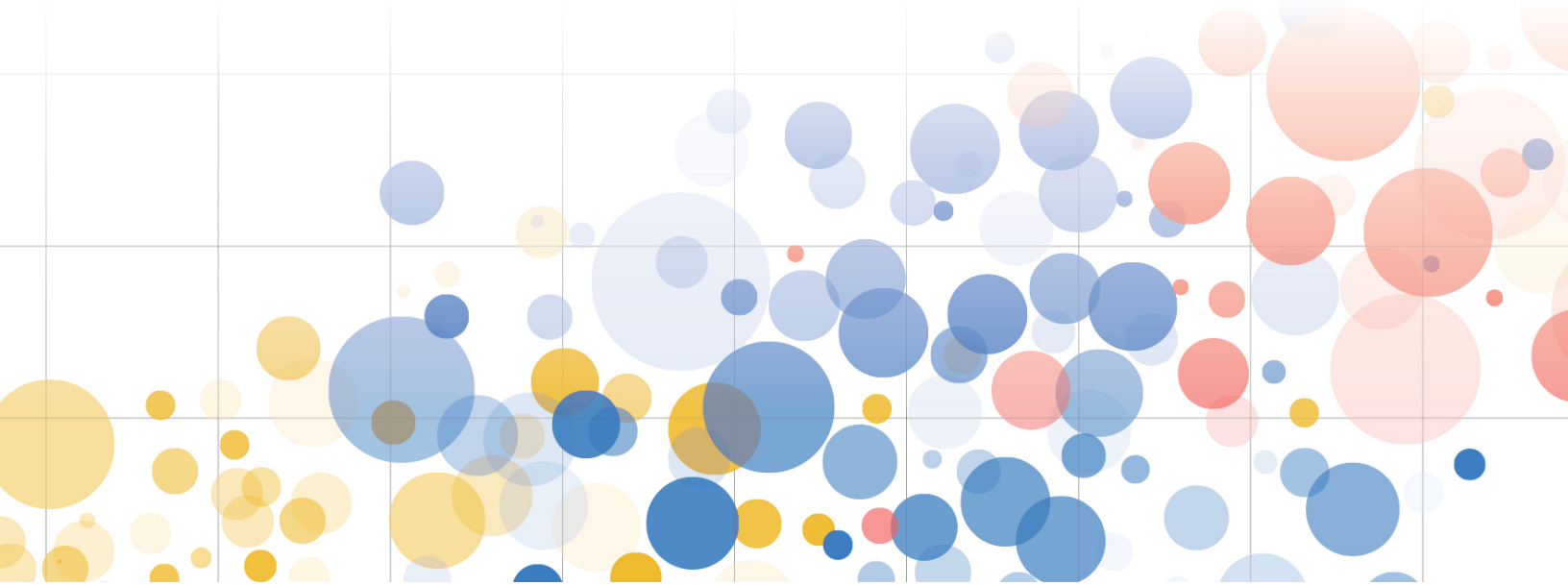


Contents

HIGHLIGHTS

- We use administrative records from the University System of Georgia (USG) over school years 2013-14 to 2018-19 to study the financial aid that USG students receive. We examine the amounts of aid provided in the form of loans and grants. We also separately examine whether students receive HOPE and Zell Miller scholarships—two large, merit-based scholarship programs in Georgia; however, because of limitations in the administrative records, we do not examine the amounts of these scholarships. We focus on four populations of students: first-time freshmen pursuing a bachelor's degree (BA), first-time freshmen pursuing a bachelor's degree who ever receive a federal Pell grant (Pell), first-time freshmen pursuing an associate degree (Associate), and students over the age of 25 pursuing a bachelor's degree (Non-traditional).
- We find large differences in the average amount and types of aid the students in the four population groups receive, both in their first fall semester and in total over a four-year period.
- We observe differences in the average amount of aid that students receive across institutions and types of institution (research university, comprehensive university, state university, or state college). Within the BA population, students in the state universities receive the most total aid from grants and loans, while students at the state colleges receive the least total aid. Average amounts also vary within institution types.
- Similarly, students with different demographic and economic characteristics receive different—and in some cases largely different—amounts of loans and grants. For instance, in the BA population, Black students receive more than twice the total combined amount of grants and loans on average as Asian students, with most of the difference coming from loans and Pell grants. Students with lower adjusted gross incomes (AGIs) receive more total aid and more in the form of grants, while students with higher adjusted gross income (AGI) (but below $120,000) receive less total aid but more in the form of loans.
- We observe substantial differences across some subgroups in the percentage of students who receive the Zell Miller scholarship. Students with AGIs of at least $120,000 receive these scholarships nearly four times as often as those with AGIs below $15,000. There are also substantial differences across institutions in the percentage of students who receive the HOPE and Zell Miller scholarships. Students at the Georgia Institute of Technology and the University of Georgia receive the Zell Miller scholarship at more than three times the rate of students at any other institution.
- We uncover trends over time in the amounts students in different cohorts receive in their first fall semesters. Total combined loans and grants for cohorts of BA students rise from the fall 2013 to fall 2017, but decrease slightly in fall 2018, driven by decreased loans. Total combined loans and grants for Non-traditional students decreased over time, also driven by lower borrowing.
- We track the aid students receive over their academic careers and find that the total amount of loans and grants increases from BA students' first fall semester to their fourth.

BACKGROUND AND MOTIVATION

In this foundational report, we use data from school year (SY) 2013-14 to SY 2018-19 to study the amounts and types of financial aid that students in the University System of Georgia (USG) receive.[1] Our analyses use student-level administrative records from USG. The findings of this report—which closely relate to USG's Responsible Stewardship Goal in its 2024 Strategic Plan[2]—inform our understanding of financial aid received by USG students. This report is the first in the long-term research partnership between the Georgia Policy Labs' Child & Family Policy Lab (CFPL) and USG, and the findings will motivate future research projects within CFPL.

Within this report, we consider how aid is distributed between loans, Pell grants, other grants, and other aid; how much aid students receive; and trends in aid receipt. Our analyses of these outcomes use nominal dollar amounts, meaning we do not adjust for inflation. We also report the percentages of students who receive HOPE and Zell Miller scholarships, two large merit scholarships for Georgia residents.[3] However, because the administrative data only report the receipt of these scholarships and not the amounts, we do not examine the amounts of these scholarships or include them in dollar amounts reported for any total aid. In addition, we are unable to analyze aid, such as a privately arranged loan, that is not reported to USG. The box below lists the types of aid that are and are not included in our calculations.

Aid Included	Aid Not Included
Federal loans, state loans, institutional loans, external loans, Pell grants, other grants, federal grants, state grants, institutional grants, external grants, and other aid—all as provided by the University System of Georgia More details on what is included in these categories, including other aid, is included in the Data Appendix.	HOPE and Zell Miller scholarships, and any additional aid not reported to and provided by the University System of Georgia

We consider students in four populations groups who may face different financial constraints or different needs for aid.[4] The first group consists of students who enter a USG institution as first-time freshmen pursuing a bachelor's degree (BA); these are students who (if they continue through their programs) would need to finance a full bachelor's degree program. The second group is a subset of the first that consists of students who enter a USG institution as first-time freshmen pursuing a bachelor's degree and who ever receive a Pell grant during their years of enrollment (Pell). The third group consists of students who enter a USG institution as first-time freshmen pursuing an associate degree (Associate); this group is distinct from the first and second groups and includes students who might initially need to finance their educations for a shorter period and who might qualify for different types of assistance than the BA group.

[1] Throughout this report, we often refer to "financial aid receipt" or a student receiving financial aid. We note that a student often needs to actively pursue financial aid in order to receive it, for example by filling out the FAFSA and accepting loan offers. However, this report is limited to aid received rather than applications for aid.
[2] See Goal 2 in www.usg.edu/assets/strategic_plan/documents/SP2024.pdf.
[3] Students need to achieve minimum grade point averages (GPAs) and, for Zell Miller, test scores to qualify.
[4] Our use of "population" or "population group" is synonymous with "sample."

The fourth population group consists of students who are over the age of 25 and pursuing a bachelor's degree when they enter a USG institution (Non-traditional).[5] We describe these populations in more detail in the Data section below.

The USG student body is diverse in terms of race, family resources, and socio-economic status. Throughout this report, we consider how financial aid differs between different groups, defined by sex, race/ethnicity, Georgia residency status, first-generation college student status,[6] adjusted gross income (AGI), and Pell grant receipt status. Additionally, we examine differences in aid by institution and type of institution.

In this report, we document patterns and trends in financial aid, highlighting differences in aid receipt across populations, institutions, student grouped by demographic characteristics, and time. In general, we do not answer why the differences exist, although we at times offer potential explanations. Further analysis is necessary to better understand the differences. This is an important distinction because the patterns and differences in aid could arise for a variety of reasons, including students' differing needs for financial aid, disparate aid seeking behaviors or preferences, and specific financial aid practices at each institution. For instance, to better understand the patterns across institutions, one might combine information on the composition of students, tuition, individual student need, as well as considering HOPE and Zell Miller scholarships at a more detailed level, which is not done within this foundational report.

DATA

We use USG administrative data between SY 2013-14 and SY 2018-19. These data include student demographic characteristics such as race and ethnicity, sex, Georgia residency status, first-generation college attendance status, and family income. We use the first observation of a student in the data to determine the student's demographic characteristics and other attributes.[7] We also use the first-observed non-missing adjusted gross income (AGI) for each student and construct several variables based on AGI. These include, for example, above median AGI, where the median—$41,989—is computed using each students' first (non-missing) AGI,[8] and bins of AGI, such as below $15,000 and between $15,000 and $30,000. Additionally, we use financial aid data, including semester of receipt, type of aid, and amount of aid. We do not adjust aid or income amounts for inflation; results should be interpreted accordingly.

We limit three of the four populations—BA, Pell, and Associate—to students who enroll in the summer or fall terms, and for the students who enrolled in the summer term, we consider the fall term to be the first

[5] The average student in the Non-traditional population is likely eligible to take out more in federal loans than the average student in the other populations due to independent students (24+ years old) typically having higher federal borrowing limits than dependent students.
[6] First generation refers to the first generation who attended college, not to immigrant status.
[7] We determine these demographic variables based on a student's first-observed value in the data before creating the populations. An exception is that we consider a student to be first-generation college student if she was ever coded as first generation. This also applies for ever receiving HOPE and ever receiving a Zell Miller scholarship (as in Table 4). Institution is the first institution after creating the population.
[8] We compute median AGI before any restrictions to create the populations; thus, median AGI is the same for all the populations. If we never observe AGI for a student, we code this variable as missing.

term.[9] The Pell population is a strict subset of the BA population and includes only students who we observe as ever receiving a Pell grant. The BA and Pell populations are limited to terms in which the student is pursuing a bachelor's degree; the Associate population is limited to terms in which the student is pursuing an associate degree. The Non-traditional population includes those who enroll in a bachelor's degree program when they are 25 years of age or older and is also limited to terms in which the student is pursuing a bachelor's degree; it includes some students who have enrolled in the past.[10] In contrast to the populations mentioned above, we do not restrict the Non-traditional population based on the term of enrollment. In other words, we include Non-traditional students who matriculated in the spring, as well as in the fall and the summer.[11]

We provide more detail on the construction of our data and measures in the Data Appendix. Appendix Table 1 lists the numbers of students in each population by their first term in the data.

DEMOGRAPHIC SUMMARY STATISTICS

The composition of students varies across the four populations along several dimensions, and this variation may contribute to differences in financial aid receipt across these populations. We present summary statistics in Table 1 and define the demographic groups in the Data Appendix.[12] The populations contain roughly equal percentages of women but differ on many of the other attributes. In all four population groups, few students are Asian or Hispanic. The BA sample contains the highest percentage of White students but the lowest percentage of Black students. The reverse is true among students in the Pell population. At least 84 percent of students in all populations are Georgia residents. Between 20 and 23 percent of Pell, Associate, and Non-traditional students are first-generation students, while this number is approximately half for BA students.

[9] We select these samples using the Integrated Postsecondary Education Data System (IPEDS) first-time freshman (FTF) indicator, a variable that denotes first-time freshmen who begin (matriculate) in the summer or fall terms. After selecting the samples, we drop observations for the initial summer term (if applicable) and treat the initial fall term as the student's initial term.
[10] The Non-traditional population in this study includes some students who are FTF and others who are not. For instance, a student in this population may have enrolled at another institution several years earlier. As long as the matriculation variable (as opposed to the current term of enrollment) corresponds to a term in which the student was at least 25, we include them.
[11] However, in many of the analyses, we do restrict to the first-observed fall term, even if the student matriculated in the spring. Results when comparing across populations should be interpreted accordingly.
[12] We present notes for the tables and figures in the Appendix, and table notes are linked in the table title.

Table 1. Demographic Summary Statistics (Table Notes)

	Student Population (in % unless noted)			
	BA	Pell	Associate	Non-traditional
Woman	56	60	57	60
Asian	8	8	4	5
Black	26	43	35	37
Hispanic	9	11	11	7
White	52	32	44	44
Other race/ethnicity	5	6	5	7
Georgia resident	89	94	93	84
First-generation student	11	20	23	22
AGI	$105,861	$36,340	$56,895	$34,813
AGI above median	67	33	45	27
AGI <$15K	11	22	21	31
AGI $15-30K	14	27	22	28
AGI $30-60K	20	37	24	25
AGI $60-90K	14	10	14	9
AGI $90-120K	12	2	9	4
AGI $120K+	29	2	11	3
Ever received a Pell grant	44	100	62	56
Age at matriculation	18.6 Years	18.7 Years	19.5 Years	33.8 Years
Observations	225,591	99,913	82,855	47,450

BA students on average have the most financial advantage, with by far the highest average AGI. BA students' average AGI is roughly twice that of Associate students and roughly three times that of the Pell and Non-traditional students.[13] The BA sample also has the highest percentage of its students who are above median AGI. Forty-one percent of BA students fall into one of the two highest AGI bins, which is over twice that of students in the other populations. As we would expect, AGIs tend to be very low for the Pell students, but a few of these students have high AGIs. This can occur because the Pell group includes students who received this assistance in any year that we observe them; some students may have initially had high AGIs but later had different financial circumstances. Finally, Associate students are slightly older than are BA and Pell students, while Non-traditional students, with an average age of 34 years, are substantially older. This may have implications for financial aid use.

[13] AGI and first-generation status are not observed for every student.

FINDINGS

RESEARCH QUESTION 1: WHAT IS THE DISTRIBUTION OF STUDENT AID BETWEEN LOANS, PELL, OTHER GRANTS, AND OTHER AID?

We address the first research question by exploring the distribution of aid across the four population groups and then across institutions. To begin, Table 2 illustrates the average amount of various types of aid that students receive in their first fall semester, split by population.[14] Students who do not receive any money for a particular category are assigned $0 in aid for that category. The table does not include HOPE or Zell Miller scholarship amounts; Table 4 focuses on HOPE and Zell Miller scholarship receipt.

Table 2. Average Dollar Amounts of Aid Received in First Fall Semester (Table Notes)

	Student Population			
	BA	Pell	Associate	Non-Traditional
Total aid	3,489	5,113	2,609	4,002
Loans	2,123	2,542	1,156	2,877
Federal loans	1,952	2,401	1,136	2,781
State loans	36	58	6	25
Institutional loans	2	3	0	1
External loans	134	80	14	69
Pell	960	2,167	1,354	1,070
Other grants	286	299	68	49
Federal grants	20	42	12	18
State grants	4	3	1	2
Institutional grants	146	125	22	19
External grants	117	128	33	11
Other aid	120	106	31	6
Observations	225,591	99,913	82,855	39,119

We now highlight a few items from Table 2, noting total aid, loans, Pell receipt, and grants. Again, the total amounts do not include the HOPE and Zell Miller scholarships. In total aid, Pell students receive the most aid, while Associate students receive the least. Lower tuition at institutions primarily offering associate degrees (within the state college category discussed later) could be one reason that Associate students receive less aid.[15] Another reason could be that Associate students are much more likely than BA students

[14] See the Data Appendix for details on how we constructed the aid categories.
[15] See www.usg.edu/assets/fiscal_affairs/documents/tuition_and_fees/FY2018_Undergraduate_Tuition.pdf

to be part-time students. We also highlight that Associate students take out far fewer loans than students in the other populations.[16] Consistent with national borrowing patterns, federal loans make up the large majority of loans for all four populations. By design, Pell students receive more Pell grants than BA students. Otherwise, Associate students receive the highest level of Pell grants. Other grants comprise a relatively modest share of the total amount of aid.[17] The same is true for other aid, which contains widely different categories: athletic scholarships, federal work study, and Move on When Ready funding (a dual enrollment program).[18]

The previous table includes students who received no aid in each category to produce average amounts. In contrast, Table 3 ($ columns) shows the average amount of aid per category conditional on receiving that type of aid. This is helpful to understand the amounts received by students who receive that type of aid, even if few students do so. In addition, we present the percentage of the population who receive the type of aid (% column). We omit instances with 10 or fewer observations.

[16] Note that loans include PLUS loans.
[17] Appendix Table 2 is similar to Table 2 but also includes the total amount of aid received between the first fall and the following spring, limited to those who have observations in both semesters.
[18] It is important to emphasize that the types of aid included in the other aid category are likely to affect different types of students. For instance, athletic scholarships and the dual enrollment program are not need based, while federal work study is. In addition, students who receive the dual enrollment funding are ineligible for federal aid.

Table 3. Percentage of Students Receiving Aid Per Category and Average Amounts of Aid for Students Receiving That Type of Aid, First Fall Semester (Table Notes)

	Student Population							
	BA		Pell		Associate		Non-traditional	
	%	$	%	$	%	$	%	$
Total aid	70	4,973	97	5,288	72	3,609	73	5,479
Loans	49	4,319	65	3,940	37	3,083	61	4,751
Federal loans	49	4,011	64	3,738	37	3,042	60	4,628
State loans	1	2,937	2	2,880	0	2,395	1	3,166
Inst. loans	0	1,883	0	1,890				
External loans	2	5,833	2	4,832	0	4,187	1	6,075
Pell	40	2,403	90	2,403	58	2,351	51	2,104
Other grants	19	1472	23	1,292	10	649	5	928
Federal grants	4	457	10	439	6	212	3	525
State grants	0	1,031	0	1,022	0	1,635	0	1,073
Inst. grants	9	1,565	9	1,385	2	944	1	1,356
External grants	8	1,428	8	1,534	3	1,072	1	1,732
Other aid	3	3,692	4	2,955	2	1,685	0	2,011
Observations	225,591		99,913		82,855		39,119	

In Table 2, it was not possible to determine how the average amount of aid was skewed by the students who did not receive any aid, and Table 3 helps to clarify this. In their first fall semesters, most students received some type of aid, ranging from 70 percent for BA students to 97 percent for Pell students. The reason that this number is not 100 percent for Pell students is that the Pell population is defined as students who ever receive the Pell grant; thus, some students did not receive Pell in the first fall semester but did later. Among the students who received aid, the average amounts ranged from $3,609 for Associate students to $5,479 for Non-traditional students, not including HOPE and Zell Miller scholarships. Most of this comes from loans—almost all federal loans—and Pell grants. A much smaller percentage of students receive other grants or other aid.[19]

The previous tables present the average amount of aid for only one semester. By contrast, Table 4 presents the average amount of aid (excluding HOPE and Zell Miller scholarships) across the BA, Pell, and Non-traditional students' first four fall and spring semesters to give a better sense of the cumulative

[19] Appendix Table 3 is similar to Table 3 but shows the total amount of aid received between the first fall and the following spring.

amount of aid they receive.[20] To capture students who are enrolled in all four years, we limit the observations to those who enroll in fall and spring terms for four consecutive years; this causes the number of observations to drop substantially in the Non-traditional sample. By construction, the average number of terms the students received aid is eight. As shown below, Pell and Non-traditional students receive much more aid—$40,160 and $37,319, respectively—than BA students, who receive $26,776. Non-traditional students take out more loans, and Pell students receive more in Pell grants. Non-traditional students receive substantially less in other grants and other aid.[21]

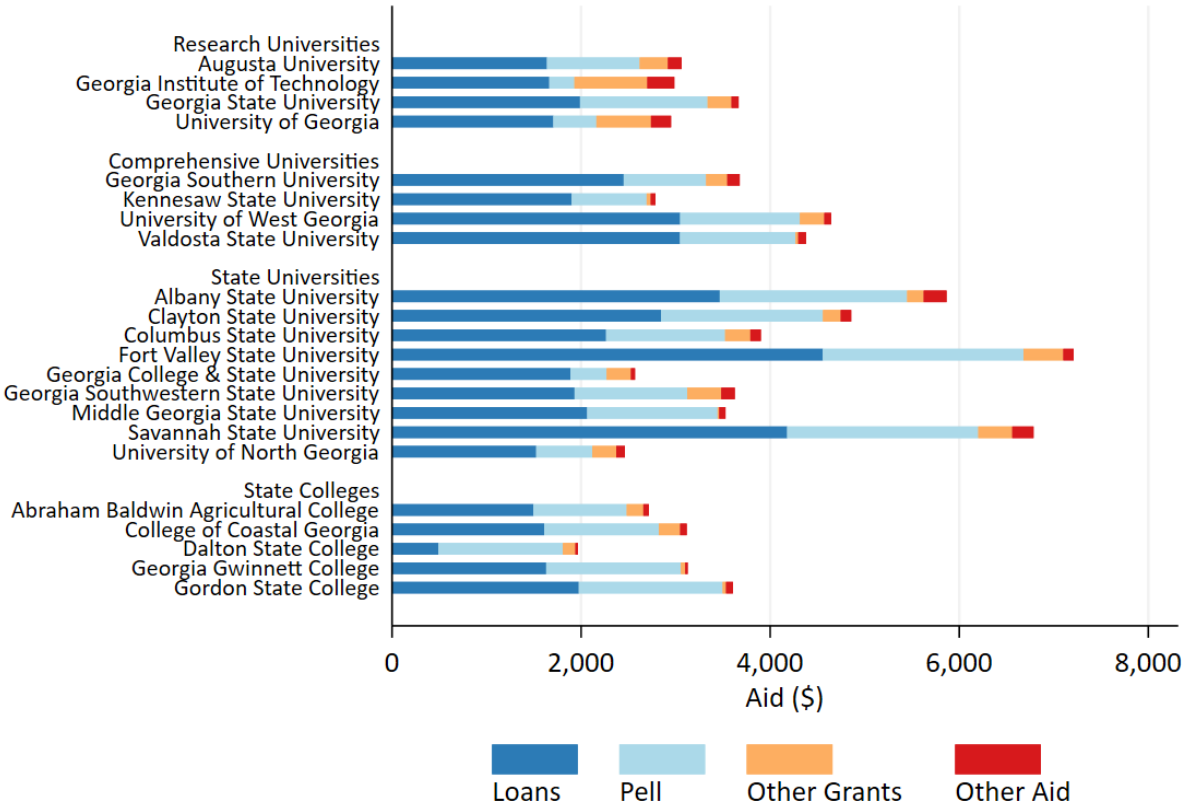
Table 4. Average Total Dollar Amount of Aid for Students Enrolled in Four Consecutive Fall and Spring Semesters, from First Fall to Fourth Spring Semester, Summers Excluded (Table Notes)

	Student Population		
	BA	Pell	Non-traditional
Total	26,776	40,160	37,319
Loans	17,204	21,837	27,046
Pell	6,353	14,859	9,609
Grants	2,087	2,394	577
Other grants	1,132	1,070	87
Number of terms	8	8	8
Number of students	59,687	25,520	2,192

We expect to observe differences in financial aid receipt across institutions due to differences in factors such as tuition, student body composition, and living expenses. Figure 1 displays the average amount of aid, by institution, during the study period for BA students in their first fall semester (keeping in mind that HOPE and Zell Miller scholarships are not included in these calculations).[22] Following the USG categories, we group institutions into research universities, comprehensive universities, state universities, and state colleges to allow for comparisons across and within these groups.[23] This figure is a stacked bar chart; for a given institution, the length of each colored bar is the value of the corresponding category of aid, and the length of all colors combined is the total amount of the listed types of aid. Importantly, this and all subsequent figures are not conditional upon receiving aid. In other words, students who did not receive any financial aid or any aid in a given category (loans, etc.) are assigned $0 and included in the calculations.[24]

[20] Associate students typically enroll for fewer semesters; their data are shown in Appendix Figure 11 and Appendix Table 20.
[21] Appendix Table 4 is similar to Table 4 but includes summers. The data for Table 4 is also conditional on enrolling for fall and spring semesters for four consecutive years but is not conditional on enrolling in the summer. Appendix Table 5 excludes summers but limits the sample to those who received at least $1 of total aid during any of the eight semesters.
[22] The institution corresponds to the first institution used in the population. Thus, students who began in the prior summer semester and transferred institutions before the first fall semester will be assigned their initial institution in this table.
[23] See www.usg.edu/institutions.
[24] For this and all following figures, we include corresponding tables in the Appendix—for this figure, see Appendix Table 6—that display the percentage receiving the type of aid as well as the average conditional on receiving it.

Figure 1. Average Amounts of Loans, Pell, Other Grants, and Other Aid by Institution, First Fall Semester, BA Population (Figure Notes)



Noting that HOPE and Zell Miller scholarships are not included in this figure, students at the four research universities receive similar total amounts of aid, with those at Georgia State University receiving slightly more on average, including more in loans and Pell grants. Likewise, students attending comprehensive universities receive similar amounts to each other, though students at Kennesaw State University receive less overall, including less in loans and in Pell grants.

There is much more variation in aid receipt among the state universities. Students at Georgia College and State University and the University of North Georgia receive less than students at any of the research and comprehensive universities. In contrast, students at Fort Valley State University, Savannah State University, Albany State University, and Clayton State University receive more; students at these four universities receive a relatively high amount of both loans and Pell grants. Finally, students attending the state colleges receive relatively little in aid.[25] Those at Dalton State College receive particularly little, especially in loans.

These differences may arise for several reasons. A logical explanation is tuition. However, tuition is highest at the research universities and lowest at the state colleges,[26] and students at both types of institutions

[25] Because we are considering the BA population here, this statement refers to students at the state colleges who are pursuing a BA.

[26] For a chart of tuitions for Fiscal Year 2017 and 2018, see www.usg.edu/assets/fiscal_affairs/documents/tuition_and_fees/FY2018_Undergraduate_Tuition.pdf.

receive similar amounts of overall aid. Another likely factor could be the differences in student composition across institutions. As Research Question 2 below will demonstrate, students across different subgroups receive different levels of aid. Moreover, as Table 6 will demonstrate, there are differences across institutions in HOPE and Zell Miller scholarship receipt, which would offset the amount of financial aid needed. Similarly, institutions vary in their institutional mission (open access, selective liberal arts college, etc.), which could lead to differences. Another factor could be whether the campus is a commuter campus.[27]

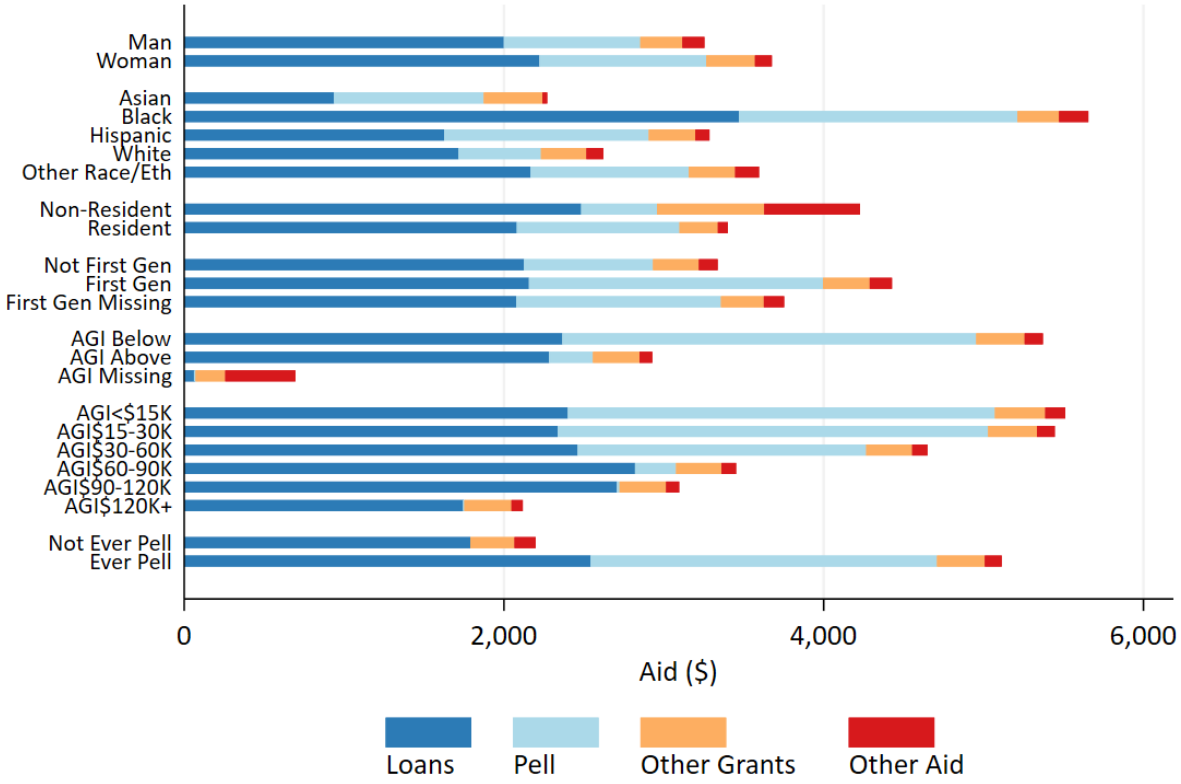
RESEARCH QUESTION 2: HOW MUCH STUDENT AID DO STUDENTS ACROSS A RANGE OF SUBGROUPS RECEIVE, AND WHAT PERCENTAGE OF STUDENTS ACROSS THESE SUBGROUPS EVER RECEIVE THE HOPE SCHOLARSHIP AND ZELL MILLER SCHOLARSHIP?

We now shift our attention to the amount of aid that students grouped by demographic and economic characteristics receive. Figure 2 is analogous to Figure 1, except that each row is now a subsample of the BA population.[28] It does not include the HOPE and Zell Miller scholarships. Men and women receive broadly similar amounts of aid, though women borrow slightly more loans and receive slightly more total aid. There are much larger differences by race and ethnicity. Asian students borrow less than the other groups, and Black students borrow more. White students receive the least amount of Pell grants, while Black students receive the most. There is less variation across other grants. Non-residents of Georgia receive more in total aid than do residents; they receive more in loans, other grants, and other aid, but less in Pell grants.

[27] The financial aid implications of attending school at a commuter campus are not clear cut. Commuting students have room and board built into their financial aid budgets. However, if commuting and living at home with family, students likely have a lower amount than students who live on campus; if commuting and living off campus but not at home, students could have lower or higher amounts than students who live on campus.

[28] Figure 1 shows amounts for BA students; Appendix figures 1-3 show analogous amounts for the three other student populations. One interesting finding, displayed in Appendix Figure 3, is that Non-traditional students at Georgia Institute of Technology receive the most financial aid, with a large portion in loans. Appendix tables 7-9 display the corresponding percentage of students who receive each type of aid, as well as the average aid amount conditional on receiving it.

Figure 2. Average Amounts of Loans, Pell, Other Grants, and Other Aid by Student Subgroups, First Fall Semester, BA Population (Figure Notes)



First-generation college students and non-first-generation students receive similar amounts of loans, other grants, and other aid, but first-generation students receive more from Pell grants. Students who have missing AGI information—who likely did not fill out the FAFSA, which is a prerequisite to receive federal loans and Pell grants—receive very little total aid, including almost no loans or Pell grants.

Splitting the BA population by whether the student's AGI is above or below the median[29] yields similar findings to those for first-generation students: loans, other grants, and other aid are very similar, but Pell grants diverge greatly, which is consistent with the design of the income-based aid program. Less intuitive is the finding that those with AGIs above the median take out nearly as much in loans as those with AGIs below the median. We explore this further by dividing AGI into bins, such as below $15,000 and between $15,000-$30,000. Students in lower AGI bins receive progressively more aid, with Pell grants explaining the largest portion of the differences. Splitting by bins reveals that those with AGIs of $60,000-90,000 and $90,000-120,000 take out more in loans than those with lower AGIs, though those in the top AGI bin (over $120,000) take out less.

Finally, we consider whether the student ever received a Pell grant. Students who ever receive a Pell grant receive over $2,000 in Pell in their first fall semester. They also borrow more than students who never

[29] Recall that AGI is defined as the first-observed, non-missing AGI.

receive Pell grants. These patterns, coupled with the findings for AGI, are consistent in that students who experience economic hardship receiving more financial assistance.[30]

All tables and figures presented thus far exclude aid received via the HOPE or Zell Miller scholarships. We now focus on these scholarships. The more-generous Zell Miller scholarship has considerably higher standards than the HOPE scholarship. In general, the Zell Miller scholarship requires a 3.7 high school grade point average and a 1200 SAT (26 ACT), while the HOPE scholarship requires a 3.0 high school grade point average.[31] The Zell Miller scholarship also requires the student to earn a higher GPA in college than the HOPE scholarship. Both scholarships require students to be residents of Georgia.[32]

Table 5 shows the percentage of students in each subgroup who ever receive HOPE and Zell Miller scholarships in the data.[33] We consider only those we classify as being Georgia residents. The table is organized such that the table columns are populations, with the first three columns corresponding to HOPE scholarships and the final three corresponding to Zell Miller scholarships. Importantly, we do not define the Zell Miller scholarship to be a subset of the HOPE scholarship, but consider them separately.[34] In other words, the Zell Miller numbers are in addition to the HOPE scholarship. However, because this is a table that measures if students ever received the HOPE scholarship or ever received the Zell Miller scholarship, a student may appear in both categories. This might happen if the student initially received the Zell Miller scholarship, lost it due to not reaching the college GPA threshold, but still qualified for a HOPE scholarship.

We observe wide differences across populations, with a much smaller percentage of Associate students receiving HOPE and Zell Miller scholarships compared to BA and Pell students. We also find that women receive HOPE and Zell Miller scholarships at equal or higher rates than men. White students receive HOPE scholarships at higher rates than all other race and ethnicity groups, and Asian students receive Zell Miller scholarships at the highest rates (other than Associate students). Black and Hispanic students receive HOPE scholarships at lower, though roughly comparable rates to White and Asian students (except for Black students in the Associate population); however, they receive Zell Miller scholarships at much lower rates.

[30] Appendix Table 10 corresponds to Figure 2 and displays the percentage receiving the type of aid as well as the average, conditional on receiving it. Appendix figures 4-6 show the analogous graphs for the three other populations, with corresponding tables in Appendix tables 11-13.

[31] There are additional requirements and exceptions to the general requirements mentioned above. For more details on the HOPE scholarship requirements, see www.gafutures.org/hope-state-aid-programs/hope-zell-miller-scholarships/hope-scholarship/eligibility, and for the Zell Miller scholarship, see www.gafutures.org/hope-state-aid-programs/hope-zell-miller-scholarships/zell-miller-scholarship/eligibility.

[32] The scholarships require Georgia residency at the time of high school graduation, or students can receive them 24 months after establishing residency.

[33] "In the data" means as long as the student is in the population. A caveat with using the ever-received measure is that individuals who appear in the data earlier or for more terms potentially have more opportunities to receive HOPE.

[34] One possible way to think of "HOPE" is that it is a broad program that encapsulates the HOPE scholarship as well as the Zell Miller scholarship. This definition is not false, but in this report, when we refer to the HOPE scholarship, we mean only the HOPE scholarship and not also the Zell Miller scholarship. We note, though, that we include related programs in the HOPE scholarship: the HOPE grant and the HOPE GED; we also include the Zell Miller grant in the Zell Miller scholarship. In the HOPE/Zell Miller data before sample selections, the HOPE scholarship and Zell Miller grant make up roughly 99 percent of observations.

Table 5. Percentage Ever Receiving HOPE and Zell Miller Scholarships, by Subgroup, Georgia Residents Only (Table Notes)

	HOPE Scholarship Student Population			Zell Miller Scholarship Student Population		
	BA	Pell	Associate	BA	Pell	Associate
All	60	60	36	18	10	2
Man	56	54	30	17	10	2
Woman	63	64	41	19	10	2
Asian	60	65	45	31	23	2
Black	54	53	20	4	3	0
Hispanic	60	62	40	12	8	1
White	63	67	48	24	16	3
Other race/ethnicity	59	59	31	18	9	1
Not first generation	61	61	37	20	11	2
First generation	61	61	36	10	8	1
First generation missing	52	51	32	10	6	1
AGI below median	57	57	29	8	8	1
AGI above median	63	65	48	23	13	3
AGI missing	43	36	15	21	0	1
AGI<$15K	54	55	26	7	7	1
AGI $15-30K	57	58	29	7	7	1
AGI $30-60K	61	62	38	11	11	1
AGI $60-90K	64	67	48	17	14	3
AGI $90-120K	65	69	52	22	15	3
AGI $120K+	62	70	52	31	18	4
Not ever Pell	60		41	25		3
Ever Pell	60	60	34	10	10	1

BA, Pell, and Associate students with AGI above the median receive HOPE and Zell Miller scholarships at higher rates than comparable students with AGI below the median, with particularly large differences for Zell Miller scholarships. Those who never receive Pell grants also receive Zell Miller scholarships at much higher rates than those who do. Similarly, those in the lower AGI bins receive HOPE and Zell Miller scholarships at progressively lower (or equal) rates than those in the higher bins.[35] The differences from

[35] The one exception is that the Above $120K bin has a lower HOPE scholarship rate for two of the three populations.

the bottom to the top bins are particularly striking: they are at least two to four times smaller, depending on the population.[36]

Next, in Table 6, we present the percentage of students across populations and within institutions who ever receive HOPE and Zell Miller scholarships, restricted to Georgia residents. At nearly all institutions, students receive HOPE scholarships at much higher rates than Zell Miller scholarships. Notable exceptions are found in two of the research universities. At least half of BA and Pell students at the University of Georgia receive Zell Miller scholarships. Students at the Georgia Institute of Technology receive these scholarships at more than twice the rate than they receive HOPE scholarships. No more than 16 percent of students at any other institution receive the Zell Miller scholarship. In most cases, Associate students receive both scholarships at lower rates than do BA and Pell students. Finally, we observe wide variation in HOPE scholarship receipt across institutions. Among BA students, for example, it ranges from 31 percent (Georgia Institute of Technology) to 81 percent (Georgia College and State University).[37]

[36] In Appendix Table 14 we present a version of Table 5 that is not restricted to residents. Percentages are similar, but smaller. In Appendix Table 15 we present a table for Georgia residents only that combines the HOPE and Zell Miller scholarships together. This table shows the percentage of students who ever received at least one of these scholarships.

[37] In Appendix Table 16 we present a version of Table 6 that is not restricted to residents. In general, the percentages are somewhat smaller, but similar to those in Table 6. A key exception is the Georgia Institute of Technology, which has much smaller percentages as many of its students are not Georgia residents. In Appendix Table 17 we present a table for Georgia residents only that combines the HOPE and Zell Miller scholarships together. Nearly all students in the Bachelor's and Pell samples ever receive the HOPE or Zell Miller scholarships at Georgia Institute of Technology and University of Georgia.

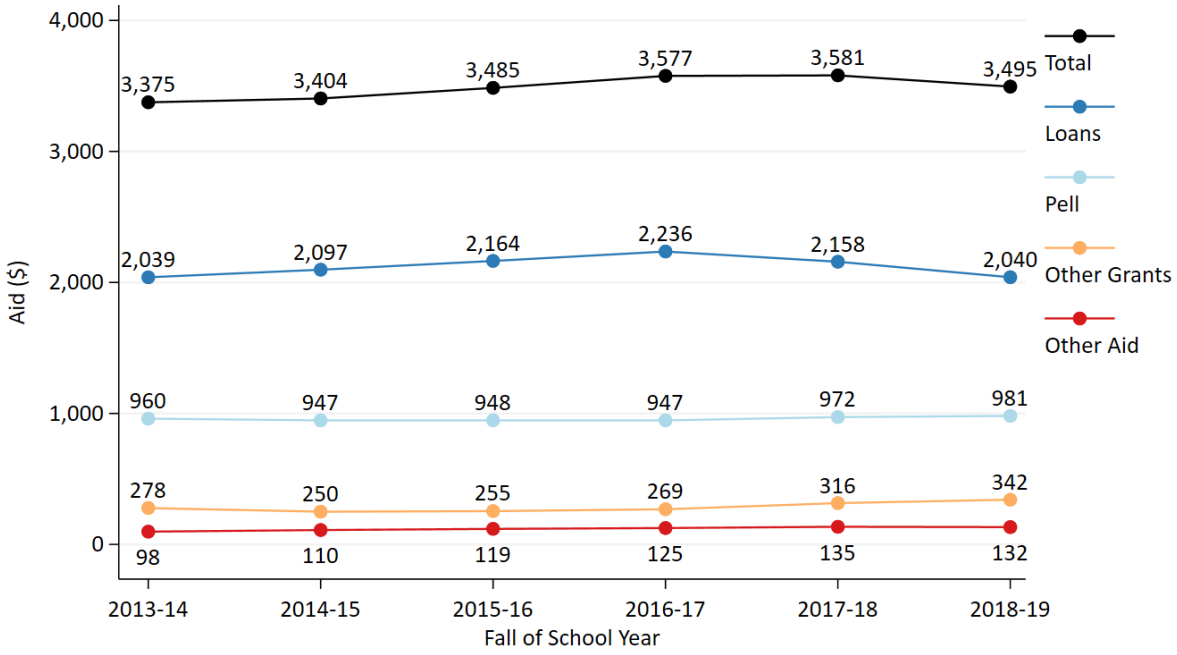
Table 6. Percentage Ever Receiving HOPE and Zell Miller Scholarships, by Institution, Georgia Residents Only (Table Notes)

	HOPE			Zell		
	BA	Pell	Associate	BA	Pell	Associate
Research universities						
Augusta University	66	70		12	7	
Georgia Institute of Technology	31	37		86	82	
Georgia State University	77	79	25	8	6	1
University of Georgia	48	57		61	52	
Comprehensive universities						
Georgia Southern University	67	66	61	8	7	5
Kennesaw State University	72	73		8	7	
University of West Georgia	63	62		4	2	
Valdosta State University	62	61	69	6	4	
State universities						
Albany State University	43	44	25	1	1	1
Clayton State University	45	45	42	2	1	4
Columbus State University	62	60	56	6	4	8
Fort Valley State University	36	36		1	1	
Georgia College & State University	81	83		15	12	
Georgia Southwestern State Univ.	65	65		6	5	
Middle Georgia State University	50	46	32	4	2	2
Savannah State University	34	33	21	1	1	0
University of North Georgia	76	79	48	16	13	2
State colleges						
Abraham Baldwin Agricultural Col.	56	57	52	5	4	3
Atlanta Metropolitan State Col.			12			
College of Coastal Georgia	49	48	39	3	3	2
Dalton State College	58	59	59	4	3	3
East Georgia State College			32			1
Georgia Gwinnett College	35	34		1	1	
Georgia Highlands College			39			1
Gordon State College	38	33	36	3		2
South Georgia State College			37			2

RESEARCH QUESTION 3: WHAT ARE TRENDS IN STUDENT AID RECEIPT, OVERALL AND BY AID TYPE?

We now turn our attention to trends in financial aid over the six school year cohorts in our data. Figure 3 displays the average amounts across the aid categories that BA students receive in their first fall term. The years denote cohorts of students who begin in the given year. The total amount of aid received, which does not include the HOPE and Zell Miller scholarships, increases every year for the first five years, peaking at $3,581 in SY 2017-18, before falling in SY 2018-19. We do not know why we observe this pattern, but one potential and partial explanation for the initial rise is tuition costs, also keeping in mind that there were system-wide tuition freezes for 2016-17 and 2018-19. Loans exhibit a similar pattern but peak one year earlier in SY 2016-17. Pell grants remain approximately constant over time, although they rise slightly in the last two school years. After an initial decline, other grants increase steadily over time. Other aid increases by 35 percent between SY 2013-14 and SY 2018-19.[38]

Figure 3. Trends in Aid by Category by Cohort, First Fall Semester, BA Population (Figure Notes)

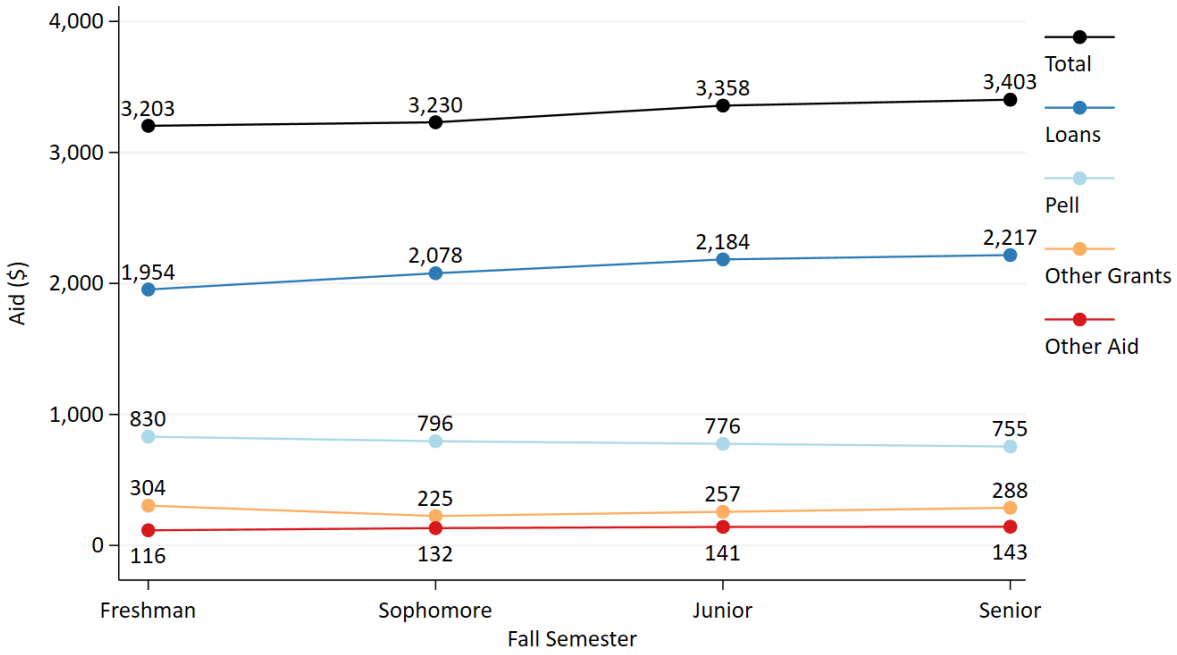


[38] Appendix Table 18 corresponds to Figure 3 and displays the percentage receiving the type of aid as well as the average conditional on receiving it. Appendix figures 7-9 display analogous plots for the other populations, which exhibit more pronounced changes in total amount received over time; this increases for Pell and Associate students but decreases for Non-traditional students, driven by students borrowing less. Corresponding tables are found in Appendix tables 19-21.

RESEARCH QUESTION 4: HOW MUCH AID DO STUDENTS RECEIVE DURING THEIR FIRST, SECOND, THIRD, AND FOURTH FALL SEMESTERS?

We now show the evolution of aid that BA students receive during their first four fall semesters. For this analysis, we take students who enrolled between SY 2013-14 and SY 2015-16 and track them through their first four fall semesters.[39] We perform this analysis to determine how aid receipt changes over a student's college experience and present results in Figure 4. The total amount of aid students receive, which does not include the HOPE and Zell Miller scholarships, increases with each year of attendance; it is about 7 percent higher in the fourth year than in the first. This increase in the total amount from the first to the fourth year mainly comes from an increase in loans. In fact, the increase in loans from the first year to their fourth year—about $250—is larger than the $200 increase in total aid. They receive progressively less in Pell grants by year and more in other aid. Other grants are more volatile over time, with similar amounts during the first and last years.[40, 41]

Figure 4. Average Aid Received in First, Second, Third, and Fourth Fall Semesters for Students Enrolled in Four Consecutive Fall Semesters, BA Population (Figure Notes)



[39] Because our data end in SY 2018-19, we can observe four fall semesters only for students who matriculate between SY 2013-14 and SY 2015-16. We limit the analysis to students who enroll for four consecutive fall semesters (not necessarily at the same institution).

[40] The sample size for this figure is more than 4,000. Appendix Table 22 corresponds to Figure 4 and displays the percentage receiving the type of aid as well as the average, conditional on receiving it. Appendix figures 10-12 show similar plots for other populations. We include Associate students in the Appendix figure, noting Associate degrees typically takes less than four years. Non-traditional students receive more from the first ($4,370) to the third year ($4,776) but then receive even less in the fourth year than the first year. Corresponding tables are found in Appendix tables 23-25.

[41] We also display how aid evolves across the first four fall semesters for the different subgroups. Appendix figures 13 and 14 are analogous to Figure 4 and also use the BA population, but we present the average amounts of aid received in a "small multiples" format, where each cell is one type of aid (column) for one subgroup (row).

CONCLUSION

In this report, we examine several aspects of the financial aid landscape in Georgia. We find differences in aid receipt across the four populations we study: BA, Pell, Associate, and Non-traditional students. The differences appear in the first fall semester and over a four-year period and most likely arise because of differences in the characteristics of students in these populations.

Excluding HOPE and Zell Miller scholarships, the average amounts of aid that students receive can vary widely depending on their demographic characteristics. Focusing on the first fall semester for the BA population, Black students receive more than twice the average aid that Asian students do; Pell students receive much more than non-Pell students; and those with AGIs below the median receive much more than those with higher AGIs. We also find large differences across subgroups, populations, and institutions in Zell Miller scholarship receipt. BA students in the top AGI bin are nearly four times as likely as those in the bottom AGI bin to ever receive this award. Students at the Georgia Institute of Technology and the University of Georgia receive Zell Miller scholarships at more than three times the rate as students at any other institution.

We find that students across different institution types receive different amounts of aid excluding HOPE and Zell Miller scholarships. In the BA population, students at state universities receive the most on average, with students at several of these institutions receiving much more.

Examining trends in first fall semester aid receipt over the years studied by cohort, we find that earlier cohorts in the BA population receive somewhat less aid than later cohorts until the final year, when there is a drop. The total amount of aid received by Non-traditional students falls over time, driven by lower borrowing. Further research is necessary to understand these findings.[42] We also explore aid receipt across a student's first four fall semesters to gain a better understanding of aid receipt over their academic careers. We find that BA and Pell students receive increasingly more in total aid—which is driven by loans and not grants—as they progress within college, while Non-traditional students receive less in their fourth year compared to earlier years.[43]

This analysis informs our understanding of patterns and trends in aid receipt across different groups within the diverse University System of Georgia, and it is our hope that it will lead to further inquiry into patterns revealed herein.

[42] For instance, one hypothesis is that there might be fewer non-traditional students over time as the economy improved. Those who choose to pursue higher education over employment may be those who are in less need of financial aid and thus need to borrow less.

[43] We also find that Associate students receive less from their first fall to their fourth, noting that the students in this analysis are pursuing an Associate degree but enroll in four consecutive fall terms.

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NOTES TO TABLES AND FIGURES

Notes for Table 1

This table shows demographic statistics, where each column refers to a population. Each student appears once. The calculations for first-generation student and the adjusted gross income (AGI) variables are conditional on these variables being present; thus, the number of observations is smaller for these variables. All averages are in percentages except AGI, which is in dollars, and Age at Matriculation, which is in years.

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Notes for Table 2

This table shows the average amount received by students in each sample across several aid categories. The indentations indicate that the groups are a subset of the left aligned group. Because values are rounded to the nearest dollar, totals may not exactly add up. Zeroes are included, meaning that if a student did not receive any aid in a category, she is included in the calculation with a zero.

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Notes for Table 3

This table shows the percentage of individuals who receive given categories of aid (in the % columns), as well as the average amount of aid received conditional on borrowing that category (in the $ columns). Each set of % and $ columns corresponds to a population. The indentations indicate that the groups are a subset of the less-indented group. However, the subgroups do not add up to the value of the group because each category is conditional on receiving at least $1 of that category. Values are rounded to the nearest dollar. Only values from the first fall semester appear. Categories with 10 or fewer observations with at least $1 of aid appear as blanks.

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Notes for Table 4

This table shows the total amount of aid between the first fall and the fourth spring, excluding summer semesters, for students enrolled in four consecutive fall and subsequent spring terms. Students appear only if they received at least $1 of total aid during any of the eight terms. Because the observations are included conditional on receiving any aid, subcategories add up to the total minus any rounding error. Number of Terms is the average number of terms the students were enrolled and is exactly eight for all students in this table.

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Notes for Table 5

This table shows the percentage of various subgroups who ever (in the data) received HOPE and Zell Miller scholarships, split by population. We restrict to only those whom we classify as Georgia residents. A student can be included in both if she received both in different terms. We include only groups with 11 or more students receiving the scholarship.

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Notes for Table 6

This table shows the percentage of various subgroups who ever (in the data) received HOPE and Zell Miller scholarships, split by institution. We restrict to only those whom we classify as Georgia residents. A student can be included in both if she received both in different terms. We include only institutions with at least 100 observations. We classify students according to their first-observed institution (which may not be fall for the Non-traditional population) in the relevant population dataset. We still consider them as having received the scholarship if they received it at another institution. We include only institutions with 11 or more students receiving the scholarship.

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Notes for Figure 1

This figure shows the average amount of aid by category received by students of the BA population in the first fall semester; each column corresponds to students of a particular institution, grouped by institution type. The length of a given bar corresponds to an aid category: loans, Pell, other grants, and other aid. The length of all bars together is the aid totaled across these categories. We restrict to institutions with at least 100 observations. The institution corresponds to the first institution used in the population. Thus, students who began in the prior summer semester and transferred institutions will be assigned their initial institution in this table.

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Notes for Figure 2

This figure shows the average amounts of four types of aid received by students of the BA population in their first fall semester; each row corresponds to students in a particular group. The length of a given bar corresponds to the average amount of each type of aid: loans, Pell, other grants, and other aid. The length of all colors of a bar is the total amount of aid across these categories.

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Notes for Figure 3

This figure shows trends in student aid receipt over time. The population is the BA population. We consider only the first-observed fall semester. Fall of School Year corresponds to only the fall semester of the school year. In contrast to stacked bar charts, the height of each category is the amount for that category.

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Notes for Figure 4

This figure shows how student aid evolves over a student's first four fall semesters. The population is the BA population and is further limited to those who enroll in four consecutive fall terms. Fall Semester denotes the year in question; Freshman denotes year one, Sophomore denotes year two, etc. Freshman, Sophomore, etc. are not necessarily precise if, for example, a student starts with many credits or a student does not take many credits each year. In contrast to stacked bar charts, the height of each category is the amount for that category.

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APPENDIX TABLES

Appendix Table 1. Number in Each Population by First Term

	Student Population			
	BA	Pell	Associate	Non-Traditional
Summer 2013-14				1,657
Fall 2013-14	34,713	17,089	14,441	4,491
Spring 2013-14				3,140
Summer 2014-15				1,405
Fall 2014-15	35,691	16,632	13,952	4,358
Spring 2014-15				2,863
Summer 2015-16				1,429
Fall 2015-16	37,399	16,908	14,393	3,906
Spring 2015-16				2,886
Summer 2016-17				1,423
Fall 2016-17	38,759	16,868	12,627	3,576
Spring 2016-17				2,462
Summer 2017-18				1,300
Fall 2017-18	38,635	16,500	14,065	3,337
Spring 2017-18				2,238
Summer 2018-19				1,232
Fall 2018-19	40,394	15,916	13,377	3,252
Spring 2018-19				2,495

Notes: This table shows the number of students by population. For a given population, each student appears once and appears in the row corresponding to their first term. For instance, a student whose first term we consider to be Fall 2013-14 is counted in that row. Blank cells represent zeroes.

Appendix Table 2. Average Dollar Amounts of Various Types of Aid Received, Unconditional, Total Between First Fall and Spring Semester

	Student Population			
	BA	Pell	Associate	Non-Traditional
Total aid	7,000	10,287	5,354	8,589
Loans	4,300	5,163	2,390	6,196
Federal loans	3,953	4,883	2,351	5,984
State loans	64	109	10	53
Inst. loans	5	6	0	1
External loans	278	165	29	157
Pell	1,892	4,313	2,759	2,258
Other grants	555	584	135	121
Federal grants	42	91	27	41
State grants	8	6	2	3
Inst. grants	308	265	48	52
External grants	198	222	59	24
Other aid	253	227	70	15
Observations	211,148	92,644	67,919	31,155

Notes: This table uses both the first fall semester and subsequent spring semester. See Table 2 for additional notes.

Appendix Table 3. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, Total Between First Fall and Spring Semesters

	Student Population							
	BA		Pell		Associate		Non-Traditional	
	%	$	%	$	%	$	%	$
Total aid	71	9,853	97	10,595	75	7,169	78	10,997
Loans	50	8,551	66	7,774	40	5,965	66	9,370
Federal loans	50	7,947	66	7,384	40	5,888	66	9,119
State loans	1	5,172	2	5,184	0	4,208	1	5,885
Inst. loans	0	3,448	0	3,443				
External loans	3	10,321	2	8,135	0	7,171	1	10,565
Pell	40	4,782	90	4,782	59	4,680	54	4,168
Other grants	21	2,596	26	2,277	13	1,069	7	1,643
Federal grants	5	871	11	837	7	388	4	969
State grants	0	2,014	0	1,932	0	2,216	0	1,935
Inst. grants	11	2,925	10	2,557	3	1,615	3	2,060
External grants	9	2,233	9	2,457	4	1,636	1	2,902
Other aid	4	6,642	4	5,064	2	2,815	0	2,952
Observations	211,148		92,644		67,919		31,155	

Notes: This table includes the total aid by category for both the first fall semester and subsequent spring semester for a given individual. Only individuals with observations for both semesters appear. See Table 2 for additional notes.

Appendix Table 4. Average Total Dollar Amounts of Aid for Students Enrolled in Four Consecutive Fall and Spring Semesters, from First Fall to Fourth Spring Semester, Summers Included

	Student Population		
	BA	Pell	Non-traditional
Total	27,619	41,411	38,981
Loans	17,783	22,680	28,186
Pell	6,436	15,053	10,046
Other grants	2,184	2,526	651
Other aid	1,216	1,152	98
Number of terms	9.18	9.03	9.30
Number of students	59,687	25,520	2,192

This table includes summer terms but is still conditional on the student being in fall and spring semesters for four consecutive years. The maximum number of terms is 11. See Table 4 for additional notes.

Appendix Table 5. Average Total Dollar Amounts of Aid for Students Enrolled in Four Consecutive Fall and Spring Semesters, from First Fall to Fourth Spring Semester, Conditional on Receiving Any Aid, Summers Excluded

	Student Population		
	BA	Pell	Non-traditional
Total	34,576	40,315	42,015
Loans	22,215	21,922	30,449
Pell	8,204	14,916	10,818
Other grants	2,694	2,403	649
Other aid	1,462	1,074	98
Number of terms	8	8	8
Number of students	46,222	25,422	1,947

Notes. Students appear only if they received at least $1 of total aid during any of the eight terms. See Table 4 for additional notes.

Appendix Table 6. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, by Institution, BA Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
Research universities								
Augusta University	47	3,521	41	2,390	20	1,479	4	3,329
Georgia Institute of Tech.	26	6,390	12	2,246	22	3,525	6	4,607
Georgia State University	52	3,854	55	2,461	23	1,078	1	5,992
University of Georgia	34	4,971	20	2,309	32	1,822	4	5,730
Comprehensive universities								
Georgia Southern University	57	4,267	37	2,346	21	1,046	2	6,097
Kennesaw State University	49	3,896	34	2,316	5	900	2	2,897
University of West Georgia	67	4,571	52	2,419	19	1,328	4	2,062
Valdosta State University	66	4,630	51	2,415	11	275	3	2,577
State universities								
Albany State University	84	4,150	76	2,592	25	706	11	2,263
Clayton State University	64	4,445	69	2,487	15	1,251	3	3,272
Columbus State University	59	3,819	51	2,454	21	1,295	4	2,941
Fort Valley State University	90	5,062	81	2,629	38	1,121	9	1,186
Georgia College & State Univ.	41	4,556	17	2,194	18	1,445	3	1,629
Georgia Southwestern St. U.	58	3,334	49	2,432	38	957	9	1,529
Middle Georgia State Univ.	49	4,208	56	2,471	3	627	3	1,923
Savannah State University	85	4,909	78	2,586	26	1,368	7	3,248
University of North Georgia	41	3,709	27	2,191	26	975	4	2,495
State colleges								
Abraham Baldwin Ag. Coll.	47	3,184	42	2,347	23	756	5	1,216
College of Coastal Georgia	47	3,398	51	2,384	18	1,269	3	2,067
Dalton State College	19	2,579	57	2,303	13	994	1	2,038
Georgia Gwinnett Coll.	42	3,854	59	2,417	6	829	1	2,460
Gordon State College	62	3,211	61	2,493	4	938	6	1,190

Notes: This table corresponds to Figure 1. It shows the percentage receiving the aid type and the conditional amount. This and the tables below do not display cells with 10 or fewer observations.

Appendix Table 7. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, by Institution, Pell Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
Research universities								
Augusta University	58	3,253	89	2,390	27	1,354	2	3,358
Georgia Institute of Technology	51	5,364	81	2,246	37	4,155	20	3,226
Georgia State University	58	3,503	92	2,461	24	1,057	1	4,533
University of Georgia	61	3,928	86	2,309	50	1,982	8	4,199
Comprehensive universities								
Georgia Southern University	74	3,942	88	2,346	27	990	2	6,339
Kennesaw State University	60	3,575	88	2,316	8	890	2	2,563
University of West Georgia	77	4,229	92	2,419	21	1,243	3	1,896
Valdosta State University	78	4,108	91	2,415	19	242	2	2,469
State universities								
Albany State University	88	4,001	94	2,592	28	676	10	2,163
Clayton State University	71	4,302	94	2,487	16	1,217	2	2,085
Columbus State University	70	3,723	91	2,454	22	1,058	2	2,306
Fort Valley State University	92	4,823	96	2,629	40	997	10	1,105
Georgia College & State Univ.	67	4,128	82	2,194	29	1,604	3	1,510
Georgia Southwestern State U.	67	3,258	92	2,432	37	864	8	1,445
Middle Georgia State University	59	4,104	94	2,471	4	556	2	1,452
Savannah State University	89	4,727	95	2,586	28	1,291	6	2,876
University of North Georgia	50	3,279	86	2,191	35	934	5	2,023
State colleges								
Abraham Baldwin Agricultural Coll.	55	2,959	92	2,347	37	464	6	961
College of Coastal Georgia	55	3,257	93	2,384	19	1,237	2	1,717
Dalton State College	18	2,636	92	2,303	14	837	1	1,453
Georgia Gwinnett College	45	3,905	92	2,417	7	756	1	1,325
Gordon State College	70	3,184	95	2,493	3	652	5	1,100

Notes: This table corresponds to Appendix Figure 1. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 8. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, by Institution, Associate Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
Research universities								
Georgia State University	28	2,770	57	2,201	9	483	1	2,460
Comprehensive universities								
Georgia Southern University	58	3,804	50	2,317	20	927	3	2,626
Valdosta State University	64	4,342	57	2,524	10	200		
State universities								
Albany State University	66	3,538	73	2,518	18	664	4	2,199
Clayton State University	58	4,312	68	2,301	12	1,424		
Columbus State University	46	3,554	41	2,334	11	946		
Middle Georgia State Univ.	54	4,056	61	2,469	2	508	2	1,728
Savannah State University	87	4,733	86	2,688	30	1,119	3	3,563
University of North Georgia	25	2,619	39	2,280	9	847	0	1,179
State colleges								
Abraham Baldwin Ag. Coll.	40	2,884	59	2,337	18	367	5	1,228
Atlanta Metropolitan St. Coll.	23	1,956	84	2,222	17	453	3	4,458
College of Coastal Georgia	42	3,239	54	2,324	10	1,139	1	1,784
Dalton State College	16	2,487	62	2,342	12	803	1	957
East Georgia State College	51	2,941	66	2,519	13	773	2	973
Georgia Highlands College	23	2,074	48	2,267	3	527		
Gordon State College	61	3,362	64	2,466	5	741	3	1,444
South Georgia State College	47	3,384	68	2,504	16	620	7	988

Notes: This table corresponds to Appendix Figure 2. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 9. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, by Institution, Non-traditional Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
Research universities								
Augusta University	56	5,250	45	2,180	8	1,740		
Georgia Institute of Technology	66	6,234	60	2,379	16	2,736		
Georgia State University	68	5,288	50	2,076	3	1,110		
University of Georgia	60	5,677	55	2,288	13	1,253		
Comprehensive universities								
Georgia Southern University	56	4,465	44	2,142	6	1,422		
Kennesaw State University	61	4,796	47	2,069	3	782	0	1,801
University of West Georgia	60	4,478	52	2,093	8	852	1	2,160
Valdosta State University	67	4,856	56	2,087	7	276		
State universities								
Albany State University	78	4,937	62	2,268	10	386		
Clayton State University	69	4,876	60	2,114	5	694	0	2,079
Columbus State University	56	5,225	46	2,039	5	854		
Fort Valley State University	76	4,778	65	2,343	11	647		
Georgia College & State University	51	5,640	45	2,162	5	1,020		
Georgia Southwestern State Univ.	61	4,648	48	1,973	5	617		
Middle Georgia State University	49	4,815	47	2,078	3	468		
Savannah State University	64	4,661	60	2,183	8	1,380		
University of North Georgia	49	4,457	48	2,038	7	521		
State colleges								
Abraham Baldwin Agricultural Coll.	45	4,308	57	2,258	15	109		
Atlanta Metropolitan State College	52	2,850	54	2,256				
College of Coastal Georgia	46	3,495	51	2,059	4	701		
Dalton State College	38	4,203	56	2,032	4	1,513		
Georgia Gwinnett College	57	3,241	56	2,093	5	442	0	1,729
Gordon State College	62	4,243	52	2,160				

Notes: This table corresponds to Appendix Figure 3. It shows the percentage receiving the aid type and the conditional amount. The institution corresponds to the first institution used in the population. Thus, students who began in the prior spring semester or summer semester and transferred institutions before the fall semester are assigned their initial institution.

Appendix Table 10. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, by Subgroup, BA Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
Man	46	4,348	36	2,379	17	1,510	3	4,165
Woman	52	4,299	43	2,418	21	1,447	3	3,302
Asian	25	3,756	38	2,448	20	1,806	2	1,706
Black	78	4,467	69	2,512	21	1,229	4	4,192
Hispanic	40	4,051	52	2,457	18	1,628	3	3,407
White	40	4,278	23	2,208	19	1,517	3	3,516
Other race/ethnicity	50	4,307	41	2,407	19	1,566	4	3,952
Non-resident	35	7,060	20	2,352	22	3,091	9	6,525
Resident	51	4,093	42	2,406	19	1,253	3	2,477
Not first generation	48	4,396	34	2,344	19	1,495	3	3,658
First generation	55	3,932	72	2,559	22	1,326	4	3,834
First gen. missing	50	4,163	51	2,491	18	1,455	3	3,789
AGI below median	62	3,808	95	2,730	25	1,221	4	3,152
AGI above median	49	4,636	18	1,534	18	1,602	3	2,937
AGI missing	1	6,729	0	2,097	9	2,087	6	7,487
AGI<$15K	62	3,846	94	2,830	27	1,187	4	3,372
AGI $15-30K	63	3,735	96	2,808	26	1,171	4	3,104
AGI $30-60K	61	4,005	87	2,084	20	1,462	3	2,809
AGI $60-90K	63	4,499	22	1,157	18	1,565	3	2,695
AGI $90-120K	58	4,702	1	1,101	18	1,570	3	2,915
AGI $120K+	35	5,043	0	2,529	18	1,654	2	3,276
Not ever Pell	37	4,847			16	1,671	3	4,387
Ever Pell	65	3,940	90	2,403	23	1,292	4	2,955

Notes: This table corresponds to Figure 2. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 11. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, by Subgroup, Pell Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
Man	62	3,960	90	2,379	21	1,303	4	4,009
Woman	66	3,928	90	2,418	25	1,286	3	2,000
Asian	33	3,128	91	2,448	24	1,482	3	1,068
Black	82	4,205	94	2,512	24	1,161	4	3,713
Hispanic	44	3,566	92	2,457	21	1,489	2	2,078
White	55	3,642	84	2,208	23	1,356	3	2,054
Other race/ethnicity	66	3,905	91	2,407	22	1,344	4	3,050
Non-resident	69	5,965	88	2,352	31	2,502	12	6,002
Resident	64	3,813	90	2,406	23	1,196	3	2,255
Not first generation	67	3,972	88	2,344	23	1,301	4	2,862
First generation	59	3,769	95	2,559	25	1,302	4	3,394
First gen. missing	60	3,971	94	2,491	21	1,226	3	2,850
AGI below median	64	3,801	98	2,730	25	1,217	4	3,102
AGI above median	66	4,210	74	1,534	19	1,499	3	2,636
AGI missing	65	2,609	97	2,097				
AGI<$15K	64	3,840	98	2,830	27	1,183	4	3,291
AGI $15-30K	64	3,730	98	2,808	27	1,169	4	3,078
AGI $30-60K	64	3,965	95	2,084	20	1,443	3	2,753
AGI $60-90K	69	4,331	63	1,157	19	1,468	4	2,436
AGI $90-120K	71	4,596	18	1,101	17	1,429	3	3,383
AGI $120K+	57	4,627	6	2,529	15	1,401	2	4,008
Ever Pell	65	3,940	90	2,403	23	1,292	4	2,955

Notes: This table corresponds to Appendix Figure 4. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 12. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, by Subgroup, Associate Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
Man	35	3,085	52	2,317	8	645	2	1,786
Woman	40	3,082	62	2,372	12	650	2	1,617
Asian	10	2,550	55	2,367	8	463	0	1,397
Black	58	3,329	79	2,427	13	537	2	1,916
Hispanic	17	2,870	61	2,404	11	871	1	1,875
White	29	2,747	40	2,211	9	713	2	1,450
Other race/ethnicity	39	3,022	58	2,327	10	723	2	1,772
Non-resident	33	3,472	38	2,267	9	866	5	2,745
Resident	38	3,059	59	2,354	11	635	2	1,442
Not first generation	39	3,115	52	2,310	9	661	2	1,683
First generation	36	3,127	73	2,430	12	603	2	1,654
First gen. missing	34	2,864	61	2,380	13	666	2	1,739
AGI below median	41	3,147	93	2,560	15	507	2	1,487
AGI above median	41	3,006	28	1,496	7	977	2	1,655
AGI missing	1	3,085	1	2,135	2	1,238	2	3,169
AGI<$15K	43	3,208	93	2,600	16	480	2	1,630
AGI $15-30K	42	3,108	94	2,621	16	464	2	1,415
AGI $30-60K	38	3,084	85	2,043	9	775	2	1,455
AGI $60-90K	46	2,916	23	1,114	7	1,054	2	1,660
AGI $90-120K	45	2,993	1	1,226	7	960	2	1,810
AGI $120K+	32	3,105	0	2,394	6	978	2	1,630
Not ever Pell	29	3,035			5	1,036	2	2,049
Ever Pell	43	3,103	93	2,351	14	557	2	1,490

Notes: This table corresponds to Appendix Figure 5. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 13. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, by Subgroup, Non-traditional Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
Man	54	4,804	47	2,136	4	1,086	0	2,609
Woman	65	4,722	54	2,085	6	853	0	1,423
Asian	38	4,476	41	2,179	5	1,371		
Black	73	4,836	59	2,120	6	835	0	2,209
Hispanic	53	4,536	51	2,096	5	1,366		
White	54	4,708	45	2,082	5	900	0	1,498
Other race/ethnicity	58	4,760	50	2,098	5	954		
Non-resident	45	5,099	41	2,109	6	1,573	0	3,831
Resident	63	4,707	53	2,104	5	791	0	1,488
Not first generation	60	4,818	50	2,109	5	932	0	1,843
First generation	63	4,636	56	2,087	6	927	0	2,347
First gen. missing	57	4,535	49	2,111	6	909	0	2,239
AGI below median	72	4,773	68	2,182	7	862	0	1,864
AGI above median	65	4,677	34	1,691	3	1,066		
AGI missing	3	5,060	1	1,945	1	2,288		
AGI<$15K	73	4,805	78	2,352	8	908	1	1,970
AGI $15-30K	73	4,767	66	1,980	6	861	0	1,962
AGI $30-60K	67	4,666	50	2,013	5	800	0	1,167
AGI $60-90K	66	4,645	34	1,384	3	1,198		
AGI $90-120K	64	4,760	10	1,609	2	1,238		
AGI $120K+	59	4,957	8	1,984	2	1,247		
Not ever Pell	41	5,049			2	1,885	0	2,260
Ever Pell	74	4,636	86	2,104	8	778	0	1,933

Notes: This table corresponds to Appendix Figure 6. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 14. Percentage Ever Receiving HOPE Scholarship and Zell Miller Scholarships, by Subgroup

	HOPE Scholarship Student Population			Zell Miller Scholarship Student Population		
	BA	Pell	Assoc	BA	Pell	Assoc
All	54	57	34	16	9	2
Man	50	51	28	15	9	2
Woman	58	61	38	17	9	2
Asian	47	63	36	25	22	1
Black	51	51	19	4	3	0
Hispanic	53	59	35	11	7	1
White	57	64	47	22	15	3
Other race/ethnicity	52	56	28	16	9	1
Non-Georgia resident[44]	5	10	4	2	2	0
Georgia resident	60	60	36	18	10	2
Not first generation	55	59	35	18	10	2
First generation	57	58	34	9	8	1
First generation missing	46	48	29	8	5	1
AGI below median	54	55	28	8	8	1
AGI above median	58	62	47	21	13	3
AGI missing	26	32	11	13	0	1
AGI<$15K	51	52	24	7	7	1
AGI $15-30K	55	55	28	7	7	1
AGI $30-60K	58	59	37	11	11	1
AGI $60-90K	61	65	46	16	14	3
AGI $90-120K	61	66	50	20	14	3
AGI $120K+	55	65	51	27	16	4
Not ever Pell	52		37	22		2
Ever Pell	57	57	32	9	9	1

Notes: This table does not restrict by Georgia residency status. See Table 5 for additional notes.

[44] Recall that we define a student's Georgia residency status as their first-observed status in the data. They may subsequently change status.

Appendix Table 15. Percentage Ever Receiving HOPE or Zell Miller Scholarships, by Subgroup, GA Residents

	HOPE or Zell Scholarship Student Population		
	BA	Pell	Assoc
All	75	68	38
Man	70	61	32
Woman	79	72	42
Asian	86	84	46
Black	58	56	20
Hispanic	70	68	41
White	84	80	51
Other race/ethnicity	74	67	32
Not first generation	78	70	39
First generation	69	68	37
First generation missing	60	55	33
AGI below median	64	64	30
AGI above median	82	76	51
AGI missing	62	36	16
AGI<$15K	61	61	26
AGI $15-30K	63	64	30
AGI $30-60K	70	71	40
AGI $60-90K	78	79	50
AGI $90-120K	83	80	55
AGI $120K+	88	82	55
Not ever Pell	82		43
Ever Pell	68	68	35

Notes: Georgia residents only. This table displays the percentage ever receiving either scholarship. See Table 5 for additional notes.

Appendix Table 16. Percentage Ever Receiving HOPE Scholarship and Zell Miller Scholarships, by Institution

	HOPE			Zell		
	BA	Pell	Associate	BA	Pell	Associate
Research universities						
Augusta University	62	67		11	7	
Georgia Institute of Technology	17	28		47	60	
Georgia State University	72	76	22	7	6	1
University of Georgia	42	54		53	50	
Comprehensive universities						
Georgia Southern University	63	63	54	7	6	5
Kennesaw State University	70	71		8	6	
University of West Georgia	62	61		4	2	
Valdosta State University	54	55	64	5	4	
State universities						
Albany State University	40	41	24	1	1	1
Clayton State University	43	44	41	2	1	4
Columbus State University	56	56	51	5	4	7
Fort Valley State University	34	34		1	1	
Georgia College & State University	81	82		15	13	
Georgia Southwestern State Univ.	62	63		6	5	
Middle Georgia State University	48	45	32	4	2	2
Savannah State University	29	30	19	0	1	0
University of North Georgia	72	76	46	15	13	2
State colleges						
Abraham Baldwin Agricultural Col.	47	50	50	4	4	3
Atlanta Metropolitan State Col.			11			
College of Coastal Georgia	45	45	37	3	3	2
Dalton State College	56	58	57	4	3	3
East Georgia State College			31			1
Georgia Gwinnett College	34	34		1	1	
Georgia Highlands College			38			1
Gordon State College	38	32	36	3		2
South Georgia State College			35			2

Notes: This table does not restrict by Georgia residency status. See Table 6 for additional notes.

Appendix Table 17. Percentage Ever Receiving HOPE or Zell Miller Scholarships, by Institution, GA Residents

	HOPE or Zell Scholarship		
	BA	Pell	Associate
Research universities			
Augusta University	76	76	
Georgia Institute of Technology	99	98	
Georgia State University	84	84	26
University of Georgia	99	99	
Comprehensive universities			
Georgia Southern University	74	71	66
Kennesaw State University	80	78	
University of West Georgia	67	64	
Valdosta State University	67	65	71
State universities			
Albany State University	44	44	26
Clayton State University	47	46	46
Columbus State University	67	63	63
Fort Valley State University	37	37	
Georgia College & State University	95	93	
Georgia Southwestern State Univ.	71	69	
Middle Georgia State University	53	48	34
Savannah State University	34	34	21
University of North Georgia	89	89	50
State colleges			
Abraham Baldwin Agricultural Col.	60	60	55
Atlanta Metropolitan State Col.			12
College of Coastal Georgia	52	51	41
Dalton State College	62	61	62
East Georgia State College			32
Georgia Gwinnett College	37	35	
Georgia Highlands College			40
Gordon State College	41	34	38
South Georgia State College			39

Notes: Georgia residents only. This table displays the percentage ever receiving either scholarship. See Table 6 for additional notes.

Appendix Table 18. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, Trends, BA Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
2014	52	3,950	41	2,315	17	1,629	3	3,323
2015	51	4,151	40	2,353	19	1,304	3	3,463
2016	49	4,373	40	2,384	19	1,374	3	3,528
2017	50	4,463	39	2,399	19	1,424	4	3,560
2018	48	4,479	40	2,448	21	1,518	3	3,964
2019	46	4,477	39	2,507	22	1,570	3	4,214

Notes: This table corresponds to Figure 3. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 19. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, Trends, Pell Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
2014	68	3,716	84	2,315	19	1,263	3	2,700
2015	66	3,814	86	2,353	22	1,161	3	2,858
2016	65	4,026	88	2,384	22	1,197	4	2,927
2017	65	4,109	91	2,399	23	1,273	4	2,722
2018	63	4,036	93	2,448	26	1,374	4	3,274
2019	60	3,957	99	2,507	27	1,443	3	3,221

Notes: This table corresponds to Appendix Figure 7. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 20. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, Trends, Associate Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
2014	35	2,814	58	2,259	9	404	2	2,281
2015	38	2,963	58	2,295	9	605	2	1,958
2016	38	3,126	57	2,286	11	522	2	1,677
2017	37	3,098	55	2,314	8	733	2	1,522
2018	39	3,214	58	2,432	11	745	2	1,461
2019	38	3,280	58	2,524	15	815	2	1,069

Notes: This table corresponds to Appendix Figure 8. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 21. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Fall Semester, Trends, Non-traditional Population

	Loans		Pell		Other Grants		Other Aid	
	%	$	%	$	%	$	%	$
2014	65	4,824	54	2,087	4	805	0	2,075
2015	65	4,781	54	2,111	5	826	0	1,810
2016	62	4,731	52	2,086	5	891	0	2,911
2017	60	4,757	49	2,105	6	1,087	0	1,716
2018	55	4,709	49	2,099	6	980	0	1,916
2019	54	4,685	47	2,143	6	935	0	1,504

Notes: This table corresponds to Appendix Figure 9. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 22. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Four Fall Semesters, BA Population

	Loans		Pell		Other Grants		Other Aid	
Fall of Yr.	%	$	%	$	%	$	%	$
1	47	4,160	36	2,333	20	1,487	3	3,457
2	47	4,391	34	2,349	14	1,624	4	3,395
3	48	4,589	33	2,343	15	1,731	4	3,647
4	47	4,734	32	2,354	16	1,814	4	3,895

Notes: This table corresponds to Figure 4. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 23. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Four Fall Semesters, Pell Population

	Loans		Pell		Other Grants		Other Aid	
Fall of Yr.	%	$	%	$	%	$	%	$
1	64	3,792	83	2,333	24	1,303	4	2,764
2	65	4,059	79	2,349	18	1,494	5	2,535
3	66	4,251	77	2,343	19	1,579	5	2,612
4	65	4,415	75	2,354	20	1,694	5	2,863

Notes: This table corresponds to Appendix Figure 10. It shows the percentage receiving the aid type and the conditional amount.

Appendix Table 24. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Four Fall Semesters, Associate Population

	Loans		Pell		Other Grants		Other Aid	
Fall of Yr.	%	$	%	$	%	$	%	$
1	31	2,846	56	2,213	10	435	1	1,191
2	33	2,949	53	2,182	11	321	2	1,443
3	33	3,142	51	2,055	10	323	1	1,379
4	32	3,248	47	1,922	9	372	1	1,375

Notes: This table corresponds to Appendix Figure 11. It shows the percentage receiving the aid type and the conditional amount.

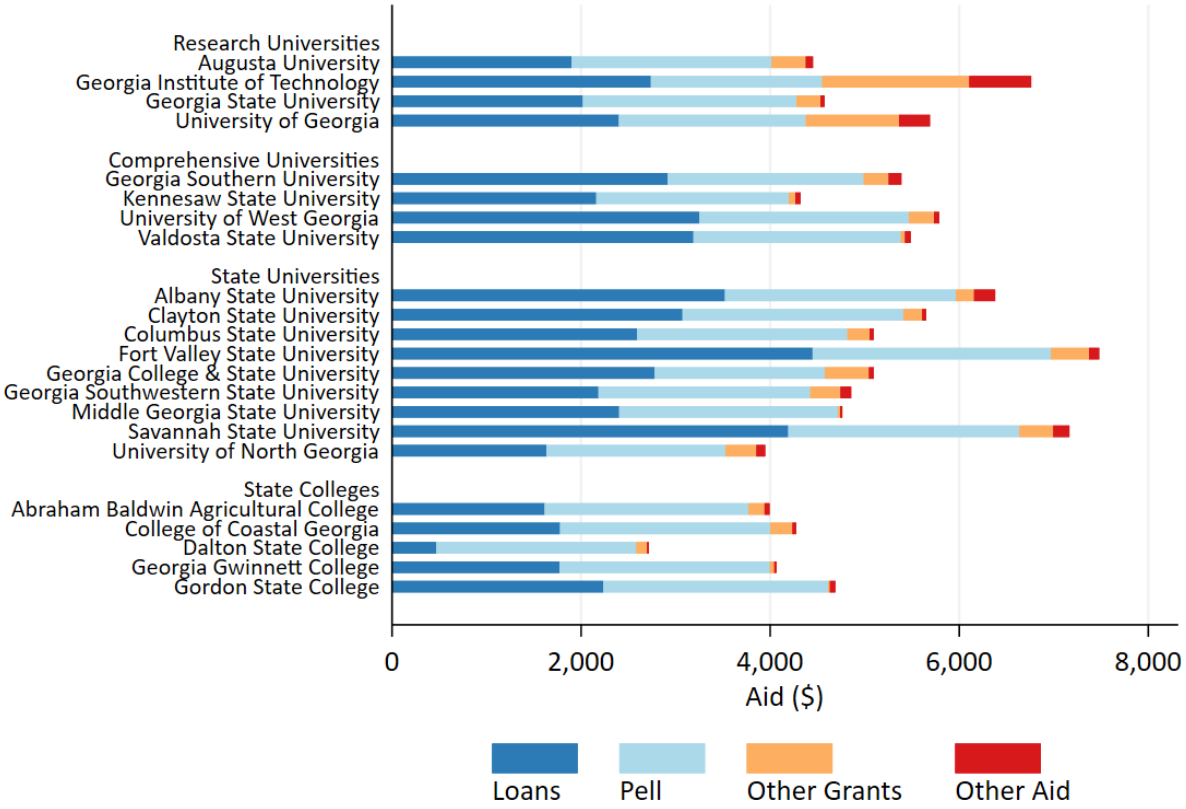
Appendix Table 25. Percentage Receiving Aid and Average Amounts of Various Types of Aid Received Conditional on Receiving that Type of Aid, First Four Fall Semesters, Non-traditional Population

	Loans		Pell		Other Grants		Other Aid	
Fall of Yr.	%	$	%	$	%	$	%	$
1	68	4,504	61	2,102	5	646	0	992
2	70	4,816	60	2,106	9	690	1	1,464
3	70	4,983	57	2,120	10	875	1	1,393
4	64	4,921	49	2,074	12	1,169	1	1,641

Notes: This table corresponds to Appendix Figure 12. It shows the percentage receiving the aid type and the conditional amount.

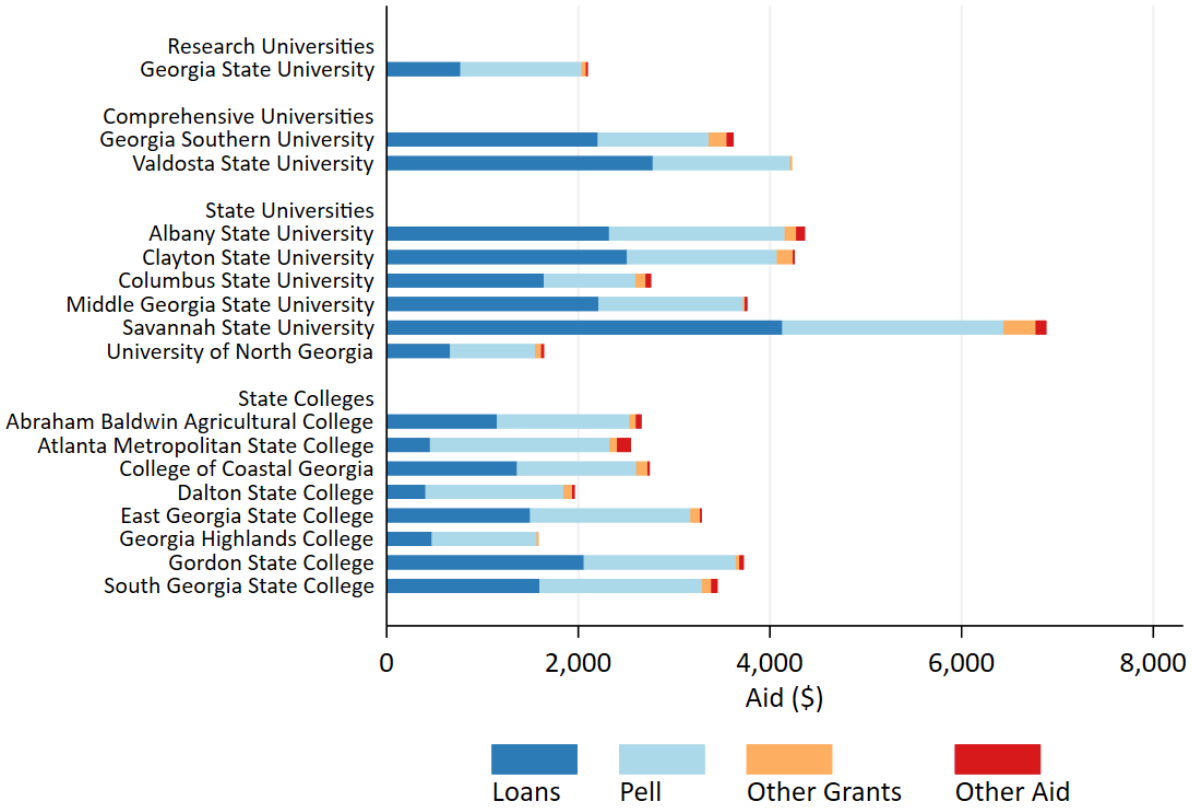
APPENDIX FIGURES

Appendix Figure 1. Average Amounts of Loans, Other Grants, Pell, and Other Aid by Institution, First Fall Semester, Pell Population



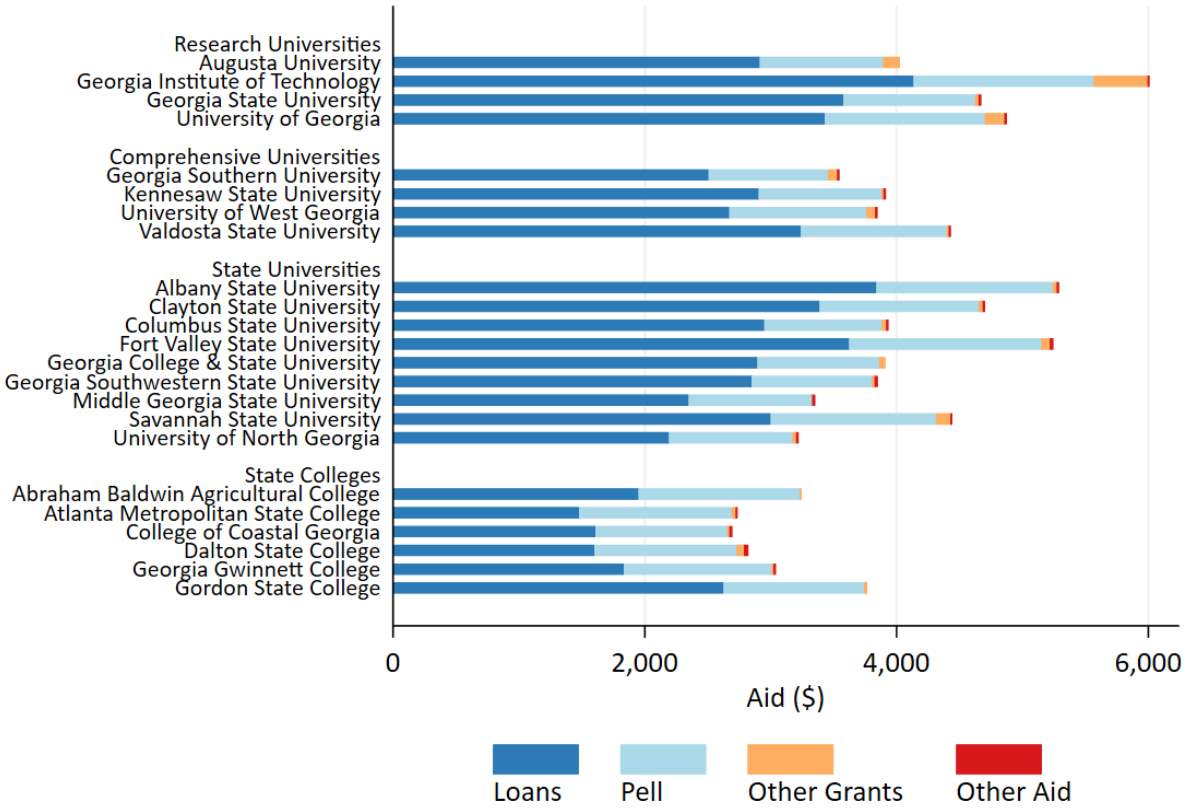
Notes: This figure uses the Pell population. See Figure 1 for additional notes.

Appendix Figure 2. Average Amounts of Loans, Other Grants, Pell, and Other Aid by Institution, First Fall Semester, Associate Population



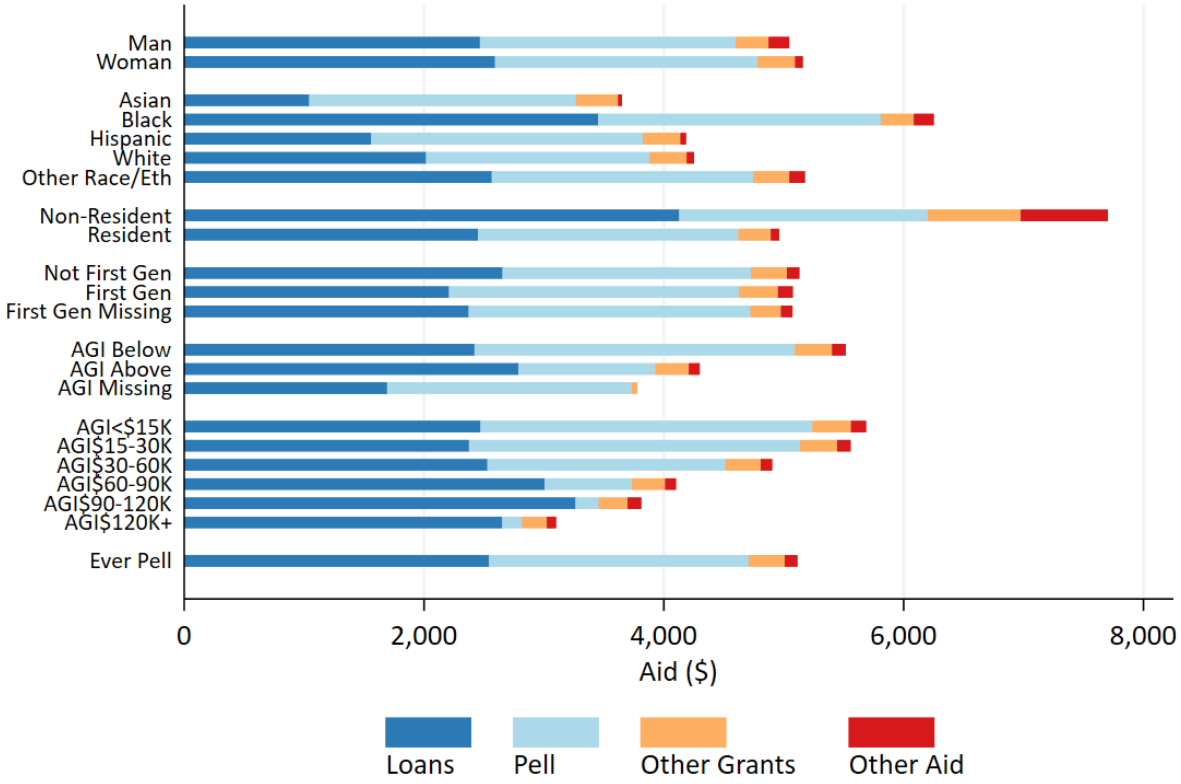
Notes: This figure uses the Associate population. See Figure 1 for additional notes.

Appendix Figure 3. Average Amounts of Loans, Other Grants, Pell, and Other Aid by Institution, First Fall Semester, Non-traditional Population



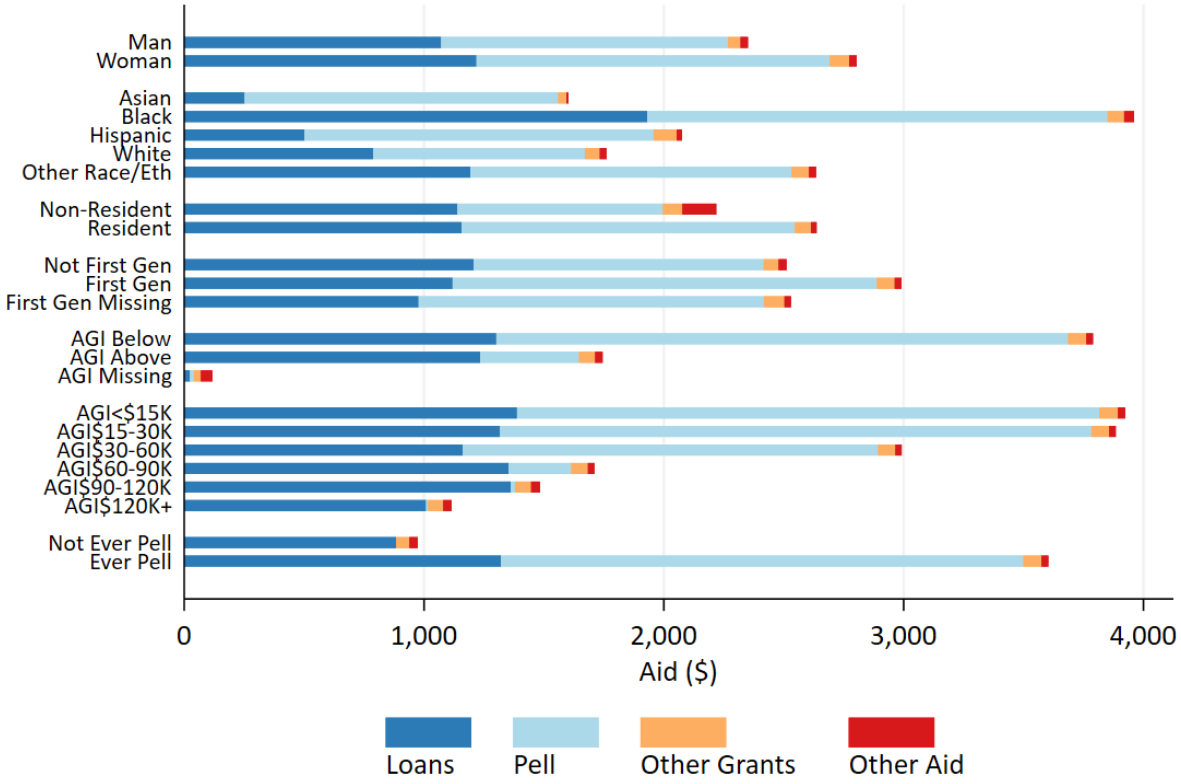
Notes: This figure uses the Non-traditional population. See Figure 1 for additional notes. The institution corresponds to the first institution used in the population. Thus, students who began in the spring semester or summer semester and transferred institutions before the fall semester are assigned their spring or summer institution.

Appendix Figure 4. Average Amounts of Loans, Other Grants, Pell, and Other Aid by Student Subgroups, First Fall Semester, Pell Population



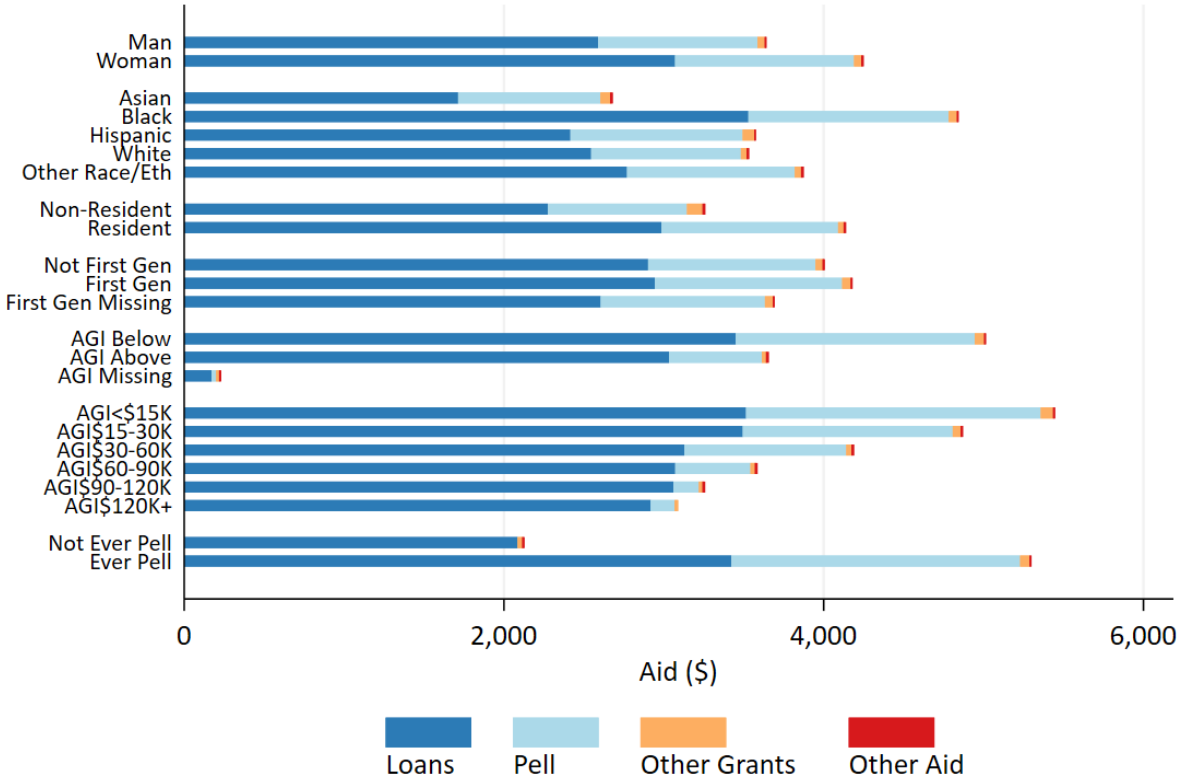
Notes: This figure uses the Pell population. See Figure 2 for additional notes.

Appendix Figure 5. Average Amounts of Loans, Other Grants, Pell, and Other Aid by Student Subgroups, First Fall Semester, Associate Population



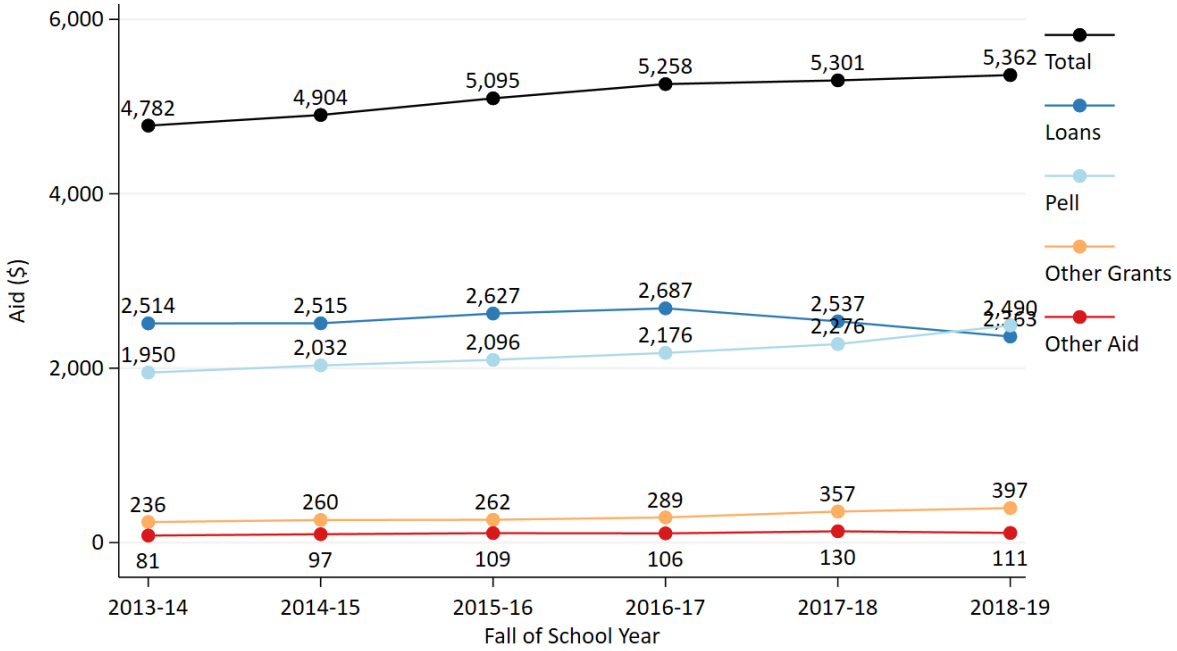
Notes: This figure uses the Associate population. See Figure 2 for additional notes.

Appendix Figure 6. Average Amounts of Loans, Other Grants, Pell, and Other Aid by Student Subgroups, First Fall Semester, Non-traditional Population



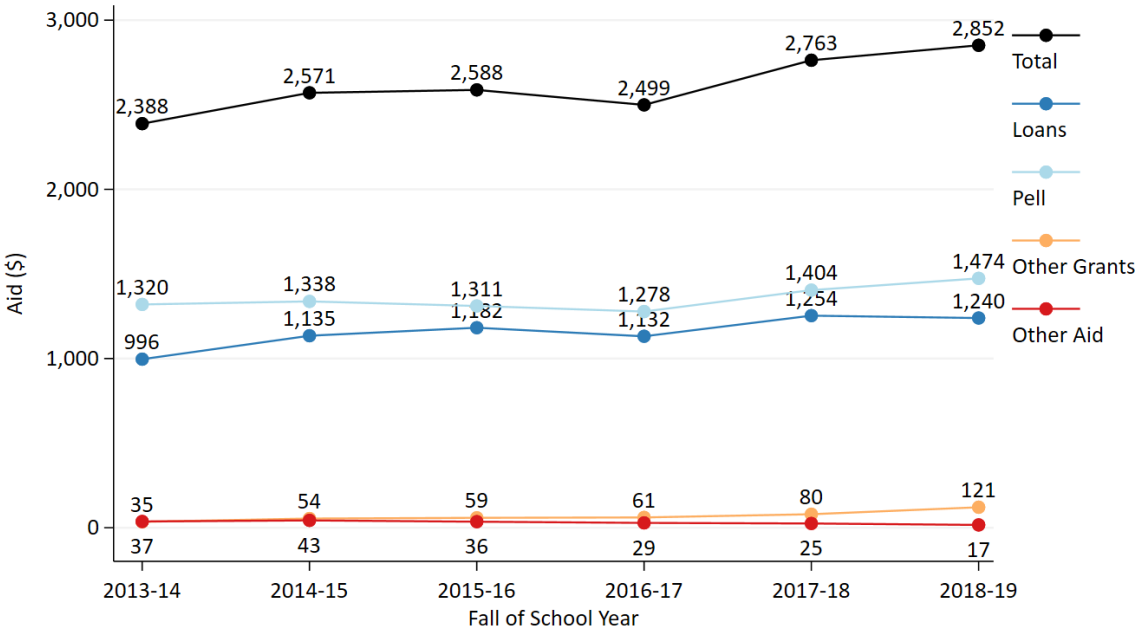
Notes: This figure uses the Non-traditional population. See Figure 2 for additional notes.

Appendix Figure 7. Trends in Aid by Category Over Time, First Fall Semester, Pell Population



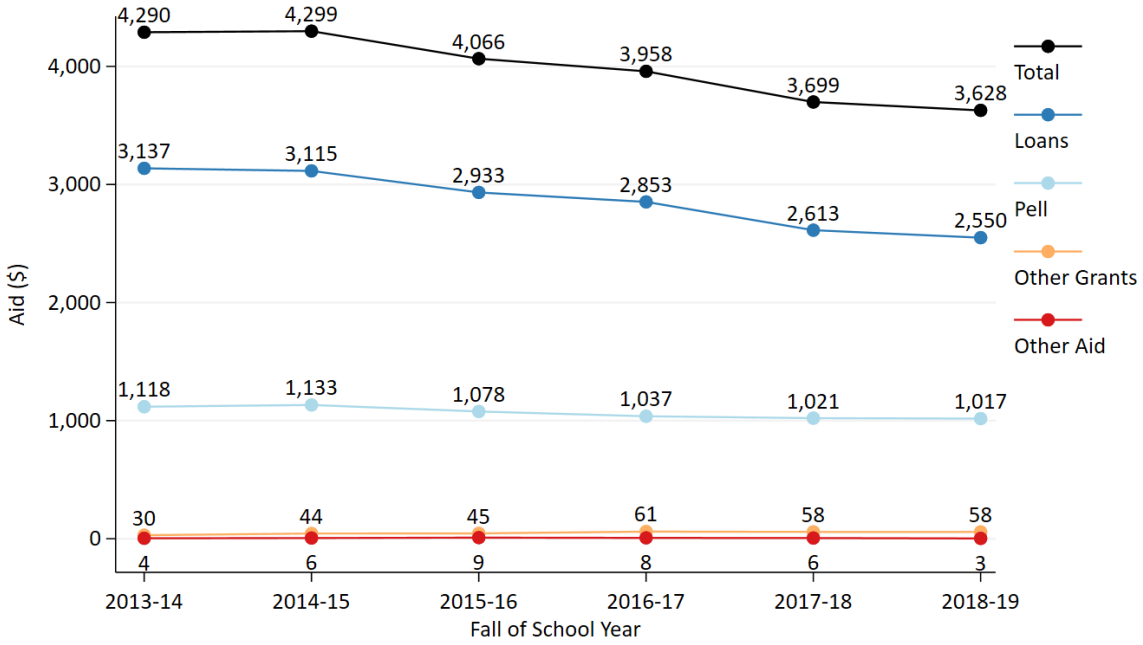
Notes: This figure uses the Pell population. See Figure 3 for additional notes.

Appendix Figure 8. Trends in Aid by Category Over Time, First Fall Semester, Associate Population



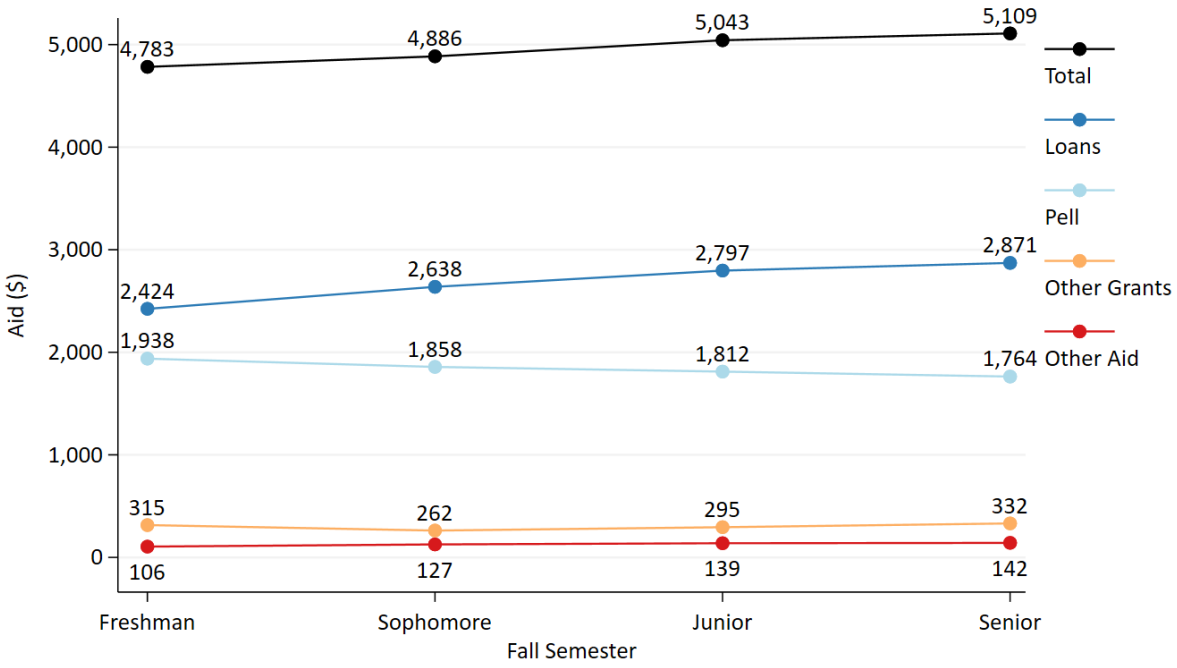
Notes: This figure uses the Associate population. See Figure 3 for additional notes.

Appendix Figure 9. Trends in Aid by Category Over Time, First Fall Semester, Non-traditional Population



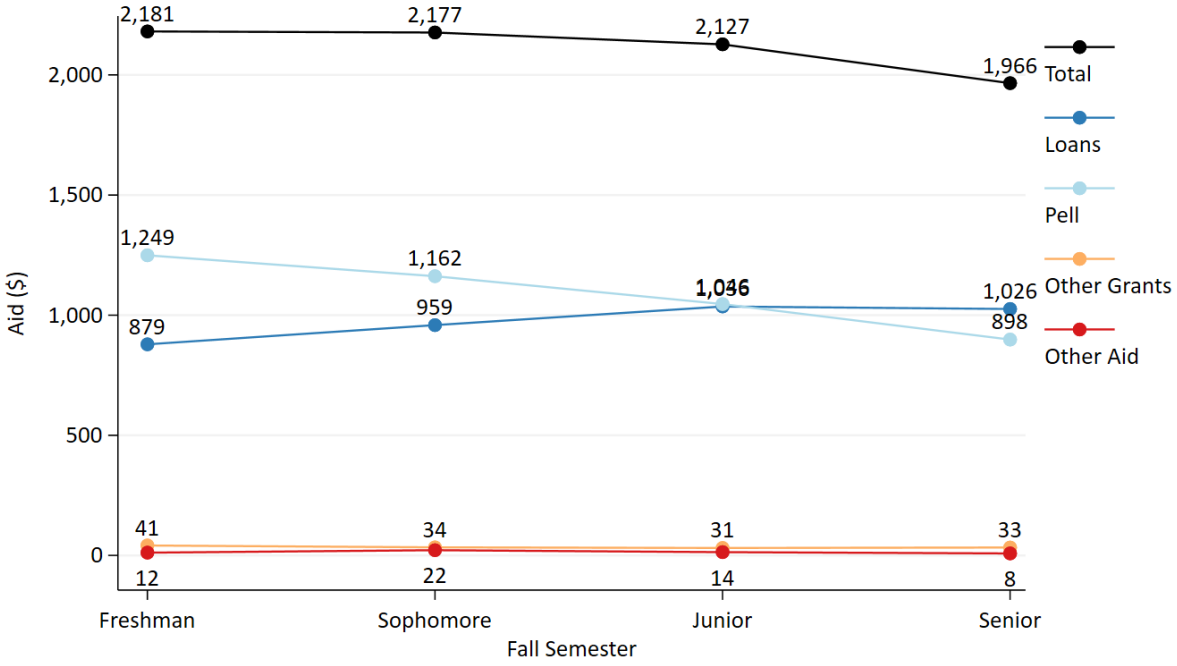
Notes: This figure uses the Non-traditional population. See Figure 3 for additional notes.

Appendix Figure 10. Average Aid Received in First, Second, Third, and Fourth Fall Semesters for Students Enrolled in Four Consecutive Fall Semesters, Pell Population



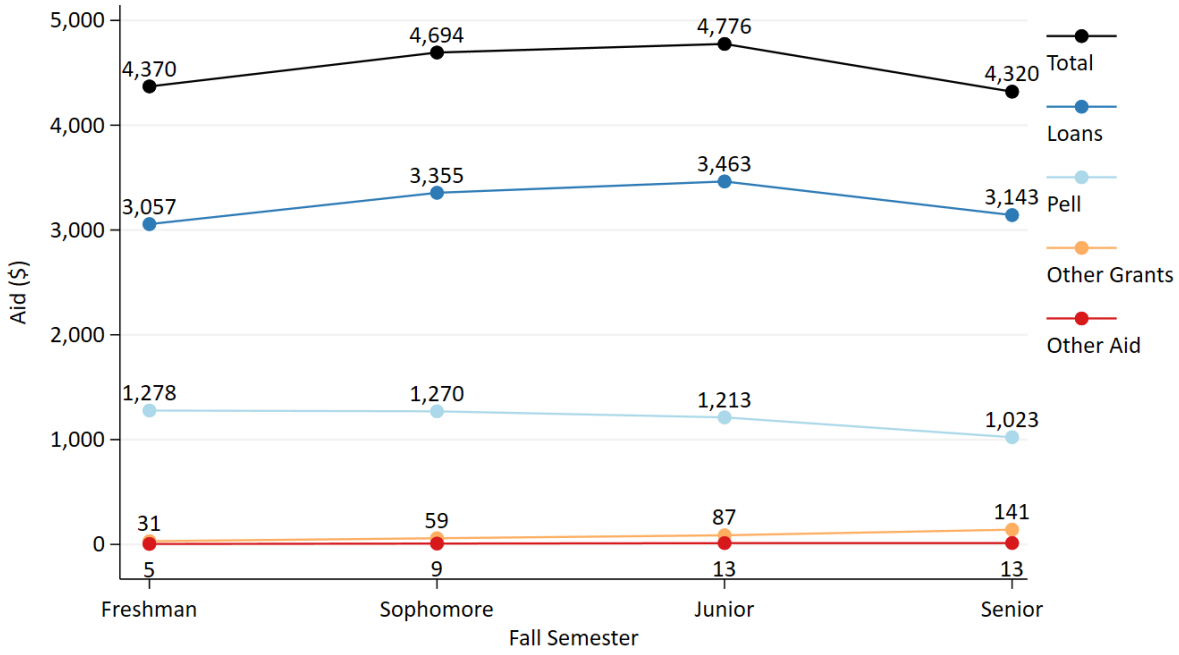
Notes: This figure uses the Pell population. See Figure 4 for additional notes.

Appendix Figure 11. Average Aid Received in First, Second, Third, and Fourth Fall Semesters for Students Enrolled in Four Consecutive Fall Semesters, Associate Population



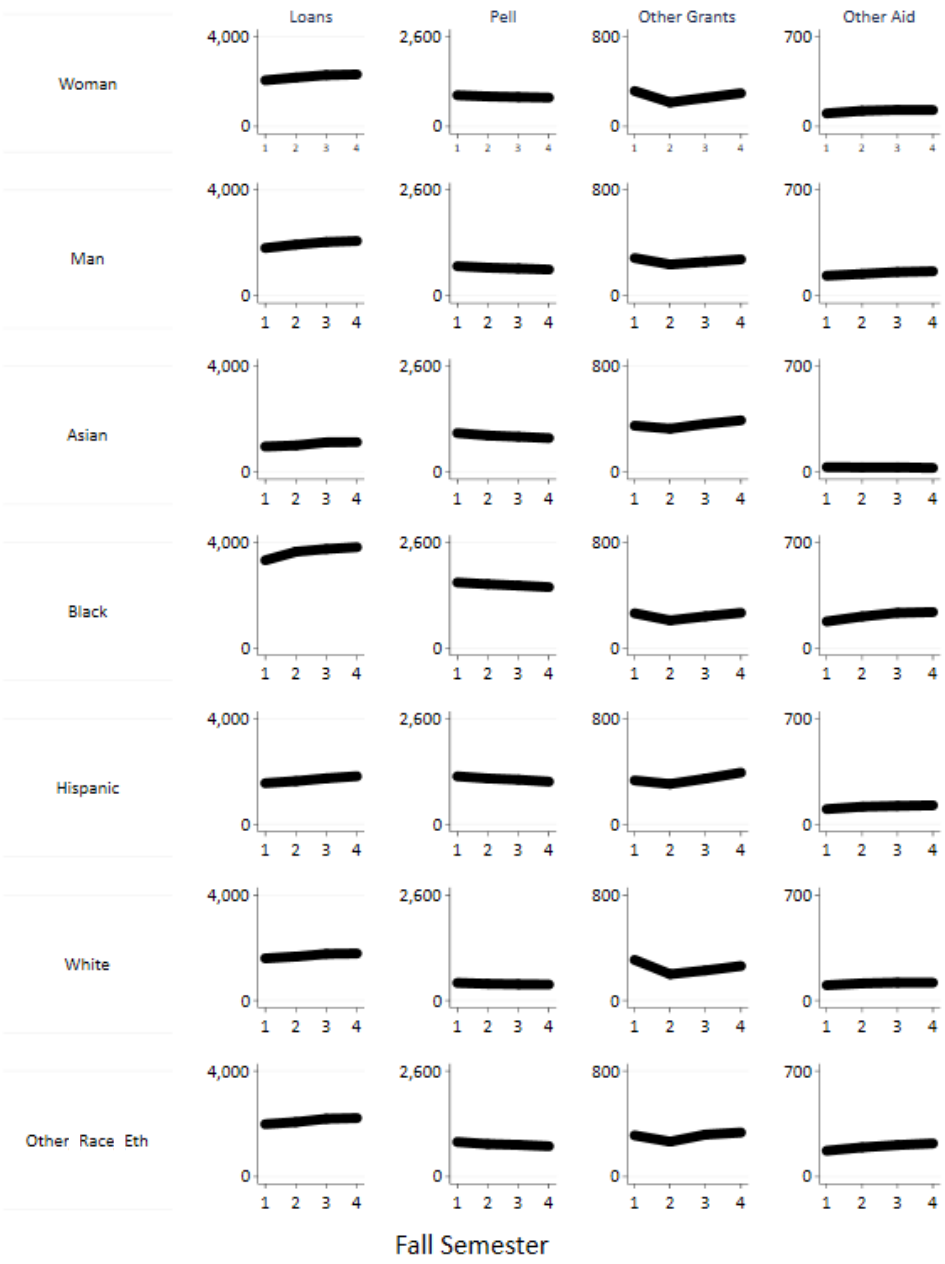
Notes: This figure uses the Associate population. See Figure 4 for additional notes.

Appendix Figure 12. Average Aid Received in First, Second, Third, and Fourth Fall Semesters for Students Enrolled in Four Consecutive Fall Semesters, Non-traditional Population



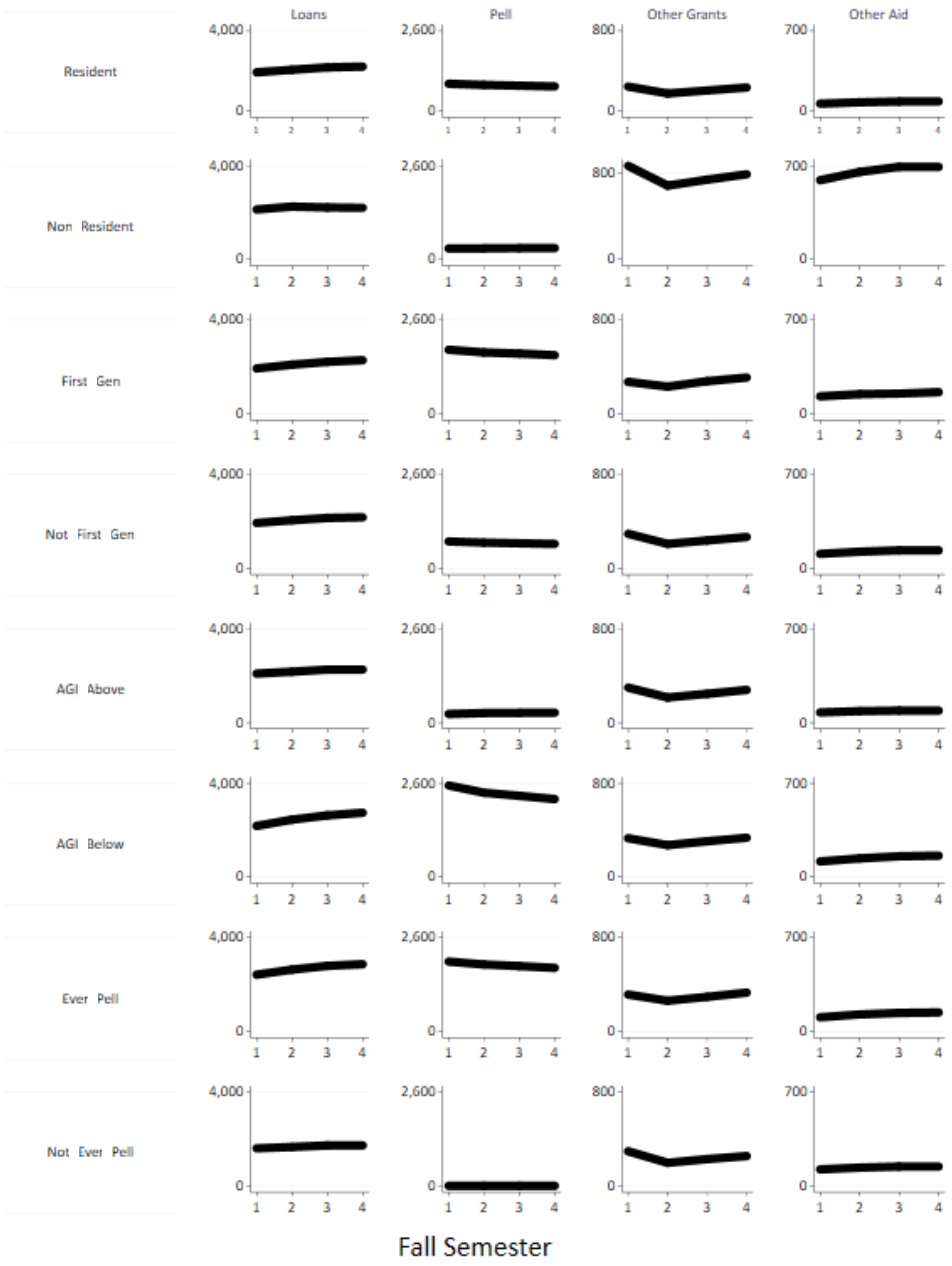
Notes: This figure uses the Non-traditional population. See Figure 4 for additional notes.

Appendix Figure 13. Average Aid Received for Students Enrolled in Four Consecutive Fall Semesters, by Subgroup, BA Population



Notes: This figure shows the unconditional average amount of fall semester for students enrolled in four consecutive fall semesters. The population is the BA population. Each row is a subgroup, and each column is a type of financial aid.

Appendix Figure 14. Average Aid Received for Students Enrolled in Four Consecutive Fall Semesters, by Subgroup, BA Population



Notes: This figure shows the unconditional average amount of fall semester for students enrolled in four consecutive fall semesters. The population is the BA population. Each row is a subgroup, and each column is a type of financial aid. AGI Missing, First Generation Missing, and the bins of AGI are omitted.

DATA APPENDIX

The source of the data presented in all graphs and the table is the University System of Georgia's Administrative Records, SY 2013-2014 to 2018-19.

Demographic Data

The race and ethnicity categories, derived from the IPEDS Race/Ethnicity variable are Black, Asian, Hispanic, White, and Other Race/Ethnicity. These are mutually exclusive. Other Race/Ethnicity includes American Indian or Alaska Native; Native Hawaiian or Other Pacific Islander; Race and Ethnicity Unknown; and Two or More Races.

It happens on occasion that a student's values for demographic variables change over time. In these cases, we use the demographics corresponding to the first-observed enrollment term. If the student has different demographic information in the first term (when enrolled at multiple institutions), we randomly select the observation to use for female, randomly select the observation to use for race (but do not use race unknown), code them as resident if at least one observation is resident, and use the earlier value for year. The one demographic variable that we treat differently than what's described above is first-generation college student. Because there are many fewer first-generation students than expected in the earlier years of the data (this variable is less reliable), we consider a student to be a first-generation student if she ever was coded as such. We consider their first-generation status to be missing if they never have a yes or no indicator during any term in the data.

Baseline Data

We treat the Enrollment file as the baseline file. This means that we do not consider student-school-term observations (or, more precisely, school-consolidated institution-original institution-term observations) from other files—such as the Financial Aid file—if they do not appear in the Enrollment file. We also do not include the less than 0.01 percent of observations in the Student Demographics file that have multiple observations within a student-school-term as these may in some cases actually refer to multiple people due to imperfections in the de-identification process. We also do not include an even smaller number of observations that appear in the Enrollment file but not the Student Demographics file. In results at the institution level, we associate students using only the current institution variable and do not also use the institution variable corresponding to institutions before their current definition.

Financial Aid Data

We drop instances that are missing the student identifier. We use the paid_amt variable, which denotes how much money was disbursed. This is as opposed to the accepted_amt variable, or how much the student accepted, which is typically, though not always, larger. It is our understanding that the paid_amt variable often is often smaller due to a processing fee that is deducted. The correlation between paid_amt and accepted_amt is greater than 0.99. We do not consider instances where the paid_amt variable is equal to 0. A very small number of federal work study observations have negative values; we replace these with 0. A very small number of observations have an award year that does not seem to match the corresponding term variable; we use the term variable. We consider a student as having received financial aid only if at least one financial aid category has a paid_amt above 0. We ignore the student level indicator

variable. Data are nominal, meaning we did not adjust for inflation. We consider PLUS loans to be a category of federal loans.

We classify aid categories as follows:

- Federal Loans
  - DIRECT – FDL Subsidized Loans
  - DLPLUS – FDL PLUS Loans
  - DLUNS – FDL Unsubsidized Loans
  - FEDLND – Other Federal Loans-Disbursed
  - PERK – Perkins Loans
  - PLUS – FFELP PLUS Loans
- Federal Grants
  - FGRNTD – Other Federal Need-Based Grants-Disbursed
  - FSCHD – Other Federal Non-Need Based Grants-Disburse
  - SEOG – SEOG
  - TEACH – Federal Non-Need Based Grant-Disbursed
- Pell
  - PELL – Pell Grant
- State Loans
  - STLND – State Loans-Disbursed
- State Grants
  - ACCEL – ACCEL Scholarship
  - STGRD – Other State Need-Based Grants-Disbursed
  - STSCHD – Other State Non-Need Based Grants-Disbursed
  - REACHD – Realizing Educational Achievement Can Happen-Disburse
- Institutional Loans
  - INSTLD – Institutional Loans-Disbursed
- Institutional Grants
  - INGTD – Institutional Need-Based Grants-Disbursed
  - INSCHD – Institutional Non-Need Based Grants-Disburse
  - INSCHU – Institutional Non-Need Based Grants-Non-disb
- External Loans
  - LOAND – External Loans-Disbursed
- External Grants
  - OTHGTD – External Need-Based Grants-Disbursed
  - OTHSCD – External Non-Need Based Grants-Disbursed
  - OTHSCU – External Non-Need Based Grants-Non-disbursed
- Other Aid
  - ATHLD – Athletic Scholarships-Disbursed
  - FWS – Federal Work Study Awarded
  - DEBD – Move on When Ready/Dual Enrollment Books-Disbursed

  - DEBU – Move on When Ready/Dual Enrollment Books-Undisbursed
  - DEF – Move on When Ready/Dual Enrollment Fees
  - DET – Move on When Ready/Dual Enrollment Tuition

We additionally create four aggregated variables:

- Loans
  - Federal Loans
  - State Loans
  - Institutional Loans
  - External Loans
- Other Grants
  - Federal Grants
  - State Grants
  - Institutional Grants
  - External Grants
- Pell
  - Pell
- Other
  - Other

HOPE Data

We group the different HOPE categories together (H1, H2, H3, H4, all of which are the HOPE scholarship; HD, the HOPE Grant; and HE, the HOPE GED). We also group the different Zell categories together (Z1, Z2, Z3, Z4, all of which are the Zell Miller scholarship; and ZG, the Zell Miller Grant). We do not consider SG, the Strategic Industries Workforce Development Grant. If a student-term has multiple observations in a term, with at least one HOPE and one Zell, we consider that student as having received Zell. If a student has HOPE or Zell in at least one observation in a term, we consider them as receiving HOPE or Zell. We define ever HOPE and ever Zell as having received HOPE or Zell in the relevant data. If one received HOPE or Zell before the sample period begins but not during, we do not consider them as having received HOPE or Zell. If an individual's status changed across semesters between HOPE and Zell, she is coded as having received both (the same coding applies within semester as denoted above).

Adjusted Gross Income

We obtain adjusted gross income (AGI) from the student or parent AGI variable. We use the first-observed instance of this variable. If a student enrolls in more than one institution in an award year, we use the higher value. We do not change the value if negative. Because not all students fill out the FAFSA, not all students have an AGI value. We calculate the median based on the full sample before any sample restrictions.

Non-traditional Students

We consider students who matriculated at age 25 or higher to be Non-traditional students. We calculate this using their month and year of birth. We refer to the "Enrollment Reports Definitions of Tables and

Columns" document (www.usg.edu/research/enrollment_reports) to find the birth months and dates that USG uses to classify students. A student is classified as a non-traditional student if she is at least 25 by October 15 for fall matriculation, March 1 for spring matriculation, and July 15 for summer matriculation. Because the available (de-identified) data do not contain date of birth, we tweak the above definitions slightly to be at least 25 by October 1, March 1, and July 1, respectively. Regarding matriculation date, in the rare cases that matriculation code is anything other than 1 (summer), 2 (fall), and 4 (spring), we use the corresponding term value.

Sample Selection – Bachelor's First Time Freshmen (BA) Sample

To select the BA sample, we consider only those who were pursuing a bachelor's degree during their first-observed First Time Freshman (FTF) IPEDS term, which always happens in the fall. We do not restrict the sample based on a student's age. We drop observations that occur before the term in which they are coded as FTF even if they were pursuing a BA in these prior terms (for example, the summer before the fall) or if their matriculation term began in one of these prior terms. We consider only terms in which the student was pursuing a bachelor's. We do not drop students who transfer institutions as long as they continue at the bachelor's level. In such cases, we associate them with their first-observed FTF bachelor's institution; if enrolled at multiple institutions the first term, we randomly choose one. If a student is enrolled at multiple levels in an institution, we use all the financial aid information. We aggregate all schools in which a student was enrolled as a bachelor's student in a given term together. For the summary statistics age at matriculation, we use the youngest age after all the above sample restrictions.

Sample Selection – Bachelor's First Time Freshmen Pell (Pell) Sample

This sample considers only students in the BA sample who ever received Pell (in the observable data). Note that the earlier a student started, the longer she had to receive Pell.

Sample Selection – Associate First Time Freshmen (Associate) Sample

We define Associate as the traditional Associate and Career Associate, but not other less-than-bachelor's degrees such as One Year Vocational Related Certificate, Two Year Vocational Related Certificate, or Less than 1 Year Certificate. We select this sample in an analogous way to the BA sample, including students only in semesters in which they are working towards an associate degree.

Sample Selection – Bachelor's Non-traditional Student (Non-traditional) Sample

We define a Non-traditional student to be one who was at least 25 years of age during the term that is also their matriculation term, and who was pursuing a bachelor's in this term. Students need not be first-time freshmen. As opposed to the other populations, we consider students who began during any term. We consider only bachelor's observations.

To construct the sample, in step 1 we eliminate observations in which the student was less than 25 for the observation's matriculation term (not current term). We also eliminate observations where the matriculation term was before 2013-14, to allow for a focus on those matriculating during the period when we have financial aid data.

In step 2, among remaining observations, we keep students (meaning all of the student's remaining observations) who meet the following criteria: they have an (at least one) observation in which the current term (e.g., term=20161) matches the matriculation term (matriculation term=20161) and who are pursuing a bachelor's degree in this term (meaning they are pursuing bachelor's in 20161). Call this term "first_term" (first_term=20161).

Among remaining observations, we keep observations with terms that are during and after the (earliest-occurring) "first_term" identified above. We drop observations with terms that occur before "first_term" (e.g., we drop all observations with term<20161, but keep all observations with term>=20161).[45] We then drop all observations that are not bachelor's. This completes the sample selection.[46, 47]

[45] If a student has survived the above restrictions, this means that all of their remaining observations are for matriculation terms 2013-14 and after, and all observations have matriculation terms in which the student is at least 25. It also means that the student has a matriculation term that meets the criteria to establish the "first_term." However, it can also be the case that the student has other matriculation terms besides the matriculation term corresponding to "first_term"—notably matriculation terms in which she is pursuing a degree other than a bachelor's when term=matriculation term, for example an associate degree. Cases such as these are dropped if their term is less than the "first_term" identified in step 2 and are retained if their term is >= "first_term."

[46] We note that in a small percentage of cases, there is no term that corresponds to a given matriculation term. For example, if a student has a matriculation term of 20141, then the student has no observation with a term of 20141, though she would, for example, have a term of 20142. Due to how we construct the "first_term" variable, these cases are not identified in step 2, even if the student is pursuing a bachelor's in the earliest post-matriculation term that we observe them (for example, if the matriculation term is 20141, the student has no observation in which term=20141, but does have an observation in which term=20142, and she is pursuing a bachelor's in 20142, then this observation is not identified in step 2); the sample (at the student-level) would have been about 1 percent bigger if we did include these cases.

[47] In the event that a student has multiple observations for a given term, we aggregate financial aid information to get the sample at the student-term level. Observations that were previously dropped do not get aggregated, even if they are in the same term as observations we keep.

ABOUT THE AUTHOR

Todd R. Jones was a Postdoctoral Research Associate at the Georgia Policy Labs during the majority of the writing of this report. He is an applied microeconomist with research interests including the economics of education and labor economics and has an affinity for data visualization. He received a Ph.D. in Economics from Cornell University in 2018 and holds a B.A. in Economics and an M.S. in Statistics from Utah State University. He will begin as an Assistant Professor of Economics at Mississippi State University in the fall of 2020.

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The Georgia Policy Labs (GPL) is a collaboration between Georgia State University and a variety of government agencies to promote evidence-based policy development and implementation. Housed in the Andrew Young School of Policy Studies, GPL works to create an environment where policymakers have the information and tools available to improve the effectiveness of existing government policies and programs, try out new ideas for addressing pressing issues, and decide what new initiatives to scale. The goal is to help government entities more effectively use scarce resources and make a positive difference in people's lives. GPL has three components: The Metro Atlanta Policy Lab for Education works to improve K-12 educational outcomes; the Career & Technical Education Policy Exchange focuses on high-school-based career and technical education in multiple U.S. states; and the Child & Family Policy Lab examines how Georgia's state agencies support the whole child and the whole family. In addition to conducting evidence-based policy research, GPL serves as a teaching and learning resource for state officials and policymakers, students, and other constituents. See more at gpl.gsu.edu.