



California Community College and University of California student participation in CalFresh food benefits

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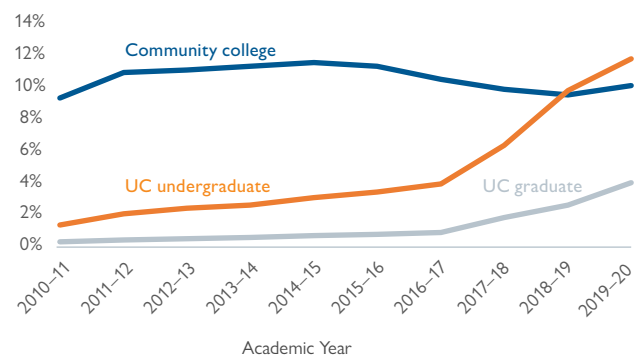
Food insecurity is widespread among college students in the United States. CalFresh food benefits, known federally as the Supplemental Nutrition Assistance Program, or SNAP, can help students in California pay for food, but may not reach all eligible students. CalFresh enrollment rates among students have been difficult to estimate due to incomplete data on California students’ eligibility for and enrollment in the CalFresh program.¹ To overcome these issues, the California Policy Lab (CPL) partnered with the California Community College system (CCC), the University of California Office of the President (UCOP), the California Department of Social Services (CDSS), and the California Student Aid Commission (CSAC) to build a linked database of student-level administrative data on college enrollment, financial aid, and CalFresh participation.

This data point provides estimates of the rates at which CCC and University of California (UC) students participate in CalFresh. For context, 5.6 million Californians across 2 million households participated in CalFresh in 2019 — around 14% of the state’s total population.² **We find that in Academic Year (AY) 2019–20, 10.2% of California community college students, 11.8% of UC undergraduate students, and 4.0% of UC graduate students were enrolled in CalFresh.**

These rates represent approximately 230,000 community college students, 28,000 UC undergraduate students, and 2,500 UC graduate students. The participation rates among UC students have increased dramatically since 2016–17, which approximately coincides with increased funding targeting **UC Basic Needs Initiatives**, while the rates among community college students have remained relatively steady over the past decade. We also report CalFresh participation rates among student demographic groups, campuses, community college regions, and financial aid status.

This data point provides student enrollment rates in CalFresh, but it does not estimate how many students are eligible for the program. Eligibility is based on multiple factors including income, household composition, school enrollment status, and financial aid status.³ In future reports, we will use this new linked dataset to show how many likely eligible college students are participating in CalFresh.

FIGURE 1. CalFresh enrollment rates among college students, 2010–11 to 2019–20



The Student Supports linked database

The California Policy Lab has produced a cross-institution dataset consisting of records from students at the California Community Colleges and University of California, linked to information from FAFSA applications and safety-net program participation. CPL matches encrypted data records from each agency without receiving Personally Identifiable Information (PII), allowing for accurate data linkage while guaranteeing the protection of private information (see [Appendix A — Data and linkage for more detail](#)).

This data resource, known as the Student Supports database, is the first of its kind in California, and will enable CPL and our research partners to:

- observe California college students as they begin, progress through, and complete their education;
- directly estimate student receipt and take-up of safety-net benefits;
- evaluate strategies to increase take-up; and
- examine the relationship between receiving safety-net benefits and student success.

Rate of CalFresh participation among college students

[Tables 1, 2, and 3](#) report estimates for CalFresh participation during the 2019–20 academic year among community college students,⁴ UC undergraduate students, and UC graduate students, respectively. In addition to differences across higher education segments, rates of CalFresh enrollment differed across community college regions, UC campuses, and by student subgroups (see [Appendix](#) for subgroup definitions). Specifically:

- **California community college regions** — CalFresh enrollment was highest in the Central Valley (17.0% of all enrolled students), followed by the Inland Empire (12.7%) and Northern California (12.4%). These three regions are (in this order) the highest poverty regions in California.
- **UC Campuses** — UC San Francisco (UCSF) — which enrolls only graduate students — had the highest rate of student CalFresh enrollment of the UC campuses, at 32.9% in AY 2019–20. This may be due to extensive outreach and application assistance [efforts at that campus](#), differences

in the socioeconomic mix of campus populations, and differences in the review process at county welfare offices. UC Merced and UC Santa Barbara had the highest rates of CalFresh enrollment among undergraduates, at 21.5% and 21.0%, respectively.

- **Student aid** — At both the UCs and CCCs, CalFresh enrollment in AY2019–20 was higher among students who received financial aid compared to those who didn't, and especially among students who received Pell Grants — which are based purely on financial need — or Cal Grants⁵ — which can be based on a combination of financial need and academic performance.
- **Racial and ethnic groups** — CalFresh enrollment was higher among UC and CCC students identifying as Black/African American compared to the overall student population, higher among CCC students identifying as American Indian/Alaska Native, and higher among UC undergraduate students identifying as Hispanic/Latino/Chicano.
- **Age groups** — CalFresh enrollment varies considerably across cohorts among the CCC student population, which is notably diverse in terms of age. Participation rates are highest among 30 to 39 year-olds, and lowest among students in their early 20s.

TABLE 1. CalFresh Enrollment Among California Community College Students, 2019–2020 Academic Year

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
All Students*	2,229,381	226,691	10.2%
Region			
Northern California	193,355	23,976	12.4%
Bay Area	450,761	29,139	6.5%
Central Valley	222,627	37,748	17.0%
South Central	154,543	14,116	9.1%
Greater Los Angeles	807,689	76,555	9.5%
Inland Empire	183,737	23,370	12.7%
San Diego	216,226	21,787	10.1%
Financial aid status			
Filed FAFSA	922,150	156,108	16.9%
Did not file FAFSA	1,307,231	70,583	5.4%
Cal Grant recipient	131,036	35,045	26.7%
Pell Grant recipient	379,287	95,704	25.2%
Promise Grant recipient	852,736	154,671	18.1%
Any financial aid recipient	929,060	165,271	17.8%
No financial aid recipient	1,300,321	61,420	4.7%
Enrollment type			
First-time students	192,966	24,099	12.5%
First-time transfer	168,986	13,681	8.1%
Continuing	1,266,680	135,806	10.7%
Returning	263,186	27,311	10.4%
Special admit	205,604	17,078	8.3%
Unknown	131,959	8,716	6.6%
Enrolled terms			
Summer only	221,824	15,618	7.0%
Fall, winter, and/or spring	2,007,557	211,073	10.5%

Table 1 continues on next page

TABLE 1. CalFresh Enrollment Among California Community College Students, 2019–2020 Academic Year (continued)

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
Race/Ethnicity			
American Indian/Alaska Native	8,015	1,474	18.4%
Asian	303,889	17,608	5.8%
Black/African American	122,596	30,883	25.2%
Hispanic/Latino	1,032,839	108,800	10.5%
Native Hawaiian/Pacific Islander	8,888	952	10.7%
White	524,483	47,466	9.1%
Two or more races	82,738	10,354	12.5%
Unknown	145,933	9,154	6.3%
Gender			
Female	1,208,282	148,352	12.3%
Male	985,426	75,677	7.7%
Non-binary	1,092	180	16.5%
Unknown	34,581	2,482	7.2%
Other student subgroups			
Educational goal			
ESL/adult education	227,196	18,416	8.1%
Short-term career	339,975	33,407	9.8%
Degree/transfer seeking	1,198,475	144,304	12.0%
Undecided/other	522,567	40,375	7.7%
First-generation	529,667	71,849	13.6%
Age groups			
19 or less	622,563	58,226	9.4%
20–21 y/o	343,329	24,563	7.2%
22–24 y/o	300,909	25,456	8.5%
25–29 y/o	296,624	37,169	12.5%
30–34 y/o	178,002	26,346	14.8%
35–39 y/o	122,980	17,758	14.4%
40–49 y/o	157,457	18,108	11.5%
50 and older	200,951	19,004	9.5%

* Because we rely on valid social security numbers (SSNs) to accurately link records across data sources, we are not able to estimate CalFresh participation among the approximately 15% of community college students without valid SSNs. Student records may lack a valid SSN for a number of reasons, including incomplete data and data entry errors. Among the 85% of community college students with valid SSNs, the total CalFresh participation rate is 11.5%.

Note: Cell sizes less than 100 are censored to protect student privacy.

TABLE 2. CalFresh Enrollment Among UC Undergraduate Students, 2019–2020 Academic Year

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
All Students	236,365	27,987	11.8%
Campus			
Berkeley	32,761	3,452	10.5%
Davis	32,677	4,809	14.7%
Irvine	31,562	2,702	8.6%
Los Angeles	33,163	2,814	8.5%
Merced	7,907	1,700	21.5%
Riverside	23,181	1,797	7.8%
San Diego	32,165	3,233	10.1%
San Francisco	n/a	n/a	n/a
Santa Barbara	24,551	5,157	21.0%
Santa Cruz	18,398	2,323	12.6%
Financial aid status			
Filed FAFSA	157,361	27,505	17.5%
Did not file FAFSA	79,004	482	0.6%
Cal Grant recipient	54,210	12,983	23.9%
Pell Grant recipient	82,670	22,385	27.1%
Any financial aid recipient	134,122	26,361	19.7%
UC tenure			
1 year	69,194	5,604	8.1%
2 years	64,602	8,004	12.4%
3 years	49,863	7,157	14.4%
4+ years	52,706	7,222	13.7%
Enrollment type			
Transfer students	54,336	6,734	12.4%
Community college transfer students	49,292	6,379	12.9%

Table 2 continues on next page

TABLE 2. CalFresh Enrollment Among UC Undergraduate Students, 2019–2020 Academic Year (continued)

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
Race/Ethnicity			
American Indian/Alaska Native	1,151	151	13.1%
Asian American/Asian/ Pacific Islander	105,934	8,406	7.9%
Chinese	48,940	2,487	5.1%
East Indian/Pakistani	14,453	551	3.8%
Filipino	10,763	1,141	10.6%
Japanese	3,472	172	5.0%
Korean	9,152	836	9.1%
Vietnamese	13,313	2,404	18.1%
Other Asian/Pacific Islander	5,841	815	27.3%
Black/African American	10,334	2,383	23.1%
Hispanic/Latino/Chicano	58,155	12,677	21.8%
White/Caucasian	52,623	3,914	7.4%
Unknown	9,483	540	5.7%
Gender			
Female	126,842	18,152	14.3%
Male	108,132	9,735	9.0%
Unknown	9,483	540	5.7%
Other student subgroups			
Has disability	9,900	1,987	20.1%
Foster youth	1,991	630	31.6%
First-generation	66,725	17,856	26.8%
Not first-generation	90,287	9,586	10.6%
Zero expected family contribution (EFC)	53,789	14,966	27.8%
UC employment	32,689	6,074	18.6%

Note: Cell sizes less than 100 are censored to protect student privacy.

TABLE 3. CalFresh Enrollment Among UC Graduate Students, 2019–2020 Academic Year

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
All Students	61,877	2,503	4.0%
Campus			
Berkeley	12,609	338	2.7%
Davis	7,886	148	1.9%
Irvine	6,936	<100	-
Los Angeles	13,404	600	4.5%
Merced	709	<100	-
Riverside	3,616	<100	-
San Diego	8,308	<100	-
San Francisco	3,221	1,060	32.9%
Santa Barbara	3,093	135	4.4%
Santa Cruz	2,095	<100	-
Financial aid status			
Filed FAFSA	20,726	2,258	10.9%
Did not file FAFSA	41,151	245	0.6%
Cal Grant recipient	<100	<100	-
Pell Grant recipient	<100	<100	-
Any financial aid recipient	28,038	1,965	7.0%
Race/Ethnicity			
American Indian/Alaska Native	472	<100	-
Asian American/Asian/ Pacific Islander	17,327	925	5.3%
Chinese	7,838	287	3.7%
East Indian/Pakistani	3,098	<100	-
Filipino	1,020	<100	-
Japanese	872	<100	-
Korean	1,555	103	6.6%
Vietnamese	1,390	221	15.9%
Other Asian/Pacific Islander	1,554	<100	-
Black/African American	2,640	279	10.6%
Hispanic/Latino/Chicano	6,984	455	6.5%
White/Caucasian	20,795	633	3.0%
Unknown	14,309	199	1.4%

Table 3 continues on next page

TABLE 3. CalFresh Enrollment Among UC Graduate Students, 2019–2020 Academic Year (continued)

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
Gender			
Female	29,418	1,594	5.4%
Male	31,765	897	2.8%
Unknown	14,309	199	1.4%
Other student subgroups			
Has disability	1,434	105	7.3%
Foster youth	<100	<100	-
First-generation	6,273	836	13.3%
Not first-generation	14,403	1,419	9.9%
Zero expected family contribution (EFC)	16,976	1,677	9.9%
UC employment	30,435	717	2.4%

Note: Cell sizes less than 100 are censored to protect student privacy.

First-generation students refers to those who did not have a parent who attended college (see [Appendix](#) for more detail).

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Appendix A — Data and linkage

Data preparation

We include the full universe of enrolled CCC and UC students in the merge process that links student records to data from CDSS and CSAC. For data from the community colleges, student records are de-duplicated based on encrypted versions of personally identifiable information (PII), specifically social security numbers, name, and birthday (see below for more information on our privacy-preserving encryption process). For the approximately 15% of community college student records with a missing social security number, we de-duplicate using college-level unique student identifiers. For the UCs, student records are de-duplicated based on the full set of encrypted PII elements, along with UC-assigned system-wide student ID numbers.

Description of data

CPL linked and analyzed the following de-identified, individual-level datasets for this analysis:

- **CCCCO** records for students enrolled in a California community college from academic year (AY) 2010–11 through spring 2020 (AY 2019–20), including information on student demographics, enrollment details, certificate or degree attainment, financial aid awards, and other characteristics pertaining to CalFresh eligibility (such as CalWORKS participation, foster youth or parent status, or disability). Our sample includes all students regardless of whether they were enrolled in credit or noncredit courses, so long as they were enrolled in a term within the academic year being analyzed.
- **UCOP** records for all UC students enrolled from AY 2010–11 through AY 2019–20, including student demographics, enrollment, degree attainment, financial aid awards, and other characteristics pertaining to CalFresh eligibility (such as foster youth status and disability). Student attributes in each year correspond to data from the latest term in which they were enrolled. For example, if a student was enrolled in UC Berkeley in the fall and UC Davis in the spring, we only include them in the UC Davis counts for that year.
- **CDSS** records of monthly enrollment in CalFresh between 2010 to 2021. These data include demographic information, dates of CalFresh enrollment, benefit amount, and quarterly earnings data. To analyze student CalFresh enrollment rates, CalFresh monthly enrollment data was aggregated to the academic term level. Students are considered to be CalFresh participants if they received CalFresh benefits for at least one month during a term in which they were also enrolled in college.
- **CSAC** records on Free Application for Federal Student Aid (FAFSA) forms submitted from 2010–11 to 2019–20. This includes demographic characteristics, income, household composition, employment, FAFSA submission status and date, GPA verification, expected family contribution, whether the student was offered a Cal Grant, and information about where and when the grant was used.

Privacy-preserving record linkage

CPL has implemented a process to link individual-level data from multiple agencies without receiving PII. Rather than sharing raw PII, such as full names and social security numbers (SSNs), each agency applies a one-way encryption to PII before transferring any data to CPL. This encryption turns strings and substrings of PII into indecipherable strings of letters and numbers. As an additional measure to make the encryption process irreversible, all agencies append a unique string of characters to the original PII values prior to the encryption process. This appended string of characters is agreed on between the agencies, but never shared with CPL, so that the encryption process cannot be reversed when CPL is using data for record linkage. Further information on this process can be found [here](#).

Once the encrypted data is transferred, we use four rounds of ‘rules’ to identify exact and ‘fuzzy’ matches in order to link people across datasets. Fuzzy matches consider PII substrings (for example, the first few letters of the last name), each of which were hashed separately. All rounds require a perfect match on SSN, and they vary in the types of discrepancies allowed in the other PII fields.

Variable definitions

- **Received CalFresh:** Students are identified as participating in CalFresh if they received CalFresh benefits for at least a month during a term (quarter or semester, depending on the school) in which they were also enrolled in college. The 2019–20 academic year spans the months June 2019 through May 2020 for semester schools, and July 2019 through June 2020 for quarter schools.
- **Filed a FAFSA:** Students who matched to a submitted FAFSA record in the California Student Aid Commission dataset were identified as having filed a FAFSA. All other students in the population were identified as not having filed a FAFSA.
- **Any financial aid recipient:** Among community college students, this group represents all students who received any type of [community college financial aid](#), including aid awarded by the federal or state government, and aid awarded by the California community colleges. Among UC students, this group represents all students who received aid through any of the following: the Blue and Gold Opportunity plan, Cal Grants, Pell Grants, Federal SEOG grants, UC grants, other gift aid or financial assistance from UC, veterans' specific assistance, work study, Chaffee grant, or either a federal or other type of loan.
- **First-generation student:** For community college students, first-generation students are defined as those who reported having no parent or guardian who attended college or earned an Associate degree, in accordance with California Community Colleges' [technical definition](#). This data began being collected by CCCCO in 2017. For UC students, we define first-generation students as those who reported on the FAFSA that neither parent attended college. Approximately 60% of UC students submitted a FAFSA (67% of undergraduates and 33% of graduates). UC students who did not submit FAFSAs are not included in either the “first-generation” or the “not first-generation” subgroups. Given the different data sources used to define this subgroup, we recommend that readers avoid making comparisons regarding student counts or CalFresh participation rates across the higher education segments.

- **Enrollment types:**

For community college students, **first-time students** are those who are enrolled for credit in higher education for the first time after high school. **First-time transfer students** are those enrolled in the reporting college and who transferred from another institution of higher education. **Continuing students** are those who are enrolled in the current session and were enrolled in the previous regular session. **Returning students** are those enrolled in the reporting college after an absence of one or more terms. **Special admit students** are those currently enrolled in K–12. **Unknown** are those students whose enrollment status is not known. These categories are all mutually exclusive.

Summer only students are defined as those who are enrolled only in the summer term for a given academic year. **Fall, winter, and/or spring** students are those who are enrolled in at least one non-summer term in a given academic year.

- **Race/ethnicity:** For both community college and UC students, we rely on the racial and ethnic subgroups that are reported in each segment's administrative data, which are based on student self-report.
- **Zero expected family contribution (EFC):** For UC students, this subgroup is defined based on students' reported EFC on their FAFSA. This variable is included in administrative data from the UCs, who source it from CSAC.
- **UC employment:** This subgroup is defined as all UC students who are employed by the University of California in any role, work study or otherwise
- **Has disability:** For both community college and UC students, this subgroup is based on an indicator for having a disability in college administrative data, and may not be inclusive of all students who identify as having a disability. Students with a disability are not subject to the CalFresh [“student \(in\)eligibility rule”](#) and therefore do not need to meet a student exemption to be eligible for CalFresh, so long as they meet the citizenship and income requirements.

Eligibility for CalFresh among college students

CalFresh [eligibility rules](#) for students are complex and generally require them to meet additional criteria relative to non-students. Students must first meet the citizenship requirements and household income limits that apply to CalFresh applicants generally; once these requirements are met, students must qualify for one of a [number of exemptions](#) to be eligible to participate in the program. Examples of exemptions include receiving a Cal Grant A or B, working twenty or more hours a week, having a child under the age of twelve, participating in a campus program to increase employability, receiving CalWORKS, or planning to not enroll in school the following term. For more information, see the eligibility diagram on page 7 in CPL's recent brief:

[Addressing the barriers college students face when accessing CalFresh food benefits.](#)

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This research publication reflects the views of the authors and not necessarily the views of our funders, our staff, our advisory board, the California Community College system, the University of California Office of the President, the California Department of Social Services, the California Student Aid Commission, or the Regents of the University of California.

Endnotes

- 1 SB 77 CalFresh Student Data Report <https://www.cdss.ca.gov/Portals/9/Leg/202006-SB-77-CalFresh-Student-Data-Report.pdf>
- 2 Unrath, M. (2021). [Pushed out by paperwork: Why eligible Californians leave CalFresh](#). Policy Brief, California Policy Lab, University of California, Berkeley.
- 3 See [Appendix](#) for more information on CalFresh eligibility rules for students.
- 4 The population of community college students represented in Table 1 is all students enrolled for at least one term in the 2019–20 academic year. This population differs slightly from those included in the California Community College Chancellor's Office Data Mart system, which excludes certain students based on headcount status. See https://datamart.cccco.edu/Students/Student_Term_Annual_Count.aspx for more information.
- 5 Receiving certain types of Cal Grants exempts students from the "student (in)eligibility rule" that restricts their eligibility for CalFresh. See [Appendix](#) for more detail on CalFresh student eligibility rules.