



CalFresh Participation Among California’s College Students: A 2020–21 School Year Update

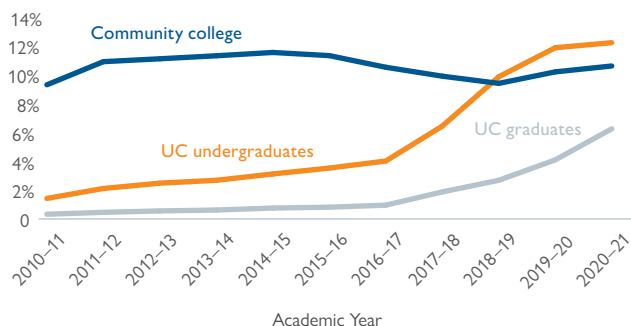
ALAN PEREZ, SARAH HOOVER, JAMILA HENDERSON, JENNIFER HOGG, JOHANNA LACOE, AND JESSE ROTHSTEIN

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. To better measure student participation in CalFresh, the California Policy Lab (CPL) partners 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). Through this partnership, CPL has created a [linked database](#) of student-level administrative data on college enrollment, financial aid, and CalFresh participation that makes this analysis possible.

This data point provides estimates of CalFresh participation rates among community college and University of California (UC) students in California. It updates numbers from our first [data point](#), which focused on CalFresh enrollment during the 2019–20 school year. **In the academic year 2020–21 (June 2020–May 2021), the first year of the COVID-19 pandemic, 10.6% of CCC students, 12.3% of UC undergraduate students, and 6.3% of UC graduate students participated in CalFresh.** While the share of community college students participating in CalFresh increased slightly since 2019–20, the total number of students participating in the program — approximately 205,000 community college students — represents a decrease of about 21,000 students from the 2019–20 school year due to overall enrollment declines in the community college system. CalFresh participation rates and counts increased for UC undergraduate and graduate students overall, with over 29,000 undergraduates and nearly 4,000 graduate students participating in CalFresh.

This data point does not estimate the share of eligible students who participate (or not) in CalFresh. Eligibility is based on multiple factors including income, household composition, school enrollment status, and financial aid status. In future reports, we will use this linked dataset to show how many likely eligible college students are participating in CalFresh.

FIGURE 1. CalFresh participation rates among college students, 2010–11 to 2020–21



Rate of CalFresh participation among college students

Tables 1, 2, and 3 show estimates for CalFresh participation during the 2020–21 academic year among community college students, UC undergraduate students, and UC graduate students, respectively. In addition to differences across higher education segments, rates of CalFresh participation differed across community college regions, UC campuses, and by student subgroups (see Appendix for subgroup definitions). Specifically:

California community college regions — CalFresh participation was highest in the Central Valley (16.1% of all enrolled students), followed by the Inland Empire (12.3%) and Northern California (11.8%). These three regions are among the highest poverty regions in California.¹ While the overall participation rate among community college students increased slightly from a year before, these three regions saw a decrease — including nearly a 1 percentage point (0.9) decrease in the Central Valley. CalFresh participation rates increased in the San Diego, Bay Area and Greater Los Angeles regions, due in part to declines in the number of students enrolled in these CCCs.

UC Campuses — The San Francisco UC campus has the highest CalFresh participation rate at 33.1% among graduate students. While UC Merced and UC Santa Barbara had the highest rates of CalFresh participation among undergraduates at 20.8% and 18.2%, respectively, these campuses experienced a drop in CalFresh participation from the year before (21.5% and 21.0%).

Student aid — At both the UCs and CCCs, CalFresh participation in AY 2020–21 was higher among students who received financial aid compared to those who didn't. Participation rates were highest among students who received Pell Grants — which are based purely on financial need — and Cal Grants — which can be based on a combination of financial need and academic performance. CalFresh participation also increased among UC students with zero expected family contribution following [eligibility rule changes and outreach efforts](#).

Racial and ethnic groups — CCC students from certain racial and ethnic groups with the highest participation rates in AY 2019-20 saw decreases in AY 2020-21, including students identifying as American Indian/Alaska Native and Black/African American. Among UC undergraduate students, participation rates for all racial and ethnic groups increased slightly or remained constant.

Age groups — CalFresh participation is highest among CCC students 25 to 39 years old. These age groups also experienced an increase in CalFresh participation from the previous year, while the participation rates of other age groups remained largely the same.

TABLE 1. CalFresh participation among California community college students, 2020–2021 academic year

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
All Students*	1,936,787	206,069	10.6
Region			
Northern California	166,448	19,590	11.8
Bay Area	385,834	27,469	7.1
Central Valley	198,779	31,946	16.1
South Central	143,982	12,779	8.9
Greater Los Angeles	701,471	73,828	10.5
Inland Empire	160,750	19,836	12.3
San Diego	178,745	20,621	11.5
Financial Aid Status			
Filed FAFSA	808,031	137,458	17.0
Did not file FAFSA	1,128,756	68,611	6.1
Cal Grant recipient	115,831	34,481	29.8
Pell Grant recipient	357,349	90,573	25.3
Promise Grant recipient	784,575	143,577	18.3
Any financial aid recipient	841,025	148,276	17.6
No financial aid recipient	1,095,762	57,793	5.3
Enrollment type			
First-time students	184,273	25,307	13.7
First-time transfer	149,933	12,824	8.6
Continuing	1,077,093	117,469	10.9
Returning	242,060	27,078	11.2
Special admit	185,909	16,216	8.7
Unknown	97,519	7,175	7.4
Enrolled terms			
Summer only	204,709	14,239	7.0
Fall, winter, and/or spring	1,732,078	191,830	11.1

Table 1 continues on next page

TABLE 1. CalFresh participation among California community college students, 2020–2021 academic year (continued)

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
Race/Ethnicity			
American Indian/Alaska Native	6,525	1,078	16.5
Asian	267,792	17,059	6.4
Black/African American	103,509	24,403	23.6
Hispanic/Latino	897,568	103,716	11.6
Native Hawaiian/Pacific Islander	7,860	789	10.0
White	474,617	43,211	9.1
Two or more races	81,133	9,759	12.0
Unknown	97,783	6,054	6.2
Gender			
Female	1,095,982	141,417	12.9
Male	811,244	61,929	7.6
Non-binary	2,346	364	15.5
Unknown	27,215	2,359	8.7
Other student subgroups			
Educational goal			
ESL/adult education	40,191	2,905	7.2
Short-term career	197,460	20,302	10.3
Degree/transfer seeking	1,138,052	138,269	12.1
Undecided/other	367,910	30,848	8.4
First-generation	454,133	65,032	14.3
Age groups			
19 or less	560,803	54,815	9.8
20–21	303,105	21,722	7.2
22–24	260,667	23,542	9.0
25–29	265,433	35,196	13.3
30–34	166,681	25,963	15.6
35–39	110,300	16,402	14.9
40–49	131,995	15,737	11.9
50 and older	134,487	12,664	9.4

*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 11.4% 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 88.6% of community college students with valid SSNs, the total CalFresh participation rate is 12.0%.

TABLE 2. CalFresh participation among UC undergraduate students, 2020–2021 academic year

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
All Students	238,407	29,236	12.3
Campus			
Berkeley	32,550	3,876	11.9
Davis	32,887	4,861	14.8
Irvine	30,877	2,629	8.5
Los Angeles	33,652	3,306	9.8
Merced	8,061	1,679	20.8
Riverside	23,996	2,271	9.5
San Diego	33,328	4,036	12.1
Santa Barbara	24,721	4,506	18.2
Santa Cruz	18,335	2,072	11.3
Financial Aid Status			
Filed FAFSA	157,037	28,426	18.1
Did not file FAFSA	81,370	810	1.0
Cal Grant recipient	74,564	20,030	26.9
Pell Grant recipient	85,512	23,665	27.7
Any financial aid recipient	139,010	28,211	20.3
No financial aid recipient	99,397	1,025	1.0
UC tenure			
1 year	71,936	6,032	8.4
2 years	64,397	7,476	11.6
3 years	50,727	7,593	15.0
4+ years	51,347	8,135	15.8
Enrollment type			
Transfer students	56,135	6,988	12.4
Community college transfer students	50,983	6,630	13.0

Table 2 continues on next page

TABLE 2. CalFresh participation among UC undergraduate students, 2020–2021 academic year (continued)

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
Race/Ethnicity			
American Indian/Alaska Native	1,116	150	13.4
Asian American/Asian/Pacific Islander	107,447	8,895	8.3
Chinese	48,499	2,559	5.3
East Indian/Pakistani	15,596	618	4.0
Filipino	10,830	1,187	11.0
Japanese	3,567	190	5.3
Korean	9,190	917	10.0
Vietnamese	13,795	2,564	18.6
Other Asian/Pacific Islander	5,970	860	14.4
Black/African American	10,650	2,501	23.5
Hispanic/Latino/Chicano	59,407	12,945	21.8
White/Caucasian	51,588	4,257	8.3
Unknown	8,199	488	6.0
Gender			
Female	128,479	18,933	14.7
Male	108,593	10,178	9.4
Non-binary	223	<100	-
Unknown	1,112	<100	-
Other student subgroups			
Has disability	11,176	2,489	22.3
Foster youth	1,898	678	35.7
First-generation	67,055	17,622	26.3
Not first-generation	114,112	10,506	9.2
Zero expected family contribution (EFC)	49,642	15,517	31.3
UC employment	32,411	7,036	21.7

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

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

TABLE 3. CalFresh participation among UC graduate students, 2020–2021 academic year

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
All Students	62,957	3,946	6.3
Campus			
Berkeley	12,515	448	3.6
Davis	8,214	381	4.6
Irvine	7,108	297	4.2
Los Angeles	13,630	1,047	7.7
Merced	788	<100	-
Riverside	3,988	130	3.3
San Diego	8,273	354	4.3
San Francisco	3,253	1,077	33.1
Santa Barbara	3,093	145	4.7
Santa Cruz	2,095	<100	-
Financial Aid Status			
Filed FAFSA	20,843	3,491	16.7
Did not file FAFSA	42,114	455	1.1
Cal Grant recipient	141	<100	-
Pell Grant recipient	<100	<100	-
Any financial aid recipient	30,385	3,452	11.4
No financial aid recipient	32,572	494	1.5
Race/Ethnicity			
American Indian/Alaska Native	475	<100	-
Asian American/Asian/Pacific Islander	18,174	1,468	8.1
Chinese	8,267	478	5.8
East Indian/Pakistani	3,061	157	5.1
Filipino	1,109	147	13.3
Japanese	925	<100	-
Korean	1,634	154	9.4
Vietnamese	1,520	314	20.7
Other Asian/Pacific Islander	1,658	159	9.6
Black/African American	3,042	444	14.6
Hispanic/Latino/Chicano	7,671	749	9.8
White/Caucasian	20,999	972	4.6
Unknown	12,596	278	2.2

Table 3 continues on next page

TABLE 3. CalFresh participation among UC graduate students, 2020–2021 academic year (continued)

	TOTAL STUDENT COUNT	NUMBER OF STUDENTS ENROLLED IN CALFRESH	% OF STUDENT BODY ENROLLED IN CALFRESH
Gender			
Female	30,429	2,500	8.2
Male	31,973	1,417	4.4
Non-Binary	189	<100	-
Unknown	366	<100	-
Other student subgroups			
Has disability	1,706	206	12.1
Foster youth	<100	<100	-
First-generation	8,399	1,351	16.1
Not first-generation	19,970	2,357	11.8
Zero expected family contribution (EFC)	17,262	2,567	14.9
UC employment	32,130	1,115	3.5

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

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

The Student Supports linked database

The California Policy Lab has produced a cross-institution dataset consisting of records from UC and CCC students, linked to information from Free Application for Federal Student Aid (FAFSA) applications and safety-net program participation. CPL matches encrypted data records from each agency without ever 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:

- a) observe California college students as they begin, progress through, and complete their education;
- b) directly estimate student receipt and take-up of safety-net benefits;
- c) evaluate strategies to increase take-up; and
- d) examine the relationship between receiving safety-net benefits and student success, including persistence in college, progress toward a certificate or degree, and credential completion.

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 also 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.

Acknowledgments

We are especially grateful to 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) for their partnership in making this research possible. This research is supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305A220451 to The Regents of the University of California – Berkeley. This project is also part of the [Accelerating Recovery in Community Colleges \(ARCC\) Network](#). The findings reported herein were performed with the permission of the California Department of Social Services. The opinions and conclusions expressed herein are solely those of the authors and should not be considered as representing the policy of the collaborating department, agency, or any department or agency of the California government.

CPL is also grateful to the University of California Office of the President Multicampus Research Programs and Initiatives, M21PR3278, The James Irvine Foundation, and the Woven Foundation for their generous support. The views expressed are those of the authors and do not necessarily reflect the views of our funders or the departments providing the data. All errors should be attributed to the authors. Jamila Henderson was a Senior Research Associate at the California Policy Lab. She is now the Lead Program Evaluator at AMEND, UCSF.

Endnotes

- 1 U.S. Census Bureau, Small Area Income and Poverty Estimates, 2021

The California Policy Lab generates research insights for government impact. We are an independent, nonpartisan research institute at the University of California with sites at the Berkeley and Los Angeles campuses.

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.

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 college-level unique student identifiers, along with 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 UCs, student records are de-duplicated based on the full set of encrypted PII elements, along with UC-assigned system-wide student ID numbers. For observations without a social security number, the student ID is used to de-duplicate records.

Description of data

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

CCC Chancellor’s Office records for students enrolled in a California community college from academic year (AY) 2010–11 through spring 2021 (AY 2020–21), including information on student demographics, enrollment details, certificate or degree attainment, financial aid awards, and other characteristics pertaining to CalFresh eligibility (such as CalWORKs, 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 2021–22, 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 participation in CalFresh between 2010 to 2022. These data include demographic information, dates of CalFresh participation, benefit amount, and quarterly earnings data. To analyze student CalFresh participation rates, CalFresh monthly participation data was aggregated to the academic term level. Students are considered to be CalFresh participants if they received CalFresh benefits (at any point) 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 2021–22. 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 five 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 at any point during a term (quarter or semester, depending on the school) in which they were also enrolled in college.

Filed a FAFSA: Students who matched to a submitted FAFSA record for the 2020-21 school year 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 CCC. 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 the CCC Chancellor's Office in 2017. For UC students, we define first-generation students as those who reported on any FAFSA from 2017-18 SY to 2020-21 SY that neither parent attended college. Approximately 70% of UC students submitted a FAFSA (76% of undergraduates and 45% of graduates). UC students who did not submit a FAFSA for these school years 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): The expected family contribution is a measure of how much the student and their family is expected to contribute to the cost of the student's education, based on information reported on their FAFSA. Individuals with zero EFC are not expected to contribute financially to the cost of education. 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.

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.