Filling the Gap: CalFresh Eligibility Among University of California and California Community College Students

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CALIFORNIA POLICY LAB

JUNE 2024

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Executive Summary

Food insecurity is widespread among college students in the United States. Food benefits delivered through the CalFresh program, California's version of the federal Supplemental Nutrition Assistance Program (SNAP), can reduce hunger by helping students pay for groceries, but may not reach all eligible students. To date, higher education systems have lacked good estimates of the share of their students who are eligible for CalFresh and the share who actually receive benefits.[1] To address this information gap, the California Policy Lab (CPL) partnered with the California Community College (CCC) Chancellor's Office, 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 database covers all students enrolled at CCC or UC campuses from academic years 2010–11 through 2021–22, along with corresponding FAFSA submissions and CalFresh participation. Using these data, we are able to measure how many college students are likely eligible for CalFresh, and of those how many participate.[2]

CalFresh eligibility does not perfectly overlap with student need. Some students who are food insecure may not be eligible for benefits, while some eligible students may not be in great need. This in part reflects the rules of the program, which are designed to capture need but do not always do so perfectly. We attempt to measure eligibility according to the actual rules. Our estimates complement other work that uses survey data to measure students' basic needs (California Community Colleges League, 2022).

We estimate that in Fall 2019, on the eve of the COVID pandemic, 16% of California community college students (256,000 students), 31% of UC undergraduate students (69,000 students), and 6% of UC graduate students (3,000 students) were likely eligible for CalFresh benefits. However, the majority of these students did not receive benefits — only 30% of eligible community college students, 22% of eligible UC undergraduates, and 29% of eligible UC graduate students were actually enrolled in CalFresh. We emphasize that our eligibility determinations are estimates based on information available in existing data, which imperfectly capture some elements of the CalFresh eligibility determination process. They may somewhat overstate or understate student eligibility. However, extensive investigation led us to conclude that the errors are likely not large and that our estimates are a good approximation of the share of students who would be found eligible under individualized determinations.

1 For a previous effort to assess eligibility rates, see the SB 77 CalFresh Student Data Report https://www.cdss.ca.gov/Portals/9/Leg/202006-SB-77-CalFresh-Student-Data-Report.pdf. This study relied on counts of students qualifying for each student exemption, and was not able to assess overlap among them. Our individual-level data makes this straightforward.

2 The third higher education segment, the California State University, is not included in this study. We hope to add them to future analyses.

As we discuss below, the higher eligibility rate among UC undergraduates as compared to CCC students reflects program rules that make it easier for UC students to qualify than for CCC students with similar resources. We also find differences in eligibility across groups of students within each segment, reflecting both variation in need and program rules. Among both CCC and UC students, Black and Hispanic students, for example, are more likely to be eligible than are White or Asian American students, and students receiving federal, state, or institutional financial aid are much more likely to be eligible than are students not receiving aid. Benefits receipt generally mirrors this, although there are differences across groups in the share of eligible students who receive benefits. The take-up rate, which is the share of eligible students who participate in CalFresh, is higher for Black students (and, at the UC but not at CCCs, Hispanic students) than for White students, and for students on financial aid than for students who are not.

Our report indicates there is much room to improve CalFresh participation among eligible students. Through detailed analyses of the paths to eligibility and of variation in participation rates, we hope to shed light on opportunities for policymakers, higher education administrators, community-based organizations, student groups, and advocates to better connect eligible students to benefits.

KEY FINDINGS

1. The share of CCC students who are eligible for CalFresh benefits was largely stable at around 16–18% from 2017 until the COVID pandemic. It rose temporarily to 23% in Fall 2020, then fell to 19% in Spring 2022.

2. The share of UC undergraduate students who are eligible has also been stable at around 30–35%, and did not change notably during the pandemic. In the most recent term for which data are available (Spring 2022), 38% were eligible.

3. Housing status is a key component of student CalFresh eligibility, because eligibility is based on the total incomes of people living and preparing meals together. A greater share of UC undergraduate students are eligible for CalFresh because more CCC students live with their parents. Another contributing factor to the UC-CCC difference is the Cal Grant college scholarship. The version of the Cal Grant given to UC students qualifies many of them for CalFresh eligibility, but the version given to CCC students does not.

4. Take-up gaps among eligible students persist: In Fall 2019, 30% of eligible CCC students participated in CalFresh, as compared to 22% of eligible UC undergraduate students.

5. The take-up rate among eligible UC undergraduates has grown substantially since 2017, reflecting in part enhanced outreach efforts at UC in this period. The take-up rate for CCC students declined steadily from 2012 through 2018 and has not recovered.

Introduction

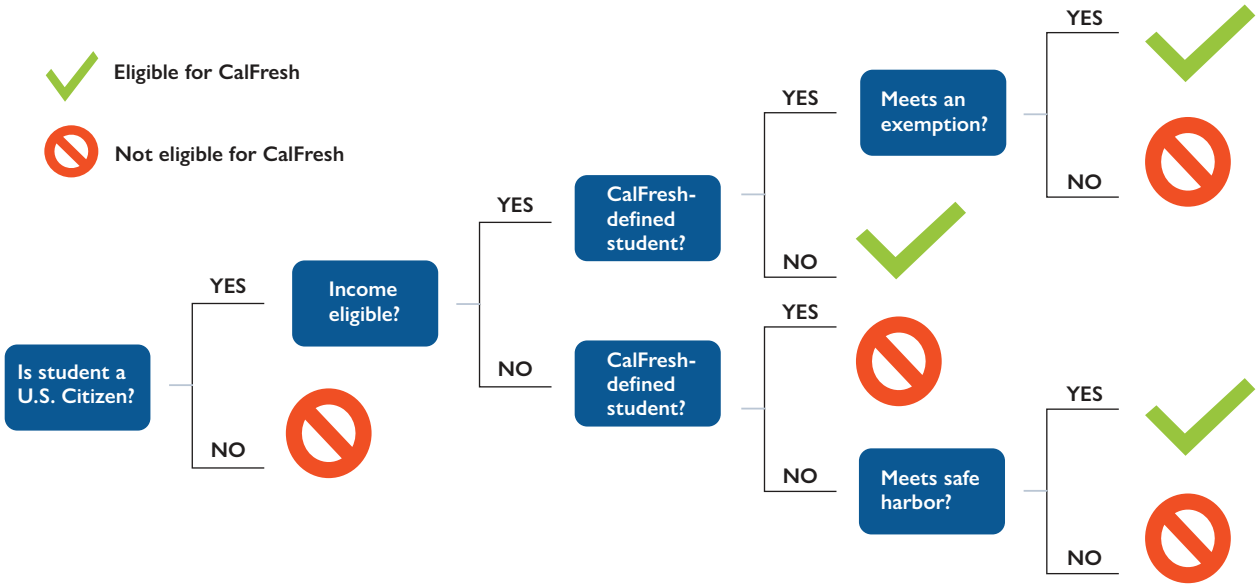
Affordability is a major barrier to college enrollment and completion. Available financial aid is frequently not sufficient to bridge the gap between what students and their families can afford and what it costs to enroll. As a result, many college students experience food insecurity (Goldrick-Rab, Richardson, and Hernandez, 2017; Martinez, Webb, Frongillo, and Ritchie, 2017; Nazmi et al., 2018). This has led policymakers to look to other forms of support that might be available. One candidate is the Supplemental Nutrition Assistance Program (SNAP), known in California as CalFresh. CalFresh serves low-income individuals and families, providing them with monthly grocery vouchers delivered via Electronic Benefit Transfer (EBT) cards. Room and board commonly account for half or more of the total cost of attendance at public colleges,[3] so assistance with this component of student budgets can make a big difference (Nazmi et al., 2023).

Under SNAP eligibility rules, set largely by federal legislation, college students face additional eligibility criteria that do not apply to the general population. The intent is to prevent SNAP benefits going to students who could instead draw on support from their high-income parents, but the effect is to make it challenging for students to navigate the system.

Figure 1 provides a simplified schematic of student eligibility for SNAP benefits. Benefits are generally restricted to U.S. citizens and permanent residents, though there are a few additional categories of immigrants (e.g., crime victims) who are also eligible. Applicants must also meet an income test, roughly requiring family income (after adjustments) below 130% of poverty. The "family" for SNAP purposes differs from that considered for many other programs (including financial aid), and corresponds to a group of people who prepare food together, regardless of relationship. At least in principle, students living in off-campus apartments could apply for SNAP together with their housemates; if those housemates are also students, the group's total income is likely to fall below the threshold.

3 https://admission.universityofcalifornia.edu/tuition-financial-aid/tuition-cost-of-attendance/

FIGURE 1: **Determining college student eligibility for SNAP benefits**



People who are not students and who meet the income test are generally eligible. College students, however, must also satisfy one of an enumerated list of exemptions, such as being the parent of a young child or receiving support from the Temporary Assistance for Needy Families (TANF) or state or federal work study programs. These are enumerated in Figure 2. Common exemptions for California college students include the receipt of a Cal Grant that covers the student's tuition and is funded with TANF dollars (common at the UC but not at CCCs) and participation in programs known as Extended Opportunity Programs and Services that serve disadvantaged students.

The need for an exemption applies only to those covered by the SNAP student rules (referred to in Figure 1 as "CalFresh-defined students"). College students who are younger than 18, older than 49, or enrolled less than half time are not considered to be students for the purposes of SNAP eligibility, and do not need to have such an exemption. Last, the rules provide for a few safe harbors that enable individuals to qualify even if they do not meet the income requirements — for example, disabled individuals can qualify with higher incomes — but these do not apply to CalFresh-defined students.

These criteria — particularly the specific list of exemptions — have evolved over time, and Appendix A summarizes how student eligibility criteria have changed since 2010. There were particularly important changes during the COVID-19 emergency. Beginning in 2021, two new temporary exemptions were added. One of these was for students whose financial aid calculations yield a $0 Expected Family Contribution (EFC). This is both a relatively easy exemption to understand and a significant broadening of eligibility to students who would not have been covered by other rules. The other new exemption was for students who were eligible for work study funds but not working at work study

FIGURE 2: **Student exemptions for CalFresh (2017-2021)**

- Recipient of Cal Grant A or B (TANF-funded)
- Working 20 hours per week on average (total of 80 hours per month)
- Enrolled in CalWORKs
- Eligible[1] or approved for State or Federal Work Study and anticipate working during term
- Is a parent and either:
  - A student who is exerting parental control for a child under 6 or for a child between 6–12 and where adequate childcare is not available OR
  - A student who is a single parent with a child under 12 (who is their dependent)
- Enrolled in a local program to increase employability (LPIE) approved by California Department of Social Services
- Enrolled in one of a set of state or federal programs for foster youth
- Enrolled in one of a set of state or federal programs to increase employability
- Enrolled in Extended Opportunity Programs and Services (EOPS)
- Does not plan to re-enroll for the next school term
- Has an Expected Family Contribution of $0 on Free Application for Federal Student Aid (FAFSA) (expired)

Note: Figure 2 reflects student exemptions for CalFresh (2017-2021). We incorporate changes in student exemptions over time in our eligibility estimates. See Appendix A for details about how student eligibility criteria have changed over time. [1]These temporary exemptions were put in place by the Federal Consolidated Appropriations Act of 2021 and ended in Spring 2023.

jobs (many of which were cancelled due to the pandemic). In addition, the size of SNAP benefits was increased substantially through emergency allotments. These pandemic-era policies ended in spring 2023 with the end of the federal state of emergency.

Simply being eligible does not ensure that a student actually receives benefits. A student must know about the program and submit an application, then have their eligibility assessed by a caseworker. The SNAP participation rate among all eligible families in the U.S. is around 82%, and in California it is just 70%. Students may be particularly unlikely to participate, given the complexity of the rules surrounding them (Goldrick-Rab et al., 2017). However, California has prioritized student enrollment in SNAP (called CalFresh in California) in recent years, and has worked to better connect eligible students to benefits and to expand eligibility where possible. In the last few years, the State has provided funding for county human services agency liaisons to increase campus-county collaboration (Assembly Bill 1326), required colleges to provide information on CalFresh as part of their new student orientation (AB 543), mandated a uniform template for colleges to use to notify students of their eligibility for CalFresh (SB 20), funded basic needs centers at community colleges (SB 129), and expanded the set of programs that count toward the "local programs to increase employability" exemption (AB 396).

The new outreach efforts have been hampered by a lack of understanding of just how many students are eligible for CalFresh benefits, what their characteristics are, and how big the take-up gap is. It is widely believed that there are large numbers of students who could qualify, and to whom outreach and information campaigns might be targeted, but we lack good estimates. No single agency has information about all of the components of eligibility for students who have not yet applied for benefits.

To fill that gap, the California Policy Lab, a research center at the University of California, has developed an unprecedented partnership with four California agencies:

- California Community College (CCC) Chancellor's Office
- University of California Office of the President (UCOP)
- California Student Aid Commission (CSAC)
- California Department of Social Services (CDSS).

All four have contributed data to create a unique new data system that links student academic records from the two higher education systems from academic years 2010–11 through 2021–22 to financial aid applications (FAFSAs) from CSAC and CalFresh participation records from CDSS. All data are de-identified by the partner agencies and then analyzed in a secure computing environment that ensures privacy of student and CalFresh participation data (see Appendix C for details).

CPL has linked these data and used them to generate the first ever estimates of CalFresh participation and eligibility rates for California college students.[4] Participation estimates — the share of students at the two higher education segments who participate in CalFresh — were reported in earlier analyses (Castellanos et al., (2022a), Perez et al., (2024a), Perez et al., (2024b)). This report presents estimates of eligibility — the share of enrolled students who could qualify for CalFresh benefits if they apply — and of take-up, the share of eligible students who actually participate. To our knowledge, these are the first estimates of the share of California students at the two higher education systems who are eligible for CalFresh. While data limitations mean that we are not able to perfectly determine eligibility at the individual level, we think that our estimates give a good guide to the number of students who would potentially benefit from (or respond to) enhanced outreach and recruitment efforts.

4 In common parlance, people "enroll" in CalFresh. This creates confusion when discussing students, who also enroll in school. We adopt the convention that students "participate" in CalFresh. Similarly, we use "CalFresh students" to identify college students who would be covered by the specific eligibility rules for students discussed above, and "CalFresh non-students" for those who, though enrolled in college, would not be covered by the CalFresh student rules.

Methodology and Limitations

Our dataset covers nearly all students enrolled at the University of California or any of the California Community Colleges between academic years 2010–11 and 2021–22.[5] Each student is followed longitudinally, and is linked at the individual level to monthly CalFresh participation records and to annual FAFSAs, where available. Data were linked using an innovative privacy-preserving linkage technique that avoids the need for data partners to share any personally identifying information. This technique is described in Appendix C.

We used the linked data to assess each student's potential eligibility for CalFresh benefits. Most students in our sample have not applied for CalFresh, and have not submitted the detailed information that a caseworker would use to assess eligibility. We can only approximate the eligibility criteria with the data that we do have available. These data lack information on several key aspects of the eligibility determination. As a consequence, our eligibility assessments are imperfect. They cannot, and are not intended to, support determinations of individual students' eligibility, which they will sometimes get wrong (in both directions). After extensive analyses, however, we are confident that our estimates are reasonably accurate for the purpose of measuring overall eligibility rates. We attempt to be transparent throughout about the limitations of our analysis and their consequences for our conclusions.

Figure 1 indicates that student eligibility depends on five main factors:

1. **Citizenship:** Is the student a U.S. citizen or eligible non-citizen (e.g., legal permanent resident)?
2. **Income eligibility:** Does the student's household have income below the net income and gross income thresholds?
3. **CalFresh student status:** Is the individual considered a student for purposes of CalFresh eligibility?
4. **Student exemptions:** If considered a CalFresh student, does the student qualify for one of the student exemptions?
5. **Safe harbors:** If a student does not meet the income eligibility criteria and is not considered a CalFresh student, do they satisfy any of the other criteria that might make them eligible or change the eligibility criteria (such as being elderly or disabled or receiving other safety-net benefits)?

5 The dataset used for this analysis does not include undocumented students.

Appendix B discusses how we approximate each of these decisions and the data elements that contribute to each. Several important limitations merit discussion here:

- **Income information.** Our assessment of income eligibility draws information about students' income, and in many cases their parents' and/or spouses' income, from the Free Application for Federal Student Aid (FAFSA). Not all students complete the FAFSA. We are unable to assess eligibility for most non-FAFSA-filers, and therefore we assume that they are ineligible. We think this is likely to be a reasonably accurate approximation for UC undergraduates, because in that system most low- and moderate-income students apply for financial aid. At CCCs, however, there may be low-income students who, for various reasons, do not complete FAFSAs.[6] This may lead us to understate eligibility among CCC students. We also expect that we understate eligibility among UC graduate students, who may not complete FAFSAs because they are funded through other means, such as graduate fellowships or assistantships. Starting in the 2022–2023 school year, all local education agencies in California must confirm that all high school seniors have completed a FAFSA, so the scope of this limitation (at least as it applies to undergraduates) should diminish in future analyses.[7]

- **Income concepts.** CalFresh eligibility is based on monthly income, with specific definitions about what sources of income count.[8] FAFSAs report annual income, retrospectively, and definitions do not align perfectly with CalFresh. Our eligibility estimates use the Adjusted Gross Income from the FAFSA as a proxy for CalFresh income, and assume that annual income is spread evenly throughout the year. More importantly, we sometimes use income information from a different year if a student did not file a FAFSA in the year in question.[9] This is necessary to assess eligibility in a large share of cases — because FAFSAs are retroactive, there will typically not be a FAFSA covering a student's final two years in school. While we find that income is fairly stable over time for the students in our database, there are likely some students who are mis-categorized in a particular year.

6 For example, community colleges have much smaller financial aid budgets and are not able to meet all student need, so students may not think they will be eligible for aid; CCC fees are comparatively low, so students may not feel a need to apply for aid; and some CCC students apply for fee waivers via the PROMISE grant application in lieu of filing a FAFSA.

7 Education Code Section 51225.7. Requirement includes completion of a FAFSA or a California Dream Act Application (CADAA).

8 For example, educational assistance (grants, loans, work study payments), dependent care, child support, and medical expenses are excluded from eligible income.

9 Financial aid offers for the 2022–23 academic year are based on FAFSAs that are submitted in the 2021–22 year, which contain information about student and parent income in 2020. This means that students will typically not file FAFSAs reporting income in their last two years of college.

- **Family structure.** CalFresh applicants apply as households, based on the combined income of all members of the household. The household definition for CalFresh is different than for other programs (including financial aid): a CalFresh household is defined as a group that shares groceries and prepares food together. Neither student enrollment records nor FAFSAs identify the group with which a student prepares food. We define potential CalFresh households based on students' stated living arrangements. For students under age 22 who are living with their parents, we assume that they remain in their parents' household for CalFresh eligibility purposes. When students are 22 or older or when they live in dormitories or in off-campus housing, we assume that the CalFresh unit consists only of the student and their spouse and children (if present).[10] While in principle students in apartments might apply with their roommates, we are unable to capture this. Similarly, while older students living in multi-generational households might prepare food with their parents, we assume they apply separately for CalFresh benefits.

- **Exemptions.** Defining which students qualify for exemptions that enable those covered by the CalFresh student rules to qualify for benefits is extremely difficult. The exemptions are numerous, detailed, complex, change frequently, and depend on information that is not always captured in our data. A recent qualitative study illustrated the challenges county case workers face in determining student eligibility, and variation in administration between counties (Martinez et al, 2023). We lack much of the information that caseworkers would use to make their assessments, and are therefore unable to identify some of the exemptions for which students might qualify, and in other cases can identify them only imperfectly. For example, in recent years both students who receive federal or state work study financial aid and students who are potentially eligible for work study but not receiving it qualify for exemptions. We are able to observe work study receipt, but not eligibility or awards, so cannot credit eligible non-recipients with this exemption.

We have conducted extensive analyses of these and other components of our eligibility determination in order to gauge the magnitude of the errors that they introduce. Most importantly, we look for evidence that there are large groups of students who are actually participating in CalFresh who do not appear to be eligible for benefits based on our calculations, as this would tend to indicate that our estimates are under-inclusive. We present some of these results in the Results Section (Figure 5), and others in Appendix D.

10 Students with meal plans covering half or more of their meals are ineligible, but we are unable to observe meal plan status and therefore do not incorporate this rule in our eligibility determinations.

Results

Main Eligibility & Take-up Estimates

Table 1 presents our main eligibility estimates. We focus on Fall 2019, the last full term before the COVID pandemic. Among all students enrolled in community colleges in that term, we estimate that 16% were eligible for CalFresh. Among UC undergraduates, 31% were eligible, and among UC graduate students, 6% were eligible. While it may be surprising that eligibility is so much higher among UC undergraduates than among California community college students, who tend to come from lower-income families, we show that this is a natural consequence of the way eligibility is computed for students, which tends to favor UC relative to CCC students.

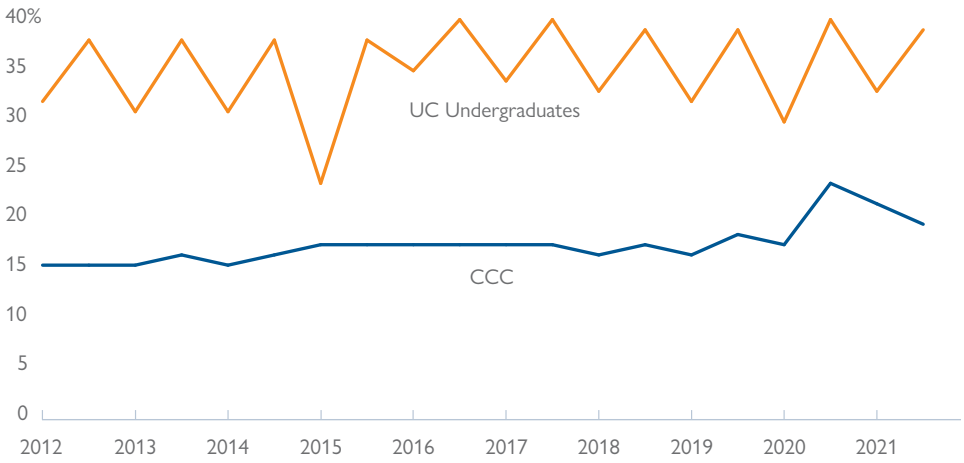
TABLE 1. CalFresh eligibility among California community college students and University of California students, Fall 2019

	NUMBER OF STUDENTS ENROLLED (ROUNDED TO NEAREST HUNDRED)	NUMBER ELIGIBLE FOR CALFRESH (ROUNDED TO NEAREST HUNDRED)	SHARE ELIGIBLE
California Community Colleges	1,586,500	256,300	16%
University of California			
Undergraduate students	221,700	68,700	31%
Graduate students	59,100	3,400	6%

Figure 3 shows how these eligibility rates have evolved over time, for community college students and UC undergraduates. Our calculations here account for changes in the eligibility rules, such as the expansions of student exemptions in 2021 discussed above. (We delve deeper into those 2021 expansions in Appendix E.) We see a clear sawtooth pattern among UC undergraduates, rising each Spring and falling each Fall. This reflects the "last term" exemption, which makes many UC students newly eligible in the spring semester of their senior years.[11] There is no such sawtooth for CCC students, whose seasonal enrollment patterns are less consistent. There is a slight upward trend in eligibility rates over time, particular at the CCCs and during the COVID pandemic, but overall the picture is one of stability.

11 College students are exempt from the student rule if they do not expect to be enrolled in the next term. In addition, there is a particularly sharp decline in eligibility in Fall 2015, driven by a decline in the number of students with TANF-funded Cal Grants in that term.

FIGURE 3. CalFresh eligibility rates among California Community College students and University of California undergraduate students, 2012 - 2021



Note: Eligibility rates are shown for Fall and Spring terms (Summer and Winter terms are not shown). Academic years are indicated by the calendar year of the Fall term. Thus, for example, the point for 2012 corresponds to Fall 2012; Spring 2013 is shown as 2012.5. We cannot identify TANF-funded Cal Grants in 2011–12; because these are a common route to exemption for UC students, we do not report UC eligibility rates in that year.

Table 2 presents estimates of the share of apparently eligible students who participated in CalFresh in Fall 2019. We count a student as participating if they received benefits in any month of the term. We find that 30% of eligible community college students received benefits. At UC, 22% of eligible undergraduates and 29% of eligible graduate students received benefits.[12] This means, of course, that over two-thirds of potentially eligible students in each category did not receive benefits.

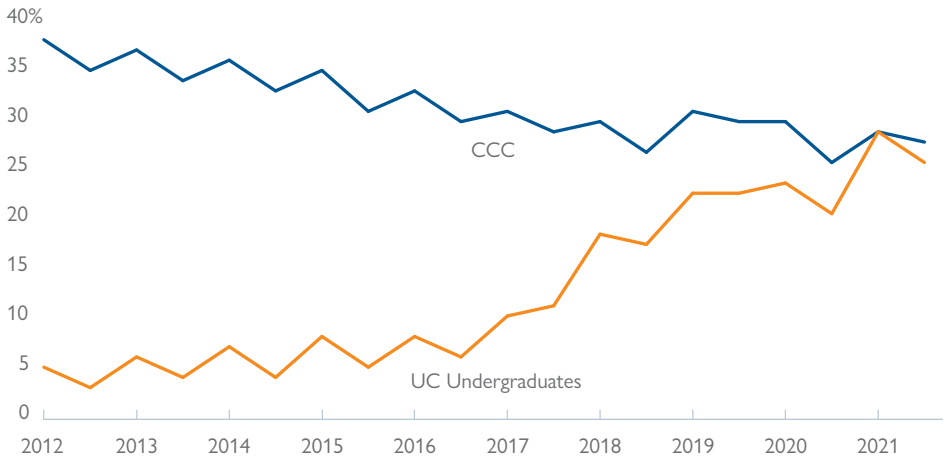
TABLE 2. CalFresh participation among eligible students, Fall 2019

	NUMBER OF ELIGIBLE STUDENTS (ROUNDED TO NEAREST HUNDRED)	SHARE PARTICIPATING IN CALFRESH
California Community Colleges	256,300	30%
University of California		
Undergraduate students	68,700	22%
Graduate students	3,400	29%

12 We have separately published estimates of participation rates in CalFresh among CCC and UC students. These take-up rates are for the subset of students who appear to be *eligible* for CalFresh benefits, so are necessarily much higher than those for all students. The all-student participation rate is somewhat higher than the product of the eligibility rate and the participation rate among eligible students, however, because we observe some students participating in benefits who do not appear to be eligible. Those students are counted in the all-student participation rate but not in the eligible student participation rate.

Figure 4 shows how the participation rate among eligible undergraduate students has evolved over time. At community colleges, the take-up rate was around 35% in 2011–12, but has fallen steadily since, to below 30%. Among UC undergraduates, the take-up rate was just 5% in 2012 but rose sharply beginning in 2017, to near parity with the CCCs. One factor affecting trends in participation rates between the segments may be increased presence and capacity of campus basic needs units at the University of California.[13] The UC campuses opened these formalized supports between 2013 and 2015, just before the increase in take-up began.

FIGURE 4. CalFresh participation rates among eligible California Community College students and University of California undergraduate students, 2012 - 2021



Note: Eligibility rates are shown for Fall and Spring terms (Summer and Winter terms are not shown). Academic years are indicated by the calendar year of the Fall term. Thus, for example, the point for 2012 corresponds to Fall 2012; Spring 2013 is shown as 2012.5.

What drives eligibility and ineligibility?

In this section, we explore the factors that lead us to conclude that students are eligible or ineligible for CalFresh. We focus on community college students and UC undergraduates; see Appendix F for information on UC graduate students.

Figures 5 and 6 show how we move from the full population of students to the eligible subpopulation. We do not have enough information to assess income eligibility for 40% of CCC students and 22% of UC undergraduate students because

13 Based on conversations with college staff in 2022, most UC campuses have 1–2 full-time equivalent staff (FTEs) dedicated to CalFresh outreach. Nearly all rely heavily on student staff, with an average of ten part-time student staff working on CalFresh outreach and application assistance, along with additional student staff who focus on other food security initiatives like the food pantry. CCCs typically have 1–2 basic needs staff who cover the entire portfolio, with a smaller number of student staff or volunteers. There are also several CCC campuses that did not have any dedicated basic needs staff at the time of our conversations. AB 132 requires all CCC campuses to have a Basic Needs Office as of July 1, 2022, and will provide $100 million in additional funding for all CCCs to grow their basic needs capacity.

these students did not file FAFSAs in any year between 2016–17 and 2022–23, and did not receive CalWORKs benefits. (We treat CalWORKs participants as presumptively income eligible, even if they do not file FAFSAs.) These students are shown in row 2 of Figures 5 and 6; we assume that they are all ineligible.

It is possible that some non-FAFSA-filing, non-CalWORKs students are in fact eligible. However, the CalFresh participation rate among these students is just 4% at CCCs and less than 1% at UCs (Appendix D). These low participation rates suggest that relatively few are in fact CalFresh eligible.[14] Nevertheless, our inability to observe low-income students who do not file FAFSAs means we are likely underestimating eligibility somewhat, particularly at the CCCs.

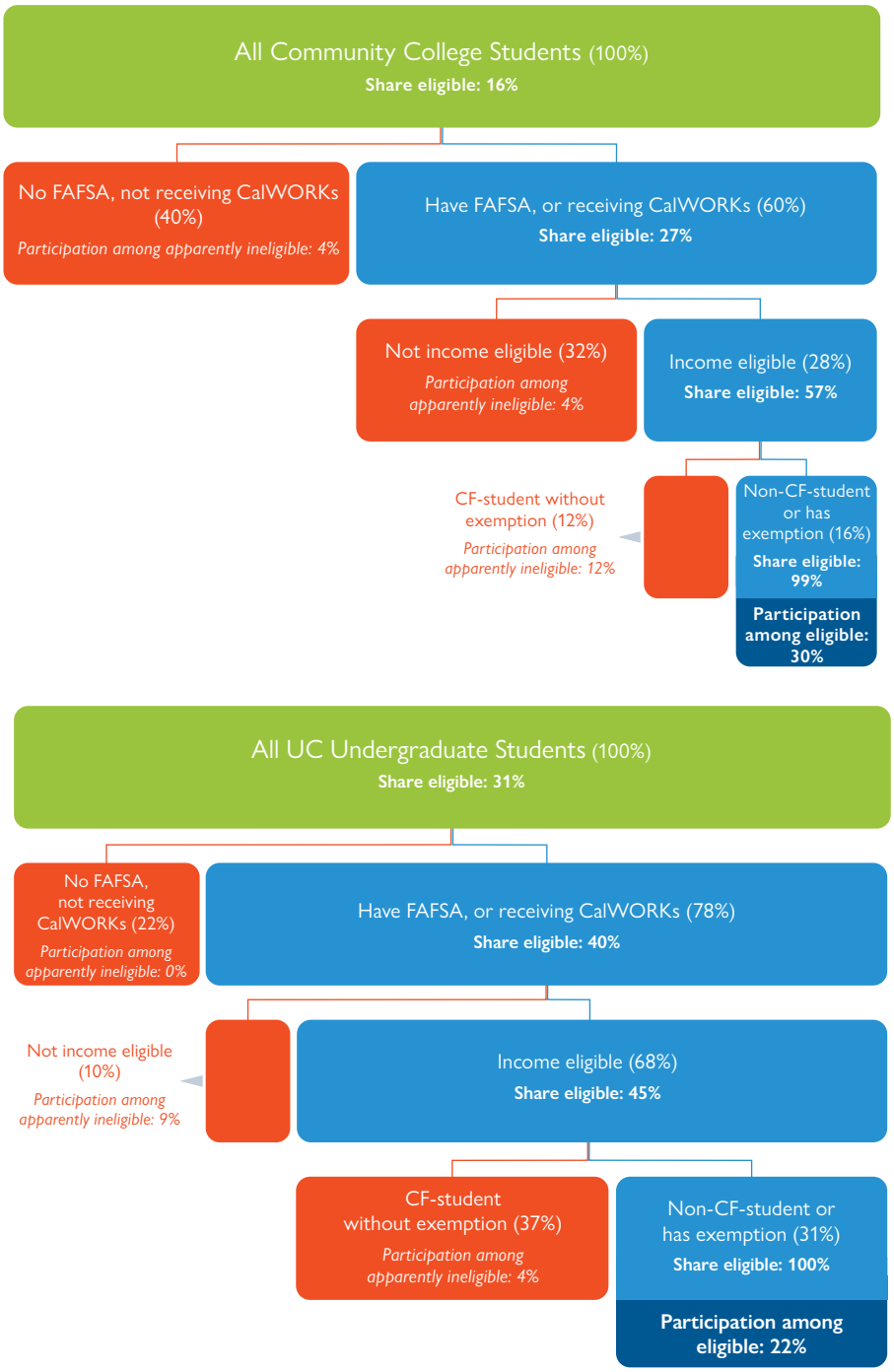
The next step of our process is income eligibility (row 3 of Figures 5 and 6). We find that 32% of CCC students and 10% of UC undergraduate students have FAFSAs that show income above the CalFresh threshold. We return to discuss this surprisingly large discrepancy later; it reflects the fact that, although UC students tend to come from higher-income families than CCC students, many more CCC students than UC students live with their parents, and this tends to reduce income eligibility under CalFresh rules. Moreover, exemption rules also favor UC students, particularly those with Cal Grants.

We conclude that 28% of CCC students and 68% of UC undergraduate students meet the income requirements for CalFresh. However, about two-fifths of the income-eligible CCC students (or 12% of all CCC students) meet the CalFresh student definition but lack apparent exemptions, so we assess them as ineligible for CalFresh (row 4 of Figure 5). We find that 12% of this group in fact receives CalFresh benefits, which we interpret as a reflection of limits in our ability to measure all exemptions that students use. The remaining three-fifths of the income-eligible CCC students — 16% of all students — either have exemptions or do not need them because they do not meet the definition of CalFresh students (largely because they are enrolled less than half time). These students are apparently eligible for CalFresh, and as noted above, 30% of them participate.

At UCs, less than half of income-eligible students appear to be eligible for CalFresh, and 22% of them participate (row 4 of Figure 6). Among CalFresh students with no apparent exemptions (who we conclude are ineligible), the participation rate is only 4%, so we are less concerned that we are missing large numbers of exemptions in the UC population.

14 Insofar as non-FAFSA-filing is indicative of a general unwillingness or lack of understanding about how to apply for government benefits, this inference may be incorrect. But recall that these students have successfully enrolled in college. Moreover, even if they are income eligible, many student exemptions still require applications of one form or another.

FIGURE 5. Flow of CalFresh eligibility and ineligibility reasons for California Community College students and University of California undergraduate students



Note: Numbers in parentheses are shares of the population total. The figures reflect the application of the eligibility criteria to the analytic sample.

For example, let's locate a hypothetical community college student on Figure 5. This student filed a FAFSA, so they are part of the 60% of students for whom we have evidence of a FAFSA or who are receiving CalWORKs (row 2). Their FAFSA indicates that their income is below the CalFresh income limit, so they are part of the 28% of community college students who are income eligible for CalFresh (row 3). Further, this student is a single parent responsible for a child under the age of 12 (one of the CalFresh exemptions), so they are part of the 16% of all community college students who is eligible for CalFresh (row 4). This student participates in CalFresh, so they are also part of the 30% of eligible students participating. Because this student is eligible, they are also part of the 27% of FAFSA-filers who are eligible for CalFresh, the 57% of income-eligible students we ultimately find to be eligible, and the 99% of income-eligible students with exemptions we estimate are eligible.

This analysis suggests that the income test is a major barrier to eligibility for CCC students, and that exemptions are more often the barrier for UC students. Our next two tables dig more deeply into these two components of eligibility. We begin by examining students' living situations, in Table 3. Here, we limit to a subsample of students for whom we are most confident of their living arrangements due to having FAFSAs covering the appropriate year. (As we discuss above and in Appendix D we sometimes rely on FAFSAs from other years to measure housing situations, but this may introduce some error.) Community college students are about evenly divided between living with their parents and living off campus, with relatively few living in dormitories.[15] The eligibility rate is much lower for CCC students living with their parents, reflecting the inclusion of parental income in our eligibility analysis for these students. By contrast, only 8% of UC students in this subsample live with their parents. Eligibility rates for each living situation are only slightly higher at UC than at community colleges, but the distribution of students across the three living situations differs. We explore the UC-CCC difference more fully below, confirming the finding here that housing arrangements are a major component of the difference in CalFresh eligibility rates.

15 Currently, only 10 CCCs have dormitories, and availability is very limited.

TABLE 3. The role of housing status in determining CalFresh eligibility among California Community College students and University of California undergraduate students

	COMMUNITY COLLEGES			UC UNDERGRADUATES		
	SHARE OF STUDENTS	ELIGIBILITY RATE	TAKE-UP RATE AMONG ELIGIBLE	SHARE OF STUDENTS	ELIGIBILITY RATE	TAKE-UP RATE AMONG ELIGIBLE
Overall	100%	29%	34%	100%	45%	22%
On campus	2%	41%	35%	58%	48%	18%
Off campus	48%	36%	41%	34%	44%	30%
With parents	49%	22%	23%	8%	26%	12%

Note: The sample for this table is limited to students for whom we are confident of their living arrangements due to having FAFSAs covering the appropriate year. As a result of this narrowing of the sample, the overall eligibility rates are different than the overall eligibility rates reported earlier in the report.

Among enrolled students who are income eligible, we estimate that 69% of CCC students and 93% of UC students meet the CalFresh student definition, and therefore need an exemption in order to qualify for benefits. The difference here largely reflects the much larger share of part-time students at CCCs. Table 4 shows the exemptions that CalFresh-defined students have. These categories are not mutually exclusive, so some students may be in multiple categories.[16]

About 40% of income-eligible CalFresh students at CCCs have exemptions. The largest categories are Extended Opportunity Programs and Services (EOPS) (15%) and students in their last term of enrollment (13%).[17,18] We are able to identify just 0.1% of students as participating in Local Programs that Increase Employability (LPIEs), an area of substantial recent policy focus — this share may change as more programs are classified as LPIEs and the CCC data system is extended to better capture these programs.[19]

Column 3 shows the share of community college students with each exemption category who participate in CalFresh. Among students with a CalWORKs exemption, 95% receive CalFresh benefits as well — perhaps unsurprising, as these students are already navigating the safety-net program bureaucracy.

16 We count students participating in Disabled Students Programs & Services (DSPS) as having an exemption though under CalFresh rules some might be considered non-CalFresh students and therefore not require an exemption.

17 Extended Opportunity Programs and Services (EOPS) are academic and support counseling to support academic success among students who are disadvantaged by social, economic, educational or linguistic barriers. Local Programs that Increase Employability (LPIEs) are employment and training programs operated by a state or local government that have one or more components equivalent to a CalFresh Employment and Training Component.

18 It's possible that we are undercounting parenting students in the CCC data. The CCC system began systemwide data collection of student parents beginning in 2023–24 and more complete data will be available in the future.

19 In 2022, AB 396 required (or in the case of UC, requested) that campuses apply to CDSS to certify campus-based programs with employment and training elements as LPIEs, where previously this was a county responsibility. At the same time, CDSS removed other state-wide student CalFresh exemptions, such as EOPS and DSPS; now each campus program must apply separately to demonstrate that the program has an employment and training component. These changes have led to dramatic growth in the number of designated LPIEs. Although Table 4 refers to Fall 2019, and thus predates these changes, our eligibility estimates over time (in, e.g., Figure 3) account for the changing landscape. See Appendix A for more detail.

Two-thirds of students we identify as qualifying for the parent exemption (having children and either being categorized by CCC data as single parents or reporting participation in Women, Infants, and Children (WIC) on the FAFSA) receive CalFresh benefits.[20] For most other exemption categories, participation rates are around 30–40%. One exception is the "last term" exemption, where the participation rate is only 23%. We classify students as qualifying for this exemption whenever they are in their final term of enrollment. Unlike the other exemption categories, this is a very temporary status, and students may not be aware that they have become eligible. (Indeed, many may not know until later that this is in fact their last term.)

The right panel of the table shows exemptions for UC undergraduates. We are not able to identify LPIEs or other programs in UC data, so these rows are blank. One-quarter of income-eligible UC students qualify for a Cal Grant exemption, due to receipt of a Cal Grant A or B that covers their tuition. This exemption is largely unavailable to CCC students, as Cal Grants to CCC students are paid as stipends and do not use TANF funds. The EOPS exemption is also large at UC, as at CCCs, with 19% qualifying. There are relatively few UC undergraduates who report having children, just 0.7% of income-eligible students. (Because UC data do not separately identify single parents, we deem all UC student parents to qualify for the parent exemption.) Participation rates for UC undergraduates are a bit lower than for CCC students in most of the exemption categories.[21]

20 Higher education data on student parent status is currently limited, and is the focus of recent advocacy work and proposed legislation (AB 2458).

21 Note that Table 4 shows very few UC students with the "last term" exemption. This is because the Table pertains to the Fall 2019 term. The share with this exemption would be much higher in a Spring term.

TABLE 4. Prevalence of CalFresh exemptions among California Community College students and University of California undergraduate students, Fall 2019

	CCC STUDENTS			UC UNDERGRADUATES		
EXEMPTION	SHARE OF ALL STUDENTS (%)	SHARE OF INCOME ELIGIBLE FAFSA FILERS (%)	CF PARTICIPATION RATE AMONG INCOME-ELIGIBLE (%)	SHARE OF ALL STUDENTS (%)	SHARE OF INCOME ELIGIBLE FAFSA FILERS (%)	CF PARTICIPATION RATE AMONG INCOME-ELIGIBLE (%)
Cal Grant (TANF funded)	0.1	0.2	—	19.7	25.7	27.0
CalWORKs	1.7	4.3	94.8	0.1	0.1	92.0
Work Study	1.1	2.1	44.9	6.3	8.5	35.8
EOPS	8.2	14.6	39.9	14.8	19.1	28.6
Foster Youth Programs	1.4	2.5	37.0	0.1	0.1	—
LPIEs	0.1	0.1	—			
Other	2.1	2.9	44.5			
DSPS	5.3	6.8	32.1	3.8	4.0	21.0
Parent	3.4	6.1	64.1	0.8	0.7	45.5
Last term	13.6	12.7	23.1	2.5	2.3	12.1
None	69.8	61.5	12.2	65.9	57.7	4.3
Total			20.7			12.8

Note: We do not observe participation in LPIEs and Other Programs in the UC data. Cells with a hyphen were not reported due to small cell sizes.

Student characteristics

Table 5 presents estimates of eligibility and take-up across a number of student demographic categories. Black students in both segments are more likely than others to be eligible and, if eligible, to participate; the same is true for Hispanic/Latino/Chicano students at UC, but not at CCCs. Unsurprisingly, students receiving financial aid are more likely to be eligible than non-aid students, and also have higher participation rates when eligible. Two-fifths of CCC students and two-thirds of UC students with zero Expected Family Contribution (indicating high financial need) were eligible. This table, like others in this report, pertains to Fall 2019, and these results reflect the situation prior to the temporary extension of eligibility to zero EFC students without other exemptions in 2021–23. In Spring 2021, the first semester that the new rules took effect, the CalFresh eligibility rate for zero EFC students increased from 41% in the Fall of 2019 to 66% at the CCCs and from 64% to 81% among UC undergraduates.

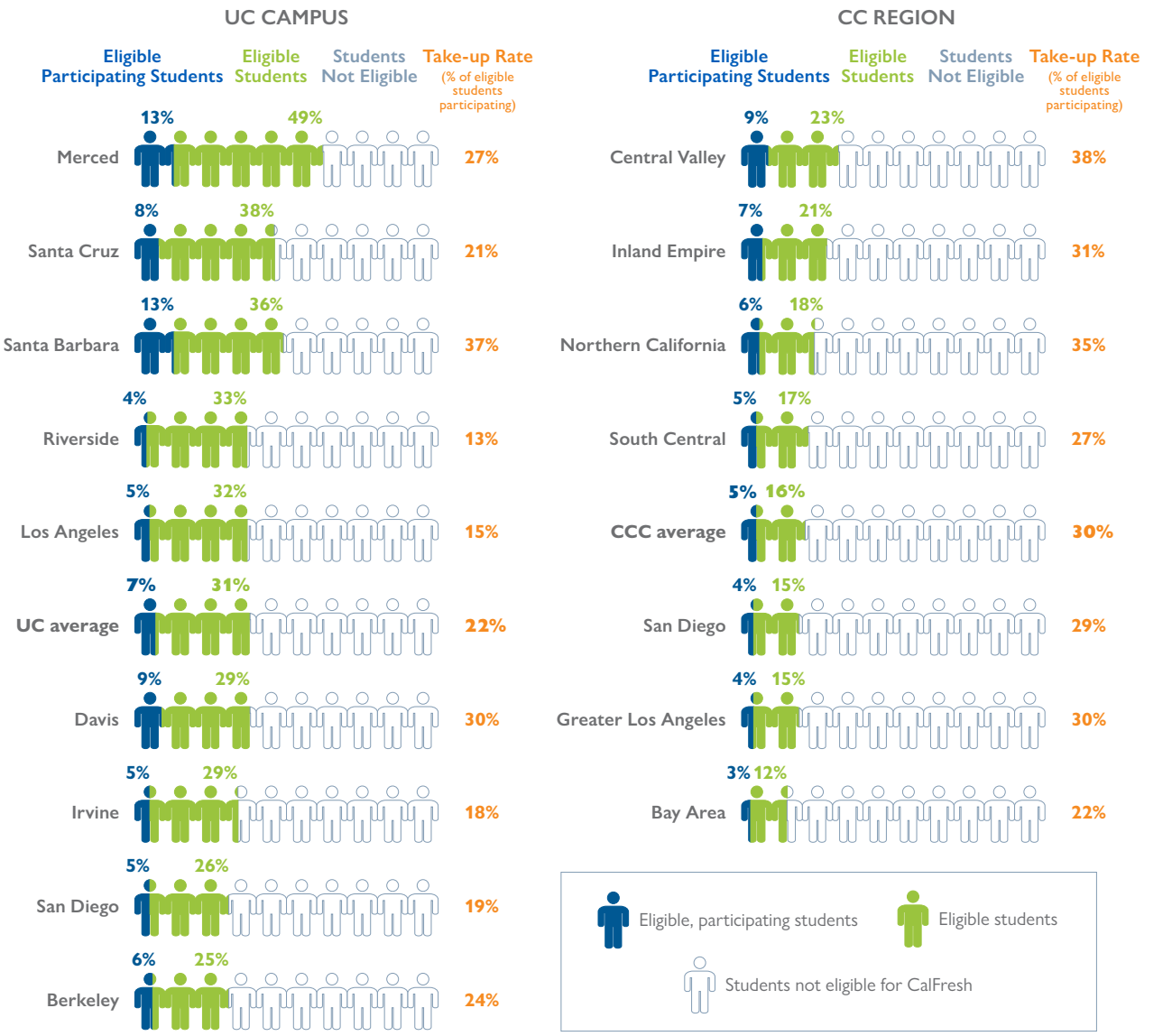
TABLE 5. Student demographics and CalFresh eligibility and participation among California Community College students and University of California undergraduate students, Fall 2019

	COMMUNITY COLLEGES			UC UNDERGRADUATES		
	SHARE OF STUDENTS IN CATEGORY (%)	ELIGIBILITY RATE (%)	TAKE-UP RATE (%)	SHARE OF STUDENTS IN CATEGORY (%)	ELIGIBILITY RATE (%)	TAKE-UP RATE (%)
Overall	100	16	30	100	31	22
Race/Ethnicity						
American Indian/Alaska Native	0	23	43	0	33	0
Asian American/Asian/PI	14	13	19	45	22	20
Black/African American	5	27	50	4	51	26
Hispanic/Latino/Chicano	47	18	28	25	53	26
White/Caucasian	23	14	33	22	22	16
Two or more races	4	19	33			
Unknown	6	9	34	3	17	17
Financial Aid Status						
Not Receiving Aid	53	7	17	36	6	—
Receiving Aid	47	26	34	64	45	24
Pell Grant	22	33	40	37	65	26
Cal Grant (TANF funded)	0	62	20	20	89	26
Zero EFC	24	41	40	21	64	29
Student Type						
First year	26	15	35	26	34	11
Continuing	74	17	30	74	3	26
Admitted as freshman				78	32	22
Admitted as transfer				22	27	23
CF-Defined Student (at least half-time, age 18–49)						
Not CF student	48	18	26	5	70	8
CF student	52	14	35	95	29	24
Dependent Status						
Independent	67	13	41	33	13	27
Dependent	33	22	18	67	40	22
Age Group						
Under 22	45	17	22	83	31	22
22–23	9	21	17	10	30	21
Over 23	45	15	43	6	31	28

Note: We measure race/ethnicity from UC and CCCCO records. UC records do not include a "two or more races" category. Percentages are rounded to the nearest whole percentage point. Cells with 0% have been rounded down, but include enough individuals to not be suppressed. Cells with a hyphen were not reported due to small cell sizes.

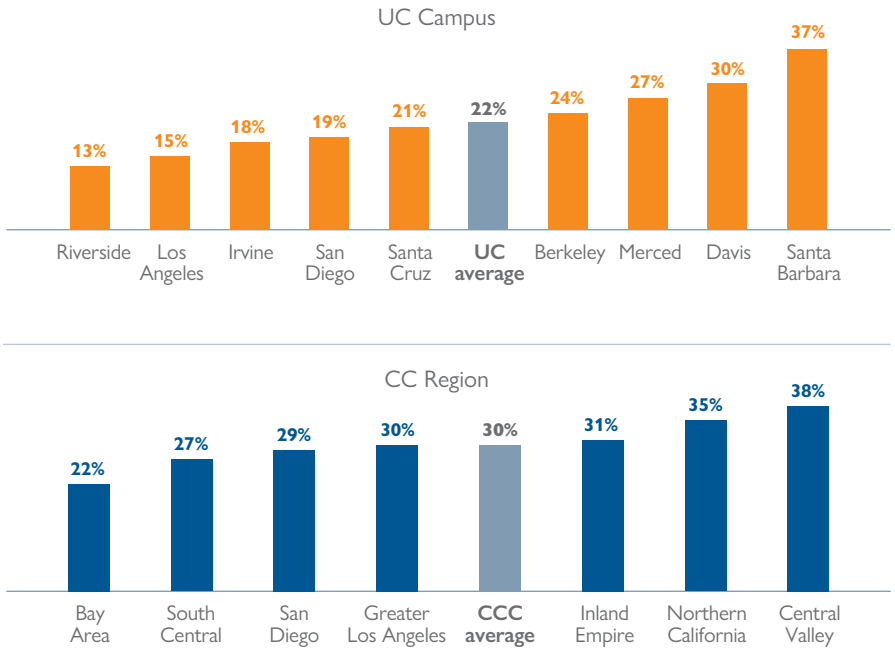
Figures 6A and 6B show eligibility and participation across UC campuses and CCC regions. Across UC campuses, eligibility and participation are notably higher at UC Merced and lower at Berkeley and San Diego, largely reflecting the different socioeconomic status of those campuses' populations (Figure 6A). UC Santa Barbara, and to a lesser extent UC Davis, has much higher take-up than other UC campuses, despite having an eligibility rate near the UC average. Both Santa Barbara and Yolo counties (where Davis is located) have been identified as especially effective at smoothing the CalFresh application process for college students. Across community college regions, the Central Valley has above-average eligibility and take-up, while the Bay Area is low on both dimensions.

FIGURE 6A. Eligibility and take-up rates by UC undergraduate campus and CCC region, Fall 2019



Note: In the figures, the Participation Rate is the product of the Eligibility Rate and the Take-Up Rate. Figure does not show CalFresh participating students who we estimate to be ineligible for benefits; see Perez et al., 2024 for estimates of the total number of participating students, independent of eligibility. The take-up rate is the number of eligible, participating students divided by the number of eligible students.

FIGURE 6B. Take-up rates by UC undergraduate campus and CCC region, Fall 2019



Why is eligibility higher for UC students than for CCC students?

The above analyses indicate that the CalFresh eligibility rate is much higher among UC undergraduates (31%) than among community college students (16%). This is surprising given the demographic composition of the two segments' students — UC students are, on average, much more advantaged than CCC students, and consequently many fewer UC students than CCC students have parents with low incomes reported on their FAFSAs.

What accounts for the discrepancy in eligibility? The issue is that parental income does not always enter into CalFresh eligibility determinations. As noted above, CalFresh eligibility is based on the income of a household unit that prepares food together, so a student who does not live with their parents need not count her parents' income.[22] Table 3 shows that UC students are much less likely than CCC students to live with their parents. For both segments, a substantial majority of students not living with their parents meet the CalFresh income eligibility threshold in our calculations, but the share is much lower among those living with their parents.

22 Students who are under 22 and living with their parents are required to include their parents' income in their CalFresh applications. Students over 22 are not, and we assume that they would be considered for eligibility without their parents.

Two other factors in our eligibility estimates are FAFSA filing and student exemptions. Figures 5 and 6 indicates that a smaller share of CCC students than UC students file FAFSAs, despite the lower average incomes of the former. This reduces the relative eligibility rate of CCC students in our estimates (though, as noted above, this may not perfectly capture actual eligibility). Table 4 indicates that 42% of income-eligible UC students have exemptions, slightly more than the 38% of income-eligible CCC students with exemptions. This is despite the fact that exemptions are meant to identify students likely to be disadvantaged, and income-eligible UC students tend to come from higher-income families than income-eligible CCC students. The difference in exemptions is largely accounted for by the exemption for TANF-funded Cal Grants. Cal Grant payments to cover UC tuition and fees are TANF-funded, but the stipends made available to CCC students are not, and so they do not qualify for the exemption.

To sort out the relative contributions of the different factors, we conduct an exercise meant to answer the question: If UC students were similar to CCC students on selected dimensions (e.g., parental incomes, living situations) but otherwise retained the observed differences in other dimensions (e.g., exemptions), how much smaller would the eligibility gap be? This exercise is known as a "Oaxaca decomposition," and is a common approach to assessing the role of observed characteristics in explaining between-group gaps.

Table 6 reports the results of the exercise. The first rows show the observed eligibility rates in the two segments — first for all students, then for students under age 22 (the great majority of UC students), and then for under-22 students with FAFSAs providing parent income information. In the first two groups the UC eligibility rate is about 15 percentage points higher than among CCC students. When we limit to students with FAFSAs, both segments' eligibility rates increase, but the gap increases very slightly, to 16%. In other words, the difference in estimated eligibility rates between UC and the CCCs is not driven by older, independent students who don't report parental income, nor by non-FAFSA-filing among CCC students — the magnitude of the difference between the segments remains the same when we narrow the sample to exclude both. (This is not to say that including the non-FAFSA CCC students would not increase the CCC eligibility rate — just that this is not the only factor explaining the difference between the segments' eligibility rates.)

The remaining rows of Table 6 report a simulation exercise in which we gradually adjust the UC population from row 3 to have the characteristics of the CCC population. In row 4, we begin with parental income. We adjust the UC parental income distribution to match that seen among CCC students — upweighting students from lower-income families and downweighting those from higher-income families. This indicates that if UC drew from families with the same

incomes as the CCCs, but retained the relationships between parental income and other eligibility determinants (living situation, exemptions) that we see in the actual UC data, its eligibility rate would *rise* to 50%. That is, the gap in eligibility among students with similar family incomes is almost twice as large as it first appeared, a gap that is masked by the higher family incomes of UC students.

The next row considers the role of housing situations. We consider the same three shown in Table 3 — living with parents, living on campus, and living off campus. We again reweight the UC data to match the observed CCC distribution, this time of both parental income and housing situations. In effect, this means dramatically downweighting UC students who live on campus, and upweighting those who live with their parents. This reduces UC eligibility to 30%, eliminating almost three-quarters of the UC-CCC gap from row 5. That is, the difference in housing situations among students with similar parental incomes is the predominant factor in producing higher UC eligibility rates.

Finally, the last row considers exemptions. UC students are more likely than CCC students with the same parental incomes and housing situations to have qualifying exemptions, driven largely by TANF-funded Cal Grants. Adjusting the UC exemption share to match the CCCs shrinks the UC eligibility rate by an additional 14 percentage points, bringing it well below the CCC rate.

TABLE 6. Explaining the difference in CalFresh eligibility between California Community College students and University of California undergraduate students

	CALFRESH ELIGIBILITY RATE			
	COMMUNITY COLLEGES (%)	UCs (ACTUAL) (%)	UCs (SIMULATED COUNTER-FACTUAL) (%)	DIFFERENCE, UC vs. CC (%)
All students	16	31		15
Under age 22	17	31		15
With FAFSAs and parent income	24	40		16
If UC students had characteristics like community college students (students with FAFSAs & parent incomes only)				
Same parental income distribution	24		50	26
+ same housing plan distribution	24		30	7
+ same share with exemptions	24		16	-7

Summing up, Table 6 indicates that two factors play large roles in the higher eligibility rate of UC undergraduates as compared with CCC students: the construction of CalFresh income based on the housing unit, and exemptions. CCC students have lower family incomes, on average, than UC undergraduates. But they are also much more likely to live with their parents, so among students with the same parental income, CCC students are much less likely to be income-eligible under CalFresh rules. CCC students are also less likely to have exemptions than are UC students with similar parental income and housing situations.

To be clear: students living with their parents *can* be income-eligible, but only if the sum of the student's and the parents' incomes is below the CalFresh threshold. There are many students whose own incomes are low but whose parents' incomes are above this threshold; these students can qualify if they do not live with their parents, but not if they do, and the greater likelihood that CCC students will live with their parents is a major contributor to the eligibility gap.[23]

23 This table focuses on students under 22, for whom living situation is an important determinant of eligibility as they must apply to CalFresh with their parents if they live with them. Students over 22 may apply for CalFresh separately, and our eligibility calculations treat them as independent units. Their living situation has less of an impact on their eligibility.

Conclusion

The unprecedented linkage of college enrollment records with CalFresh participation records and FAFSAs has allowed us to investigate college student eligibility more carefully and for a larger population than has previously been possible. Some of our findings — e.g., that students receiving financial aid are more likely to be eligible for CalFresh — will likely not come as a surprise to most readers. Others are more surprising. In particular, our research assigns a larger role to students' housing situations than have past discussions of CalFresh eligibility.

The large take-up gaps among eligible students warrant additional attention. Closing these gaps will require more targeted outreach and addressing the barriers college students face when accessing CalFresh benefits (Chavarin-Rivas, 2021). The fact that take-up has risen so dramatically among UC undergraduates in recent years, as the UC system has been investing in student basic needs and CalFresh outreach, is an indication that campus-based outreach efforts can be effective. Recent legislation funding basic needs centers on community college campuses (AB-132) will expand the capacity of CCCs to connect more eligible students to CalFresh.[24]

These results also point to policy opportunities, at both the state and federal level. The important role of housing status suggests that it may be valuable to adjust the calculation of CalFresh income to better capture student needs. There may also be room to adjust state practices to enable more low-income students to qualify for exemptions. For example, students attending 2-year colleges currently cannot generally receive TANF-funded Cal Grants that qualify for exemptions; CSAC could explore whether TANF dollars could fund Cal Grants for which CCC students are eligible. Another opportunity to expand access would be ensuring that all eligible campus-based programs are registered LPIEs — an effort that is currently under way at the campus and state level. At the federal level, the Enhance Access To SNAP (EATS) Act of 2023 would remove the need for student exemptions altogether. Our research shows that substantially more low-income college students would be eligible for CalFresh were it not for the exemption requirement.

In the coming years, we will continue to update these estimates with additional years of data. These updates will be especially relevant in light of the recent policy changes impacting student eligibility. In particular, they will shed light on how the reduction in average monthly CalFresh amounts and the removal of pandemic-era student exemptions in 2023 have impacted student take-up, and how state- and campus-level efforts to expand eligibility and outreach serve to mitigate these policy changes.

24 A number of organizations and alliances provide resources to expand outreach, including the Center for Healthy Communities at CSU Chico which provides technical assistance; the Benefits Data Trust which provides a toolkit to help higher education leaders find eligible students; and several coalitions to support college students' basic needs, like Real College California and the California Higher Education Basic Needs Alliance.

As we update the estimates, we will continue refining our methodology. We will work to incorporate additional data sources that could improve the precision of our estimates and allow for the inclusion of groups not included in this analysis, such as students who do not file FAFSAs. We also hope to produce estimates for CSU students, pending participation from that system.

Finally, we are working to develop and test outreach strategies that can use the newly linked data created for this project to help identify groups of students likely to respond to outreach. In 2021, we partnered with CSAC and CDSS to test strategies for reaching out to students newly eligible for CalFresh under the temporary pandemic rules. The findings show that repeated outreach, multiple methods (emails and postcards), and simplified messaging increased applications and enrollment in CalFresh (Castellanos et al., 2022; Lasky-Fink et al., 2022).

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 project was made possible through support from the Spencer Foundation and the Institute of Education Sciences, U.S. Department of Education, through Grant R305A220451 to The Regents of the University of California — Berkeley. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education. 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. All errors should be attributed to the authors. Elise Dizon-Ross was a postdoctoral scholar at the California Policy Lab, and is now a Researcher at the Center for Analysis of Longitudinal Data in Education Research, American Institutes for Research. Jamila Henderson was a Senior Research Associate at the California Policy Lab and is now the Lead Program Evaluator at AMEND, UCSF. Anna Doherty was a Research Manager at the California Policy Lab and is now a Director at Nous Group.

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Appendices

We present in these appendices several additional analyses that provide additional context for our investigation and results. Appendix A is a timeline of major SNAP/CalFresh policy changes between 2010 and 2021. Appendix B describes the data used in the analysis, and Appendix C explains the privacy-preserving linkage methodology. Appendix D explores the potential for errors, in either direction, in our assessment of student eligibility — students who are ineligible but who we mis-estimate to be eligible, and students who are eligible who we mis-estimate to be ineligible. We also dive deeper into a particular source of potential error, our use of measures from several different time periods to attempt to assess eligibility at a point in time. Appendix E explores the impact of COVID-era eligibility changes. Appendix F presents results for UC graduate students.

Appendix A: Major SNAP/CalFresh policy changes, 2010–2021

This table shows major changes in the SNAP/CalFresh eligibility rules in our period. This list is not exhaustive, and emphasizes changes relevant to the college student population.

TABLE A1. Tracking changes to SNAP and CalFresh Eligibility rules, 2013 - 2023

YEAR	STUDENT-SPECIFIC	GENERAL POPULATION
2013		Households where all members are elderly or disabled are no longer subject to a gross income limit.[25]
2014		California begins implementing broad-based categorical eligibility, which increases the gross income limit for most families from 130% FPL to 200% FPL.[26]
2015	Extended Opportunity Programs and Services (EOPS) and Workforce Innovation and Opportunity Act (WIOA) are added as student exemptions.[27]	
2017	New student exemptions: • Educational Opportunity Program (EOP) • Disabled Students Programs and Services (DSPS) & Student Academic Services (SAS) • Cooperative Agencies Resources for Education (CARE) Program • McNair Scholars Program (renamed from UC McNair with ACL 17-05E) • Puente Project • Mathematics, Engineering, Science Achievement (MESA) Program • Guardian Scholars Program • Foster Youth Success Initiative (FYSI) • Cooperating Agencies Foster Youth Educational Support (CAFYES) • Chafee Education and Training Voucher (ETV) Program • Extended Foster Care (AB 12/AB 212)[28]	
2018	Unaccompanied Refugee Minors (URM) Program is added as a student exemption.[29]	
2019		Supplemental Security Income (SSI) / State Supplemental Payment (SSP) recipients become eligible for CalFresh (AB 1811).[30]

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26 https://www.cdss.ca.gov/lettersnotices/entres/getinfo/coletters/calfreshmodifiedcategoricaleligibility.pdf

27 https://www.cdss.ca.gov/lettersnotices/entres/getinfo/acl/2015/15-70.pdf

28 https://www.cdss.ca.gov/Portals/9/ACL/2017/17-05.pdf?ver=2019-06-25-134601-210

29 https://www.cdss.ca.gov/Portals/9/ACL/2018/18-27.pdf?ver=2018-04-03-130607-637

30 https://www.cdss.ca.gov/Portals/9/ACL/2018/18-90.pdf?ver=2018-07-31-142643-887

YEAR	STUDENT-SPECIFIC	GENERAL POPULATION
2020	The Puente Program is removed as a student exemption (must now be individually approved as an LPIE).[31]	The federal Families First Coronavirus Response Act increases food benefits in response to COVID-19, raising allotments to the maximum allowable amount based on a household's size.[32]
2021	Federal Consolidated Appropriations Act of 2021 adds two new, temporary pandemic-era student exemptions: students who have an Expected Family Contribution (EFC) of zero dollars, and those who are eligible for federal or state work study.[33] County case workers are no longer required to verify exemptions from the student eligibility rule.[34]	
2022	Under AB 396, the LPIE exemption is altered in the following ways: 1. Institutions of Higher Education, rather than counties, are responsible for submitting LPIE applications to CDSS (this has greatly expanded the number of local programs that qualify as an exemption; from about 500 to 8,000 and counting). 2. Programs at private institutions no longer qualify as LPIEs. 3. Most of the programs that previously automatically qualified as exemptions (e.g., EOPS) must now be assessed on a campus-by-campus basis to qualify as an LPIE exemption. 4. There are now just two programs that exist on multiple campuses that qualify as LPIEs (and therefore individual campuses don't have to submit applications), which are Campus Employment Programs and Research and Teaching Assistantship Programs (doesn't need to be 20 hours/week).[35]	
2023	Temporary COVID-era student exemptions (zero Expected Family Contribution and Work Study) end in June.[36]	COVID-era emergency allotments end in March.[37]

31 https://www.cdss.ca.gov/Portals/9/Additional-Resources/Letters-and-Notices/ACLs/2020/20-34.pdf

32 https://www.cwda.org/sites/main/files/file-attachments/04022020_allotments_acwdl.pdf?1585940171

33 https://www.cdss.ca.gov/Portals/9/Additional-Resources/Letters-and-Notices/ACLs/2021/21-11.pdf

34 https://cdss.ca.gov/Portals/9/Additional-Resources/Letters-and-Notices/ACLs/2021/21-58.pdf?ver=2021-05-21-162533-693

35 https://www.cdss.ca.gov/Portals/9/Additional-Resources/Letters-and-Notices/ACLs/2022/22-46.pdf?ver=2022-06-07-153933-393

36 https://www.cdss.ca.gov/Portals/9/Additional-Resources/Letters-and-Notices/ACINs/2023/I-18_23.pdf?ver=2023-04-27-150303-500

37 https://www.cdss.ca.gov/Portals/9/Additional-Resources/Letters-and-Notices/ACWDL/2023/CL_02-02-23.pdf?ver=2023-02-13-095208-110

Appendix B: Description of data used to determine CalFresh eligibility

Our measures of eligibility are based on the combination of information obtained from enrollment records of the two higher education segments and information from FAFSAs, obtained from CSAC.

Each of these datasets cover the full population of individuals in California that were recorded by the respective agencies in academic years 2010–11 through 2021–22. Table B1 illustrates how data elements map to CalFresh eligibility criteria.

For eligibility criteria that are measured using FAFSA data (provided by CSAC), we pull from different FAFSA years depending on the data element. For example, some questions on the FAFSA reflect students' situation at the time of the application, others pertain to their situation during the academic year for which aid applies, while other questions on the FAFSA reflect information from the past. For this reason, we look at FAFSA submissions across several academic years to estimate CalFresh eligibility in a given academic year.

For example, to estimate income eligibility for CalFresh in AY 2017–18, the FAFSA for AY 2019–20 would have relevant income information (because the AY 2019–20 FAFSA asks for income from the 2017 tax returns). The FAFSA submitted for AY 2017–18 would have the relevant household size for the AY 2017–18 because household size on the FAFSA reflects the year in which aid applies. Lastly, the FAFSA submitted for AY2018–19 would have relevant information on citizenship status in AY 2017–18 because students typically complete FAFSAs for the upcoming year during the prior year, and the FAFSA asks about citizenship at the time of application. We use this approach of looking at FAFSA submissions across several academic years for each of the measures on the FAFSA (e.g., dependent status, marital status, assets, housing situation, etc.) used to estimate CalFresh eligibility. If the ideal FAFSA is unavailable, we look to a FAFSA submitted in an earlier or later academic year.

TABLE B2: Details about data used to determine CalFresh Eligibility

CONCEPT	SOURCE	MEASURE NOTES AND LIMITATIONS
General eligibility determinations		
Citizenship	UC & CCC	We include both citizens and permanent residents.
Size of potential CalFresh case	FAFSA (CSAC) • Housing plans • Number of people in parents' household • Number of people in student's household	Students indicate on the FAFSA whether they plan to live at home, on campus, or off campus, for each school to which the FAFSA is sent. We attempt to use information for the school at which the student is observed enrolled, where available. If housing plans indicate that a student aged 21 or younger will live at home, the student's potential CalFresh case size equals the number of people in the parent's household. If the student plans to live on campus or off campus, or if he or she is 22 or older, it equals the student's household size. Major limitations: • FAFSA may not be available for the appropriate year — we use information from other years if needed. • FAFSA household size questions include spouses and children. They do not include other relatives or unrelated household members (such as roommates), though these may be included in CalFresh cases. Other limitations: • Does not consider that students over 22 living with their parents may prepare food with them, making them ineligible to apply separately.
Gross & net income	FAFSA (CSAC) • Parent adjusted gross income • Student (and spouse) adjusted gross income	If students (age 21 or less) indicate on their FAFSA that they plan to live with their parents (see "size of potential CalFresh case"), we calculate gross income as the sum of the student's (and spouse's) and their parents' adjusted gross income. For students who do not plan to live with their parents, and for all students 22 and older, parent income is not included. We use California's expanded income eligibility ceiling for all students. Net income is calculated as gross income minus 20% of earnings minus the standard deduction (which varies with household size). Major limitations: • FAFSA may not be available for the appropriate year — we use information from other years if needed. Other limitations: • AGI does not align exactly with CalFresh income concept. • SNAP program rules allow for certain additional deductions from net income. These include deductions for dependent care expenses, certain educational expenses, and shelter costs in excess of half of household income. We are unable to measure these deductions.
Age	FAFSA (CSAC)	A student's age is used for the determination of CalFresh student status and for whether to count the student as part of the parents' household. In addition, households in which a member is elderly are not subject to the net income test; households in which all members are elderly are not subject to the gross income limit. We consider only the student's age, not that of other household members, in implementing these.

CONCEPT	SOURCE	MEASURE NOTES AND LIMITATIONS
Disability	CCC • Participation in Disabled Students Programs and Services (DSPS) UC • Has disability registered with disability office (DSP)	Disabled students are not covered by the special CalFresh student rules. To simplify presentation of the rules, we instead treat disability as a separate exemption category. The implication for eligibility is the same: Students with disabilities are eligible if they meet income thresholds, and do not need (additional) exemptions to qualify. We do not model the potentially looser income limits for households with disabled members. Limitation: DSP/DSPS participation may not align with CalFresh disability definitions.
CalWORKs, General Assistance, SSI	CDSS	A household is not subject to any income test if they already qualify for CalWORKs, General Assistance, or SSI. We observe CalWORKs participation in CDSS data, but do not observe General Assistance or SSI. CalWORKs participants are also exempt under the CalFresh student rules.
Student exemptions, not covered previously		
TANF-funded Cal Grant	CSAC	Cal Grant recipiency and TANF funding are both identified in CSAC data from 2011–12 forward. We are not able to capture this exemption for UC students in 2010–11 due to the absence of TANF funding information in that year.
Work 80+ hours / month	None	No available proxy — we do not assign this exemption to any students.
Work Study eligibility	CCC and UCOP	We assume any student receiving work study payments is exempt. We are not able to observe students who are eligible for work study but not receiving payments.
No plan to re-enroll	CCC and UCOP	For CCC students, we assume students qualify for this exemption in their actual last term of enrollment (i.e., the last term in which they appear in the CCC data). For UC students, we use the term in which their degree was awarded.
Exempt program participation	CCC • CalFresh Employment and Training (E&T) • Extended Opportunity Programs and Services (EOPS) • Disabled Students Programs and Services (DSPS) • Cooperative Agencies Resources for Education (CARE) • Mathematics, Engineering, Science Achievement (MESA) UCOP • Educational Opportunity Program and Services (EOPS) • Student Academic Services (SAS)	We observe a subset of qualifying programs in the two segments' data. Many Local Programs to Improve Employability (LPIEs) are not observed in the CCC data.
Foster youth	CCC and UCOP	We observe this status in the two segments' data.
Local Programs to Improve Employability	CCC, UCOP	We compare students' majors from the CCC and UCOP data to CDSS's publicly-available list of LPIE programs.

CONCEPT	SOURCE	MEASURE NOTES AND LIMITATIONS
Parent	CSAC • Presence of a child • WIC receipt CCC • Student family status • CARE program participation	We use different calculations for the two segments. For UC, we use the FAFSA question regarding presence of a dependent. For CCCs, our calculation is more complex. We begin with the same FAFSA question, but if this measure is missing we use CCC variables measuring family status and CARE program dependents to assign presence of children. Among CCC students with children, we assign the exemption only to those who are single parents (from the CCC family status measure) or who receive WIC benefits. Limitations: • CalFresh parent exemption depends on the age of the child and the nature of childcare arrangements (or lack thereof). We are unable to observe either, and assume that all UC student parents qualify, as well as any CCC student parents with single family status or receiving WIC benefits.
Zero Expected Family Contribution	CSAC	Zero EFC students are identified in CSAC's FAFSA data.
Other rules		
Meal plan		Students with meal plans covering half or more of their meals are ineligible. We do not incorporate this rule in our eligibility determinations. We are unable to observe meal plan status directly. We explored excluding first-year UC students planning to live on campus, but concluded that this did not align closely enough with the criterion, and that many such students did in fact participate in Cal Fresh (and therefore were presumptively eligible).

Appendix C: Linkage methodology

Our project was designed to ensure maximal protection of the privacy of student data. In order to enable the analysis presented here, we developed an innovative hashed merge linkage methodology to link data from each agency without the need for them to transmit Personally Identifiable Information (PII). Under this procedure, the agencies do not share PII such as names and Social Security Numbers (SSNs). Rather, each agency hashes (encrypts) the PII that it holds, and transfers to CPL data that have the hashed IDs in place of the PII. Agencies use a hashing algorithm (SHA-256, specified in the Federal Information Processing Standards: FIPS 180-4, Secure Hash Standard) designed so that identical strings will always be assigned the same hashed string value, so that matches on hashed IDs are equivalent to matches on the underlying PII. Partner agencies agreed on a key (secret passphrase) amongst themselves, not to be shared with researchers under any circumstances. This means that CPL does not have any way to re-identify the data, and thus that the data CPL analyzes cannot be linked back to the students to whom it pertains.

To our knowledge, this procedure has been used rarely in the social sciences. We successfully implemented it in another large data linkage that involved CDSS and the California Franchise Tax Board (Linos, Ramesh, Rothstein, and Unrath, 2020). For this project, we have conducted extensive data validation exercises to ensure that matches are accurate. Fu et al. (2022) provide further details and guidance about how to implement the approach in other settings.

The variables that are hashed were chosen to make it possible to identify both exact matches between datasets and flexible probabilistic matches that allow for discrepancies in information between datasets (e.g., an individual named "Jon" in one dataset and "Jonathan" in the other). To facilitate this, the agencies hashed not just the full identifier strings (names, birthdates, etc.) but also substrings (e.g., the first three letters), phonetic equivalents, and likely erroneous strings (e.g., transpositions of digits in SSNs). This allows us to identify cases where, for example, the last names match exactly, the first names are spelled differently in the two data systems but are phonetically identical, and the SSNs are within one digit of each other, even though we will never have access to any of the underlying information. We provide a complete list of the hashed variables and their corresponding substrings below.

- SSN
    - Each pair of consecutive digits is removed from the 9-digit SSN to create a substring, for a total of 8 substrings (e.g. first two digits, second and third digit, third and fourth digits, etc.)

- First name and last name
  - First letter
  - First two letters
  - First four letters
  - Soundex (phonetic representation)
- Date of Birth
  - Day
  - Month
  - Year

We considered both perfect matches (i.e., an exact match on the full hashed string) and "fuzzy" matches (i.e., a match on one or more of the hashed sub-variables). "Fuzzy" match criteria were constructed so that any two strings that form a perfect match will also form a "fuzzy" match. Matches are assigned a score to indicate the strength of the match, with perfect matches being assigned the highest score.

For first and last names, we considered two strings a "fuzzy" match if they shared the same soundex, first two letters, or first four letters. A match on two of these subfields was assigned a higher score. Two dates of birth were determined to be a "fuzzy" match if they had at least two of the month, day, and year in common. A match on month and year was assigned the highest score while a match on month and day was assigned the lowest score. For SSN, only perfect matches were considered.

Five sets of criteria were developed to identify common records within and across datasets, using a combination of perfect and fuzzy matches. These criteria, called "rounds," were implemented from strictest to least strict, in order to identify the number of additional matches gained by loosening each requirement. In most cases, a plurality of matches were found in the first and strictest round. The five rounds are as follows:

A perfect match on all four fields (SSN, first name, last name, and date of birth).

- A perfect match on SSN, a perfect match on at least two of the remaining fields, and a fuzzy match on the third field.
- A perfect match on SSN and a perfect match on at least two of the remaining fields.
- A perfect match on SSN and a perfect match on at least one other field.
- A perfect match on SSN and a fuzzy match on at least one other field.

Prior to linking across datasets, we conducted this same set of rounds within each dataset to identify individuals with multiple records. Observations within a dataset were considered to be the same person if they shared the same person-level identifier (as provided by the dataset owners) or if they matched on the above criteria. Once identified, matches were assigned a common identifier for linking to other datasets. We provide a summary of the matches identified at this stage in the Table C1 below.

TABLE C1. Number of unique IDs by dataset

DATASET	# OF UNIQUE IDS PRIOR TO LINKING	# OF UNIQUE IDS WITH NON-MATCHING PII	# OF UNIQUE IDS AFTER LINKING
CDSS	14,863,399	21,406	14,863,178
CSAC - students	8,944,968	60,456	8,944,960
UCOP	1,124,955	2,938	1,091,081
CCC	25,973,977	271,360	14,640,905

After identifying unique individuals within each dataset, we linked the datasets together using the same five rounds. We first performed a pair-wise linkage between two datasets and assigned a common identifier to the identified matches. The original datasets, along with this new identifier, were then appended together to link with a third dataset. We then repeated this process until all datasets were included in the linkage and had been assigned the common identifier. In all cases, we applied our linkage algorithm transitively — that is, if only one of two matches linked to a third observation, all three were considered to be a match. We include a summary of the number of matches identified between datasets in Table C2.

Table C2. Total matches between datasets

	CDSS	CSAC - STUDENTS	CCC	UCOP
CDSS	—	—	—	—
CSAC - students	2,890,654	—	—	—
CCC	3,837,043	5,660,566	—	—
UCOP	199,037	788,624	544,534	—

To validate the accuracy of our matches, we analyzed the population of students with Cal Grants applied to either the Community College or University of California segments, according to data furnished by the California Student Aid Commission (CSAC) (Table C3). We then calculated the percentage of these students with a corresponding match in the appropriate segment. The results of this analysis demonstrate that we were able to identify an appropriate match in over 98% of cases.

TABLE C3. Summary of 2021 Cal Grant payments to schools

AMONG 2021 CAL GRANT PAYMENTS TO:	N	MATCHED TO SAME SCHOOL	MATCHED TO A CCC	MATCHED TO A UC
Community colleges	134,914	98.43%	99.55%	0.07%
UC Campuses	76,384	99.72%	26.21%	99.72%
Other schools	168,452	—	31.63%	0.03%

Appendix D. Reliability of our eligibility measure

There are two types of potential error in our assessments of student eligibility. There may be false positives — students who are in fact ineligible who we estimate to be eligible — and false negatives — students who are eligible who we estimate to be ineligible.

One way to assess error is to recognize that we have a "ground truth" measure for some students. In 2019–20, 10.2% of CCC students and 11.8% of UC undergraduates received CalFresh benefits. These students all applied for benefits (alone or with their families), had their eligibility materials reviewed by CalFresh caseworkers, and were deemed to be eligible. If our analysis indicated that some of these students were in fact ineligible, that would be clear evidence of false negatives. Of course, this is only a lower bound on the false negative rate, as there may be other students who we incorrectly count as ineligible who have not applied for benefits.

Table D1 presents estimates of actual CalFresh participation rates for students at the two segments, broken into three groups — those who we estimate to be eligible, those who do not have FAFSAs and are thus automatically categorized as ineligible in our analyses, and those who have FAFSAs but we assess to be ineligible. The first row shows participation rates among students we deem to be eligible. These match Table 2: 30.2% at CCCs and 22.3% at UCs. The next row shows students without FAFSAs. Only 3.5% of non-FAFSA CCC students, and less than 1% of non-FAFSA UC students, in fact received benefits. The final row shows FAFSA students who we estimate to be ineligible. In this group, the participation rate was 6.6% among CCC students and 5.2% among UC undergraduates.

TABLE D1. Take-up among students estimated to be ineligible

	COMMUNITY COLLEGE STUDENTS	UNIVERSITY OF CALIFORNIA UNDERGRADUATES
Eligible students	30.2%	22.3%
Students without FAFSAs	3.5%	rounds to 0
Students with FAFSAs who do not appear eligible	6.6%	5.2%

We draw two conclusions from this analysis. First, it appears that our decision to focus on students who submit FAFSAs has not led us to miss many eligible students — though of course it is possible that some non-FAFSA students are in fact eligible but not connected enough to safety-net programs to know to apply. Second, the false negative rate appears somewhat higher for FAFSA-filers who we estimate to be ineligible. However, even in this group the error rate appears modest — the participation rate is only about one-fifth of what it is among students we estimate to be eligible.

Unfortunately, we have no external measure that students are *ineligible*, so cannot perform a similar exercise to understand false positive rates.

Table D2. Year-over-year stability in eligibility and participation

COMMUNITY COLLEGE STUDENTS

	STATUS IN YEAR 2			
	ELIGIBLE		INELIGIBLE	
STATUS IN YEAR 1	PARTICIPATING	NOT PARTICIPATING	PARTICIPATING	NOT PARTICIPATING
Eligible				
Participating (percent)	69%	13%	11%	8%
Not participating (percent)	8%	62%	2%	28%
Ineligible				
Participating (percent)	14%	8%	38%	40%
Not participating (percent)	1%	6%	2%	92%

UC UNDERGRADUATES

	STATUS IN YEAR 2			
	ELIGIBLE		INELIGIBLE	
STATUS IN YEAR 1	PARTICIPATING	NOT PARTICIPATING	PARTICIPATING	NOT PARTICIPATING
Eligible				
Participating	57%	35%	4%	4%
Not participating	9%	74%	1%	16%
Ineligible				
Participating	15%	17%	36%	32%
Not participating	0%	8%	1%	90%

Note: Sample is limited to CF-students enrolled in Fall term of some year between 2010 and 2020 who were enrolled again in the fall term in the same segment. Bold indicates students in the same status in both years.

Table D2 reports a second exercise that helps us understand the reliability of our eligibility determination. Here, we focus on CalFresh students who were enrolled in two consecutive Fall terms, and compare their eligibility and participation across this period. The first row, for example, shows that 69% (community colleges) or 57% (UC undergraduates) of eligible, participating students in one year will remain in the same status in the following year. A smaller but substantial portion will remain apparently eligible but not be participating the following year. This is suggestive of false positives in our eligibility determination in the second year (which often "borrows" information from the prior year that is not available for the second year), though it could also indicate that many students who remain eligible fail to re-certify to maintain their participating status.

The second row shows that most eligible non-participants remain in that status the following year, but that a substantial share (30% at CCCs and 17% at UC) are no longer eligible. The third and fourth rows show that most ineligible students remain in that status. Moreover, row 3 also indicates that, of the small number of apparently ineligible participants, one-third or more no longer participate the following year. One potential explanation for this is that the participation in year 1 reflects *past* eligibility, but that those students who are no longer eligible are removed from the case at their next recertification. (In other analyses, not reported here, we find that ineligible participants are disproportionately first-year students, who may initially remain on their parents' cases but transition off shortly after they move to college; the first-year share is not nearly so disproportionate in the Spring term, after students are several months into college.)

Table D3 probes the stability of eligibility determinations further, by examining the individual components of eligibility separately. As in A-2, we limit this analysis to students who are enrolled in college for two consecutive years. For most components, we find high stability. For example, 84% of community college students who meet the income eligibility threshold one year continue to meet it the following year, while 78% of those who do *not* meet it in the initial year continue to not meet it the second year. This assuages our concerns about "borrowing" income information across years where needed to assess eligibility.

TABLE D3. Stability of eligibility components

	SHARE WITH SAME STATUS IN YEAR 2	
	COMMUNITY COLLEGES	UC UNDERGRADUATES
Component		
Status in Year 1		
CalFresh Student Status		
Student	80%	99%
Non Student	54%	2%
Income Eligibility		
Yes	84%	97%
No	78%	42%
Exemption (CF Students with FAFSAs in Year 1 and Year 2)		
Yes	81%	85%
No	84%	87%

Note: Samples limited to students who are enrolled in both years. Exemption analysis further limits to those who have FAFSAs and are CalFresh students in both years.

There are two exceptions to this high rate of stability: Nearly half of community college students who do not meet the CalFresh student definitions in one year (largely because they are enrolled less than half time) do meet the CalFresh student definition the following year, and over half of UC undergraduates who are not income eligible in one year are eligible the following year.

Finally, Table D4 examines individual exemptions. Most exemptions are quite stable. For example, 80% of UC students with Cal Grants in one year continue to have them in the following year — and 91% have some exemption in that year. (Stability numbers are lower for CCC students with TANF-funded Cal Grants, but there are very, very few such students.) The CalWORKs exemption is the least stable (other than the "final term of enrollment" exemption, which by construction is not stable) — only one-third of UC students (and two-thirds of CCC students) with this exemption in one year continue to have it the following year, though the vast majority retain *some* exemption in the second year. Also notably unstable is the work study exemption. We suspect stability would be higher here if we could observe work study eligibility as well as receipt. In any event, many work study students also have other exemptions, so the share with any exemption in the second year is above 80% at UC and above 90% at CCCs.

TABLE D4. Stability of exemptions over time

EXEMPTION STATUS IN YEAR 1	COMMUNITY COLLEGES		UC UNDERGRADUATES	
	SHARE IN YEAR 2			
	with same exemption	with any exemption	with same exemption	with any exemption
Cal Grant (TANF funded)	33.4%	70.3%	79.7%	90.9%
CalWORKs	66.6%	98.5%	30.5%	98.4%
Work Study	47.9%	90.7%	57.2%	82.6%
EOP	74.2%	94.6%	99.8%	99.9%
Foster	86.8%	86.8%	95.0%	95.0%
Local	76.7%	91.1%		
Other	43.5%	76.7%		
DSPS	76.1%	88.3%	95.2%	96.7%
Parent	82.2%	97.8%	97.0%	99.1%
Last term	omitted		omitted	
None		21.5%		11.1%
Any		83.6%		86.9%

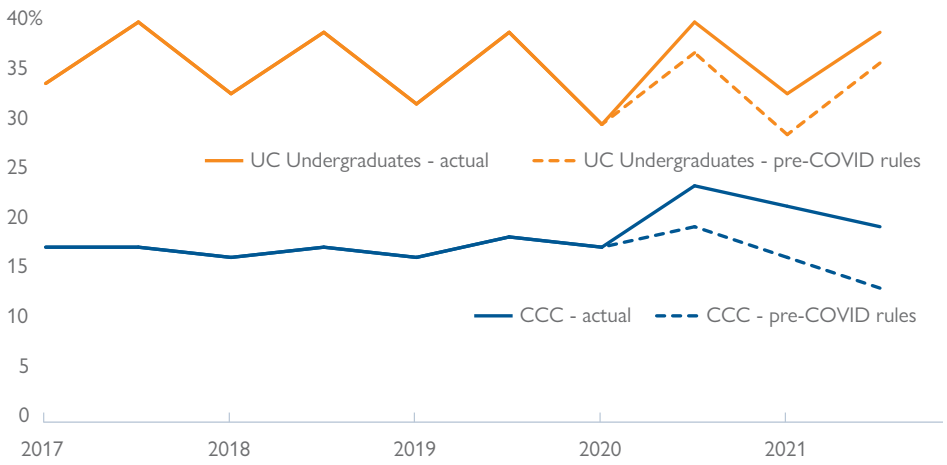
Note: Samples limited to students enrolled in two consecutive Fall terms who are CalFresh students in both years.

Last, 13% of community college students who we identify as foster youth are no longer so identified in the following year. This status should be permanent, of course, so the lack of stability likely points to limitations in the community college data. Fortunately, these types of data limitations do not appear to have a major impact on our ability to identify students who qualify for exemptions. The reason is that many of the exemption categories overlap, and students who no longer qualify for one are likely to still qualify for another. While it is possible that there are students who qualify for only one exemption and who we persistently miss, overall these patterns make us more confident that we have captured most students qualifying for exemptions.

Appendix E. Impact of COVID-era changes

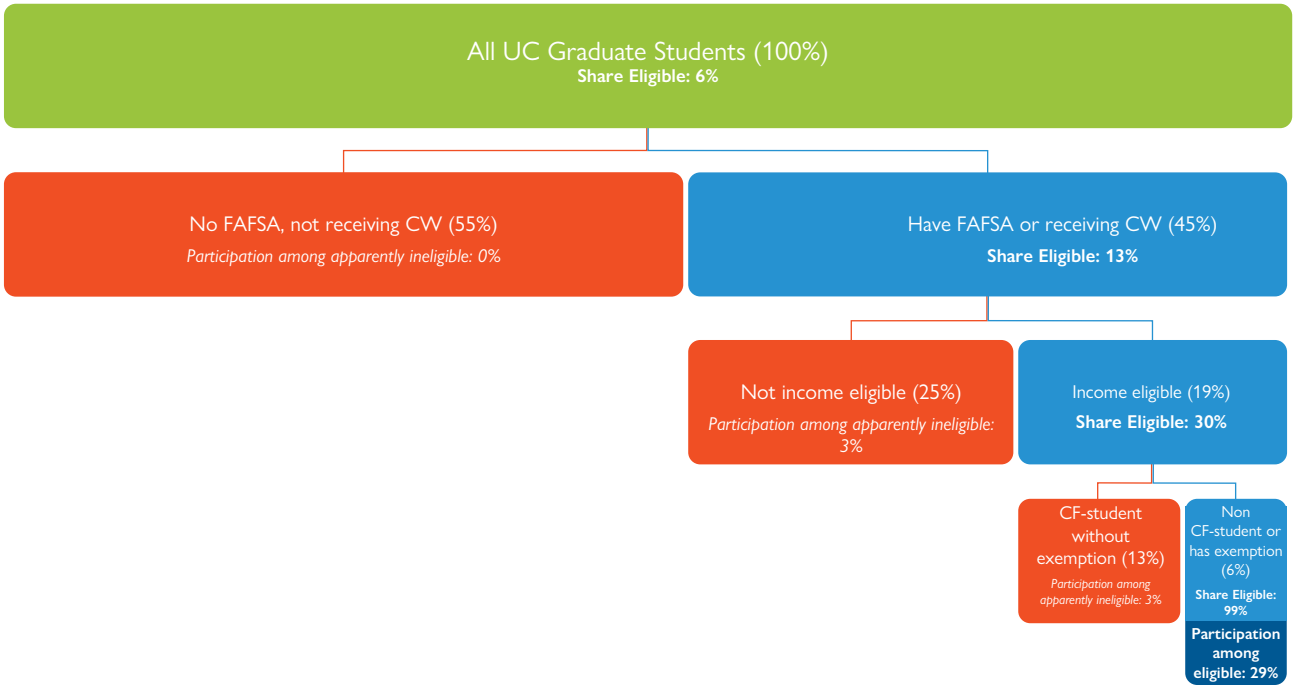
COVID-era legislation temporarily expanded eligibility for CalFresh for college students, beginning in Spring 2021. Students who had $0 Expected Family Contributions were deemed eligible for benefits even if they had no other exemptions (assuming they met other tests). Figure E-1 shows the impact of this on eligibility rates in the two segments. We show both actual eligibility rates and alternative eligibility series that hold the rules constant in their pre-COVID form. While there was not a dramatic increase in eligibility for UC undergraduates during COVID, the figure shows that this is because eligibility would have fallen had the rules not been loosened. At the CCCs, there is clearer visual evidence that eligibility rose during COVID, though again this is partially masked by declining eligibility had the rules not been changed.

FIGURE E1. Impact of COVID-era eligibility changes on CalFresh eligibility rates among California Community College students and University of California undergraduate students, 2017 - 2021



Appendix F. Results for graduate students

FIGURE F1. Ineligibility reasons for UC graduate students



Note: Numbers in parentheses are shares of the population total. The figures reflect the application of the eligibility criteria to the analytic sample.