Introduction

The combination of rising tuition costs (Snyder, de Brey & Dillow, 2016), insufficient financial aid packages (Hu & John, 2001), and increased enrollment of more diverse and less wealthy undergraduates (Broton & Goldrick-Rab, 2018) has led to many students struggling with basic needs (Martinez, Maynard & Ritchie, 2016). If students do not have enough food to eat and a safe place to sleep at night, their ability to succeed while at a university is compromised.

A nation-wide survey of 86,000 students at 123 postsecondary schools—including 31 of California’s public colleges and universities—found 41% of four-year university students were food insecure in the past 30 days (Goldrick-Rab et al., 2019). These rates were higher among African American, Latinx, Native American, Pacific Islander, and LGBT students, as well as those whose parents did not graduate from college (i.e., first-generation students). Likewise, a Chancellor’s Office survey of 25,000 students at 23 CSUs found that 41% of students were food insecure (Crutchfield & Maguire, 2018). An Office of the President survey similarly found that 43% of UC students are food insecure (Martinez, Maynard, & Ritchie, 2016).

In response, university stakeholders across the nation have created resources to support students’ basic needs. Food pantries have sprung up across postsecondary institutions; for example, the College and University Food Bank Alliance boasts over 700 participating campuses (CUFBA, 2019). In many states, including California, the Supplemental Nutrition Assistance Program (SNAP) has been amended to allow some students to be eligible for this entitlement benefit (AB 1930). The UC system has included college students’ basic needs as part of its Global Food Initiative, working with student services to share meal swipes with students in need. UC Santa Cruz stands out in its integration of case managers with basic needs coordinators: Slug Support.

Staffed by social workers, Slug Support at UC Santa Cruz provides assistance with food (e.g., grocery store cards, CalFresh enrollments), housing (e.g., emergency hotel stays), health (e.g., crisis management, clinical referrals), and direct financial assistance to students who do not have financial aid available. Slug Support staff meet with...
students, assess their holistic well-being, and provide individualized care.

The SSERC worked in collaboration with Slug Support staff to understand their service provision model, student population, and academic outcomes. Research questions included: (1) how are students utilizing Slug Support services? (2) at what frequency do different demographic groups use Slug Support services? (3) what are the retention and grade outcomes of students who use Slug Support?

**Research Design/Methods**

Using a variety of statistical techniques (cluster analysis, discrete survival binary logistic regression, covariance pattern modeling), we conducted an analysis using linked existing institutional data, including Slug Support staff case notes and university maintained academic records (demographics, retention, GPA) from Fall 2012 to Spring 2018. We collected Slug Support case notes from the case management database Advocate, and used student identification numbers to merge those data with academic records maintained by the registrar’s office.

In total, Slug Support opened 5,917 cases for 3,726 students. We cluster analyzed the different needs that students presented upon meeting with a case worker and the supports that they were provided post-visit to understand program utilization patterns (i.e., which case notes clustered together). We then compared the demographics of Slug Support students to those of UCSC students as a whole, and also compared demographics among the four identified clusters. Finally, we conducted longitudinal analyses to understand what proportion of students are retained to the next quarter or year, and to identify how students’ grades change while using Slug Support and up to two quarters afterward.

**Key Findings**

Slug Support has grown dramatically

From its inception in Fall 2012, Slug Support increased more than twenty-fold, serving 804 students (4.1% of the campus) by Fall of 2017. This program expansion is due to increased awareness and capacity of the program as well as ongoing needs associated with increases in cost of living and tuition. Altogether, Slug Support served 3,726 students during the years we analyzed.

Slug Support meets an array of basic needs

The program has provided students with food assistance, including pantry bags (513), CalFresh referrals (507), grocery store cards (483), cafeteria vouchers (355), prepared meals (182); housing assistance such as emergency hotel stays (97); referrals to clinicians (643) and academic support services (578); and a variety of other basic needs services. In general, students who use the program fall into four distinct groups:

1. Severe Hardship (2.9%): frequent repeated visits for a wide array of unmet basic needs
2. Mental Health (11%): visits for mental health care, often referred through the conduct office
3. Food Insecurity (19%): visits exclusively for food related needs
4. One-Off (67%): single visits, typically for an expedited financial aid payout

Slug Support serves underrepresented students

The students who use Slug Support are more likely to be the first generation in their family to attend college, be eligible for the Educational Opportunities Program (EOP), and identify as Latinx or African American. Moreover, these student groups are more likely to use Slug Support for severe hardship and food insecurity. This suggests that, on the one hand, Slug Support students who experience the greatest hardships are disproportionately likely to belong to underrepresented demographic groups. On the other hand, students who used one-off and mental health services provided by Slug Support tended to represent the campus demographic.
Food interventions work

Overall, students’ grades drop when using Slug Support (.07 grade points lower than their average). This is to be expected given that when students utilize Slug Support, they might be experiencing challenges that undermine their ability to do well. However, within two quarters of using the service, students’ grades return to the same level as their pre-participation average. Although, this pattern varies among the four distinct cluster groups. Students facing food insecurity experience an increase in their grades of .08 grade points after two quarters of being stabilized with food (e.g., CalFresh enrollment). This group was the only cluster to demonstrate a boost in grades. This suggests that campus food interventions are effective in stabilizing and improving student GPAs over time, whereas other interventions may do less to support students long-term.

After using Slug Support, students have a 95.5% chance of continuing to the next quarter. Thus, the program retains most students in the short term. However, in general, first-year students who use Slug Support are less likely to be retained to the second year (87%) than other first-year students on campus who do not use Slug Support (92%).

The strongest retention outcomes were associated with food interventions. Those who enroll in CalFresh have higher retention rates (94%) than Slug Support altogether (87%) and even the campus-wide average of all students (92%). Among first-year students enrolled in CalFresh, 94% were retained to their second year. Likewise, demographic groups, across all years of college, who were more likely to be food insecure (e.g., first-generation, EOP eligible, Latinx students) were the most likely to be retained after using the program.

Taken together, we found higher retention rates among students who were supported with food assistance as well as among demographic groups that were more likely to come in to Slug Support with food insecurity. These findings suggest that the campus is adequately addressing food insecurity with a strong network of resources, but we have fewer options for meeting students’ other needs. For example, students who need housing or health care have lower retention rates.

Implications for Institutional Practice & Policy

We conducted an institutional record analysis of Slug Support case notes and university academic records to understand their service provision and outcomes. We found that Slug Support serves underrepresented students with a variety of basic needs, and those who received support with food—particularly CalFresh—saw the largest gains.

We offer at least three recommendations for university leadership to consider:

1. Students who are EOP eligible, have received certain Cal and Pell Grants, and have enough work study allotments are automatically eligible for CalFresh, but very few of those students have enrolled. Potentially eligible students should be identified through campus records and encouraged to apply for CalFresh in order to destigmatize program participation and increase undergraduate retention rates.

2. The CalFresh enrollment process should be linked to other new student activities to ensure these critical resources are provided. For example, an eligibility check could be linked to the online student orientation. Departments could include information about CalFresh eligibility in their departmental orientations or as part of the major declaration process. Making faculty aware of this important resource is also critical, as they can then refer their students to the appropriate resources on campus.

3. The campus community needs to find more comprehensive solutions to address housing, as Slug Support has limited means to solve this problem on its own.
References


