Assessing Housing Needs and Programs at Chico State After the Camp Fire[1]

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Executive Summary

Homelessness and housing insecurity among college students is an increasingly prevalent and recognized social issue across the US. A body of scholarly research has only appeared in the last decade, with findings from the Hope Center making headlines in media outlets in cities throughout the Country, and more recently, research coming out of the California State University system demonstrating significant levels of homelessness and housing insecurity among college students. This research has alerted university faculty, staff and administrators to pay close attention to the issue and its implications for student success, health, and well-being.

In this study, conducted in the fall of 2019, investigators at Chico State found that more than **43%** of students surveyed experienced one or more incident of housing insecurity, and that 12.5% of the sample, experienced at least three incidents of housing insecurity in the past year. The number one reason cited in the survey was insufficient funds to pay for housing. In addition to financial needs, students of color, sexual minorities, renters from non-family landlords, those impacted by the Camp Fire, and students who were less aware of campus services were more likely to be housing insecure.

In terms of homelessness, the data indicate that **14.7%** of students at Chico State had experienced homelessness in the previous 30 days or 12 months. The most common forms of homelessness were couch surfing or staying in a vehicle. Financial need, being impacted by the Camp Fire, and being a resident of Butte County, all increased the chances a student would experience homelessness. Results from focus groups and individual interviews support these findings and further illuminate the nature and substance of this problem on our campus.

To understand some of the implications of this lack of accessible and stable housing, on the survey and in focus groups, students were asked about their awareness and use of campus resources, their perceptions of their mental and physical well-being, and their academic performance. Administrative data such as GPA were also used to supplement these findings.

This report contains a full discussion of the research design, methods and results, followed by implications and suggestions for further research. We hope that this research will further our understanding of this pressing social issue and point us towards solutions to support student success.

Introduction

In 2017, a report by the California Department of Housing and Community Development outlined the significant housing challenges facing our State. A lack of housing stock coupled with the rising cost of living has increased inequality and hampered people from securing and maintaining stable housing. This has been especially true for Butte County where low vacancy rates and slow growth rates at 600 units/year were not keeping up with increasing demands.

Then on November 8th, 2018 a massive wildfire destroyed more than 11,000 homes (10-15% of total housing stock in the County) in Paradise and surrounding communities. The impact was felt across all of our communities, including Chico State which saw roughly 310 students, faculty and staff displaced by the fire (based on recipients of Wildcat Rise grants).

Even without the significant impact of the Camp Fire, housing insecurity among students has been a growing concern in our community and across the country (Broton and Goldrick-Rab 2016, 2018; Goldrick-Rab, Richardson and Hernandez 2017). This is especially true for students in the CSU system who are more likely to be from low-income backgrounds as compared to their UC peers (Constantouros, Heiman, Steenhausen, Kuhn & Taylor, 2017). This concern has been recognized at the Chancellor's Office and they have begun to support individual campuses to assess both housing and food insecurity among students and programs to effectively meet basic needs. The current report outlines the results of a research study funded by the Chancellor's Office to assess housing insecurity among students at Chico State, post Camp Fire.

Methodology & Sample

Overview of the Research Design

The current study is a sequential mixed-method design with a strong emphasis on the quantitative data analysis (i.e. QUAN -> qual, often referred to as big "quant" and little "qual") (see Creswell & Clark, 2017), consisting of a survey conducted among a random sample of students in the fall of 2019, and follow up interviews and focus groups with students identified as housing insecure.

The central research questions included:

1) What are current levels of housing security at Chico State?
2) Are students aware of and using existing housing programs at Chico State?
3) What is the impact of housing security on academic performance?

To effectively address these questions, both survey and focus group data were collected and analyzed. A total of 1,416 complete surveys were collected (with a 48% response rate) and fourteen students participated in focus groups or individual interviews to augment the quantitative findings from the surveys. Partnership with the Office of Institutional Research facilitated the linking of survey results to existing student demographic and academic data.

Survey Development & Design

The survey instrument was developed and designed over the summer of 2019. The initial instrument was modeled after Sacramento State's 2016 Basic Needs Study, adopting their questions on housing insecurity and homelessness. Additional questions regarding housing insecurity and homelessness were based on other existing vetted instruments, including ones from the Hope Lab (e.g. Goldrick-Rab et al., 2018) and the CSU Basic Needs Phase II study (Crutchfield and Maguire, 2017). Once a draft of the survey was compiled, a series of stakeholders were consulted including in-class consultation sessions with social work students in a masters-level research course, one on one meetings, and dialogue with campus partners via email. In most cases, the consultation resulted in changes to survey question wording, placement, or the addition or deletion of questions. Once the initial instrument was drafted, the survey was piloted two times in two separate political science classes. The extensive survey development and pilot testing improved the survey instrument itself and ensured proper implementation and reliable sampling.

Survey Implementation

Surveys were administered through Qualtrics, a survey development and data collection platform. In order to maximize the response rate for the survey and to ensure a random sample, a cluster sample of 94 classes were identified with 2,937 unique students. Sampled instructors received an email from the research team prior to the start of the semester, advising them that their course was randomly selected and requesting their participation. Instructors were asked to provide the survey link to students in their sampled class either via email or through Blackboard between weeks 4-6 of the semester. Ideally, instructors allowed in-class time for survey completion. Multiple emails were sent for follow-up.

A total of 1,416 complete surveys were collected. Of these, 77.5% of responses came from students who took the survey in class or at the request of their instructor. The final 22.5% of respondents were reached through a direct email to students who had not completed the survey in their selected course. By requesting that students take the survey during class, we were able to secure a response rate of 48.2%. This is a great improvement over previous studies which have typically used a voluntary sample solicited via email to the entire student body (i.e. the CSU Basic Needs Study which resulted in a 5.8% response rate overall and at Chico State).

Focus Group/Interview Development & Design

The focus group and interview protocol were developed and designed over the summer of 2019. The protocol consisted of 11 overarching questions with additional probing questions. In particular, focus group/interview questions explored the relationship between housing insecurity and subjective well-being (e.g., *If someone were to ask you, "How does housing impact the health and well-being of college students?", what would you tell them?*) and experiences accessing services (e.g., *What was your experience accessing these services? Were they beneficial? Which ones, and in what way?*). Dr. Rashida Crutchfield from California State University, Long Beach (Principal Investigator, CSU Basic Needs Initiative Phase II) was consulted regarding protocol development and focus group implementation, as well as an in-class consultation session with social work students in a masters-level research course. The

consultation sessions resulted in changes to the focus group protocol length, as well as the addition of probing (i.e. follow-up) questions.

Focus Group/Interview Implementation

Survey participants identifying as housing insecure via survey responses were recruited to participate in in-depth focus group discussions. Focus groups were conducted in a private room with a licensed psychologist, and a master's student in social work. Each participant was provided with food, and $20-$40 dollars in gift cards. Six focus groups/interviews varying in size from one to four participants were conducted. Focus groups/interviews varied in length from thirty-four minutes to one hour and twenty-four minutes. Focus group/interviews were audio recorded, and transcribed. All identifying information was removed from the transcriptions.

Focus groups and interviews were then reviewed and analyzed by a research team member experienced in qualitative analysis. Initial themes (i.e. significant or meaningful ideas and experiences) were identified across transcripts, and drafted into a formalized codebook (Krippendorff, 2004). Codes were then applied across transcripts. Findings were reviewed for saturation across data sources, as well as novelty in experiences. Given the limited number of interview and focus group participants, excerpts from focus groups are provided to offer anecdotal and illustrative examples of experiences demonstrated in the survey. We caution against making causal assumptions concerning the focus group narratives, such as considering narratives to be representative of the experiences of all Chico State students encountering housing insecurity. When excerpts are provided, we note whether this was a common or novel experience across focus groups/interviews.

Sample and Population Comparison

The sample of students closely mirrors the student population at Chico State, giving confidence in the generalizability of the survey results. Table 1 describes the demographic make-up of the sample compared to the distribution of ethnic and racial groups as well as the gender distribution of the general population at Chico State. Chi-Squared tests indicate that for racial and ethnic groups, the sample is not significantly different than the campus population. The sample distribution is significantly different for gender, due to the overrepresentation of trans/non-binary individuals in the sample relative to the campus population. When comparing gender proportions without trans/non-binary individuals, there is no significant difference between the sample and the campus population.

Table 1: Demographics of Sample and CSU, Chico Population

Category	Sample	Campus (2019)
Race/Ethnicity*		
White	587 (42%)	7,414 (43.6%)
Hispanic/Latino	522 (37%)	5,816 (34.2%)
Native American	12 (1%)	88 (.5%)
Asian	85 (6%)	933 (5.5%)
Black/African American	42 (3%)	461 (2.7%)
Pacific Islander	5 (.4%)	40 (.2%)
two or more races	74 (5.3%)	900 (5.3%)
Unknown	70 (5%)	903 (5.3%)
Gender		
Female	775 (54.9%)	9191 (54%)
Male	613 (43.4%)	7823 (46%)
Trans/Nonbinary	14 (1%)	5 (>1%)[2]
Mean age*	22.54	22.39

**The sample does not differ in a statistically significant way from the campus population demographics for race and ethnicity. Percentages provided in the table do not total to 100 due to missing data.*

Housing Insecurity and Homelessness at Chico State

The study allows us to not only assess current levels of housing insecurity and homelessness at Chico State (Research Question #1), but to understand what type of student is most likely to have these experiences on our campus, and why.

Also, because of the recent Camp Fire in the adjacent communities, it was imperative that we include an exploration of student's experiences with housing after such a significant event and its impact on local housing availability and affordability. The survey results indicate the following impacts of the Camp Fire:

- 185 students (13%) had to temporarily or permanently move due to the fire
- 14 students (1%) of sample, had to move because their home was destroyed in the fire
- 321 students (22.6%) reported that their rent or housing fees increased after the fire[3]

Prior to November 8, 2018 there were already growing concerns about both housing availability and affordability in Butte County, and Chico specifically. Since the fire those concerns have only

[2] 14 individuals identified as transgender or non-binary in our sample, whereas only 5 individuals identify as transgender or non-binary according to data from Institutional Research. This difference may be due to gender status of individuals changing in the time they enter college, and the time they were surveyed, or because individuals were hesitant to identify as transgender or non-binary when filling out paperwork on entering the university.

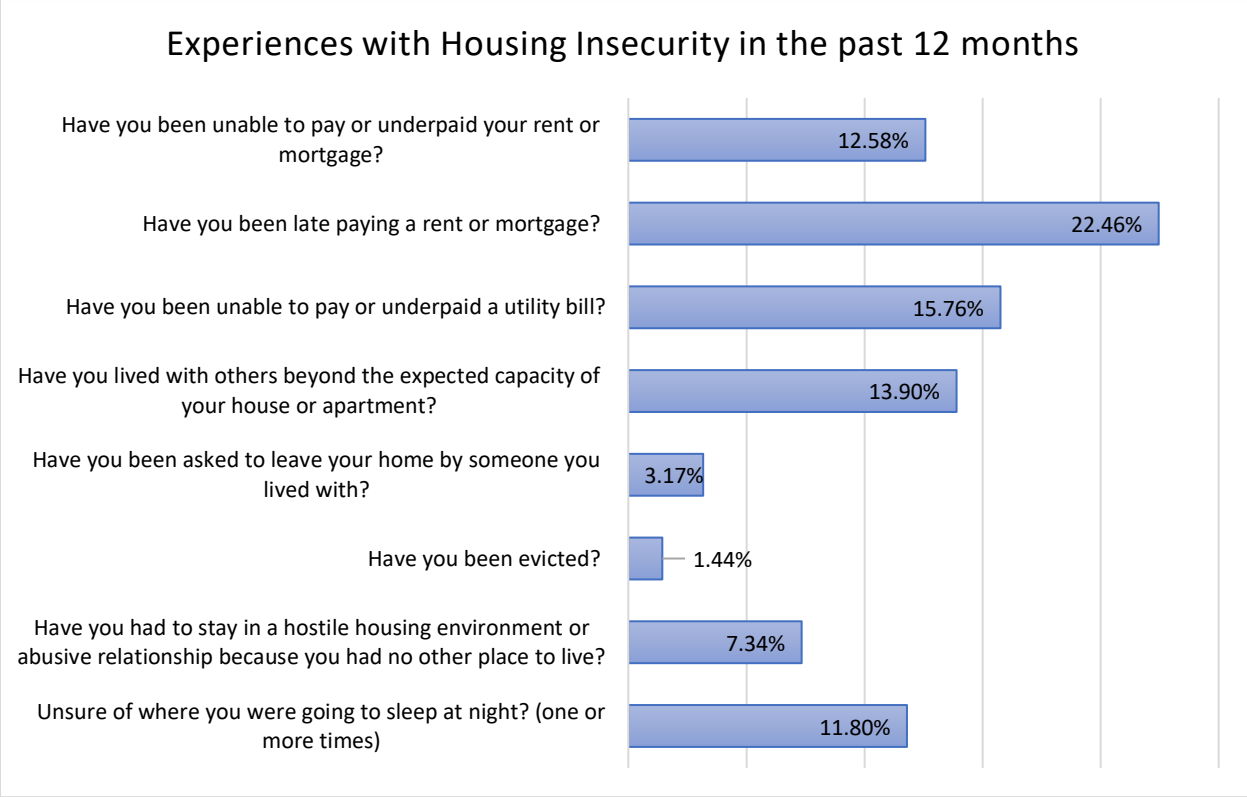
[3] Individuals who had to move from Paradise to Chico necessarily experienced a rent increase, as cost of living is higher in Chico. Seventeen respondents in the survey noted that they both had to permanently move and experienced a rent increase.

worsened as Butte County quickly went from a 2% housing vacancy rate to zero one year later. While a low percentage of our student population was directly affected by the fire, there was a ripple effect in housing availability and affordability that impacted students directly and indirectly. These impacts will be explored throughout this report.

Levels of Housing Insecurity

The researchers constructed a multi-item measure of housing insecurity based on previous studies (Sacramento State and the Hope Lab) and feedback from Chico State stakeholders. The measure of housing insecurity is comprised of eight questions regarding a respondent's housing in the past 12 months, whether the respondent: 1) was unable to pay their rent, 2) paid rent late, 3) was unable to pay a utility bill, 4) exceeded the official capacity of their housing or apartment, 5) were asked to leave their housing by someone they live with, 6) experienced an eviction, 7) stayed in a hostile environment or abusive living situation, as well as 8) how many times they were unsure of where they were going to sleep at night. Figure 1 provides the percentage of respondents identifying with each experience of housing insecurity.

Figure 1



The housing insecurity index (provided in Table 2) shows the number out of the 8 indicators, each respondent experienced.

Table 2: Housing Insecurity Index

Number of Incidents of Housing Insecurity	Number	Percentage
0	783	56.2%
1	303	21.8%
2	133	9.6%
3	89	6.4%
4	49	3.5%
5	23	1.7%
6	9	0.7%
7	4	0.3%

To illustrate, 56.2% of the sample did not experience any incidents of housing insecurity, like having to pay rent or a utility bill late. 21.8% of the sample had one of these experiences, and 9.6% of the sample had 2 or more experiences that are considered indicators of housing insecurity. **43.8% of the sample had one or more experiences with housing insecurity** – a level consistent with national trends conducted by the Hope Lab (46%). In analyses in this study, we consider students housing insecure if they experienced three or more instances of housing insecurity (12.5% of the sample).

Understanding Housing Insecurity

Comments by students in the focus groups and interviews further illuminate these experiences. Of the 610 students who reported being housing insecure, 343 selected a reason for their housing insecurity, including:

- Insufficient funds to cover housing expenses was the most common reason cited for housing insecurity, among those responding to the question (37%, 127 respondents), and emerged as a theme in 4 out of 6 focus groups/interviews.[4]

  > *"I'm like, borrowing money from my roommate to pay for it [rent]…I can't afford it. Like, I'm literally asking every month: 'Oh, I'll pay you back next semester when financial aid comes in."* (Housing Insecure Student).

- 10% (33) of housing insecure respondents cited having a roommate who was unable/unwilling to pay the rent or other bills as a reason for housing insecurity, and this was identified as a theme in 2 out of 6 focus groups/interviews.

[4] Survey respondents could select multiple reasons for their housing insecurity

> *"She wouldn't pay her rent. So, me and my friend had to pay her rent for 4 months."* (Housing Insecure Student).

- 17.5% (60) of respondents providing reasons for their housing insecurity and 2 out of 6 focus groups/interviews reported having enough money, but being unable to find available housing

> *"Recently, because of the Camp Fire, there was a huge shortage on housing. I was in an abusive relationship at the time and I was trying to get out of it, which made it really hard because I couldn't find anywhere to go."* (Housing Insecure Student).

- 19% (64) of survey respondents to this question, and 4 out of 6 focus groups/interviews reported having a conflict with someone they were living with.

> *"It was just constant drama that 'we'll kick you out', and certain things getting thrown in your face, and constantly feeling like you're not wanted there."* (Housing Insecure Student).

- 8% (27) of survey respondents and 4 out of 6 focus groups/individual interviews reported that their housing was unsafe or unhealthy.

> "*The first few days of moving in, one dude…had like smashed glass or something and then he was bleeding. He was running through the hallways naked screaming 'I love women!". He was detained by the cops when they got there*." (Housing Insecure Student).

- 9% (32) of survey respondents reported that there were other reasons for their housing insecurity. Focus groups and interviews highlighted additional factors:
    - In particular, 3 out of the 6 focus groups/interviews noted challenges with rental management companies, such as landlords increasing rental fees, being charged for unexpected costs, or changing the terms of the lease after it had been signed by all parties:

> *"I'm more scared of the rent going up again. The fire freaked me out. I went into my own depression because the whole rent increase. Like, it sucks."* (Housing Insecure Student)

    - Four out of the 6 focus groups/interviews indicated that students struggled with finding housing as they did not have a cosigner for their lease or enough credit for a rental application.

- *"Some guy set a fire in my backyard, and my roommates are disgusting. They're filthy guys…I could have gotten a better situation had I had somebody to like cosign."* (Housing Insecure Student).

In addition to reasons cited in the surveys and focus groups/student interviews, we can better understand factors that increase the likelihood of an individual experiencing housing insecurity with the use of multi-variable logistic regression analyses. This analysis allows us to understand the independent effects of a factor, while holding other influences constant. In this analysis, housing insecurity was measured conservatively, coding a respondent as housing insecure if they experienced three or more instances of housing insecurity (12.5% of the sample). Table 3 provides hypotheses, supporting literature, and results, including estimates of effect size, and confidence intervals (CIs).

The same results are also presented in Figure 2, which plots the effect size of the variable (or odds ratio), as well as the confidence interval for that point estimate. The confidence interval indicates the variability within the data around the effect of the specified variable, and conveys the level of certainty around the point estimate. If the confidence interval crosses 1, we consider this to have an insignificant impact, as the variable decreases the likelihood for some in the sample, while increasing it for others. Additionally, a wide confidence interval indicates less certainty around the point estimate, whereas a narrow confidence interval indicates more certainty.

Table 3

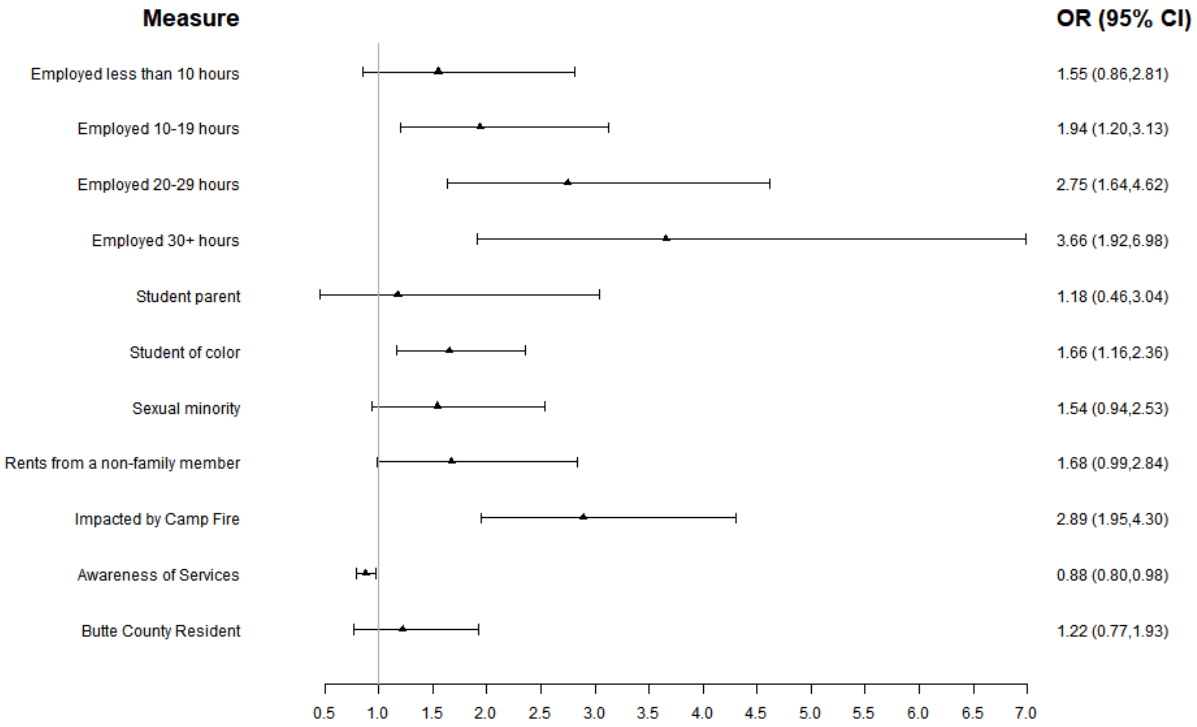
Hypothesis	Existing Literature	Results from Chico State
Those with greater **financial need** are more likely to be housing insecure. Financial need is captured by the number of hours students work for pay.[5]	Low, Hallett & Mo, 2017; Goldrick-Rab et al., 2018; Choi, 2018	**Hypothesis supported.** Students working less than 10 hours a week have **1.55** times the odds of being housing insecure as a student who does not work for pay. (CI .86-2.81) Students working 10-19 hours per week have **1.94** times the odds of being housing insecure relative to their non-working peers. (CI 1.2-3.13) Students working 20-29 hours/week have **2.75** times the odds of being housing insecure. (CI 1.64-4.62)

[5] 47% of the sample reporting not working, or working in an unpaid internship. 8.6% of the sample worked under 10 hours a week, 19% worked 10-19 hours per week, 15.5% worked 20-29 hours per week, and 10.1% worked 30+ hours per week.

		Students working 30+ hours a week have **3.66** times the odds of being housing insecure relative to their peers who do not work for pay. (CI 1.92-6.98)
Student parents are more likely to be housing insecure, due to more limitations for suitable housing, less ability to share housing costs with roommates, and discrimination on the part of landlords against renting to families with children.	Goldrick-Rab et al., 2017	**Hypothesis not supported.** Student parents have 1.18 times the odds of being housing insecure, with a confidence interval around the estimate of .46-3.04.
Students of color are more likely to experience housing insecurity than white students.	Sutton, 2016; Martinez, Webb, Frongillo & Ritchie, 2018	**Hypothesis supported.** Students of color have **1.66** times the odds of being housing insecure relative to their white counterparts. (CI 1.16-2.36)
Sexual minorities are more likely to be housing insecure.	Goldrick-Rab, Baker-Smith, Coca, Looker & Williams, 2019.	**Hypothesis supported.** Students who identify as a sexual minority are **1.54** times more likely to be housing insecure. (CI .94-2.53)
Students who rent from a non-family member are more vulnerable to rent-hikes, fee increases, evictions or potential abuses by a landlord, and are thus more likely to face housing insecurity than peers who own their home or rent from a relative.	Desmond & Gershenson, 2017.	**Hypothesis supported**. Students who have a non-family member landlord have **1.68** times the odds of being housing insecure than someone who owns their home or rents from a family member. (CI .99-2.84)
Students who were impacted by the Camp Fire, such as a temporary or permanent move, or a rent or fee increase, are more likely to be housing insecure	Ward & Shelley, 2008; Pang, Madueno, Atlas, Stratton, Oliger & Page, 2008	**Hypothesis supported**. Students who report being impacted by the Camp Fire have **2.89** times the odds of being housing insecure relative to students who reported no impact of the Camp Fire. (CI 1.95-4.30)

Students with greater awareness of campus services around Basic Needs are less likely to be housing insecure.	Watson, Malan, Glik & Martinez, 2017	**Hypothesis supported.** For every service a student is aware of, they have **0.88** times the odds of being housing insecure. (CI .80-.98)
Students with larger social networks are less likely to be housing insecure. We use Butte County residence as a proxy for local social networks.	Skobba, Meyers & Tiller, 2018	**Hypothesis not supported.** Students from Butte County have 1.22 times the odds of being housing insecure, but the confidence interval for this estimate ranges from .77 to 2.88.

Figure 2



In sum:

- 43.8% of respondents experienced one or more incidents of housing insecurity
- The number one reason cited in the survey was insufficient funds to pay for housing, also supported by the qualitative data and multi-variable analyses.
- In addition to financial need, students of color, sexual minorities, renters from non-family landlords, those impacted by the Camp Fire, and students who are less aware of Basic Needs services are more likely to be housing insecure.

Levels of Homelessness

To understand levels and explanations of homelessness, researchers employed a standard measure used in studies of homelessness in Higher Education (e.g. Goldrick-Rab et al., 2016; Crutchfield and Maguire, 2018). The measure of homelessness is based on the definition used by the Department of Education, following the McKinney-Vento Act of 1987.[6] The question asks students to select whether they have slept in any of the following places, in either the past 30 days or the past 12 months:

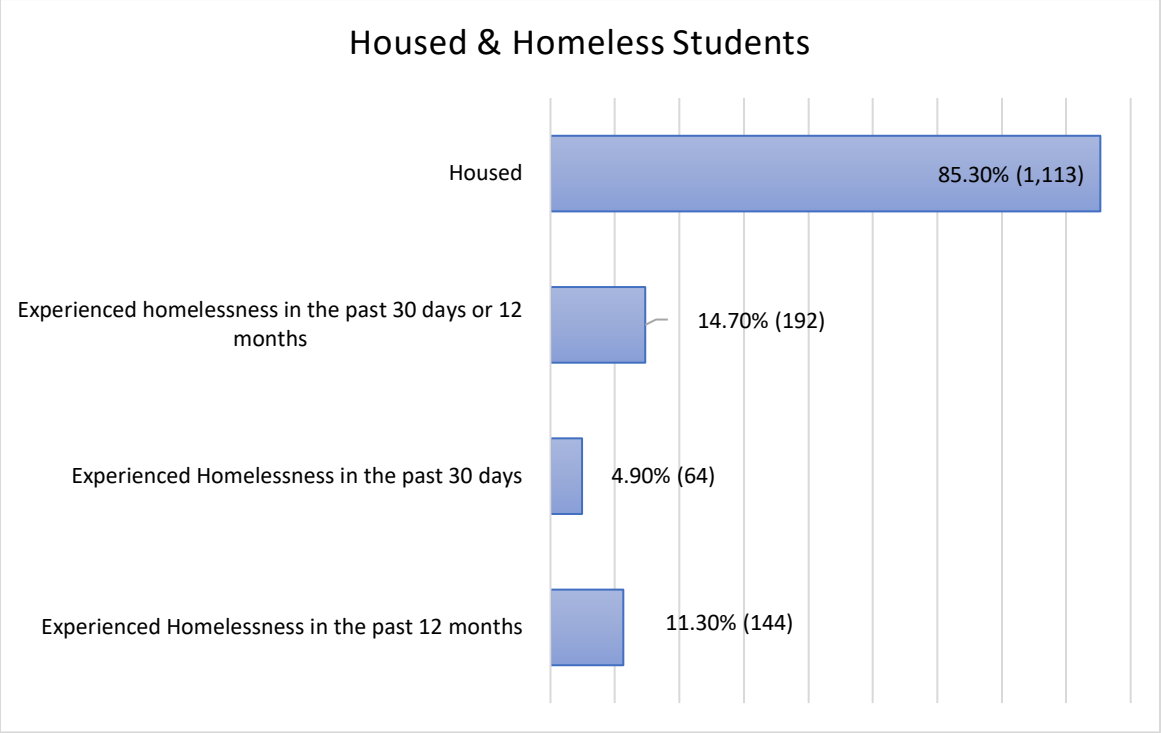
1) Campus or university housing
2) Sorority/fraternity house
3) In a rented or owned house, mobile home, or apartment (alone or with roommates)
4) In a rented or owned house, mobile home, or apartment with my family (parent, guardian, relative or caretaker)
5) At a shelter
6) Temporarily staying with a relative, friend or couch surfing until I find other housing
7) Temporarily at a hotel or motel without a permanent home to return to (not on vacation or business travel)
8) In a transitional housing or independent living program
9) At a group home such as halfway house or residential program for mental health or substance abuse
10) Outdoor location such as street, sidewalk, alley, park, etc.
11) In a car, truck, van, RV or camper
12) In a closed area/space with a roof not meant for human habitation such as an abandoned building, garage, tent, etc.

If a person selected options 5-12, they were considered as having experienced homelessness in the selected time frame (past 30 days, or past 12 months).[7]

[6] The Department of Education definition differs from the definition of homelessness employed by the Department of Housing and Urban Development, which does not consider couch surfing as an experience of homelessness.

[7] For any given experience, such as sleeping in one's car, a respondent could not select both the past 30 days and the past 12 months. A respondent could select different time frames across the options, for example, reporting sleeping in one's car in the past 30 days, and sleeping in a shelter in the past 12 months. For this reason, the percentages and total respondents provided in bars three and four of Figure 3 (past 30 days and past 12 months) do not total to the second bar, which combines experiences of homelessness in the past 30 days and 12 months. In other words, the estimate of 14.7% of students who have experienced homelessness in the past 30 days or the past 12 months includes 192 unique students.

Figure 3



As described in Figure 3, **14.7% of students had experienced homelessness at Chico State in either the last 30 days or the past 12 months**, at the time they completed the survey.[8] This is a significant increase over the previous estimate at Chico State of 3.3% (CSU Basic Needs Study). The difference is likely due to both an increase in homelessness, and improved methodology, as the prior study was not a random sample and had a 5.8% response rate.[9]

The most common experience of homelessness among respondents was couch surfing, followed by staying in a vehicle.[10] This is consistent with other national studies on homelessness in higher education (Broton & Goldrick-Rab, 2016; Low, Hallett & Mo, 2017).

Several focus group and interview participants experienced homelessness (3 of 14), providing insightful examples of what homelessness can look like at Chico State. One student described getting kicked out of their home and becoming homeless the week of final exams because they were unable to pay rent after a roommate left.

[8] The standard measure of homelessness used and reported above cannot estimate homelessness at any given point in time, but rather focuses on experiences of homelessness in the last month and the last year.
[9] In the referenced study, email invitations for the survey were sent to all CSU students, so this was a census sample and not a random sample.
[10] Evidence from experiences piloting the survey, as well as with focus group and interview participants suggests respondents were generally interpreting these options as intended – staying with friends or family or in a vehicle due to a lack of other housing. Additionally, this measure is based on the McKinney-Vinto act, which considers couch surfing, even for a brief time, an experience of homelessness. This is a commonly used measure across studies of homelessness in higher education, and these studies have not reported issues with the validity of this measure.

> *"I got kicked out on Tuesday. I talked to my buddy from dance. I was like 'Hey, I really need a place to stay. Like can I stay at your place tonight? I'll sleep on the floor. It doesn't matter.' The next day I finished my final. My teacher asked 'Are you okay?' and I'm like 'I'm alive.'"* (Housing Insecure Student).

Another student recalled being homeless for several months, and at one timepoint occupying a warehouse.

> "*I was living in the middle of a warehouse with no shower or anything else. I would go down to the street to the coffee shop to shower.*" (Housing Insecure Student).

Lastly, one student described experiencing homelessness throughout her childhood and young adulthood while living with extended family.

> *"It was scary because we were going to end up living in our car…feeling you're a burden to someone. I look at other people and I'm like 'wow' imagine not having to be a burden to someone your whole life."* (Housing Insecure Student).

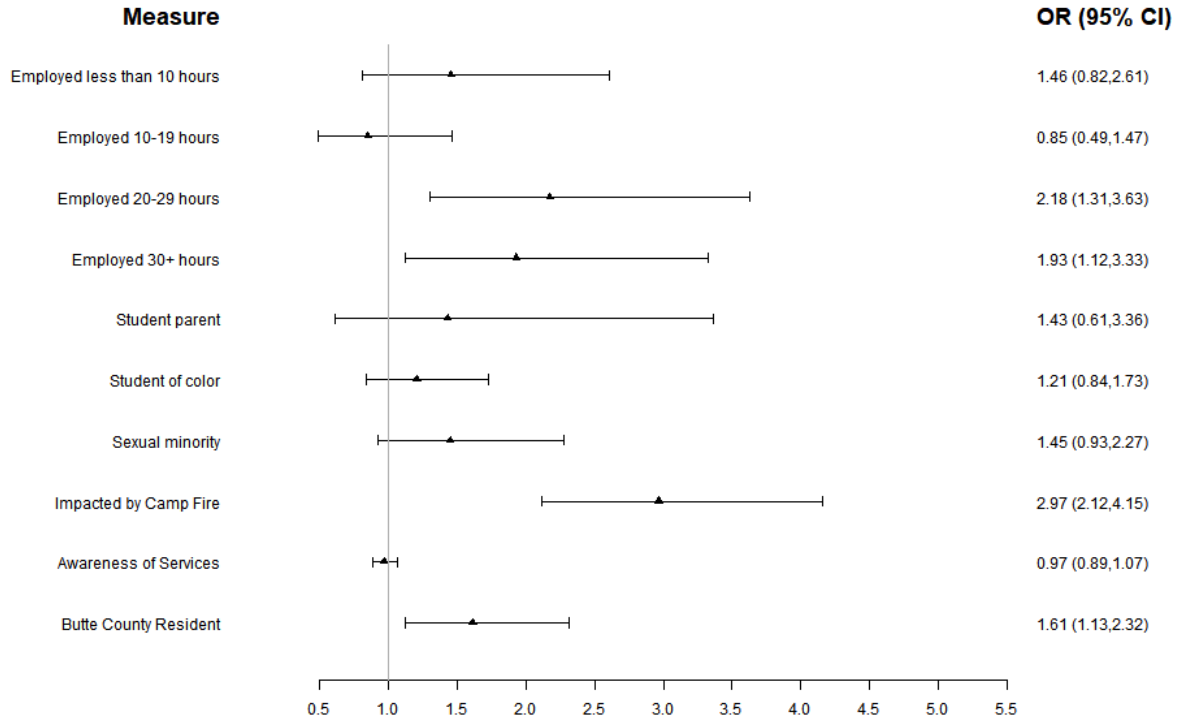
Understanding Homelessness

Many of the same factors explaining housing insecurity also likely affect student homelessness (see reasons selected by survey respondents on pgs. 8-9, and hypotheses pgs. 10-12). To better understand what predicts homelessness at Chico State, we conducted a multi-variable logistic regression, exploring the following factors informed by the existing scholarly literature: financial need (measured by student employment), status as a student parent, race, sexual orientation, awareness of campus services, availability of social networks in Butte County, and whether the respondent was impacted by the Camp Fire.

Figure 4 illustrates the effects of these factors. Confidence intervals that do not cross the line designating 1 indicate that the variable significantly affects homelessness, and the odds ratio shows the size of that effect. Similar to housing insecurity, students who work intensively are more likely to experience homelessness. Specifically, students working 20-29 hours have 2.18 times the odds of experiencing homelessness relative to students who do not work for pay (CI 1.31-3.62). Students working 30+ hours a week have 1.93 times the odds of being homeless than their non-working peers (CI 1.12-3.33).

Being impacted by the Camp Fire also has a significant effect on the likelihood a student experiences homelessness. Students reporting an impract have 2.97 times the odds of being homeless relative to a student who said they were not impacted by the Camp Fire (CI 2.12-4.15). Additionally, Butte County Residents were 1.61 times as likely to experience homelessness (CI 1.12-2.32), which is counter to the hypothesis regarding social networks. In this analysis, race, sexual orientation, awareness of services and status as a student parent did not have a significant impact.

Figure 4



The significant and large effect of the Camp Fire across analyses of both housing insecurity and homelessness is supported in the focus group/interviews. Four out of the 6 focus groups/interviews described the Camp Fire as having an impact on their housing situation. This included having trouble locating housing for the following year, as well as the landlord or rental companies increasing rental costs.

> *"I was emailing places everywhere. Like I need a place to go…and it was like [a] 100 people waitlists."* (Housing Insecure Student).

In sum:

- 14.7% of students at Chico State had experienced homelessness in the past 30 days or 12 months.
- The most common forms of homelessness at Chico State are couch surfing or staying in a vehicle.
- Financial need (measured by hours of paid work), being impacted by the Camp Fire, and being a resident of Butte County, all increase the chances a person will experience homelessness.

Use of Campus Services & Support

To answer research question #2 (e.g., Are students aware of and using existing housing programs at Chico State?) a series of items were posed to survey participants. The research

team identified basic needs programs on campus and those that are most closely partnering on meeting student basic needs. The six campus programs most closely affiliated with meeting basic needs around housing were: the Wildcat Food Pantry, Basic Needs Project, Off Campus Student Services, Student Emergency Grant, Student Short Term Emergency Housing and the Financial Aid Advising office.

Figure 5

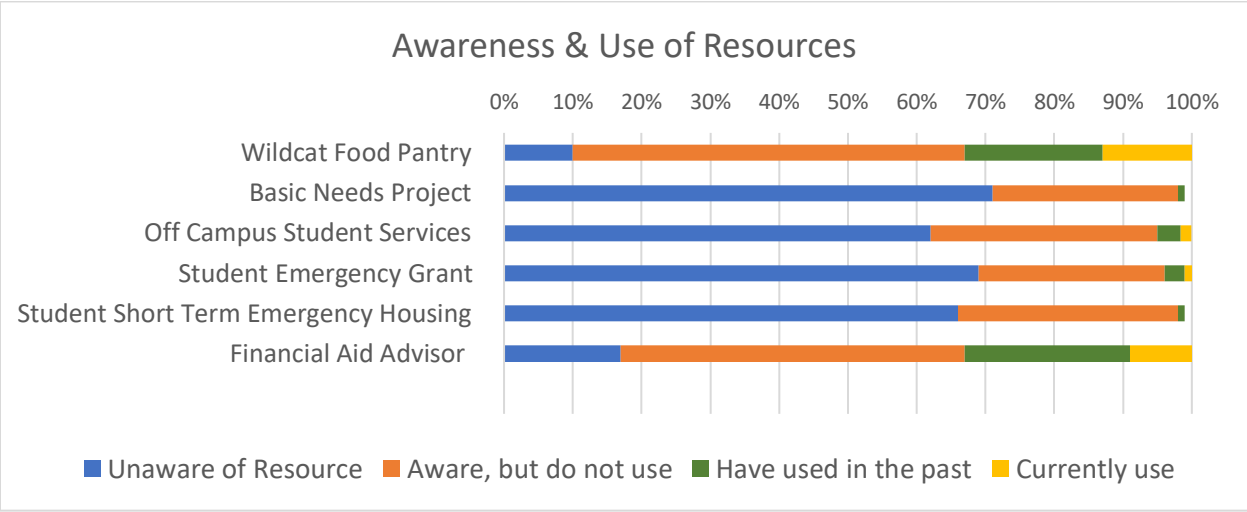


Figure 5 provides the distribution of reponses for each of these services, and demonstrates that awareness and use of Basic Needs resources varies across those specific services. For example, half or more of respondents were aware of the Wildcat Food Pantry and Financial Aid Advisors. However, only 1/3 of respondents reported awareness of Basic Needs services around housing, such as the Office of Off Campus Student Serivces (33%), the Emergency Grant (27%), or Short Term Emergency Housing (32%).

Across focus groups and interviews the Wildcat Food Pantry and the Community Legal Information Center (CLIC) were the most referenced services.

> *"The food pantry over here. That's really good. And like, the essentials, you can go get them."* (Housing Insecure Student).

> "*We had to go to court and fight it out. And it was just my three roommates. We didn't know what to do. So, the first thing we did was we went to CLIC, and we asked for help."* (Housing Insecure Student).

In addition, students noted two barriers with regards to university services and supports. First, students noted that the food pantry lacked specific products (i.e. dairy, eggs) making it challenging to have a nutritious meal.

> "*I'm looking for, like, milk and bread and eggs, and like they don't have that at the food pantry."* (Housing Insecure Student).

Second, some students were unaware of Short-Term Emergency Housing provided by the university.

> *"I was looking for short term until I could move into my new place which didn't start till August. But there wasn't anything like that for me at that time."* (Housing Insecure Student).

Lastly, students described struggling financially and yet not being eligible for government services (i.e. CalFresh, Section 8 Housing, or Financial Aid).

> *"And a lot of financial aid that you might apply for will ask you to choose between the federal aid that you receive or subsidized housing for low income people. And you might not even qualify as low income because you're a dependent under your parents."* (Housing Insecure Students).

In this discussion, students advocated for more education, informational workshops, and support regarding locating affordable housing, understanding their rights as tenants, and the university working with property managers to ensure safe housing conditions for students.

> "*I wish there was somebody on campus that could advocate for students that live off campus. If they were having issues with slumlords or other tenant rights sorts of things, they could either direct students in the right direction or advocate on their behalf."* (Housing Insecure Students).

Academic & Wellness Implications

Fundamental to the work of understanding student housing insecurity and homelessness, is an interest in their effects on both academic performance and student overall wellness. Research in this area is clear, that students who experience intermittent or chronic housing insecurity have worse academic outcomes than their housed peers (Cutuli, et al., 2013; Broton & Goldrick-Rab, 2018). By comparison, these same students also report poor mental and physical health outcomes. We explored both in the data.

Using student GPA data, we find that mean GPA is significantly lower for both housing insecure and homeless students, relative to their housing secure and housed counterparts. On average, students who have experienced three or more incidents of housing insecurity had an average GPA of 2.7 (with a 95% confidence interval of 2.6-2.8), while housing secure students had a GPA of 3.0 (with a 95% confidence interval of 2.96-3.03). Similarly, students who had experienced homelessness in the past year had a GPA of 2.84 (with a 95% confidence interval of 2.74-2.94), while housed students had a GPA of 2.97 (95% confidence interval of 2.93-3.00).

Five out of the 6 focus groups/interviews indicated that housing insecurity had an impact on their academics. Students noted that the instability and stress of housing insecurity made it challenging to focus in class or complete assignments in a timely manner.

> "*We have a lot going on at home, but we can't focus in class."* (Housing Insecure Student).
>
> *"They [roommates] also asked me to leave their place, two weeks during finals, so it was hard to switch, and I didn't have a place to stay. So that took a toll on me…I was missing a lot of assignments*" (Housing Insecure Student).

Students described the challenge of balancing work, familial responsibilities, and coursework.

> *"You have school, then you have work…and then you have to worry about housing. And just like all those stresses pile on each other, it affects everything, especially your academic performance. Like mine plummeted, just like, in the last few weeks."* (Housing Insecure Student).
>
> *"This is the first time I've ever had to work while I was in school. I'm holding two jobs right now while I'm in school so that that we can pay rent and, like, cover our expenses. And it sucks. Like, you're not allowed to put 100% in anymore. You only giving like, 50%, because you want to sleep. Like, you're supposed to write papers and then study for this exam. But this paper is due this week later. Like, there's like really not time to, like, focus. It's like, you're overwhelmed or you're like, jeopardizing this to be able to cover this."* (Housing Insecure Student).

Student Wellness

In terms of student wellness, the research team asked a series of questions to ascertain students' own assessment of their mental and physical health. The vast majority of students (85%) reported their overall health to be good/very good or excellent. While 15% responded that their overall heath is fair or poor. Despite these numbers, many students reported not feeling well over the past month.

Mental health seemed to be of greater concern than physical health with 328 (24%) reporting feeling unwell physically for 3 or more days over the past 30 days, while 562 (42%) reported feeling unwell mentally for 3 or more days over the past 30 days.

When respondents were asked **how many days** (in the past 30) their mental or physical health kept them from doing their usual activities such as self-care, work and recreation:

- 212 (16%) reported 5 days or more
- 188 (14%) reported 3-4 days
- 393 (29%) reported 1-2 days
- 559 (41%) report zero days

Additionally, the data suggest that students experiencing housing insecurity or homelessness have more days in which their mental health is poor, relative to securely housed students. The mean score on this measure for housing secure students is 1.23 (with a 95% confidence interval

of 1.17-1.30), corresponding most closely to 1-2 days of poor mental health. In contrast, the mean score of students who have experienced 3 or more incidents of housing insecurity is 2.09 (with a 95% confidence interval of 1.94-2.24), corresponding to 3-4 poor mental health days in the past month. Similarly, homeless students have a significantly higher mean score on this measure – 1.73 (with a confidence interval of 1.57-1.89), than housed students (1.28 with a confidence interval of 1.22-1.36).

In focus groups and interviews, participants were asked "*how would you explain the impact of housing insecurity on students' health and well-being?*" Five out of the 6 focus groups/ interviews described feelings of stress and a lack of control in relation to their housing insecurity.

> *"The stress is supposed to melt away. You're supposed to feel safe, secure, in your own space…if that's in jeopardy, that is going to trump everything else. That is all you're going to be worried about."* (Housing Insecure Student).

Furthermore, 5 out of the 6 focus groups/interviews discussed experiencing mental health challenges in association with their housing insecurity (e.g., anxiety, depression, insomnia, etc.).

> *"It like breaks you down, makes you physically ill, and also experience mental health issues, depression, and anxiety. I slipped into a pretty intense depression after not feeling safe in my own house…I'm still dealing with that depression, but I've also gotten insomnia from that."* (Housing Insecure Student).

Lastly, 4 out of the 6 focus groups/interviews described intense feelings of shame, isolation, and stigma in relation to their housing insecurity.

> *"These days it's so intense, because of all the social media. We fear what people will think. For me it was horrible to have to walk over here with my two bags of clothes."* (Housing Insecure Student).

Study Limitations

The primary limitation of the current study was that focus groups yielded low participation. This is a common phenomenon in the qualitative literature when conducting research on historically marginalized and stigmatized groups (Bailey, 2008), who can at times "pass" under the assumption of belonging to the dominant group or culture (Cundiff, 2012; Elze, 2003). Housing insecure students do not always exhibit clear or identifiable behaviors concerning their housing situation, and are cognizant of societal stigma associated with homelessness and poverty (Broton & Goldrick-Rab, 2016). These factors can make it challenging to recruit a large and diverse sample of housing insecure college students as focus group participants.

Being mindful of the data, our analysis places a heavy emphasis on the quantitative survey findings, which yield a large, random and thus representative sample of the university's overall student body. Qualitative findings ought to be read as rich anecdotal narratives surrounding

some housing insecure student's daily college experiences. We caution against extrapolating these narratives to be representative of the experiences of all Chico State students encountering housing insecurity (Creswell & Clark, 2017).

Despite these considerations, this report yields a rigorous design (well-vetted within the literature) yielding empirically grounded data. Notably, sequential mixed-method designs with a strong emphasis on the *quantitative analysis* have been well-documented within the mixed methods literature (Creswell, Clark, Gutnmann, & Hanson, 2003; Creswell & Clark, 2017; Greene, Caracelli, & Graham, 1989; Ivankoa, Creswell, & Stick, 2006; Terrell, 2012).

Additionally, investigators were not able to bring the most rigorous methods, multi-variable regression analyses, to bear on all of the outcomes of interest. While questions asked in the survey, and data provided by Institutional Research allowed estimation of the factors that explain housing insecurity and homelessness, researchers did not have available information regarding key predictors of academic outcomes and mental health. For this reason, only bi-variate statistical tests are provided regarding these outcomes.

Conclusions & Implications

This research makes several important contributions to the existing literature on student homelessness and housing insecurity. First, due to the particularly high response rate and close match with the student population, the sample in this study is highly generalizable to the Chico State student body. Thus, we can trust these findings to be representative of the student experience as a whole. Second, unlike the majority of the existing research, this study utilized multivariable statistics to control for various influences on the results, aiding in the understanding of the relationship between variables and their relevance to the problem of homelessness and housing insecurity. This type of analysis gives further credibility to the findings and a deeper understanding of the problem.

The results of this study are aligned with the National evidence on student housing and homelessness - which are higher than estimates previously reported within the CSU system. Again, the strong sample indicates that these numbers are trustworthy, and therefore, there is a bigger problem of homelessness and housing insecurity on our campus than previously thought. In addition, data from this study is clear that while the City of Chico limited landlords from raising rents more than 10% following the fire, more than 22% of students reported their rent and/or fees going up, post Camp Fire.

Students from historically underrepresented communities are struggling with unstable housing. This is largely due to a lack of resources coupled with a lack of affordable options. There may also be some discrimination on the part of landlords and a lack of social capital, which would serve as a protective factor in many situations.

Clearly, there is a lack of awareness of campus services which have been established to support students lacking basic needs, especially around housing. While a majority of students know

about the Wildcat Food Pantry, only a third of students know about Off Campus Student Services, the Short-Term Emergency Grant Program and Short-Term Emergency Housing.

One of our primary goals in exploring basic needs of college students is the impact on academic performance and overall student wellness. There is a clear connection in the research literature that students who experience periodic or chronic housing insecurity have worse academic outcomes than their housed peers. These same students also experience poor mental and physical health outcomes, which is no doubt amplified by, if not caused by, their inability to access and maintain a stable living situation.

Today's college students are more diverse than ever before and therefore have unique needs. Although efforts to increase college enrollment have expanded (including Pell, state, and institutional grants), degree completion divides have widened surrounding socio-economic status (Broton & Goldrick-Rab). Data suggests that the incidence of housing insecurity is now *greater* among college students than it is in the general population (Broton, Frank, Goldrick-Rab, 2014). Our findings mirror national trends and growing concerns in higher education, highlighting that homelessness and housing insecurity is not a problem unique to Chico State. Rather, Chico State students, like students at colleges and universities across the country, are struggling with the systemic challenge of increasing costs to attend college, including tuition and housing costs, with stagnant financial support (Goldrick-Rab, 2016). Finally, macroeconomic forces including income inequality, real estate markets, and variations in labor supply and demand certainly impact this issue across the country.

In sum, this research has made clear that there is much work to be done both on our campus and in our broader community to support students to be financially stable so that they can successfully progress through their time at Chico State. This will undoubtedly take a concerted effort by faculty, staff, administrators and local, state and national policy makers to make a reality.

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