

UNIVERSITY *of* WASHINGTON

# Understanding Housing and Food Insecurity Among University of Washington Students: An Internal Report

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# **Understanding Housing and Food Insecurity Among University of Washington Students: An Internal Report**

To: Denzil Suite, Vice President for Student Life, University of Washington; Mentha Hynes-Wilson, Vice Chancellor for Student & Enrollment Services, University of Washington Tacoma; and Tim Wilson, Dean of Student Affairs, University of Washington Bothell

In this document, we are reporting our current research and findings from an independent study on housing and food insecurity among University of Washington students across our three campuses. This report has been internally reviewed but has not yet been formally peer-reviewed. We look forward to sharing subsequent findings as we continue this research and pursue publication in formal academic channels.

Thank you,  
Rachel Fyall, Christine Stevens, and Lynne Manzo

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# INTRODUCTION

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The purpose of this study is to understand the prevalence of housing and food insecurity among university students across the University of Washington's (UW's) three campuses (UW-Seattle, UW-Tacoma, and UW-Bothell). There is growing evidence that food insecurity and homelessness is rising among college students nationwide, even when students are employed full time (e.g., Goldrick-Rab et al., 2018). While higher education can be a successful strategy for reducing social and economic inequities, students experiencing housing and food insecurity are severely disadvantaged when seeking to maximize the opportunities higher education can provide.

This research contributes to the national discourse on housing and food insecurity among students in higher education institutions by shedding light on both undergraduate and graduate students' experience of housing and food insecurity across all three campuses of the University of Washington. This is critical because many studies have overlooked the experiences of graduate and professional students regarding housing and food insecurity. Studies like this provide an important window into the economic vulnerabilities that college students might face that challenge their success in higher education, and can offer insights to a way for institutions of higher education to respond better to student needs.

This project was conceived during a faculty retreat organized by Urban@UW's Homelessness Research Initiative in November 2016. This study is motivated not only by concerns regarding the increased cost of living in the Puget Sound region, but also by the lack of systematic information about how UW students on all three campuses might be affected by these economic changes. With this study, we seek to understand the extent to which UW students are experiencing housing and/or food insecurity as a result of economic pressures that they may be experiencing. Knowing the extent to which students have access to stable housing and nutritious and affordable food is essential if the university is to remain responsive to students' evolving needs. This study is the first to systematically examine the extent of housing and food insecurity among the entire University of Washington student population.

Overall, this research project seeks to address the following research questions:

1. How prevalent is housing and food insecurity among UW students across all campuses – Seattle, Tacoma, and Bothell?
2. What are the characteristics of UW students experiencing housing and/or food insecurity?
3. What factors are associated with housing and food insecurity among UW students?

This report primarily addresses the first of these questions, providing population-level estimates of housing and food insecurity based on survey responses. The report also includes some estimates of the prevalence of factors related to housing and food insecurity (e.g., having experienced an eviction). Subsequent analyses will address research questions two and three more fully.

# BACKGROUND

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Housing insecurity, homelessness, hunger, and food insecurity are all contested terms lacking universal definitions. Housing insecurity is variably defined as having difficulty paying rent, spending more than 50% of household income on housing (Urban Institute, 2001), having frequent moves, living in overcrowded conditions, or doubling up with friends and relatives (Kushel et al., 2006). The McKinney-Vento Homelessness Assistance Act (42 USC 11302) defines youth as homeless if they “lack a fixed, regular, and adequate nighttime residence,” including “sharing the housing of other persons due to loss of housing, economic hardship, or similar reasons; living in motels, hotels, trailer parks, or campgrounds due to lack of alternative accommodations; living in emergency or transitional shelters; and living in cars, parks, public spaces, abandoned buildings, substandard housing, bus or train stations, or similar places.” In contrast, the U.S. Department of Housing and Urban Development (HUD) outlines four categories of homelessness, with the most severe considered “literally homeless” (i.e., not “doubled-up”) (HUD, 2019).

In terms of food insecurity, the U.S. Department of Agriculture (USDA) has been the leader for food security measurement for the nation for the last 20 years, setting a standard through validated survey modules. The USDA (2018) defines food insecurity as “the limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.” This definition maintains that food security must include not only uninhibited access to sufficient and appropriate foods, but also “assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies)” (USDA, 2018). Although the USDA offers a clear measurement standard in terms of food insecurity, this standard does not necessarily translate to the more colloquial concept of “hunger”.

One challenge for this study is determining the appropriate measures for our population of interest: university students. Standard measures have not been developed with this population in mind, and existing research does not offer a clear rationale as to whether university students might be more appropriately considered “youth” versus “single adults” for measurement purposes, for example. In selecting questions for the survey, we relied most heavily on language from the McKinney-Vento definition of homelessness and the USDA food security module. However, we also include additional questions more specifically tailored to the university setting. Furthermore, our current approach reports only the question-level responses rather than aggregating across questions to adhere to one of the pre-existing concept definitions.

## TRI-CAMPUS OVERVIEW

The University of Washington has three campuses – Seattle, Tacoma, and Bothell – each with its own unique characteristics and student composition. On the Seattle campus, the UW main campus, a total of 46,166 undergraduate and graduate students were enrolled either full time or



part time in 2018. This includes the largest first-year class with the second-most diverse population in campus history, according to central administrators (Academic and Student Affairs committee report, Autumn 2018 Freshmen Enrollment June update, presented July 12, 2018, to the Board of Regents).<sup>1</sup>

The Tacoma campus is located 32 miles southwest of Seattle in Pierce County. It offers a total of 81 different undergraduate, graduate, and professional development programs, and had a total of 5,375 students enrolled in Autumn 2018. At that time, the student body was composed of 93% in-state residents and most (82%) were attending college full time. Slightly over half (56%) of students were first-generation college students. Most (73%) received financial aid and half (50%) were eligible for Pell grants. An additional 10% of students received veterans benefits (18% of students are military-affiliated) and the campus is designated a "veteran-supportive campus" by the Washington State Department of Veterans Affairs (UW Tacoma 2018-19 Facts).<sup>2</sup>

The Bothell campus, which opened in 2000, is situated just northeast of Seattle in King County, and is the largest branch campus in the state. It offers 55 different undergraduate and graduate degree programs and certificates and currently has a total of 5,989 students enrolled.<sup>3</sup> In Fall 2018, 50% of incoming first-year students and 39% of incoming transfers would be first in their families to earn a four-year degree. In addition, 40% of incoming first-year students and 33% of incoming transfer students are eligible for federal Pell grants, while more than 300 students at UW Bothell are eligible for veterans benefits.

## LOCAL CONTEXT

University of Washington's three campuses are located in the central Puget Sound region of Washington State. From 2010-2017, King County and its neighboring counties experienced a population surge of 350,000 people, accompanied by a nearly equal number of added jobs (PSRC, 2018). Alongside such growth, this region is experiencing a crisis in housing affordability, with 12.6% of households in King County paying more than 50% of their income towards housing in 2016 (Census, 2018a). HUD considers such households as "severely house burdened" (King County Housing Affordability Task Force, 2017).

The population experiencing homelessness has also surged in recent years. The 2018 annual Point-in-Time Count found 12,112 individuals in King County (0.55% of the population) and 1,464 individuals in Pierce County (0.17% of the population) experiencing homelessness (All Home, 2018; Pierce County, 2018; Census, 2018b). In 2018, the statewide rate of homelessness was 30 per 10,000 people, compared to the national rate of 170 per 100,000 people (HUD, 2018). Between 2007 and 2018, Washington State saw a 23.6% increase in homeless individuals, the second largest percentage increase among U.S. states during that time frame (HUD, 2018). These counts are based on individuals and families either currently unsheltered, staying in locations not

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<sup>1</sup> See <https://www.washington.edu/regents/meetings/july-2018-regular-meeting-of-the-board-of-regents/>.

<sup>2</sup> See <https://www.tacoma.uw.edu/about-uw-tacoma/uw-tacoma-2018-19-facts>.

<sup>3</sup> See <https://www.uwb.edu/about>.

typically used for residence (e.g., abandoned building), or in a shelter or emergency housing meant to serve those experiencing homelessness.

Similar trends can be found regarding food security in the region. The USDA describes the ranges of food access and adequacy using four categories of food security: high food security, marginal food security, low food security, and very low food security. Food insecurity refers to the latter two categories, wherein individuals report that economic hardship influences changes in diet, disrupted eating, and/or reduced food intake (USDA, 2019). In 2014-2016, about 12% of Washington State residents were food insecure, including 5% with very low food security. Washington State residents' food security rates are similar to the national average of 13% food insecure, including 5% with very low food security (ERS, 2017). County-level estimates indicated the 2016 food insecurity rate as 12.2% in King County and 14.0% in Pierce County (Gunderson et al., 2018).

## **BASIC NEEDS IN HIGHER EDUCATION**

Research has demonstrated that basic needs insecurity is a barrier for students and affects retention, success in the classroom, and graduation rates (Maroto, Snelling, & Linck, 2015; Silva et al., 2017). Research and administrative efforts to address basic needs insecurity (regarding food and housing) in university students is due to both state and national changes in U.S. policies. In particular, significant changes in the funding of higher education, including complex financial aid processes that do not cover the cost of college, along with an increase in income gaps for families, the lack of affordable housing, and a decrease in the economic safety-net for working families have all contributed to the need for institutions of higher education to address basic needs for all their students (Goldrick-Rab, 2016; Goldrick-Rab et al., 2018; GAO 19-95 College Student Food Insecurity, 2019). Unmet basic needs also raise questions about universities' responsibility to safeguard the human rights and well-being of their students. Concerned universities and community colleges have begun to launch efforts to better understand the needs of their students (e.g., California State University's Basic Needs Initiative; Basic Needs Berkeley) but so much more needs to be understood and addressed in order to meet the changing needs and economic context in which university students find themselves today.

Popular misconceptions of college students as youth from middle- to high-income families who can depend on parents and adult caregivers to fund their college expenses have impeded analysis and understanding of basic needs security on university campuses. Yet, emerging research demonstrates that this is not always the case and that housing and food vulnerabilities exist among college students (Broton, Weaver, & Mai, 2018; Broton et al., 2018; Chaparro et al., 2009; Freudenberg et al., 2013; Goldrick-Rab, 2016; Goldrick-Rab et al., 2018; Hughes et al., 2011). Research reports that 79% of university students work while attending college, and those who were most food and housing insecure worked longer hours (Goldrick-Rab et al., 2018). Research at UW-Tacoma demonstrates that 32% of UW-Tacoma students were food insecure due to lack of money to buy food, even when they had part- or full-time employment and federal educational loans (Stevens, 2016).

Despite growing visibility, much of the existing research on housing and food insecurity among higher education students suffers from methodological challenges that weaken policy impact. Leading research in this field relies on survey response rates ranging from 4.5% to 9% (Goldrick-Rab et al., 2018), and prior surveys have not matched responses with verifying data sources such as university administrative data to confirm student survey eligibility. Further, most prior studies rely on convenience samples, and therefore cannot accurately account for different university and college subpopulations. The primary finding from a December 2018 GAO report on this topic is a call for more rigorous research (GAO, 2018). This study overcomes some of these methodological limitations in having an aggregate response rate of 20.0%, and verifying participant eligibility with cross reference to administrative data. It also includes graduate students while most of the above-mentioned studies focus exclusively on undergraduate students.

Existing research varies widely in its estimation of housing and food insecurity rates among post-secondary students, likely because of the use of different definitions and methodologies to study them. Estimates of food insecurity have ranged from 9% to over 50%, with two-thirds of the studies considered by the GAO estimating rates of food insecurity in excess of 30% (GAO, 2018). A large nationwide study conducted by the Wisconsin HOPE Lab found that 36% of respondents at 4-year institutions had experienced housing insecurity, with 9% experiencing homelessness in the past year (Goldrick-Rab et al., 2018). The California State University Basic Needs Initiative found that approximately 11% of respondents in that university system had experienced homelessness in the past year (Crutchfield & Maguire, 2018). These findings spurred our interest in assessing the state of UW students' basic needs so that together as an institution we might be better able to serve our students.

## METHODS

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### SURVEY DEVELOPMENT AND RESEARCH DESIGN

The research team of three Co-Principal Investigators (Rachel Fyall, Christine Stevens, and Lynne Manzo) coalesced in September 2017 after discussions with UW's Division of Student Life and Undergraduate Academic Affairs to launch a tri-campus study of students' housing and food needs and concerns. In Winter 2017, students in Rachel Fyall's "PubPol 564: Housing and Social Policy" course developed the first draft of the survey.

To further develop the survey instrument, cognitive focus groups (Ouimet et al., 2004) were conducted at each of the three UW campuses to establish the validity of the survey. Two focus groups were held on the Seattle campus and one each on the Bothell and Tacoma campuses. The Seattle focus groups included both graduate and undergraduate students, while the focus groups in Bothell and Tacoma were composed of undergraduates. Some focus group participants had firsthand experience with housing and/or food insecurity while in school. Additional feedback on

the survey instrument came from university staff who work with vulnerable students, university administrators from student services and financial aid, and faculty and graduate students with relevant research and professional expertise. Survey development and research design also built upon an earlier survey on food insecurity fielded by Christine Stevens on the UW-Tacoma campus. In developing the survey instrument, we also incorporated questions from the USDA's food security module and considered other publicly-available surveys of either housing and/or food insecurity.

Survey topics included housing costs and location, barriers to adequate housing, strategies employed to obtain shelter when housing insecure, experiences with insufficient food, strategies employed when having limited access to food, service utilization, and financial resources. (See Appendix A for survey instrument.) Survey responses were matched with student administrative records pertaining to enrollment, academic performance, and demographics.<sup>4</sup>

All matriculated students age 18 or older enrolled in Winter Quarter 2018 at the UW comprised the sampling frame (N=54,532). Sampling strategies varied by campus to balance the needs of each campus with a rigorous research approach. Table 1 summarizes the sampling approach for each campus. Appendix B includes additional information on survey distribution and sampling strategies.

**Table 1. Sampling Strategies**

<b>Campus</b>	<b>Sampling Method</b>	<b>Strata Description</b>
Seattle	Stratified Random Sample	Two strata for undergraduates, one each for graduate and professional students
Bothell	Stratified Random Sample	Two strata for undergraduates, one for graduate students
Tacoma	Census Sample	One stratum for all students

To maximize response rates, the survey included lottery incentives (20 \$100 Visa gift cards randomly awarded to respondents), a recruitment strategy, and partnership with a range of units across the campuses, such as student government organizations. Students invited to participate in the survey were sent an email from the research team with a link to the survey.<sup>5</sup>

Initial steps to validate the data included screening for eligibility (matriculated students, enrolled in Winter Quarter 2018, age 18 or older) and de-duplicating responses. De-duplication involved: 1)

<sup>4</sup> Given time and resource constraints, the analysis presented in this report does not include results from all survey questions.

<sup>5</sup> Students who were not invited to participate in the study were also able to complete the survey if they received the survey link from an indirect source (e.g., flier, poster, forwarded email). Allowing all students to take the survey – regardless of if they were selected to participate – facilitated a widespread, public recruitment strategy. The recruitment strategy included distributing the survey link through posters, fliers, and personalized emails from staff, faculty, and student leaders to their respective constituencies.

identifying instances where an individual responded to the survey more than once, and 2) determining which response should be maintained in the data based on completeness. Respondents who did not provide answers for any of the key housing and food security questions identified by the research team were dropped from the study (n=84).

## SURVEY RESPONDENTS

The survey yielded a total of 5,440 valid responses from the sample.<sup>6</sup> The sample refers to those 27,193 students who were selected through the stratified sampling design to receive an email directly inviting them to participate in the study. Descriptive data and analyses presented in this report rely exclusively on the responses from students in the sample. Response rates on each campus range from 19.3% to 23.0%, with an aggregate response rate of 20.0%.

Table 2 compares survey respondents to the UW student population along a number of characteristics. As Table 2 indicates, based on *raw numbers*, the majority of survey respondents were from the Seattle campus, at both the undergraduate and graduate level, followed by undergraduates on the Tacoma and Bothell campuses. Most respondents were female and either Caucasian, Asian American, or Hispanic/Latino<sup>7</sup> and Washington State residents.

In terms of *response rates*, the greatest response comes from graduate students in Tacoma (24.76%), followed by undergraduates from that same campus (22.68%). The next highest response rate is from graduate students on the Seattle campus at 21.53% and undergraduates at the Bothell campus. Female students had a notably higher response rate than male students (24.18% vs. 15.14%).<sup>8</sup> In terms of race/ethnicity, the highest response rate came from Hispanic/Latino students (23.31%) followed by Caucasian (21.27%) and Asian American students (19.75%). We received a response rate of nearly 19% from students who identified as American Indian/Alaska Native or Native Hawaiian/Pacific Islander. The response rates are also comparable between Washington State residents and U.S. nonresident students and between first-generation students and non-first-generation students.

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<sup>6</sup> Excluded from this analysis are 989 additional responses from students who completed the survey but who were not in the sample. These respondents met the eligibility guidelines for study participation but were not selected to participate. These students likely received a link to the survey through forwarded emails (such as those sent to listservs) or physical posters or fliers.

<sup>7</sup> The research team used the racial and ethnic categories used by the University of Washington in their administrative records.

<sup>8</sup> The demographic categories reported here are those recorded in the university's administrative records. Future research and analysis will potentially use more nuanced categories based on self-reported identity statements.

**Table 2. Respondent and population characteristics and response rates**

	Number of respondents	Respondent proportion	Population proportion	Response rate
<b>Seattle campus</b>				
Undergraduate students	2,117	56.92%	67.73%	18.97%
Graduate students	1,286	34.58%	27.39%	21.53%
Professional students	316	8.50%	4.88%	14.85%
<b>Bothell campus</b>				
Undergraduate students	527	94.11%	90.92%	20.15%
Graduate students	33	5.89%	9.08%	12.50%
<b>Tacoma campus</b>				
Undergraduate students	983	84.67%	85.77%	22.68%
Graduate students	178	15.33%	14.23%	24.76%
<b>Across all three campuses</b>				
Female	3,527	64.83%	52.71%	24.18%
Male	1,899	34.91%	47.08%	15.14%
Unknown	14	0.26%	0.21%	22.58%
Caucasian	2,518	46.29%	43.81%	21.27%
Asian American	1,239	22.78%	24.73%	19.75%
Hispanic/Latino	621	11.42%	8.27%	23.31%
African American	296	5.44%	4.93%	17.25%
American Indian/Alaska Native	76	1.40%	1.33%	18.77%
Native Hawaiian/Pacific Islander	69	1.27%	1.12%	18.45%
Other/Not indicated	77	1.42%	1.62%	15.46%
International	544	10.00%	14.19%	15.90%
WA residents	3,948	72.57%	68.37%	20.61%
U.S. nonresidents	948	17.43%	17.44%	20.55%
International	544	10.00%	14.19%	15.90%
First-generation college student	698	19.24%	15.67%	19.88%
Non-first-generation college student	2,929	80.76%	84.33%	20.07%
<b>Total</b>	<b>5,440</b>	<b>100%</b>	<b>100%</b>	<b>20.0%</b>

Note: Data and categorizations come from UW administrative records. UW population refers to matriculated students age 18+ enrolled during Winter Quarter 2018 (N=54,532). This table is based on unweighted data.

## **ANALYTIC STRATEGY AND ROBUSTNESS CHECKS**

This report highlights population-level estimates for responses to key questions of the UW student housing and food insecurity survey. Population-level estimates were attained using probability weights within STATA's "svy" function. Probability weights were assigned by strata, in accordance with the stratified sampling technique.

The purpose of the probability weights is to weight the data to account for the differential proportion of responses by strata. For example, approximately two-thirds of the respondent pool comprised undergraduate students whereas the actual proportion of undergraduates across the UW population is over 70%. The probability weights give greater weight to particular responses in order to provide estimates that correct for the sampling design choices that led to the over- or under-representation of certain groups. In the above example, undergraduate responses were given a greater weight than graduate students.

The probability weights are a function of the number of responses in a stratum and the population total number in that stratum. This weighting strategy assumes that the non-responses are missing at random – in other words, the weights assume that among those students who were invited to participate in the survey, those who completed the survey do not have substantively different survey responses than those who chose not to complete the survey. This strategy is employed because we do not have a clear logic around which students might be more or less inclined to participate. Some researchers presume that students most affected by housing and food insecurity would be more motivated to respond, whereas others note that the students in greatest need are unlikely to take the time to complete a survey. In the absence of more information about the non-respondents, our chosen approach offers a transparent way to statistically transform the responses from our sample into population-level estimates.

Some respondents chose not to provide answers to particular questions while choosing to answer others. To obtain the most conservative estimates from a stable number of respondents, all missing answers were recoded to the least vulnerable response option within that question. The rate of question non-response was compared across all questions in this analysis, finding rates of non-response ranging from about 6-10%. To further understand response dynamics, we compared the characteristics and available responses of respondents who exited the survey partway through completion (n=141) with those who provided more complete responses. The differences between these groups were small, and respondents with partially-completed surveys appeared slightly more vulnerable to housing insecurity, though we did not statistically test this differential. Reassigning missing answers to the category of least need reduces concerns that the response bias favors responses from students who are more vulnerable than the non-responding students.

Although the response rate obtained in this study is substantially higher than prior research in the study of college student food and housing insecurity, the greatest threat to the validity of the estimates is the large percentage of non-respondents. To better understand the extent of this threat, the researchers compared the reported results to the (unreported) results of the 989 responses from those who were not part of the official sample. Across the survey questions highlighted in this report, the non-sample responses were approximately 1% higher in the highest-need categories than the sample responses. Informally, this indicates that the responses are likely to be biased towards students who are more vulnerable than those who chose not to participate,

but the magnitude of that bias is not likely greater than a few percentage points, based on the similarity between the random sample and the self-selecting sample.

In contrast, previous research indicates that student populations experiencing the highest levels of housing and food insecurity include first-generation college students and students from underrepresented groups (especially African American and American Indian students). Only the sampling strategy on the Bothell campus accounted for these characteristics, and the response rates among these students across all campuses tended to be lower than the average response rates. Thus, the lower response rates from students in these vulnerable demographics likely bias the estimates towards zero, meaning that this analysis likely underestimates population-level rates of housing and food insecurity.

In sum, the weighting strategy and treatment of missing items attempt to provide the most accurate population-level estimates given the data and their limitations. Following the presentation of the findings, this report outlines proposed next steps for this study, which will offer additional insights into the variation in, and interaction across, experiences in housing and food insecurity among UW students.

## **FINDINGS**

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The findings provide population-level estimates for individual survey questions from this study. All findings are calculated based on the survey sample (n=5,440), re-weighted to the eligible UW student population (N=54,532). Most findings are presented both with a point estimate of the percentage of the population as well as population estimate ranges in the aggregate across all three campuses. This reporting strategy communicates both the relative prevalence of each item and the estimated number of individuals affected university-wide. All reported ranges refer to the 95% confidence interval of the population estimate. These findings are represented in table form.

We also report specific campus-level findings to select questions to illustrate the variation in responses across campuses. To do this, we use interval plots to illustrate campus estimates, extending above and below the point estimates that indicate the 95% confidence interval. The Seattle campus estimates are divided between undergraduate students and a combined category of graduate and professional students. The findings are divided into three sub-sections: housing security, food security, and experiences related to housing and food insecurity as a UW student.

### **HOUSING SECURITY**

The first series of questions in the survey focuses on housing insecurity. Table 3 extracts responses from a mutually-exclusive survey item with the prompt, "Please describe where you live currently." At the time of the survey, 0.3% of students were living in a vehicle, shelter, outdoors, or other area not intended for habitation; this translates to populations estimates ranging from 87 to



235 UW students. Similarly, 0.5% were “couch surfing,” living in an RV, or doubling up with others at the time of the survey, which corresponds to a range of 5 to 58 students living in such circumstances in the Winter of 2018.

**Table 3. Current living situation**

<i>Please describe where you live currently.</i>	% of population	Population estimate range	
		Lower	Upper
In a vehicle, shelter, outdoors, or other area not intended for habitation*	0.30%	87	235
Couch surf, RV, or double up**	0.05%	5	58

\*Combines affirmative survey responses to: “I sleep/live in a car, van, truck, or other vehicle”; “I sleep/live in a tent, encampment, or tiny house village”; “I sleep/live in a shelter”; and relevant open-ended responses.

\*\*Combines affirmative survey responses to: “I couch surf or double up with people I know” and open-ended responses indicating RV or doubling up.

n=5,440; N=54,532.

Table 4 summarizes the data from the question, “In the last 12 months, have you used any of the following strategies because you lacked a stable and adequate nighttime residence?” Respondents were permitted to select multiple responses for this item. Data indicate that students’ circumstances during the course of the 12 months prior to the survey are somewhat less stable than their current situation, with 3.3% having slept in a vehicle, shelter, outdoors or other area not intended for habitation, which translates statistically to a range of 1,527 to 2,046 students experiencing that degree of housing instability. This table also includes a joint measure, estimating that 2.5% of students used both types of strategies in the prior year.

**Table 4. Indicators of severe housing insecurity in the past 12 months**

<i>In the last 12 months, have you used any of the following strategies because you lacked a stable and adequate nighttime residence?</i>	% of population	Population estimate range	
		Lower	Upper
Slept in a vehicle, shelter, outdoors, or other area not intended for habitation*	3.3%	1,527	2,046
Couch surfed, slept in an RV, or doubled up**	8.8%	4,361	5,204
Selected both of the above responses	2.5%	1,129	1,585

\*Combines affirmative survey responses to: “Slept in a vehicle”; “Slept outside (including in a tent)”; “Accessed or tried to access a shelter”; and relevant open-ended responses.

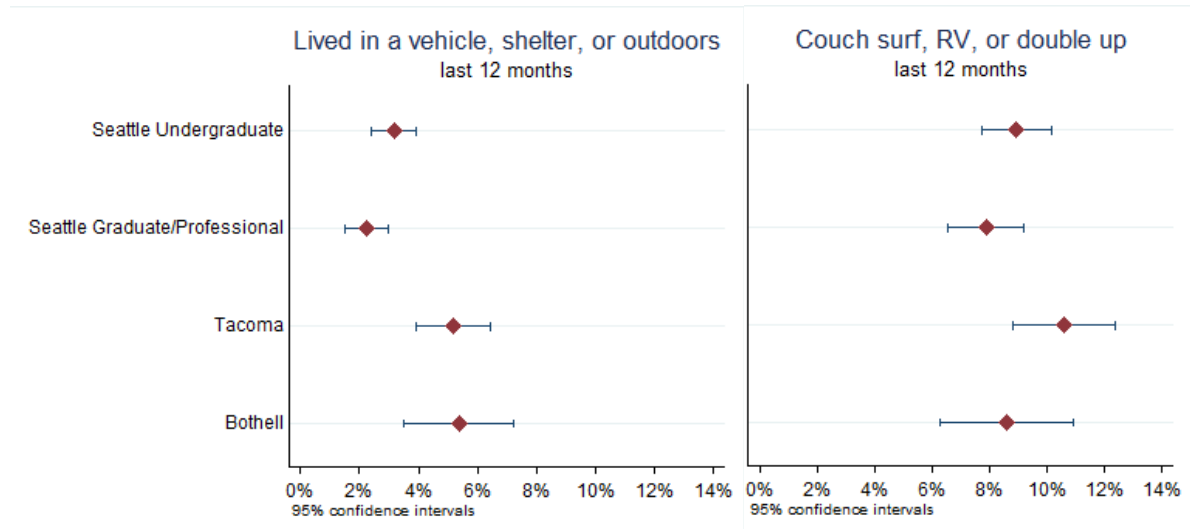
\*\*Combines affirmative responses to: “Slept on a friend’s or relative’s couch or floor” and relevant open-ended responses.

n=5,440; N=54,532.

Figure 1 illustrates the findings from this same question (“In the last 12 months, have you used any of the following strategies because you lacked a stable and adequate nighttime residence?”), but displays campus-level distinctions in resorting to such strategies. As displayed, the point estimates differ notably by campus, although many of the 95% confidence intervals are

overlapping. Point estimates indicate that the student population with the greatest proportion of students who couch surfed, slept in an RV, or doubled up were on the Tacoma campus followed by Seattle campus undergraduates. A similar pattern holds true for students having slept in vehicles, shelters, or outdoors in the past year. Here, too, the Tacoma campus had the greatest proportion of students experiencing such circumstances in the past year, although the Bothell campus had the next largest proportion of students who used such strategies.

**Figure 1. Indicators of severe housing insecurity, campus-level**



## FOOD SECURITY

The survey also assessed food insecurity among UW students. Tables 5 and 6 include questions adapted from the USDA’s food security module. Table 5 responds to the prompt, “For the following statements, please indicate whether the statement was often true, sometimes true, or never true for you in the last 30 days.” Table 5 only reports population percentage estimates; all three response categories are statistically distinct within each statement.

As Table 6 indicates, some students experienced some degree of food insecurity in the 30 days prior to the survey in Winter 2018. For example, 21% of students were sometimes worried that their food would run out before they had money to buy more. Combined with the 5% who often worried about this, over a quarter of UW students (26%) were worried about having enough food in the month prior to the survey.

**Table 5. Indicators of food insecurity: Reduced food choices and access**

<i>For the following statements, please indicate whether the statement was often true, sometimes true, or never true for you in the last 30 days.</i>	% of population		
	Often true	Sometimes true	Never true
"I was worried whether my food would run out before I got money to buy more."	5.4%	20.7%	74.0%
"The food that I bought just didn't last, and I didn't have money to get more."	4.0%	14.7%	81.7%
"I couldn't afford to eat balanced meals."	10.9%	24.4%	64.7%

n=5,440; N=54,532.

Students who answered "often true" or "sometimes true" in response to at least two of the three items in Table 5 (regarding reduced food choices and access) were given the opportunity to answer additional questions about reduced food intake when they lacked money for food. As Table 6 indicates, 19% of students ate less than they should, 18% either skipped a meal or cut the size of it, while 15% were hungry but not eating. As evident in Table 6, this translates into thousands of students without secure food access. In the 12 months prior to the survey, 7% of students across all three campuses did not eat for an entire day because they did not have enough money for food.

**Table 6. Indicators of food insecurity: Reduced food intake**

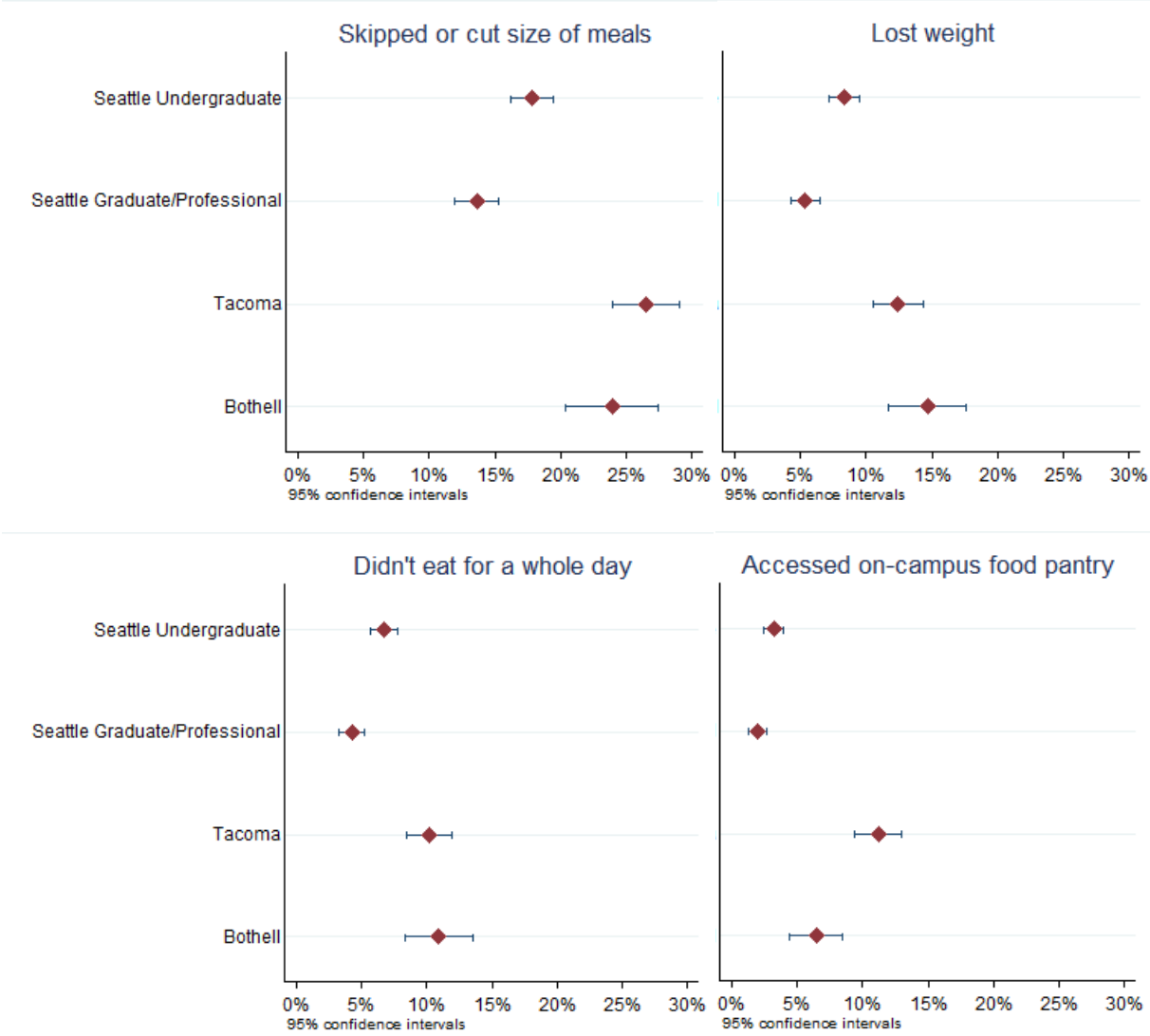
<i>In the last 30 days, [...] because there wasn't enough money for food?</i>	% of population	Population estimate range	
		Lower	Upper
did you ever cut the size of your meals or skip meals	18.3%	9,402	10,549
did you ever eat less than you felt you should	18.6%	9,540	10,691
were you ever hungry but didn't eat	14.8%	7,521	8,572
did you lose weight	8.7%	4,341	5,182
<i>In the last 12 months, did you ever not eat for whole day because there was not enough money for food?</i>			
Yes	6.9%	3,363	4,112

Note: The first four items in this table (with the 30-day reference period) were visible only to those who answered "often true" or "sometimes true" to two of the three prior survey questions (n=1,404). The last item (12-month reference period) was visible to all respondents. All estimates are based on the full sample (n=5,440), weighted to the population (N=54,532).

Figure 2 illustrates the strategies that students employed when lacking money for food in the past 30 days, broken down at the campus level. Respondents who answered "often true" or "sometimes true" in response to at least two of the three items in Table 5 were given the opportunity to answer the questions in Figure 2. Evidence at the campus level reveals that the Tacoma campus had the greatest proportion of students who skipped or cut meal size, followed by the Bothell campus, then Seattle undergraduates and graduates. A greater proportion of

students from the Bothell campus lost weight because they lacked access to adequate food, though the 95% confidence interval largely overlaps with the Tacoma campus estimates. When it comes to not eating for a whole day because of lack of money for food, the disparities across campuses level out slightly with a similar proportion reported on both the Bothell and Tacoma campuses. However, a substantially smaller proportion of students on the Seattle campus had done so, with Seattle campus graduate and professional students having the lowest proportion of all groups on the campuses.

**Figure 2. Select indicators of food insecurity, campus-level**



While many of the food security-related questions asked in the survey were drawn from the USDA food security module, the survey did not replicate the complete module. As explained in the next steps, future analysis will jointly score the food security questions drawn from the USDA module to estimate the generalized categories of food security defined by the USDA.

## EXPERIENCES RELATED TO HOUSING AND FOOD INSECURITY AS A UW STUDENT

Table 7 indicates the degree to which students felt worried about their housing instability at the time of the survey in Winter 2018. While 31% were “a little worried,” 16% were “moderately worried,” and 11% were either “quite a bit worried” or “extremely worried.”

**Table 7. Housing stability concerns**

*Housing stability means having choice over when and under what circumstances you want to move.  
How worried are you about your housing stability?*

Not at all worried	A little worried	Moderately worried	Quite a bit worried	Extremely worried
41.9%	30.8%	15.9%	7.6%	3.8%

n=5,440; N=54,532.

Table 8 provides the findings from two survey questions about housing and food insecurity related to school breaks during the 12 months prior to the survey. Findings suggest that some students across all three campuses experience some degree of instability as a result of breaks, with 5% not having a stable and adequate nighttime residence during breaks – including summer. Similarly, 6% lacked adequate or affordable food during breaks. As Table 8 indicates, while these are small percentages, they still translate to population estimates in the thousands.

**Table 8. Effects of school breaks**

<i>In the last 12 months, have you lacked [...] because of school breaks (including summer)?</i>	% of population	Population estimate range	
		Lower	Upper
a stable and adequate nighttime residence	4.6%	2,177	2,805
adequate or affordable food	5.8%	2,833	3,522

n=5,440; N=54,532.

Table 9 highlights the prevalence of strategies students use to manage their housing and food needs. The data illustrate the strategies students used in the last 12 months either because they lacked a stable and adequate nighttime residence or lacked adequate or affordable food. When it comes to housing strategies, the most frequently used strategy of those listed was adding people to their household without telling the landlord (5%) with another 3% joining someone else’s household without telling the landlord. Other strategies included living in a motel/hotel, trading work for a place to sleep, and trading sex for a place to sleep.

In terms of strategies for eating, 39% of students have skipped a meal in the 12 months prior to the survey because on-campus food was too expensive. Population estimates for this percentage ranges from 20,254 to 21,707 students. Close behind these figures are the numbers of students skipping a meal because on campus food vendors were closed with 24% having done so in the past 12 months. This translates into population estimates ranging from 12,180 to 13,465.

Data indicate that for the most food insecure students, food pantries, either on- or off-campus play a role in mitigating hunger. Seven percent of students across the three campuses accessed food support via either on- or off-campus pantries or off-campus free meal sites. Population estimates of students in this category range from 3,237 to 3,934 students.

**Table 9. Strategies employed when experiencing housing and food challenges**

<i>In the last 12 months, have you used any of the following strategies because you lacked a stable and adequate nighttime residence?</i>	% of population	Population estimate range	
		Lower	Upper
Added people to your housing without telling the landlord	4.5%	2,132	2,738
Joined someone else’s housing without telling the landlord	2.9%	1,312	1,799
Lived in a motel/hotel	1.2%	487	782
Traded work for a place to sleep	0.6%	197	418
Traded sex for a place to sleep	0.5%	143	349
<i>In the last 12 months, have you used any of the following strategies because you lacked adequate or affordable food?</i>			
Skipped a meal because on-campus food was too expensive	38.5%	20,254	21,707
Skipped a meal because on-campus food vendors were closed	23.5%	12,180	13,465
Accessed an on-campus food pantry or food bank	3.9%	1,840	2,370
Accessed an off-campus food pantry or food bank	3.1%	1,442	1,944
Accessed an off-campus free meal site or program (e.g., soup kitchen or church meal service)	1.5%	636	988
Accessed any food support (campus pantry OR off-campus pantry OR off-campus free meal site)	6.6%	3,237	3,934

n=5,440; N=54,532.

Table 10 shows responses regarding housing-related challenges that students faced in the 12 months prior to the survey. Data indicate that 21% of students experienced a rent increase that made it difficult to pay their rent in the last 12 months. This yields a population estimate between 11,047 and 12,255, with 8% skipping or delaying a rent payment and 8% skipping or delaying paying a utility bill because they lacked the money.

**Table 10. Housing-related challenges in the past 12 months**

<i>In the last 12 months, have you experienced any of the following related to your living situation?</i>	% of population	Population estimate range	
		Lower	Upper
Kicked out of your living situation by someone in the household	1.3%	543	864
Evicted by a landlord	0.5%	160	364
Moved because you ended a relationship with a romantic partner	2.3%	1,051	1,480
Moved because of problems with neighbors or roommates	4.9%	2,361	3,007
Moved to escape domestic violence, dating violence, sexual assault, other forms of violence, or stalking	1.1%	456	773
Moved because you felt unsafe due to building problems (e.g., broken appliances, mold)	3.0%	1,391	1,897
Lost housing as a result of a fire or other building problems (e.g., condemned building)	0.3%	82	249
<i>In the last 12 months, have you...</i>			
experienced a rent increase that made it difficult to pay rent?	21.4%	11,047	12,255
ever skipped or delayed your rent payment because you lacked funds?	8.1%	4,007	4,793
ever skipped or delayed your utilities payment because you lacked funds?	9.0%	4,499	5,311

n=5,440; N=54,532.

Table 11 summarizes students' use of, and application for, housing related resources both at the time of the survey and since attending the university. Data indicate that 3.8% of students used income-based housing assistance at the time of the survey, reflecting population estimates of 1,817 to 2,372 students who might fall in this category. Fewer students (2.3%) applied for but did not receive this type of assistance since attending the university. A few students (2%) also lived in public housing at the time of the survey, which translates into population estimates of 742 to 1,121 students. Since attending the university, anywhere from 390 to 694 students applied for but did not receive public housing and 409 to 709 students sought but did not obtain housing vouchers. Other strategies included temporary rental assistance, homeowner assistance, and living in non-profit owned housing.

**Table 11. Use of and application for housing-related resources**

	<i>Do you currently use any of the following housing-related resources?</i>			<i>Since you have been attending the university, have you applied but not received any of the following housing-related resources?</i>		
	% of population	Population estimate range Lower    Upper		% of population	Population estimate range Lower    Upper	
Section 8/housing voucher	0.85%	331	601	1.03%	409	709
Temporary rental assistance	0.64%	234	467	0.88%	341	621
Nonprofit-owned housing	0.78%	289	567	0.84%	318	597
Public housing	1.71%	742	1121	0.99%	390	694
Income-based housing or rent <sup>1</sup>	3.84%	1,817	2,372	2.31%	1,047	1,472
Homeowner assistance <sup>2</sup>	1.59%	685	1,053	0.76%	282	543
Utility assistance	3.21%	1,487	2,011	1.62%	703	1,064

1. Prompt included explanation: “i.e., your income makes you eligible for access to your housing or a reduced rental rate.”

2. Prompt included examples: “e.g., assistance with mortgage payments, home repairs.”

n=5,440; N=54,532.

Table 12 summarizes the financial assistance, resources, and other strategies used by students to help them meet their expenses. Students deploy a range of strategies to pay for their expenses and likely use various combinations of strategies. The most prevalent strategy to pay for expenses was family support at 57%, followed by the use of credit cards (44%), off-campus jobs (39%), student loans (35%) and UW-based grants and scholarships (35%), and grants and scholarships from outside resources (32%). In regard to other resources offered in the “social safety net,” students also used Medicaid or public health insurance (13%), veteran’s benefits (3%), the Supplemental Nutrition Assistance Program (3%), transportation assistance (2%), and child care assistance (1%) and other social services (1%).



**Table 12. Financial resources, assistance, and social safety net**

<i>Which of the following ways do you pay for your expenses?</i>	% of population	Population estimate range	
		Lower	Upper
Work-study job	6.25%	3,044	3,772
RA or TA position	11.89%	6,090	6,875
Other on-campus job (not work-study, RA or TA)	12.74%	6,441	7,455
Off-campus job	39.48%	20,808	22,249
Pell Grant*	19.42%	10,011	11,164
Grant(s) or scholarship(s) from the University of Washington	34.65%	18,193	19,597
Other grant(s) or scholarship(s) (e.g., federal or state government, foundation)	32.43%	16,990	18,380
Student loans	34.62%	18,180	19,576
Credit cards	44.11%	23,324	24,787
UW Emergency Aid	1.79%	788	1,164
Family support	57.40%	30,588	32,010
<i>Do you use any of the following resources?</i>			
TANF (Temporary Assistance for Needy Families)	0.27%	71	220
WIC (Supplemental nutrition program for Women, Infants, and Children)	1.05%	436	704
SNAP (Supplemental Nutrition Assistance Program, a.k.a. food stamps)	2.59%	1,185	1,637
SSI (Supplemental Security Income)	0.48%	159	365
SSDI (Supplemental Security Disability Insurance)	0.37%	115	293
Medicaid or Public health insurance (e.g., Apple Health)	13.70%	6,973	7,973
Veteran's benefits	3.19%	1,498	1,979
Unemployment assistance	0.33%	97	267
Child care assistance	1.11%	466	745
Transportation assistance	2.26%	1,016	1,453
Other social service (e.g., soup kitchens, free clinics)	1.23%	510	827
<i>Were you ever in the foster care system as a youth?</i>			
Yes	0.98%	393	671

\*Note: Only undergraduates are eligible for Pell Grants. This estimate includes graduate students. n=5,440; N=54,532.

# DISCUSSION

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This study aims to provide some insights on the presence and prevalence of housing and food insecurity among University of Washington students across the three campuses. The fact that 21% of students experienced rent increases in the year prior to the survey is an indication of the affordability crisis facing the region. Not surprisingly, then, the data in this report suggest that some students across all three campuses experienced some degree of housing and food insecurity in the year prior to the survey in the Winter of 2018. Although students facing such insecurities may be in the statistical minority, the methods employed in this study allow for a reasonable extrapolation to the larger UW student population. As the findings demonstrate, population estimates indicate that students facing housing and food insecurity can number in the thousands in the span of a year, enough students to consider action strategies.

Findings also reveal that students use a range of resources to help pay their expenses from off-campus jobs, loans and grants, as well as social services like housing vouchers and food stamps. Students demonstrate a degree of ingenuity in piecing together various forms of support in order to get by, but more could be done to support students particularly since research demonstrates that housing and food security help ensure the academic success of students.

The fact that some students across all three campuses experience some degree of housing and food insecurity as a result of school breaks indicates the vital role that the university can play in offering stability for its students. Further research could help parse out the extent to which students face challenges in the summer months versus during briefer breaks during the academic year.

Many respondents indicated that on-campus food options were not meeting their needs. For the most food insecure students, food pantries, either on- or off-campus, play a role in mitigating hunger. The presence of on-campus pantries appears to make a difference. Tacoma students – indicating the highest need proportionally – also were the group most likely to use the campus pantries. Notably, this campus also has the oldest permanent food pantry on campus.

Further, we wish to underscore the importance of examining the numerical population estimates when considering the findings rather than simply the percentages to appreciate fully the gravity of the situation that our students are facing. For example, while a relatively small percentage (3.3%) of UW students slept in a vehicle, shelter, outdoors, or other area not intended for habitation in the last 12 months because they lacked a stable and adequate nighttime residence, this translates statistically into 1,527 students in the lower end of the population estimate range, and up to 2,046 in the upper range of the population estimate.

This study is unique from other studies in the discourse on housing and food insecurity among college students in that it includes both graduate students and undergraduate students. Most

other studies of housing and food insecurity among university students focus exclusively on undergraduate students. The inclusion of graduate students in this study adds an important dimension to this work, especially as graduate students can be less likely to rely on family members for financial support, and on the whole, they may be more likely to have additional financial responsibilities (e.g. children, spouses) than undergraduates. That said, preliminary analyses looking specifically at graduate students indicates a lower overall need than the undergraduate populations, which may provide a partial explanation for why this study's population-level estimates are lower than other studies excluding graduate students.

Research has shown that different populations of students bear the burden of housing and food insecurity with African Americans at a higher rate from their white counterparts with the highest food insecurity among American Indian populations (Goldrick-Rab 2016; Goldrick-Rab et al., 2019). Further research is needed to examine how different student populations might be affected by, and respond to, housing and food insecurity. The survey also collected information on background and self-identity that can supplement the administrative data on race/ethnicity and gender. Future analysis can use these data to offer a more nuanced exploration of the ways that different socio-political group identities such as race/ethnicity, gender, and sexual identity intersect with housing and food needs.

## NEXT STEPS

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These findings provide a population-level overview of the housing and food needs of University of Washington students, as indicated by the responses to individual survey items analyzed here. While this offers a high-level summary of students' basic needs, additional analyses will provide a more robust assessment of the prevalence and intensity of need as well as the variation of need among the student body. In particular, the research team will pursue:

- Consideration of alternate weighting strategies, such as those accounting for both the sample stratification as well as demographic variation between the respondents and the non-respondents.
- Analyses of additional survey questions and related data, including housing costs and distance from campus. This includes accessing and incorporating data from UW Housing & Food Services on respondents living in university-owned housing during the study period, as well as reviewing data and findings from a recent consulting report.
- Joint consideration of survey items related to housing needs, toward the aim of translating survey items into standardized definitions of housing insecure and homeless (e.g., HUD and McKinney-Vento definitions).
- Joint consideration of survey items related to food needs, towards the aim of determining more generalized categories of food security that emulate USDA definitions from its food security measures. The research team has already consulted with Matthew Rabbitt, an

economist specializing in food security measurement at the Economic Research Service of the USDA, who provided guidance on scoring.

- Joint consideration of housing- and food-related data, towards the aim of understanding relationships between housing and food insecurity.
- Analysis incorporating information on demographics, social context, identities and their intersectionalities, including race/ethnicity, first-generation college student status, class, gender identity, and sexual orientation, and parental status.
- Qualitative analyses of open-ended survey questions.

The timeline for completing additional analyses will be determined by available research funding.

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# APPENDICES

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## APPENDIX A. SURVEY INSTRUMENT

### Understanding Housing and Food Insecurity among University of Washington Students

Researchers: Rachel Fyall, Ph.D., Evans School of Public Policy & Governance  
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Study contact: Urban@UW, 206-240-6903 (ph.), [Urbanuw@uw.edu](mailto:Urbanuw@uw.edu).

This study aims to understand the prevalence and characteristics of University of Washington (UW) Seattle, Tacoma, and Bothell students experiencing housing and food insecurity. Our study is motivated by concern for the well-being of UW students in light of the increased living costs in the Puget Sound region and the lack of systematic information about how UW students on all three campuses are affected by the economic changes in our region.

To address this, we invite you to participate in a web-based online survey to help us learn more about UW students' experiences with housing and food insecurity. Topics include housing costs, barriers to adequate or safe housing, experiences with insufficient food, service utilization, concerns around meeting housing and food needs, financial resources, and identity.

The survey should take approximately 10-15 minutes to complete.

Your participation is voluntary. You may choose to stop the survey at any time. You may refuse to answer any question.

The study will also use participant information from UW's administrative records pertaining to enrollment, demographics, academic performance, financial aid eligibility, and, when relevant, on-campus housing and meal plans.

This survey is confidential. No reports of the data will identify individual students, and we will take every effort to protect your privacy. Participating in this survey will not affect your eligibility for or access to housing, aid, or other services.

Survey participants will be entered into a lottery for Visa gift cards.



If you are younger than 18, you are not eligible to participate so please exit the survey now.

If you think you have been harmed from participating in this research, contact Rachel Fyall, 206-616-7677 (ph.).

This study is a project of Urban@UW in partnership with a variety of UW, UWT, and UWB units and student groups.

## UW Student Housing and Food Insecurity Survey

1. What is your main campus?
  - Seattle
  - Tacoma
  - Bothell
  
2. What zipcode do you live in or most regularly spend the night?
  
3. How long have you lived in this zip code?
  - Less than 6 months
  - More than 6 months but less than 1 year
  - 1 year
  - 2 years
  - 3 years
  - 4 years
  - 5-10 years
  - More than 10 years
  
4. Did you move to your city or neighborhood specifically because you are attending the University?
  - Yes
  - No

Now we'd like to ask you a few questions about your **current** living situation.

5. With whom do you **currently** live? (Select all that apply)
  - No one/I live by myself
  - Roommate(s). How many? \_\_\_\_
  - Child(ren). How many? \_\_\_\_
  - Partner
  - Spouse
  - Parent(s). How many? \_\_\_\_
  - Grandparent(s). How many? \_\_\_\_
  - Other: \_\_\_\_
  
6. Please describe where you live **currently**:
  - I live in university-owned housing (any type)
  - I rent an apartment, house, condo, or townhome (not university-owned)
  - I own a house, townhome, or condo
  - I live in my parents' or relatives' home

- I couch surf or double up with people I know
- I sleep/live in a car, van, truck, or other vehicle
- I sleep/live in a tent, encampment, or tiny house village
- I sleep/live in a shelter
- I live in transitional housing
- I stay where I can: Please explain: \_\_\_\_\_
- Other: Please explain: \_\_\_\_\_

[Skip logic: If checked "I rent... (not university-owned)" in Question 6, answer Question 6A1-6A4.]

6A1. Is your name on the lease?

- Yes
- No
- Don't know

6A2. What is your **rent payment** per month? We are interested in the amount of rent you are personally responsible for paying, which might be a portion of the total rent for housing unit.

6A3. Does this include utilities?

- Yes, this includes all utilities
- Yes, this includes some utilities
- No, this does not include utilities
- Don't know

6A4. If you pay for utilities in addition to your rent, what is your approximate **utility payment** per month? We are interested in the amount of utilities you are personally responsible for paying, which might be a portion of the total utility payment for the housing unit.

[Skip logic: If checked "I own..." in Question 6, answer Questions 6B1-2.]

6B1. What is your **housing cost** per month (including mortgage, taxes, insurance, and any HOA fees)? We are interested in the housing cost you are personally responsible for paying, which might be a portion of the total cost for the housing unit.

6B2. What is your approximate **utility payment** per month? We are interested in the amount of utilities you are personally responsible for paying, which might be a portion of the total utility payment for the housing unit.

7. Do you **currently** use any of the following housing-related resources? (If you are taking this survey on your phone, turning your phone sideways may help with question viewing.)

	Yes	No
Section 8/housing voucher		
Temporary rental assistance		
Nonprofit-owned housing		
Public housing		
Income-based housing or rent (i.e., your income makes you eligible for access to your housing or a reduced rental rate)		
Homeowner assistance (e.g., assistance with mortgage payments, home repairs)		
Utility assistance		
Other: _____		

8. Since you have been attending the university, have you **applied** but **not received** any of the following housing-related resources?

	Yes	No
Section 8/housing voucher		
Temporary rental assistance		
Nonprofit-owned housing		
Public housing		
Income-based housing or rent (i.e., your income makes you eligible for access to your housing or a reduced rental rate)		
Homeowner assistance (e.g., assistance with mortgage payments, home repairs)		
Utility assistance		
Other: _____		

9. Housing stability means having choice over when and under what circumstances you want to move. How worried are you about your housing stability?

- Not at all worried
- A little worried
- Moderately worried
- Quite a bit worried
- Extremely worried

[Skip logic: If checked anything other than “Not at all worried” in Question 9, answer Question 9A.]

9A. What worries you the most about your housing stability?

Now we'd like to ask you a few questions about your living situation **in the last 12 months**.

10. **In the last 12 months**, have you experienced a rent increase that made it difficult to pay rent?

- Yes
- No
- I have not paid rent in the last 12 months

11. **In the last 12 months**, have you ever skipped or delayed your rent payment because you lacked funds?

- Yes
- No
- I have not paid rent in the last 12 months

12. **In the last 12 months**, have you ever skipped or delayed your utilities payment because you lacked funds?

- Yes
- No
- I have not paid for utilities in the last 12 months

13. **In the last 12 months**, have you experienced any of the following related to your living situation?

	Yes	No
Kicked out of your living situation by someone in the household		
Evicted by a landlord		
Moved because you ended a relationship with a romantic partner		
Moved because of problems with neighbors or roommates		
Moved to escape domestic violence, dating violence, sexual assault, other forms of violence, or stalking		
Moved because you felt unsafe due to building problems (e.g., broken appliances, mold)		

Lost housing as a result of a fire or other building problems (e.g., condemned building)	
Other: _____	

14. **In the last 12 months**, have you used any of the following strategies because you lacked a stable and adequate nighttime residence?

	Yes	No
Slept on a friend's or relative's couch or floor		
Slept in a vehicle		
Slept outside (including in a tent)		
Accessed or tried to access a shelter		
Traded work for a place to sleep		
Traded sex for a place to sleep		
Lived in a motel/hotel		
Added people to your housing without telling the landlord		
Joined someone else's housing without telling the landlord		
Improvised places to sleep (e.g. slept in a building that's open all night, slept on a bus). Please explain: _____		
Other: _____		

15. **In the last 12 months**, have you lacked a stable and adequate nighttime residence because of school breaks (including summer)?

- Yes
- No

The next questions ask about the food you've eaten **in the last 30 days** and whether you were able to afford the food you need.

For the following statements, please indicate whether the statement was often true, sometimes true, or never true for you **in the last 30 days**.

16. "I was worried whether my food would run out before I got money to buy more." Was that often true, sometimes true, or never true **in the last 30 days**?

- Often true
- Sometimes true
- Never true

17. "The food that I bought just didn't last, and I didn't have money to get more." Was that often, sometimes, or never true **in the last 30 days**?
- Often true
  - Sometimes true
  - Never true
18. "I couldn't afford to eat balanced meals." Was that often, sometimes, or never true for you **in the last 30 days**?
- Often true
  - Sometimes true
  - Never true

[Skip logic: If "Often true" or "Sometimes true" is checked for at least two of Questions 16-18, answer Questions 19A-D.]

- 19A. **In the last 30 days**, did you ever cut the size of your meals or skip meals because there wasn't enough money for food?
- Yes
  - No
- 19B. **In the last 30 days**, did you ever eat less than you felt you should because there wasn't enough money for food?
- Yes
  - No
- 19C. **In the last 30 days**, were you ever hungry but didn't eat because there wasn't enough money for food?
- Yes
  - No
- 19D. **In the last 30 days, did you lose weight because there wasn't enough money for food?**
- Yes
  - No

Now we would like to ask you about these same experiences in the **last 12 months**.

20. **In the last 12 months**, did you ever not eat for whole day because there was not enough money for food?
- Yes
  - No

21. If you selected "Yes", How often did this happen?

- Almost every month
- Some months but not every month
- 1- 2 months
- I selected "No"

22. Is there a food pantry or food bank on your campus?

- Yes
- No
- Don't know

23. **In the last 12 months**, have you used any of the following strategies because you lacked adequate or affordable food?

	Yes	No
Accessed an ON-CAMPUS food pantry or food bank		
Accessed an OFF-CAMPUS food pantry or food bank		
Accessed an OFF-CAMPUS free meal site or program		
Attended campus events for the free food		
Skipped a meal because on-campus food was too expensive		
Skipped a meal because on-campus food vendors were closed		

24. **In the last 12 months**, have you lacked adequate or affordable food because of school breaks (including summer)?

- Yes
- No

[Skip logic: If "Yes" to "Accessed an ON-CAMPUS food pantry..." to Question 23, answer Questions 23A1-3.]

23A1. **In the last 12 months**, how often have you used an ON-CAMPUS food pantry or food bank?

- Once
- 2-5 times
- More than five times



23A2. Were you able to find culturally appropriate food at an ON-CAMPUS food pantry/bank?  
 Yes  
 No

23A3. Were you able to find adequate food to accommodate any of your dietary restrictions at an ON-CAMPUS food pantry/bank?  
 Yes  
 No

[Skip logic: If "Yes" to "Accessed an OFF-CAMPUS food pantry..." to Question 23, answer Question 23B.]

23B. **In the last 12 months**, how often have you used an OFF-CAMPUS food pantry or food bank?  
 Once  
 2-5 times  
 More than five times

[Skip logic: If "Yes" to "Accessed an OFF-CAMPUS free meal site..." to Question 23, answer Question 23C.]

23C. **In the last 12 months**, how often have you used an OFF-CAMPUS free meal site or program?  
 Once  
 2-5 times  
 More than five times

25. Did you ever feel you needed the resources at the ON-CAMPUS food pantry or food bank but chose not to go there?  
 Yes  
 No

26. If you selected "Yes", please share why you decided not to go.

27. Do you have any recommendations for the ON-CAMPUS food pantry/bank?

The last set of questions ask for information on a range of topics that are important for helping us understand the context for your earlier responses.

28. Which of the following ways do you pay for your expenses?

	Yes	No
Work-study job		
RA or TA position		
Other on-campus job (not work-study, RA, or TA)		
Off-campus job		
Pell Grant		
Grant(s) or scholarship(s) from the University of Washington		
Other grant(s) or scholarship(s) (e.g., federal or state government, foundation)		
Student loans		
Credit cards		
UW emergency aid		
Family support		
Other: _____		

29. Do you use any of the following resources?

	Yes	No
TANF (Temporary Assistance for Needy Families)		
WIC (Supplemental nutrition program for Women, Infants, and Children)		
SNAP (Supplemental Nutrition Assistance Program, a.k.a. food stamps)		
SSI (Supplemental Security Income)		
SSDI (Social Security Disability Insurance)		
Medicaid or Public health insurance (e.g., Apple Health)		
Veteran's benefits		
Unemployment assistance		
Child care assistance		
Transportation assistance		
Other social service (e.g., soup kitchens, free clinics)		

30. Were you ever in the foster care system as a youth?

[ ] Yes

[ ] No

Previous research indicates that individuals from minority or underrepresented groups are more vulnerable to housing and food insecurity. Given that, we ask the following identity questions:

31. How do you describe your race/ethnicity?

32. How do you describe your gender identity?

33. How do you describe your sexual identity?

We would appreciate any additional insight you can offer on the issues addressed in this survey. If you are willing, please take a moment to respond to the questions below.

The survey concludes on the next page with a list of resources.

34. What are the main reasons you choose to live where you currently do?

35. What are your biggest 3-4 expenses? How do you prioritize them?

36. How do your housing and food needs affect your experience of going to the University? In other words, in what ways is your university experience shaped by your housing and food needs?

37. Are there support resources that you would use if they were made available to you? Examples might include help with food or transportation, additional on-campus housing, or more student job opportunities. Please explain your response.

38. Are there resources you use now that could be improved? Please explain your response.

Thank you for taking the time to participate in this survey. You will be entered into a drawing to receive one of 20 \$100 Visa gift cards.

Below please find a list of resources for students on your campus who may be experiencing challenges related to housing, food, or finances.

#### Seattle

- Emergency Aid <http://www.washington.edu/emergencyaid/seattle/>
- UW Seattle Student Life Resources <https://www.washington.edu/studentlife/health/>
- Adjustments to UW Financial Aid <https://www.washington.edu/financialaid/receiving-aid/request-changes-to-your-award/>
- University District Resources <http://doorwayproject.org/u-district-services/>
- For statewide referrals to food, housing, and many other resources, call 211 on your phone or visit Washington 2-1-1 at <https://win211.org/>
- The YMCA Accelerator can help link those aged 18-24 with housing, case management, and employment [www.seattleyymca.org/accelerator](http://www.seattleyymca.org/accelerator)
- To access campus resources for students who have experienced foster care, please connect with the UW Champions Program at [uwchamps@uw.edu](mailto:uwchamps@uw.edu)

#### Tacoma

- Food Pantry on campus <http://www.tacoma.uw.edu/thepantry>
- The Office of Student Advocacy and Support provides referral and support services for emergency housing, food and support. Email: [stusuppt@uw.edu](mailto:stusuppt@uw.edu)
- Emergency Aid <http://www.washington.edu/emergencyaid/tacoma/>
- FREE Student Counseling <http://www.tacoma.uw.edu/search/all-uwst/student%20counseling>
- Shelter for Young adults near our campus: Shelter for young adults 18-24 Open daily 6:30pm – 6:30am. Doors close at 10 pm  
<http://www.communityyouthservices.org/piercecounty.shtml>
- ST Leo's Food Connection <http://foodconnection.org/>
- Rainbow Center Through education, advocacy, and celebration, the Rainbow Center expands resources and safe space for the lesbian, gay, bisexual, transgender, queer, and allied (LGBTQA) community <http://www.rainbowcntr.org>
- Oasis Center <http://www.oasisyouthcenter.org/>
- Center for Equity and Inclusion <http://www.tacoma.uw.edu/equity/center-equity-inclusion>
- Associated Ministries <https://associatedministries.org/>
- For statewide referrals to food, housing, and many other resources, call 211 on your phone or visit Washington 2-1-1 at <https://win211.org/>

## Bothell

- Emergency Aid <http://www.washington.edu/emergencyaid/bothell/>
- UW Bothell CARE Team <https://www.uwb.edu/studentaffairs/care-team>
- Childcare Assistance Program <http://www.uwb.edu/financial-aid/childcare-assistance-program>
- Adjustments to UW Financial Aid <https://www.washington.edu/financialaid/receiving-aid/request-changes-to-your-award/>
- For statewide referrals to food, housing, and many other resources, call 211 on your phone or visit Washington 2-1-1 at <https://win211.org/>

## APPENDIX B. SURVEY DISTRIBUTION AND SAMPLING DETAILS

With the exception of the test launch, each distribution constituted four emails, each targeted by subject and greeting to one of four distribution lists: Seattle undergraduates, Seattle graduate and professional students, Bothell students, and Tacoma students. Students who had already completed the survey were removed from their distribution list before each new reminder email was sent. Between 47 and 49 emails bounced during each email distribution, with the bounced emails distributed roughly proportionally across the four distribution lists. Table A gives a timeline of survey distribution.

**Table A. Timeline of survey distribution**

Date	Email subject line	Description
2/24/2018	UW Housing and Food Survey	Test launch (9 recipients)
2/27/2018	UW* Housing and Food Survey	Initial invitation
3/6/2018	REMINDER: UW Housing and Food Survey	Reminder #1
3/11/2018	Take a study break: Take a survey!	Reminder #2
3/15/2018	Last chance: UW Housing and Food Survey ends tomorrow!	Reminder #3

\* "UW" was replaced with "UWT" and "UWB" for Tacoma and Bothell distribution lists, respectively.

Sampling strategies varied by campus to accommodate campus needs and prevent survey fatigue. Table B provides details on the 8 different strata used for sampling.

**Table B. Strata details**

Strata description	Observations	Sample	Population size	% of population sampled	Response rate
Undergrad, non-HLI <sup>1</sup> (Seattle)	1770	9530	26298	36.2%	18.6%
Undergrad, HLI <sup>1</sup> (Seattle)	347	1627	3254	50.0%	21.3%
Graduate (Seattle)	1286	5974	11951	50.0%	21.5%
Professional <sup>2</sup> (Seattle)	316	2128	2128	100.0%	14.9%
First generation <sup>3</sup> or URM <sup>4</sup> undergrad (Bothell)	229	1600	1618	98.9%	14.3%
Non-first generation <sup>3</sup> and Non-URM <sup>4</sup> undergrad (Bothell)	298	1016	3698	27.5%	29.3%
Graduate (Bothell)	33	264	531	49.7%	12.5%
All students (Tacoma)	1161	5054	5054	100.0%	23.0%

1. "HLI" refers to students participating in the Husky Leadership Initiative. Students from the Husky Leadership Initiative were sampled in separate strata from non-HLI students as a result of coordination with a concurrent survey.

2. "Professional" is an administrative designation comprised of students from dentistry, law, medicine, and pharmacy.

3. "First generation" refers to undergraduate students whose parents did not attend college.

4. "URM" refers to students from under-represented minorities. This administrative designation is comprised of domestic students with the following race/ethnic designation: African-American, Native American, Hispanic American, and Pacific Islander.

