Food and Housing Insecurity Among Social Work Students: Consequences for Academic Achievement

Megan E. Gilster Allison A. Hein Gabrielle M. Perruzzi Aislinn Conrad Catherine A. Croft

Abstract: We know little about social work students' experience with financial hardship, especially food and housing insecurity, during their academic programs. This knowledge gap is problematic because food and housing insecurity negatively impact student success. In response, we surveyed 125 social work students of a public, Midwestern U.S. university in 2019 to investigate students' experience with food and housing insecurity, as well as the factors associated with food and housing insecurity. We conducted descriptive and multivariate analyses, finding that 56% of students reported food or housing insecurity. Student financial characteristics, such as filing a FAFSA and taking out loans, were associated with food and housing insecurity. Students who identified as female and nonbinary were more likely to experience housing insecurity. Finally, we found that food and housing insecurity were each associated with lower reported grade point averages. Suggestions for intervention include schools of social work offering paid practica and emergency funds as well as advocating for improved student loan forgiveness programs at the national level.

Keywords: Food insecurity, housing insecurity, grade point average, social work students, social work education

Nearly 80% of social work students at the bachelor's and master's level graduate with student loan debt (CSWE, 2019, 2021). The average loan debt among social work graduates rose between 2010 and 2020 for both bachelor's and master's graduates—by 10% and 50%, respectively (CSWE, 2021). Student loan debt accumulation among social work students is problematic because the wages of newly graduated social workers have not grown at the same pace as debt burdens have increased (CSWE, 2019). While students are still in their educational programs, student loan debt accumulation is problematic because many students decide between accruing more debt or working extensive hours to cover their educational costs, which include tuition, fees, as well as housing, food, and transportation. Students report that working more hours negatively affects their learning experience (Gair & Baglow, 2018) as does balancing the competing demands of classes, practicum, and work (Benner & Curl, 2018). Together, the extent of student loan accumulation and work hours suggests that social work students may struggle with financial hardship during their education. Financial hardship includes having insufficient money for necessities, including food and housing. Facing financial hardship during

Megan E. Gilster, MSW, PhD, Associate Professor, Social Work, University of Iowa, Iowa City, IA. Allison A. Hein, MSW, Grants and Communications Coordinator, Willis Dady Homeless Services, Cedar Rapids, IA. Gabrielle M. Perruzzi, MSW, Midwest Regional Development Coordinator, Parkinson's Foundation, Chicago, IL. Aislinn Conrad, MSW, PhD, Assistant Professor, Social Work, University of Iowa, Iowa City, IA. Catherine A. Croft, LMSW, Clinical Therapist, Tanager Place, Cedar Rapids, IA.

students' programs of study also inhibits learning (Johnstone et al., 2016). Miles and colleagues (2017) reported high rates of food insecurity among social work students at one university in the Pacific Northwestern United States. However, little research has examined social work students' ability to securely afford the basic needs of both food and housing.

This knowledge gap is problematic given undergraduate and graduate students' experience with food and housing insecurity. A sizeable number of postsecondary students are estimated to have food and housing insecurity (Goldrick-Rab et al., 2018). Food insecurity is defined by Economic Research Services (ERS; Coleman-Jensen et al., 2021) as uncertain access to adequate food due to insufficient financial resources. Housing insecurity is defined by Goldrick-Rab and colleagues (2018) as unaffordable, unstable, or inadequate housing. Without knowledge of social work students' experiences of food and housing insecurity, interventions to improve educational outcomes of struggling students will be less effective. In response to this knowledge gap, we 1) describe the prevalence of food and housing insecurity, 2) examine predictors of food and housing insecurity, and 3) investigate the association between food and housing insecurity and academic achievement as indicated by final grades among the bachelor- and masters-level social work students at one Midwestern public university.

The Impact of Food and Housing Insecurity on Academic Outcomes

University administrators are increasingly seeking to ameliorate student food and housing insecurity (US Government Accounting Office, 2018). Schools of social work have begun examining this issue but have been less involved than university-level administration in mitigating food and housing insecurity among their students. For example, student efforts at Portland State University's School of Social Work to assess student food insecurity led university administration to develop university-level interventions (McBeath & Austin, 2021). Crutchfield and colleagues (2020) found that social work students reported classes and school structures reinforced stigma and hindered their academic progression, resulting in the authors' call for social work programs to expand their role in addressing students' insecurity. Postsecondary students have worse academic outcomes when they experience food and housing insecurity, yet we know little about the impacts of food and housing insecurity among social work students. In the following review of the literature, we synthesize research on food and housing insecurity, common predictors of insecurity, and evidence of the effects of insecurity on academic achievement.

Food Insecurity

Although there is limited research on food insecurity among social work students, there is growing research documenting the enormity of food insecurity among college students in general (Nazmi et al., 2019; Nikolaus et al., 2020). In a systematic review, Nikolaus et al. (2020) found that 36% of students at 4-year postsecondary institutions reported experiencing food insecurity. The only published research on food insecurity among social work students found that 43% reported food insecurity in the previous year (Miles et al., 2017). These rates of food insecurity are especially remarkable when compared to the U.S.

population, among whom 10.5% of households experienced food insecurity in 2020 (Coleman-Jensen et al., 2021).

Researchers have identified several risk factors for food insecurity among samples of postsecondary students, including financial status, housing location, and demographic factors (Broton et al., 2018; El Zein et al., 2017). The following financial statuses were associated with food insecurity among postsecondary students: low income (Broton et al., 2018; Patton-López et al., 2014), Pell grant receipt (El Zein et al., 2017), receiving multiple forms of financial aid (Payne-Sturges et al., 2018), any food assistance receipt (Patton-López et al., 2014), and childhood food insecurity (Broton et al., 2018). Concerning housing, postsecondary students who resided off campus or attended college in an urban area (Broton et al., 2018) were at increased risk for food insecurity compared to students living on-campus or attending suburban and rural colleges. Payne-Sturges and colleagues (2018) likewise found that experiencing housing problems was associated with a greatly increased risk for food insecurity. Demographic factors associated with students' food insecurity included low parental education (El Zein et al., 2017) and non-White race and ethnicity (Broton et al., 2018). To date, one published study examined social work students' risk factors for food insecurity. Miles et al. (2017) reported that debt burden and higher medical and transportation costs among undergraduate and graduate social work students were linked to food insecurity. Further, social work students identifying as persons of color, female, or first-generation college students experienced greater food insecurity. Miles and colleagues also found a higher proportion of BSW students were food insecure than MSW students.

Postsecondary students who experience food insecurity have poorer academic outcomes than food-secure students. Food insecurity negatively impacts students' concentration (Henry, 2017), class attendance (Silva et al., 2017), performance (Henry, 2017; Silva et al., 2017), and grade point average (GPA; El Zein et al., 2017; Morris et al., 2016; Patton-López et al., 2014; van Woerden et al., 2019). GPA has been found to be linked to student persistence, and a pathway through which food insecurity may influence retention (van Woerden et al., 2019). Many of the factors that put students at risk for food insecurity are also related to GPA, suggesting that multivariate analysis is a necessary step forward. We do not know the academic consequences of social work students' food insecurity; understanding their experiences may help programs ameliorate student food insecurity.

Housing Insecurity

Nearly half of postsecondary students, and about 36% of four-year institution students, report housing insecurity (Broton, 2020). Students reported increasing rent and not having enough money for rent as the most common housing difficulty (Goldrick-Rab et al., 2018; Tsui et al., 2011). Some demographic groups have an increased risk for housing insecurity, namely, students who are female or non-binary (Goldrick-Rab et al., 2018; Tsui et al., 2011), persons of color, LGBT (Goldrick-Rab, 2016), parents, over 25 years old, residing off campus, working more than 20 hours a week, and not supported by their parents (Goldrick-Rab, 2016; Tsui et al., 2011). Students with food insecurity are more likely to

face housing insecurity, with an estimated 22% of students at 4-year institutions experiencing both insecurities (Goldrick-Rab et al., 2018). No published studies examined the prevalence of social work student housing insecurity.

To date, there is little research on the association between housing insecurity and academic outcomes. We found only one related quantitative study of students at 4-year institutions. In a study of the California State University system, students facing homelessness had lower grade point averages, especially when they also faced food insecurity, than those who were food and housing secure (Crutchfield & Maguire, 2018). Importantly, there is qualitative evidence that experiencing homelessness has immediate and lasting negative effects on social work students' stress, mental health, and social support (Crutchfield et al., 2020). However, findings were mixed as to the academic consequences of homelessness—while it created stress that has negative effects on executive functioning, some social work students reported that they spent more time on campus and in the library studying because they had nowhere else to go, which may have improved academic outcomes (Crutchfield et al., 2020). Researchers have not yet examined the consequences of a broader range of student housing insecurities, such as unaffordability, on academic outcomes. We, therefore, examined the relationship between housing insecurity and GPA as an indicator of academic achievement.

Methods

We conducted a cross-sectional study to investigate the rates and predictors of food and housing insecurity among social work students attending a public university in the Midwest. We hypothesized that students with more food and housing insecurity would report lower GPAs. The lead author's Institutional Review Board (IRB) approved this project. Per IRB, we protected the identity of respondents by not reporting findings for indicators with sample sizes of 5 or less.

Sample and Context

This study sought to survey all 361 undergraduate and graduate social work students enrolled in a Midwestern public university's School of Social Work in 2019. The School of Social Work at the time was composed of 72% graduate students and 78% white students. About half of social work students attended the main campus (47%) with the remainder attending three satellite learning centers or one hybrid online learning center. The University is large (over 15,000 students), with three-quarters of undergraduate and graduate students identifying as white in 2019. Undergraduate students may apply to major in social work starting in their Junior Year, so all were upper level.

Data Collection

From March to April 2019, we surveyed undergraduate and graduate social work students. We recruited students via email invitations to an online survey using Qualtrics. We screened students' eligibility to take the survey by asking age, program of study, and learning center location and type. Students were eligible to participate if they 1) were at

least 18 years old, 2) were students in the bachelor's or master's social work program at our University, and 3) completed the survey between March and mid-April 2019. Of the 156 students who we screened, five did not meet the eligibility criteria. Twenty-six students dropped out before completing the GPA question, our primary dependent variable. Because those 26 students had comparable rates of food and housing insecurity to the full sample, we removed those participants, resulting in an analytic sample of 125 students. The data collection instrument was reviewed by master's students in a research class. Although changes were made to the full instrument based on this feedback, no changes were required for the measures used in this paper.

Measures

All measures were collected via the self-reported, 57-item online survey described above. In this section, we describe the dependent variable, independent variables, and covariates used in our analysis.

Grade Point Average (GPA)

GPA is a frequently measured academic outcome in studies of student success (Kuh et al., 2007). A low GPA can be grounds for academic probation (and potentially dismissal) and termination of financial aid. At this university, social work students would be placed on academic probation for a GPA under 2.0 for undergraduate and under 3.0 for graduate students. Respondents self-reported their December 2018 GPA. Self-reported GPA is highly correlated with actual GPA (Kuncel et al., 2005). GPA ranges from 0 to 4.33 at this Midwestern university, with 4.33 representing an A+.

Food Insecurity

We created two food insecurity variables following USDA Economic Research Service (ERS; 2012) guidelines for the six-item short form of the Household Food Security Survey Module (USDA ERS, 2012), which assesses household food insecurity during the last 12 months. This short form was chosen to minimize survey burden and has been validated for use in classifying food security in the general population (Blumberg et al., 1999). Food insecurity captures uncertain access to adequate food due to inadequate financial resources. The six items of the scale address distinct aspects of food insecurity. Example items include, "The food that we bought just didn't last, and we didn't have money to get more," and "we couldn't afford to eat balanced meals." For the first measure, per the USDA ERS (2012) measurement guidelines, we created levels of food insecurity, an ordinal variable with three categories (0 = no food insecurity, 1 = low food security, 2 = very low food security). For the second measure, food insecurity was recoded into a dichotomous variable by combining low food security and very low food security into one category, food insecure (1 = low food security or very low food security) and retaining food security as the reference category (0 = no food insecurity; USDA ERS, 2012).

Table 1. *Matrix of Levels of Food Insecurity and Food Insecurity Indicator Variables* (USDA ERS, 2012)

	Food security ("0")	Food insecurity ("1")		
Food security ("0"):	X			
Affirmative answers to 0-1 items				
Low food security ("1"):		X		
Affirmative answers to 2-4 items				
Very low food security ("2"):		X		
Affirmative answers to 5-6 items				

Housing Insecurity

Measures of housing insecurity have not been consistent among studies of college students (Broton, 2020). We selected a measure of housing insecurity that Goldrick-Rab and colleagues (2018) created to assess housing insecurity specifically in samples of students in higher education across the U.S. Eight survey items assess housing insecurity in the last 12 months—a seven-item checklist of experiences and one additional question about the number of moves (Goldrick-Rab et al., 2018). The 7-item checklist included whether the respondent had to "not pay or underpay your rent or mortgage?" and "move in with other people, even for a little while, because of financial problems?" Following Goldrick-Rab et al. (2018), we created a binary housing insecurity variable to indicate students who did not experience any housing insecurity as "0" and any checklist item or at least two moves as "1." The measure had sufficient internal reliability with a Cronbach's alpha of $\alpha = 0.70$ in this sample.

Covariates

We collected data on demographic and program characteristics to examine their association with food and housing insecurity in bivariate analysis and as covariates in regression models. Students' race and ethnicity was an identifier of students of color, which included students who checked African American/Black, Native American, Asian, Pacific Islander, Latinx, Mixed Race, and Other. Gender identity was assessed with an item with three response options—female, male, and non-binary. Loans was an indicator variable that students selected loans from a list of funding sources they used to pay for their education, regardless of the use of any other funding sources. Learning center was a nominal, 5-category variable indicating which online or place-based learning centers students attended. Degree program was an indicator of enrollment in the Bachelor of Arts in Social Work (BASW) or MSW program.

Analysis

We conducted data analysis in Stata 16. Using chi-square tests of independence, we investigated the association between demographic and program characteristics and food and housing insecurity. For parsimony and to avoid small cell size, we report the results of bivariate analyses with the second, dichotomous indicator of food insecurity. We also tested associations with ordinal levels of food insecurity to check for consistency. To test

our hypothesis, we conducted OLS regression predicting GPA with ordinal levels of food insecurity and binary housing insecurity. Both were treated as categorical variables using an indicator approach (Kutner et al., 2004, p. 319). We note that categorical independent variables, though not typical of OLS models are appropriate predictors for OLS (e.g., Kutner et al., 2004). We controlled for other variables related to food and housing insecurity and GPA. For instance, we controlled for degree program because the minimum GPA for academic probation varies by program and the grade required to pass an undergraduate class is lower than that for a graduate class (i.e., D- vs. C-, respectively), both of which could result in higher graduate student GPAs. We controlled for learning center because we suspected that instructors in each center may grade differently.

Results

Respondents were primarily female, White MSW students. Nearly three-quarters of students filed a FAFSA, and 68% had taken out loans to cover their educational costs (see Table 2). More than three-quarters of students were employed—35% in full-time and 42% in part-time employment. Over half of students rented their homes, with about a third owning, and a small minority in another living situation (e.g., with family).

Table 2. Univariate Analysis of Characteristics of Social Work Student Respondents (n=125)

of Social Work Student Respondents (n=123)			
Indicator	n (%)		
Levels of food insecurity			
Food security	67 (53.6%)		
Low food security	31 (24.8%)		
Very low food security	27 (21.6%)		
Housing insecurity			
Housing security	69 (55.2%)		
Housing insecurity	56 (44.8%)		
Race and Ethnicity			
White	102 (81.6 %)		
Student of color	23 (18.4%)		
Gender identity			
Female	114 (91.2%)		
Male ^a			
Non-binary ^a			
FAFSA filed			
Filed	91 (72.8%)		
Not filed	34 (27.2%)		
Employment			
Part-time	53 (42.4%)		
Full-time	44 (35.2%)		
Choose no employment	14 (11.2%)		
Not employed	14 (11.2%)		
Loans for education costs			
Yes	85 (68.0%)		
No	40 (32.0%)		

Tenure			
Rent	69 (55.2%)		
Own	41 (32.8%)		
Neither	15 (12.0%)		
Household composition			
Alone	16 (12.8%)		
With roommates	39 (31.2%)		
With parents/guardians	11 (8.8%)		
With significant other	50 (40.0%)		
With children (and no other			
adult) ^a			
University or Greek Housing ^a			
Degree Program			
BA	32 (25.6%)		
MSW	93 (74.4%)		
Indicator	M(SD)		
Grade point average (0-4.33)	3.69 (.39)		
^a statistics suppressed because fewer than 10			
respondents per group to mask Ns of groups fewer			
than 5			

About 46% of students experienced any food insecurity. More specifically, 24.8% of students experienced low food security, and 21.6% experienced very low food security (see Table 2). Similarly, 45% experienced housing insecurity. In additional analysis not reported in Table 2, we found that over half of the students experienced at least one type of food or housing insecurity (56%).

Bivariate Analyses

According to results from our chi-square tests, there were statistically significant group differences in food insecurity based on employment, student loans, housing, and program of study (Table 3). Respondents who were unemployed, had student loans, rented their home, resided with roommates, or were BASW students were more likely to be food insecure. Not presented in Table 3, we tested these characteristics with the USDA's three-category measure of food insecurity. We found that results were similar to those of the binary indicator, except for MSW students being more likely to experience very low food security compared to BASW students. Respondents who were female or nonbinary, took out student loans, and rented their homes were all more likely to be housing insecure. Surprisingly, neither employment nor household composition was significantly associated with housing insecurity.

Table 3. Bivariate Associations of Demographic and Program Characteristics with Food or Housing Insecurity (n=125)

	Food Inse	curity	Housing Insecurity	
	% Insecure	<i>p</i> -value	% Insecure	<i>p</i> -value
Race and Ethnicity		.133		.454
White	43.1%		43.1%	
Person of color	60.9%		52.2%	
Gender identity		.231		.034
Female	46.5%		46.5%	
Male	33.3%		11.1%	
Nonbinarya				
FAFSA		.002		.016
Filed	55.0%		51.6%	
Not filed	23.5%		28.6%	
Employment		.008		.074
Part-time	50.9%		41.5%	
Full-time	47.7%		50.0%	
Choose no employment	7.1%		21.4%	
Not employed	65.3%		64.3%	
Loans for education costs		<.001		<.001
Yes	58.8%		56.5%	
No	20.0%		20.0%	
Tenure		<.001		.017
Rent	65.2%		56.5%	
Own	19.5%		29.3%	
Neither	33.3%		33.3%	
Household composition		<.001		.198
Alone	56.3%		56.3%	
With roommates	76.9%		56.4%	
With parents/guardians	18.2%		18.2%	
With significant other	26.0%		36.0%	
With children (and no other adult)	42.9%		57.1%	
University or Greek Housing ^a				
Degree Program		.109		.143
BA	59.4%		56.3%	
MSW	42.9%		40.8%	
a. statistics suppressed because fewer th	nan 5 responde	ents per gro		

Food and housing insecurity were significantly associated with each other χ^2 =(1, n=125)=42.92, p<.001. More than three-quarters of students who were housing insecure were food insecure; likewise, more than 75% of students experiencing food insecurity also experienced housing insecurity. This association was more pronounced among students experiencing very low food security, the most severe level of food insecurity, of whom nearly 90% were housing insecure $\chi^2(2, n$ =125) = 45.7, p<.001.

There were statistically significant group differences in GPA between food insecure (M=3.56) and food secure (M=3.81) students, t(123)=3.87, p<.001. Most of this difference was attributed to students experiencing very low food security having the lowest average GPA (M=3.36), F(2,122)=16.20, p<.001. Housing-secure students had a significantly

higher average GPA (M=3.82) than did housing-insecure students (M=3.54), t(123)=4.38, p<.001.

Multivariate Analyses

Results from our regression model supported both of our hypotheses (Table 4). Our model explained 29% of the variation in GPA, with statistically significant associations between degree program, food insecurity, housing insecurity, and GPA. As expected, MSW students had higher GPAs than BSW students. No other covariates were significant in the multivariate model. After controlling for covariates, experiencing very low food security was associated with a -.23 lower GPA than was food security (the reference category). Experiencing housing insecurity was associated with a -.21 lower GPA than was experiencing housing security. Taken together, predicted GPAs for students experiencing both very low food security and housing insecurity would be nearly half a grade point lower than students experiencing no such hardship. For example, MSW students in program majority groups (white, female, main campus) experiencing very low food security and housing insecurity would have a predicted GPA of 3.41 compared to 3.85 for MSW students in majority groups with no insecurity, which translates to the difference between an A and a B+.

Table 4. OLS Regression Model Predicting
$GPA (n=125; Adjusted R^2 = .29)^a$

OIA (II-125, Aujustea K = .29)		
	B (SE)	
Levels of food insecurity		
Food security	ref	
Low food security	-0.02(0.08)	
Very low food	-0.23(0.10)*	
security		
Housing insecurity		
Housing security	ref	
Housing insecurity	-0.21(0.08)**	
Degree program		
BA	ref	
MSW	0.17(0.07)*	
Constant	3.68(0.08)***	
* p<0.05; ** p<0.01; *** p<0.001 a. Controls for learning center, gender, and race/ethnicity		

Discussion

To date, researchers have not examined social work students' food and housing insecurity and the effect of insecurity on their academic achievement. In response, we studied the prevalence of food and housing insecurity, demographic and program characteristics associated with food and housing insecurity, and the association of food and housing insecurity with GPA. We found that filing a FAFSA, taking out student loans, and

renting one's home were all associated with both food and housing insecurity. We found support for our hypotheses, finding that housing insecurity and extreme food insecurity (i.e., very low food security) predicted lower GPA. Our study contributes to the limited research on food and housing insecurity among social work students.

Our results suggest that food and housing insecurity are widespread and often co-occur for social work students at this institution. The high rates of food insecurity in our study were in line with a previous survey of social work students (Miles et al., 2017). These findings reflect the social work student experience before the Covid-19 pandemic. Evidence is beginning to suggest that the pandemic worsened food insecurity among college students in general (Glanstman et al., 2022), which might suggest that our rates undercount the proportion of students experiencing insecurity. Remarkably, 34% of our study respondents experienced both types of insecurity, which is much higher than the roughly 22% of students across 4-year institutions (e.g., Goldrick-Rab et al., 2018). Our findings of high rates of food, housing, and compound insecurities suggest that social work students may be uniquely vulnerable to insecurities. Social work students may be more at risk for insecurity, may be less likely to use food and housing supports, or their unique educational experiences (e.g., unpaid practicum) may contribute to their high rates of insecurities. Future research on social work student insecurity should investigate these possibilities.

Findings suggest differences between students at the BA and MSW level in the extent of food insecurity but no differences in housing insecurity. We found that BA students were somewhat more likely to have been food insecure than MSW students, consistent with a previous study of social work students (Miles et al., 2017). However, when we examined levels of food insecurity, more MSW students experienced very low food security, the most extreme form of food insecurity more so than BA students. With our study's findings of higher rates of both housing insecurity and very low food security among MSW students, we solidify the need for additional research on graduate students. While there is a larger field of research investigating college food and housing insecurity, the samples of these studies are overwhelmingly undergraduate students, whose experiences may be notably different from those of graduate students. Before implementing interventions, programs should examine whether MSW students may have disparate risk factors (e.g., receipt of multiple sources of financial aid, financially independent of parents), coping mechanisms (e.g., self-care practices honed in practice experience before returning to school), and institutional supports (e.g., graduate students may have little access to undergraduate student services staff) and, therefore, may need different interventions than bachelor's students.

Our finding that both housing insecurity and very low food security predicted lower GPA among social work students in multivariate analysis is consistent with existing quantitative literature on food insecurity (El Zein et al., 2017; Morris et al., 2016; Patton-Lopez et al., 2014) and homelessness (Crutchfield & Maguire, 2018). Because GPA might indicate the extent of a students' learning, may impact their relationship with faculty (perceived or otherwise), can disqualify students from merit-based financial assistance when below required thresholds, and might lead to removal or dropout, our findings highlight the potential consequences that students' experiences of insecurity might have on

meeting their academic and career goals. However, qualitative studies have found a more mixed effect of homelessness and housing insecurity on academic achievement (Crutchfield & Maguire, 2018), especially among social work students (Crutchfield et al., 2020). Variation in the impact of insecurity on GPA and associated academic outcomes may be attributable to faculty support of students (Crutchfield et al., 2020), putting schools of social work in an essential position for interrupting these cumulative disadvantages. Future research might investigate both the mechanisms through which insecurity impacts grades and the consequences of lower grades on other student outcomes.

Implications for Practice and Research

Our findings have implications for universities, schools of social work, students, and researchers. Our results demonstrate a need for more research on food and housing insecurity among all students, including social work students. The dearth of literature on food and especially housing insecurity is problematic because, although universities must continue to intervene to address insecurity, they may be acting without a clear understanding of the problem or the appropriate level of intervention. In response, we suggest that universities and schools of social work prioritize research on food and housing insecurity to better understand the depth and breadth of the problem. In particular, researchers could study the impact of employment, financial aid, loans, academic requirements, and practicum on social work students' experience with food and housing insecurity and subsequent personal well-being and academic performance. Understanding how students manage competing demands and financial stressors may help illuminate the realities of attending 4-year or graduate programs for many students. In the absence of this knowledge, interventions may be poorly aligned with students' needs and may not change systemic issues.

Schools of social work should consider offering emergency funds in the short-term and paid practicum placements in the long-term. Social work programs require practicum, yet practica are time-intensive, and most are unpaid, inhibiting students' ability to hold full-time jobs outside of school, in turn, generating financial stress (Johnstone et al., 2016; Ryan et al., 2011). These stressors negatively impact students' ability to buy food, pay rent, and, ultimately, learn (Gair & Baglow, 2018; Johnstone et al., 2016). As we do not yet understand the ramifications of paid practicum on students' basic needs, researchers should evaluate whether paid practicum decreases student food and housing insecurity. If the evidence supports paid practicum, schools of social work could fundraise for student stipends and seek school-agency partnerships to facilitate paid placements.

Because fundraising for and establishing school-agency partnerships for paid practica might take years to establish at scale (see Payment for Placements [P4P], n.d.), schools of social work should consider two alternative interventions—a case management approach to refer to university and community resources and an emergency fund that would be available to social work students as a short-term solution for housing and food insecurity. As universities grow their response to student food and housing insecurities, social work students should be encouraged and supported in the use of both university and community food and housing resources. For instance, in the years following this study, the University

implemented a one-stop- model where both graduate and undergraduate students could get help meeting their food and housing needs (Price & Umaña, 2021), including a food pantry and emergency funds. However, students may not be eligible for all services because of their student or unpaid practicum statuses, if, for example, the USDA reverts to prepandemic SNAP policies (USDA, 2021). Furthermore, with growing online social work education programs, online students may experience barriers to accessing the resources of a University's main campus. Emergency funds could be awarded monthly to students expressing a substantial unmet financial need, providing help for things such as rent, groceries, and utility bills, which some social work programs have implemented (Simmons et al., 2018). Access to emergency funds would allow social work students to fulfill their program requirements while still being able to afford to pay their bills and feed themselves.

Both students and instructors within schools of social work can work together to make changes within their institutions. Due to the lack of research on food and housing insecurity among social work students, instructors may not realize their students are facing these challenges. One suggestion is that instructors incorporate material about food and housing insecurity into their lectures and assignments while acknowledging the pervasiveness of student food and housing insecurity within their school. Inclusively teaching about food and housing insecurity will help raise awareness about the problem and also normalize the experience for students which might encourage them to reach out for assistance. By raising awareness, students may come together to advocate for themselves and their fellow students, collectively organize through student groups, and educate other students about what they can do to improve their programs (Goldrick-Rab et al., 2018). Because social work classes are focused on required competencies of social justice, policy advocacy, and planned change, social work classes are ideal for project-based assignments to address food and housing insecurity. Through class assignments and honest conversations about food and housing insecurity, students and instructors can find creative solutions that improve students' and community members' ability to meet their basic needs.

Students, instructors, and the broader social work community should also advocate for student loan forgiveness and lower tuition rates, which commonly increase every year (Goldrick-Rab, 2016). Loan forgiveness programs were intended to promote degree earners to choose public service careers. Loans cover the cost of attendance, which includes tuition and fees as well as costs of living like food and housing, during their educational program. Thus, loans are one way in which students meet their basic needs during their undergraduate and/or graduate social work education. However, despite nearly 3 million public service loan forgiveness forms submitted, only about 2% have been forgiven as of March 2023 (Federal Student Aid, 2023). The current structure of loan repayment programs burdens all students, including students of social work programs (Kastner, 2019), adding to students' financial stress. Because loan repayment programs are burdensome and uncertain, students may choose to take out fewer loans, creating more financial insecurity during their program. In the absence of changes to the U.S. student loan forgiveness programs, social work students will continue feeling stressed and unable to afford basic necessities like food and shelter.

Finally, although GPA is commonly used to measure academic success (e.g., Patzer et al., 2017; Simmons et al., 2018), GPA may be most important in its relationship to degree

persistence (Stewart et al., 2015), and, for undergraduate students, continuation to an MSW program. Research on social work student food and housing insecurity conducted with larger samples and longitudinal designs may be able to detect the impacts of insecurity and of the potential interventions suggested above on these important transitions across semesters, to graduation, and to future study.

Limitations

Our study's limitations pertain to our sampling strategy, sampling bias, and an inability to capture all relevant characteristics associated with food and housing insecurity and GPA. First, we used a small convenience sample. Our final sample size (n=125) compromised about 35% of social work students in our program. The small convenience sample means that this study's findings cannot be generalized to all social work students within the studied university. Nor can findings be generalized to other social work programs across the United States. This was a single university, and students in the program live across this Midwestern state and in neighboring states; the state has less racial and ethnic diversity than other states. Second, we do not know why some students opted to take the survey while others did not. Student interest or experience with food and housing insecurity may have motivated students to complete the survey. This motivation might upwardly bias our estimates of food and housing insecurity. Third, in bivariate analysis, we examined whether FAFSA completion was associated with food and housing insecurity. Increasingly, states are requiring FAFSA completion as a graduation requirement. While none of those state laws were in effect when our population would have been high school seniors (the earliest was Alabama whose policy went into effect in the 2018-2019 academic year (Cameron & Lacy, 2020), which is the same year data was collected), schools or districts may have had policies or practices that emphasized universal application. If the FAFSA was required or expected of all students, rather than those anticipating financial aid need, it would have confounded the meaning of the measure. Certainly, future research should not consider the FAFSA as a marker of socioeconomic status.

Fourth, we did not include some items in the survey that might impact food and housing insecurity and GPA, and therefore could not control for them. Unaccounted for items include age, hours of employment, household size, whether in practicum, year in program, and full-time enrollment status. Those choices were primarily made to limit survey burden. We do, however, know that a sizable portion of students would have been in both courses and practicum. At the School of Social Work under study, full-time MSW students are in courses and practicum concurrently in the spring of both their first and second years. Undergraduate social work students typically complete generalist practicum in the spring or summer of their senior year. As noted above, future research examining these characteristics may elucidate moments when food and housing insecurity are most felt by social work students. Despite these limitations, our study provides new insights into social work students' experiences, particularly their experiences of housing insecurity.

Conclusion

The field of social work is grounded in ethical principles to assist those in need, including social work students, and to challenge social injustice. Our findings suggest that many social work students cannot afford food and housing and suffer academic consequences as a result. If social work students are preoccupied with food and housing insecurity, they may be missing vital content in class. Our profession's ethical principles urge us to address the social injustice at the root of food and housing insecurity and to help social work students meet their basic needs. Until we meet students' basic needs, students will struggle to learn, which impairs their future capacity to practice social work. By investing in social work students' food and housing needs, schools of social work can graduate more competent and better educated social workers, leading to better outcomes for social workers, clients, and communities.

References

- Benner, K., & Curl, A. L. (2018). Exhausted, stressed, and disengaged: Does employment create burnout for social work students? *Journal of Social Work Education*, *54*, 300-309. https://doi.org/10.1080/10437797.2017.1341858
- Blumberg, S. J., Bialostosky, K., Hamilton, W. L., & Briefel, R. R. (1999). The effectiveness of a short form of the Household Food Security Scale. *American Journal of Public Health*, 89, 1231-1234. https://doi.org/10.2105/AJPH.89.8.1231
- Broton, K. M. (2020). A review of estimates of housing insecurity and homelessness among students in U.S. higher education. *Journal of Social Distress & Homelessness*, 29, 25-38. https://doi.org/10.1080/10530789.2020.1677009
- Broton, K. M., Weaver, K. E., & Mai, M. (2018). Hunger in higher education: Experiences and correlates of food insecurity among Wisconsin undergraduates from low-income families. *Social Sciences*, 7, 1-25. https://doi.org/10.3390/socsci7100179
- Cameron, M. L., & Lacy, T. A. (2020, June 4). Many states require FAFSA filing before high school graduation, but timing can be everything. Brown Center Chalkboard, Brookings Institution. https://www.brookings.edu/blog/brown-center-chalkboard/2020/06/04/many-states-require-fafsa-filing-before-high-school-graduation-but-timing-can-be-everything/
- Coleman-Jensen, A., Rabbit, M. P., Gregory, C. A., & Singh, A. (2021, September). Household Food Security in the United States in 2020. Economic Research Report No. ERR-298, U.S. Department of Agriculture, Economic Research Service. https://www.ers.usda.gov/publications/pub-details/?pubid=102075
- Council on Social Work Education [CSWE]. (2019). From social work education to social work practice: Results of the survey of 2018 social work graduates. https://www.cswe.org/Research-Statistics
- CSWE. (2021). 2020 Statistics on social work education in the United States: Summary of the CSWE Annual Survey of Social Work Programs. https://www.cswe.org/getattachment/726b15ce-6e63-4dcd-abd1-

- 35d2ea9d9d40/2020-Annual-Statistics-On-Social-Work-Education-in-the-United-States.pdf?lang=en-US
- Crutchfield, R. M., & Maguire, J. (2018). California State University Office of the Chancellor study of student basic needs. https://www.calstate.edu/impact-of-the-csu/student-success/basic-needs-initiative/Documents/BasicNeedsStudy phaseII withAccessibilityComments.pdf
- Crutchfield, R. M., Maguire, J., Campbell, C. D., Lohay, D., Valverde Loscko, S., & Simon, R. (2020). "I'm supposed to be helping others": Exploring food insecurity and homelessness for social work students. *Journal of Social Work Education*, *56*, S150-S162. https://doi.org/10.1080/10437797.2020.1741478
- El Zein, A., Shelnutt, K., Colby, S., Olfert, M., Kattelmann, K., Brown, O., Kidd, T., Horacek, T., White, A., Zhou, W., Vilaro, M., Greene, G., Morrell, J., Riggsbee, K., & Mathews, A. (2017). Socio-demographic correlates and predictors of food insecurity among first year college students. *Journal of the Academy of Nutrition and Dietetics*, 117(10), A146. https://doi.org/10.1016/j.jand.2017.08.102
- Federal Student Aid. (2023). Public Service Loan Forgiveness Data, March 2023. https://studentaid.gov/data-center/student/loan-forgiveness/pslf-data
- Gair, S., & Baglow, L. (2018). Australian social work students balancing study, work, and field placement: Seeing it like it is. *Australian Social Work, 71*, 46-57. https://doi.org/10.1080/0312407X.2017.1377741
- Glantsman, O., McGarity-Palmer, R., Swanson, H. L., Carroll, J. T., Zinter, K. E., Lancaster, K. M., & Berardi, L. (2022). Risk of food and housing insecurity among college students during the COVID-19 pandemic. *Journal of Community Psychology*, 50, 2726-2745. https://doi.org/10.1002/jcop.22853
- Goldrick-Rab, S. (2016). Paying the price: College costs, financial aid, and the betrayal of the American dream. University of Chicago Press. https://doi.org/10.7208/chicago/9780226404486.001.0001
- Goldrick-Rab, S., Richardson, J., Schneider, J., Hernandez, A., & Cady, C. (2018). *Still hungry and homeless in college*. Wisconsin Hope Lab. https://www.studentarc.org/tools-and-resources/report/wisconsin-hope-lab-still-hungry-and-homeless
- Henry, L. (2017). Understanding food insecurity among college students: Experience, motivation, and local solutions. *Annals of Anthropological Practice*, 41, 6-19. https://doi.org/10.1111/napa.12108
- Johnstone, E., Brough, M., Crane, P. R., Marston, G., & Correa-Velez, I. (2016). Field placement and the impact of financial stress on social work and human services students. *Australian Social Work, 69*, 481-494. https://doi.org/10.1111/napa.12108
- Kastner, D. (2019). NASW staff attends hearing on Capitol Hill examining failed implementation of PSLF program.

 http://www.socialworkblog.org/advocacy/2019/10/nasw-staff-attends-hearing-on-capitol-hill-examining-failed-implementation-of-pslf-program/

- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2007). Piecing together the student success puzzle: Research, propositions, and recommendations. *ASHE Higher Education Report*, 32(5), 1-182. https://doi.org/10.1002/aehe.3205
- Kuncel, N. R., Crede, M., & Thomas, L. L. (2005). The validity of self-reported grade point averages, class ranks, and test scores: A meta-analysis and review of the literature. *Review of Educational Research*, *75*, 63-82. https://doi.org/10.3102/00346543075001063
- Kutner, M. H., Nachtsheim, C. J., & Neter, J. (2004). *Applied linear regression models. Fourth edition*. McGraw-Hill.
- McBeath, B., & Austin, M. J. (2021). Redesigning schools of social work into schools of social work and social justice: Opportunities for civic and organizational renewal in a justice reform environment. *Journal of Social Work Education*, 57, 224-237. https://doi.org/10.1080/10437797.2021.1912677
- Miles, R., McBeath, B., Brockett, S & Sorenson, P. (2017). Prevalence and predictors of social work student food insecurity. *Journal of Social Work Education*, *53*, 651-663. https://doi.org/10.1080/10437797.2017.1299062
- Morris, L. M., Smith, S., Davis, J., & Null, D. B. (2016). The prevalence of food security and insecurity among Illinois university students. *Journal of Nutrition Education and Behavior*, 48(6), 376-382. https://doi.org/10.1016/j.jneb.2016.07.017
- Nazmi, A., Martinez, S., Byrd, A., Robinson, D., Bianco, S., Maguire, J., Crutchfield, R. M., Condron, K., & Ritchie, L. (2019). A systematic review of food insecurity among US students in higher education. *Journal of Hunger & Environmental Nutrition*, 14(5), 725-740. https://doi.org/10.1080/19320248.2018.1484316
- Nikolaus, C. J., An, R., Ellison, B., & Nickols-Richardson, S. M. (2020). Food insecurity among college students in the United States: A scoping review. *Advances in Nutrition*, 11(2), 327-348. https://doi.org/10.1093/advances/nmz111
- Patton-López, M. M., López Cevallos, D. F., Cancel-Tirado, D. I., & Vazquez, L. (2014). Prevalence and correlates of food insecurity among students attending a midsize rural university in Oregon. *Journal of Nutrition Education and Behavior*, 46(3), 209-214. https://doi.org/10.1016/j.jneb.2013.10.007
- Patzer, B., Lazzara, E. H., Keebler, J. R., Madi, M. H., Dwyer, P., Huckstadt, A. A., & Smith-Campbell, B. (2017). Predictors of nursing graduate school success. *Nursing Education Perspectives*, *38*(5), 272-274. https://journals.lww.com/neponline/toc/2017/09000
- Payment for Placements [P4P]. (n.d.). *UM Payment for Placements: An Overview*. https://docs.google.com/document/d/lu8xt3AGBJF2DsfkWW5DoqP4bpplMAH3xVFyTPmJWMKg/edit
- Payne-Sturges, D. C., Tjaden, A., Caldeira, K. M., Vincent, K. B., & Arria, A. M. (2018). Student hunger on campus: Food insecurity among college students and implications for academic institutions. *American Journal of Health Promotion*, *32*, 349-354.

- Price, D., & Umaña, P. (2021, May). One stop center models: A guide to centralizing students' basic needs supports. The Hope Center for College, Community, and Justice
- Ryan, M., Barns, A., & McAuliffe, D. (2011). Part-time employment and effects on Australian social work students: A report on a national study. *Australian Social Work*, 64, 313-329. https://doi.org/10.1080/0312407X.2010.538420
- Silva, M. R., Kleinert, W. L., Sheppard, A. V., Cantrell, K. A., Freeman-Coppadge, D. J., Tsoy, E., Roberts, T., & Pearrow, M. (2017). The relationship between food security, housing stability, and school performance among college students in an urban university. *Journal of College Student Retention: Research, Theory & Practice, 19*, 284-299. https://doi.org/10.1177/1521025115621918
- Simmons, L. D., Taylor, L. C., Anderson, K., & Neely-Barnes, S. L. (2018). Comparative experiences of first-and continuing-generation social work students. *Journal of Social Work Education*, *54*, 480-491. https://doi.org/10.1080/10437797.2018.1434436
- Stewart, S., Lim, D. H., & Kim, J. (2015). Factors influencing college persistence for first-time students. *Journal of Developmental Education*, 38(3), 12-16, 18-20. https://eric.ed.gov/?id=EJ1092649
- Tsui, E., Freudenberg, N., Manzo, L., Jones, H., Kwan A., & Gagnon, M. (2011). Housing instability at CUNY: Results from a survey of CUNY undergraduate students. Healthy CUNY Initiative, City University of New York. https://www.gc.cuny.edu/sites/default/files/2021-05/cunyhousinginstability.pdf
- U. S. Government Accountability Office [US GAO]. (2018, December). Food insecurity: Better information could help eligible college students access federal food assistance benefits. https://www.gao.gov/products/GAO-19-95
- USDA Economic Research Service. (2012). *U.S. household food security survey module:* Six-item short form. https://www.ers.usda.gov/media/8282/short2012.pdf
- USDA Food and Nutrition Service. (2021, March). Supplemental Nutrition Assistance Program (SNAP): Students. https://www.fns.usda.gov/snap/students
- Van Woerden, I., Hruschka, D., & Bruening, M. (2019). Food insecurity negatively impacts academic performance. *Journal of Public Affairs*, 19, 1-10. https://doi.org/10.1002/pa.1864

Author note: Address correspondence to Megan Gilster, School of Social Work, University of Iowa, Iowa City, IA. Email: megan-gilster@uiowa.edu

Acknowledgements: The authors wish to thank the students in the first author's MSW research classes who helped shape the larger survey. We also wish to thank Sara Sanders, then director of the School of Social Work and current dean of the College of Liberal Arts and Sciences and John Keller, then associate provost for graduate education and dean of the Graduate College and current special assistant to the provost at the University of Iowa for influential conversations about interventions at our University that shaped our recommendations. The content of this article, however, is the sole responsibility of the authors.