Safety, Security, and College Attainment:

An Investigation of Undergraduates' Basic Needs and Institutional Response*

Katharine Broton
Doctoral Candidate in Sociology

Victoria Frank
Doctoral Student in Social Welfare

&

Sara Goldrick-Rab
Professor of Educational Policy Studies & Sociology
University of Wisconsin-Madison

Abstract

There is increasing evidence that students from low-income families are facing great difficulties in covering the costs of college attendance, as need-based financial aid has not kept up with rising costs. For some students, these financial constraints can lead to difficult decisions about whether to sacrifice consistent access to food or secure and safe housing in order to remain in school. This paper examines evidence of these struggles among undergraduates and then turns to consider how institutional leaders are responding. Using quantitative and qualitative data from five states, we explore three types of responses. One group of leaders embraces the work of meeting students' basic needs as part of the college mission and actively seeks strategies and solution, while another group expresses a desire to help but mainly engages in wishful thinking. At the same time, some institutional actors respond to students' financial constraints by questioning whether or not they belong in college, raising concerns about their deservingness. Implications for future research, policy, and practice are discussed.

Introduction

At the start of the twenty-first century more young people than ever are enrolling in college. Today's college students differ greatly from those of past generations: enrollment has increased among groups historically underrepresented in higher education, including women, minorities, and those from low-income and poor families (Baum, Kurose, & McPherson, 2013). Enrollment increases have partly been fueled by the well-known benefits awarded to those with postsecondary credentials: on average, those holding a college degree receive higher wages and better fringe benefits (Baum, Ma, & Payea, 2013; Belfield & Bailey, 2011; Oreopoulos & Petronijevic, 2013) and enjoy better health and a host of other positive outcomes (Wolfe & Haveman, 2002). Despite growth in enrollment, however, college completion rates are stagnant (Bound, Lovenheim, & Turner, 2009) and the graduation gaps by family income have never been larger (Bailey & Dynarski, 2011).

Research indicates that students from low-income families have difficulty covering the costs of attending college and that those challenges can inhibit degree completion (Engle & Tinto, 2008; Goldrick-Rab, 2013; Walpole, 2003). Needy students often have to work long hours (Bozick, 2007), forgo the purchase of books, computers and other supplies in order to make college possible, and sometimes leave college for periods of time (DesJardins, Ahlburg, & McCall, 2006; Terriquez & Gurantz, 2014). Survey data show that one of the most common reasons for college dropout is the need to work for pay (Johnson & Rochkind, 2009), suggesting that when finances get tough, the poorest students leave.

In this paper, we consider the students who stay enrolled in college despite their lack of financial means. The study delves deep into the challenge of college affordability by exploring what media reports suggest may be a growing trend: students pursuing college degrees without

sufficient resources to meet their basic needs. Synthesizing findings from survey and interview data across multiple colleges and universities, we describe and document the lived experience of these students as they struggle with food and housing insecurity and a lack of access to safe spaces to live and study, all while attempting to remain in college. We then examine the ways in which some colleges respond to those students, both in terms of approach and specific actions taken.

This is a nascent area of inquiry: while poverty researchers have long studied food and housing insecurity among low-income adults, very few analysts have addressed those issues among the college-going population. In the wake of the Great Recession, however, the media has paid increased attention to the growing number of students facing these challenges (Bahrampour, 2014; Guo, 2014; Kasperkevic, 2014; Tough, 2014) and policymakers and practitioners need clearer guidance from basic research in order to consider next steps. This paper aims to catalyze that work by beginning to describe the landscape and actions currently being taken.

Decades ago, Maslow (1943) argued that basic physiological requirements including nutrition, warmth, and safety were prerequisites for self-actualization behaviors such as those required for success in higher education. He theorized that individuals would only be motivated to tackle higher-order goals once their basic needs (or "deficiency needs") were met. More recently, scientists have further investigated the link between deficiencies in basic needs and the ability to think, learn and succeed in education. Research has documented the ways in which economic insecurity can increase stress levels that biologically damage cognitive functioning in the brain, which is plastic well into the second decade of life (Lupien et al. 1997, 1998, 2000; Pujol, 1993). Research in K-12 education shows a clear inverse relationship between food

insufficiency and academic achievement (Alaimo, Olson, & Frongillo, 2001; Jyoti, Frongillo, & Jones, 2005), though minimal attention has been paid to that connection among college students. Further, logistical challenges (including, for example, instability in transportation or childcare arrangements) that are often associated with living in poverty likely amount to another barrier to education achievement (Wilder Research, 2008).

How does society support the educational achievement of children from low-income families, and how does that compare with the approaches used to support those same students when they reach college? Children are often considered members of the deserving poor, innocent victims of the lottery of birth. The K-12 school system and social safety net have come together to provide a variety of supports to facilitate these students' successful education. Free and reduced-price breakfast and lunch are offered for those in need. Schools provide books to every student and often also offer additional supplies for those who lack them. A school nurse, counselor, and social worker is employed by every school system, even if they are stretched thin or lacking resources. The public school bus transports students to and from school, and legislation ensures homeless children the right to an education (i.e., the McKinney Vento Act). But when a student from a low-income or poor family transitions from high school to college, a transition that they are encouraged to make in hopes of upward mobility, those supports stop abruptly. Financial aid is intended to allow low-income students to afford postsecondary education, but by many estimates it does not successfully do so, leaving even the poorest students with net costs of college that represent impossibly large shares of their families' annual incomes (Goldrick-Rab & Kendall, 2014). While young children in elementary school are served and supported as members of the deserving poor, as college students, they lose many of the

benefits they had relied upon. In that sense, it seems that undergraduates may be treated as less deserving, perhaps even an undeserving poor (Katz, 1990).

College-for-all and Economic Insecurity Among Undergraduates

Almost all young people and their families view college as a necessary step in the progression of their lives (Goyette, 2008), rather than something only pursued by those particularly well endowed with intellect or financial resources. Their increased interest is evident in enrollment trends: low-income youth are enrolling at higher rates (Bound et al., 2009) and low-income adults too are returning to education as a result of job losses or to learn new and marketable skills (Long, 2009). Empirical evidence shows that postsecondary education is linked to increased wages and better fringe benefits, not to mention other positive outcomes including better health, more active citizenship, and improved educational trajectories of one's children (Baum et al., 2013; Wolfe & Haveman, 2002). The wage returns to education exist even for those who earn two-year degrees rather than four-year degrees (Belfield & Bailey, 2011; Kane & Rouse, 1995) and even for returning adult students (Leigh & Gill, 1997). Despite wide recognition of the importance of postsecondary education, and increasing enrollment, gaps in completion rates are stark and consistent (Haveman & Wilson, 2007), Completion rates for low-income students fall well beneath those of their more advantaged peers. Among lowest-income financially dependent (household incomes under $32,000) college students who first enrolled in 2003, 38% had dropped out entirely after six years, with no degree or credential to show for their efforts. More than half (52%) of independent students in the same income range walked away empty-handed by the six-year mark. By comparison, only 19.4% of dependent students from highest-income families left college with no degree (Skomsvold, Radford, & Berkner, 2011).

The federal financial aid system attempts to reduce the cost of college for low-income students through grant aid and loans, but financial aid is widely understood to be insufficient for various reasons. The cost of college has risen dramatically over the past several decades and the purchasing power of need-based financial aid, such as the Pell grant, has declined (Dynarski & Scott-Clayton, 2013). Even after all aid is awarded, many low-income students face annual college costs that amount to significant proportions of their (and their families') incomes. For example, even after all grant aid, a community college student whose parents have income in the bottom quartile faces a net annual price of $8,300, or 40% of her family's income. That same student would need $12,300 each year (59% of her family's income) to attend a four-year institution. The picture is even more dire for financially independent students: in the lowest income quartile (in which average annual income amounts to $2,039), a two-year student faces an annual net cost of $11,400, and a four-year student faces an annual net cost of $15,300 (Goldrick-Rab & Kendall, 2014).

Incidence of Food & Housing Insecurity Among Undergraduates

While practitioners report that they have long worked with students experiencing economic hardships while attending college, researchers have only more recently begun to document the matter. Scholars concerned with public health and nutrition are at the forefront of this issue, quantifying the proportion and types of students experiencing food insecurity. Food insecurity is defined as "access by all people at all times to enough food for an active, healthy life" and is considered a necessary, though insufficient, condition for a healthy population (Coleman-Jensen et al. 2012, pg. 2). National estimates indicate that 15% of US households were food insecure for at least some portion of the year and 6% had very low food security,

"meaning that the food intake of one or more household members was reduced and their eating patterns were disrupted" because the household lacked money and other resources for food (Coleman-Jensen et al. 2012, pg. v).

Results from several single campus studies indicate higher rates of food insecurity among college students in comparison to the general population. Chaparro and colleagues (2009) surveyed 441 non-freshman from a random sample of 31 classrooms at the University of Hawai'i at Manoa. Using items from the US Department of Agriculture's (USDA) Household Food Security Survey Module, the authors calculate that 21% of students surveyed were food insecure, while 24% were at risk of food insecurity. The food insecurity rate on campus was estimated to be more than double the prevalence of food insecurity in Hawai'i households (8%). Furthermore, the prevalence varied by race with Hawaiians and Pacific Islanders, Filipinos and mixed race students at increased risk of food insecurity (Chaparro et al., 2009). A similar study was conducted at a university in Australia where 399 students answered the single food insecurity item on Australia National Nutrition Survey[1] (NNS) (Hughes et al., 2011). Results indicate that 13% of students were food insecure, again more than double the incidence in the general Australian population. Additionally, the authors report that food insecurity is significantly associated with those renting, boarding, or sharing accommodations, low income, and receipt of government assistance. Finally, a survey of 557 undergraduates (non-first-year students) conducted at the University of Alabama indicated that 14% of students were food insecure, comparable to national estimates (Gaines et al., 2014).

Two additional peer-reviewed studies estimate the prevalence of food insecurity using a convenience sample of students (Maroto, 2013) or a survey with a very low response rate (i.e.,

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[1] In the last 12 months, were there any times that you ran out of food and could not afford to buy any more?

7%) (Patton-López, López-Cevallos, Cancel-Tirado, & Vazquez, 2014). In both studies, the authors report that over half of the students on each campus were food insecure. The extent to which the findings are reflective of actual incidence rates is unclear given the likelihood of positive bias in the sample of respondents. Although the literature on the prevalence of food insecurity on college campuses is limited by its use of non-representative samples at individual college campuses, the findings suggest that the issue is worthy of further investigation.

Regarding housing, the literature on college students is much more limited despite the fact that housing costs constitute the largest monthly expenditure in many families' budgets (Turner and Kingsley, 2008). Research indicates that young adults are especially at risk for housing insecurity (The Joint Center for Housing Studies of Harvard University, 2011) and the benefits of safe and stable housing are well documented (MacArthur Foundation, 2012). A secure place to live is often seen as a critical foundation or platform from which to launch additional positive outcomes, including a college education (Broton & Goldrick-Rab, 2014.). Furthermore, housing stability is particularly important during the transition to adulthood as it aids in the development of self-sufficiency goals such as postsecondary education (Dworsky et al., 2012). The only national estimate of housing instability among undergraduates is a measure of homelessness: 58,000 students indicated that they were homeless on the Free Application for Federal Student Aid, up from 47,200 in 2009 (National Association for the Education of Homeless Children and Youth, 2013).

The City University of New York (CUNY) surveyed students attending two- and four-year campuses to learn about their living arrangements and estimate the prevalence of housing insecurity (Tsui et al., 2011). Although the study has not been peer-reviewed, it appears to provide some of the most detailed evidence to date. Results indicate that 1% of students

currently live in a shelter, 11% live in public housing, and 6% receive a rental supplement; these rates are three to five times higher than the general New York population. Additionally, 42% of students were identified as at risk for housing insecurity during the past year by indicating an affirmative response to one or more of a list of 12 experiences. The most common responses were not having enough money to pay rent (29%) and experiencing a rent increase that made it difficult to pay rent (28%). Comparisons to national data sources suggest that CUNY students are at greater risk for housing instability than low-income families nationwide. Further investigation indicates the risk of housing insecurity is unevenly distributed. Those at greatest risk included students with an annual household income under $20,000 (60% incidence rate), those with children in the household (60%), students age 30 or older (58%), students who support themselves financially (55%), those who reported fair or poor health (54%), and those working twenty or more hours per week (50%) (Tsui et al., 2011).

Economic Insecurity and Academic Performance

It has long been clear that people experiencing economic hardship have poorer educational outcomes than their more affluent peers. Maslow (1943) hypothesized that an individual's basic physiological needs (i.e., food, shelter, sleep) and safety needs must be met before they are able to pursue self-actualization goals such as higher education. More recent research sheds light on the ways in which lacking basic needs may affect the potential for higher order processes. For example, research indicates that economic insecurity acts as a psychological and emotional stressor (Hamelin, Habicht and Beaudry, 1999), increasing levels of cortisol in the brain (Lupien et al., 2000), which, over the long-term, has negative effects including increased

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risk of mental health disorders, cognitive deficiency, and atrophy in areas of the brain related to learning and memory (Lupien and McEwan, 1997; Lupien et al., 1998).

Furthermore, studies specifically examining the relationship between food insecurity and academic achievement document an inverse relationship. Jyoti and colleagues (2005) examine the effects of food insecurity on academic performance among a nationally representative sample of young children (i.e., ECLS-K) using lagged, dynamic, and difference (i.e., fixed-effects) models along with child and household level controls. The authors find that food insecurity at kindergarten predicts impaired academic performance in both reading and mathematics, and that girls appear to be especially vulnerable. Duration of food insecurity also matters: Persistent food insecurity through 3rd grade further increases the delay in reading. These results indicate that food insecurity at young ages can have quite immediate effects on academic outcomes.

Studies including children up to age 16 produce similar results (Alaimo et al., 2001). After controlling for potential confounders, results indicate that children from food insufficient households had significantly lower academic and psychosocial outcomes than their food sufficient peers while teenagers exhibited lower psychosocial outcomes. Although scientists argue that the brain continues to develop well into one's twenties (Pujol et al., 1993), just one study has attempted to link food insecurity with college academic outcomes. Maroto (2013) uses self-reported measures of food insecurity and GPA from a convenience sample of students to conduct a bivariate analysis indicating that food insecurity was significantly associated with lower GPA. Clearly, much work remains to be done to quantify and understand the relationship between food insecurity among college students and its relationship to academic outcomes, but the available evidence suggests that this is an area ripe for investigation.

In addition to biological effects on the brain, the logistical challenges of living in poverty inhibit students' educational progress. Having limited resources leaves students in the precarious position of balancing the demands of schoolwork with paid employment (Matus-Grossman, Gooden, Wavelet, Diaz, & Seupersad, 2002) and family responsibilities. Students' jobs are often low-wage, hourly engagements that lack paid time off or other flexibilities (Ray, Sanes, & Schmitt, 2013), contributing to the difficult nature of the balancing act. Juggling work schedules with class demands is difficult, and is often further complicated by other challenges like a lack of reliable transportation or childcare. Together these logistical challenges can negatively impact academic behaviors like class attendance and studying, which in turn reduces academic performance (Famington et al., 2012). Similarly, without a good night's sleep, it is difficult to focus and pay attention in class, thus further negatively impacting learning. Results from the Minnesota homelessness survey found that among homeless young adults ages 18–21, 68% had attended some type of schooling in the previous year. Of those attending school, 39% reported problems getting to school because of housing or transportation issues and unsurprisingly, 39% also reported problems with failing grades (Wilder Research, 2008). While homelessness may be an extreme case of economic insecurity, the high proportion of students pursuing an education and the illustration of housing and transportation as important barriers enhances our understanding of the ways in which poverty may affect educational outcomes.

Deservingness: Attitudes Towards the Poor

The recognition of and response to people in need often hinges on how they are viewed by society and particularly policymakers. Dating back to the last century, policymakers, academics, and others have categorized people facing economic insecurity based on their level of

"deservingness." While often done under the guise of merit and limited resources, characteristics such as nation of origin, home language, and mental health status often influenced these typologies. The deserving poor are viewed as those whose financial plight was perceived as due to situations outside of their control: a widowed wife or child born to poor parents. The undeserving are often characterized as indolent or morally deficient. Because the underserving are often blamed for their poor life circumstances, current policies aimed to assist them focus on cultivating incentives for personal responsibility (Katz, 1990).

The emphasis on work in the current welfare era is a prime example (Personal Responsibility and Work Opportunity Reform Act of 1996). The basis of this policy shift was an increasing conviction on the part of lawmakers that individuals who were in need of government support should receive benefits only if they first immersed themselves in paid employment. This applied (and still applies) to college students as well. Today there are work requirements for receiving cash welfare (TANF – Temporary Assistance for Needy Families) benefits and food stamps (SNAP – Supplemental Nutritional Assistance Program) benefits (among other safety net programs), and great variation by state (and even county) in the extent to which college enrollment may meet those requirements (see, for example, Urban Institute's Welfare Rules Database[2]). Because students' financial aid packages are penalized for each dollar they earn about a certain threshold, a college student who is poor and desires TANF benefits as well as a need-based financial aid must determine whether the benefit of working additional hours and meeting a TANF work requirement is greater than the cost to their financial aid package (Shaw, Goldrick-Rab, Mazzeo, & Jacobs, 2006).

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[2] http://anfdata.urban.org/wrd/WRDWelcome.cfm

Adults pursuing a postsecondary education straddle the boundary of deservingness: not entirely treated in public rhetoric as fully independent adults, and yet not blameless youths who receive relatively stronger support through the social safety net and public schools. For young adults entering college immediately after high school, the level of support they receive changes dramatically after high school even though policymakers and educators say that college should be viewed as a mere extension of high school, a necessity for a stable life and strong national economy. As high school seniors, they likely had access to daily free or reduced-price lunches through the National School Lunch Program. They would have received transportation to their public high schools, their schoolbooks would have been provided free of charge. They would have been able to access basic health screenings and even some limited mental health services through school nurses and school counselors. No such array of supports is guaranteed these students once they leave high school and begin the next step towards adulthood.

Today's college administrators are under intensive accountability pressures to increase graduation rates and learning outcomes as well as reduce graduation gaps by race and family background, time-to-degree, and loan default rates (Voluntary System of Accountability, 2014; White House. 2014). Furthermore, these pressures are not accompanied with an increase in resources and supports. At America's broad access institutions, these are formidable goals and this context must be considered as we examine how schools respond to students' struggling to make ends meet.

Data and Methods

In this paper we marshal evidence from multiple data sources and both quantitative and qualitative methods to provide a descriptive portrait of students' challenges obtaining adequate food, housing, sleep, and safety. We also examine how colleges understand and respond to these needs.

We utilize survey data from the Wisconsin Scholars Longitudinal Study[3] (WSLS) to describe the proportion and types of students struggling to meet their basic needs. The WSLS is a longitudinal study of 3,000 Pell grant eligible students who were first-time full-time enrollees in a Wisconsin public college in fall 2008. Students were selected for participation in the study using administrative records and enrolled in one of the state's 42 public two- or four-year colleges and universities (half are enrolled in each sector). With the use of survey weights, the sample is representative of Pell-eligible public college students in Wisconsin during fall 2008 (See Goldrick-Rab et al., 2013 for more details). Over students' first two years in college, they were repeatedly surveyed about their college and financial experiences. In fall 2009[4], the survey included a series of questions related to students' food security, housing security, safety, and sleep; specific questions can be found in Appendix A. In addition to reporting on the incidence of food and housing insecurity, safety levels and sleep quality, we also test for subgroup differences by gender (male or female), race (targeted racial minority[5] status or not), and whether or not the family is expected to contribute financially to their students' college expenses according to formula developed by the federal government (EFC of zero or not).

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[3] www.finaidstudy.org
[4] The response rate was 64 percent for four-year college students and 53 percent for two-year college students.
[5] Targeted racial minorities include African Americans, Latinos, Southeast Asians, Native Americans, and multiracial students. "Targeted" refers to a policy of the University of Wisconsin System.

We use interview data to understand how colleges are attempting to respond to these student needs. Between 2011 and 2014, the authors and a research assistant conducted 59 interviews including 30 with college administrators (e.g., College Presidents, Vice Presidents, Deans of Academic and Student Affairs, Financial Aid Directors and Institutional Researchers), 6 college faculty (most teach developmental education courses), and 23 service providers (i.e., they work for programs and initiatives that target low-income or at-risk students). The interviews took place at 8 colleges (5 two-year and 3 four-year institutions) across five states: California, Florida, New York, Louisiana, and Wisconsin. All of the colleges are broad access public institutions, predominantly enrolling students from the surrounding area. Case studies were conducted at the two-year colleges and interview respondents were selected according to their position. In some cases, college officials also recommended that we speak to certain colleagues who they deemed experts or played crucial roles in poverty alleviation efforts on campus; these interviews were conducted in addition to those originally requested. At the four-year colleges, we only interviewed the financial aid directors. Colleges were selected by their participation in one of two initiatives, both aimed to support low-income college students. All interviews were conducted in person and typically lasted 30-90 minutes.

Interviews were transcribed and coded for themes relating to students' basic needs and institutional responses to students' needs. Potential themes in the data were identified by the analysts, documented using analytic memos, and shared in weekly meetings. These potential themes were refined and clarified through an iterative process of discussion and inclusion of additional interview excerpts. We then developed a classification scheme of types of institutional responses based on the identified themes; each college was assigned to a classification category based on interview excerpts describing students, the types of needs they have, views of what

types of services a college should provide, and descriptions of student services on campus. Using the interview data, we also developed a catalog of the specific interventions implemented by the colleges and categorized these efforts based on pertinent information related to the scope and targeted audience of the program in addition to any partners involved in the program (Rossman and Rallis, 1998). The classification of institutional responses to students' basic needs and list of institutional interventions are used to answer the second research question.

Sacrificing Basic Needs for College Enrollment

College enrollment has grown among people from low-income families, but little research has examined how many of these students are struggling to make ends meet while in college. Table 1 summarizes background characteristics of the analytic sample of Pell Grant eligible students from the Wisconsin Scholars Longitudinal Study used in this analysis. Three-quarters of students in the sample are non-Hispanic white and 60% are women. The mean expected family contribution (EFC) for financial aid purposes is $1,089 for those attending a two-year college and $1,671 for those attending a four-year college, and fully 43% of two-year college students and 29% of four-year students have a $0 EFC, meaning that they come from families that are not expected to contribute financially to their students' college education.

Table 1. Description of Survey Sample

	Two-year college N=518	Four-year college N=912
Female (%)	59.03	60.99
Targeted Racial Minority	20.96	23.95
White, non-Hispanic	76.83	73.90
English language most often spoken at home	91.33	89.48
Married (%)	2.18	0.64
Mom has college degree (%)	29.3	37.94
Dad has college degree (%)	21.13	29.64
Dependent status (%)	89.66	97.18
Average Expected Family Contribution	1,089	1,671
Zero EFC (%)	43.02	29.10
Mean Parental Adjusted Gross Income ($)	26,862	30,489
Mean Student Adjusted Gross Income ($)	8,464	6,195

Note: Weighted results

Data are from students' FAFSA or baseline survey

Parental AGI only reported for dependent students and Student AGI for independent students

Targeted minority groups include: African-Americans, Latinos, Southeast Asian, Native American, and multiracial.

"Targeted" refers to a policy of the University of Wisconsin System.

Table 2. Level of Food Security

During the past 30 days, did you eat:	Two-year college N=405	Four-year college N=906
Enough of the kinds of food I want	46.35	41.38
Enough but not always the kinds of food I want to eat	43.70	50.00
Sometimes not enough to eat	8.84	7.52
Often not enough to eat	1.11	1.10

Note: Weighted results

We begin by investigating *food insecurity* among these undergraduates. Surveys asked students to report on their current level of food security as well as several indicators of low food security. Results indicate that 9% of the two-year college students and 8% of the four-year college students reported that during the past 30 days, they "sometimes" did not have enough to eat and an additional 1% of each group reported that they "often" did not have enough to eat. When asked if they ever go without eating for an entire day because they lacked enough money for food, 8% of two-year college students and 5% of four-year students answered in the affirmative. Nearly one in five students at both types of institutions indicated that in the past month, they did not have enough money to buy food, ate less then they felt they should, or cut the size of their meals because there was not enough money (Tables 2 and 3).

Table 3. Indicators of Low Food Security

During the past 30 days, did you ever:	Two-year college N=404	Four-year college N=906
Not have enough money or food stamps to buy food	19.68	17.40
Eat less than you felt you should because there wasn't enough money to buy food	19.18	18.50
Cut the size of your meals or skip meals because there wasn't enough money for food	20.62	18.04
Not eat for a whole day because there wasn't enough money for food	7.72	4.78

Note: Weighted results

Rates of current food insecurity among Pell recipients did not vary based on gender, race, or whether the student had a $0 EFC. However, minority students were more likely to indicate that they sometimes did not have enough money to buy food, ate less than they should, and cut the size of their meals because there wasn't enough money for food. Students with a $0 EFC were also more likely to report not having enough money or food stamps to buy food (Table 4).

Table 4. Indicators of Low Food Security by Race and Expected Family Contribution

During the past 30 days, did you ever:	Two-year college		Two-year college		Four-year college		Four-year college	
	Targeted Minority	Other	Zero EFC	Positive EFC	Targeted Minority	Other	Zero EFC	Positive EFC
Not have enough money or food stamps to buy food	28.68*	18.02	28.13**	16.09	27.41**	14.95	26.47**	13.88
Eat less than you felt you should because there wasn't enough money to buy food	30.95**	16.71	23.81	17.96	26.98**	16.48	20.63	17.62
Cut the size of your meals or skip meals because there wasn't enough money for food	32.8**	17.08	23.16	20.26	27.26**	15.72	20.46	16.84
Not eat for a whole day because there wasn't enough money for food	14.78**	6.32	10.28	7.49	6.53	4.39	6.91	3.96

*p<.05 **p<.01

Next, we examine students' *housing affordability and conditions*. We asked students if they were ever unable to pay their rent or utilities during the past year. One-quarter of two-year college students indicated that were unable to pay, while 12% of four-year college students indicated they were ever unable to pay rent or utilities in the past 12 months (Table 5). Students were also given a list of common housing problems (e.g., incidence of loud noises or pests; leaking roof; broken plumbing, heating, electrical system or windows; and holes in the walls or floor) and asked to indicate if the condition was present where they currently live. The most common issue was regular loud noises (26% of two-year and 54% of four-year students), followed by holes in the walls or ceiling, or cracks wider than the edge of a dime (10% of two-year and 11% of four-year students) and problems with pests such as rats, mice, roaches, or other insects (7% of two- and four-year students). Less than 6% of students indicated that any of the other housing conditions were present where they lived (Table 6).

Table 5. Housing Affordability

Was there ever a time in the past 12 months when you were:	Two-year college N=507, 521	Four-year college N=906
Unable to pay your rent or mortgage on time	24.02	12.24
Unable to pay the gas, oil, or electrical bill on time	25.06	12.86

Note: Weighted results

Table 6. Housing Conditions

Are there any of the following conditions present where you currently live?	Two-year college N=514-518	Four-year college N=908-910
Regular loud noises from the neighbors or from outside	25.93	54.18
Problems with pests such as rats, mice, roaches, or other insects	7.27	6.8
A leaking roof or ceiling	3.51	3.12
Broken heating system	2.84	5.4
Broken window glass or windows that can't shut	5.80	4.95
Exposed electrical wires in the finished ares of your home	1.84	2.14
A toilet, hot water heater, or other plumbing that doesn't work	5.01	4.05
Holes in the walls or ceiling, or cracks wider than the edge of a dime	9.97	11.29
Holes in the floor big enough for someone to catch their foot on	0.95	0.74

Note: Weighted results

We identify significant variation in the extent to which students had trouble paying for housing. For example, on average students with a $0 EFC were more likely to indicate that they were unable to pay rent and utilities. This included approximately one-third of two-year college students and nearly 20% of four-year students with $0 EFC (Table 7). In addition, four-year racial minority students were more likely than majority students to indicate that they were unable to pay utilities (24 % vs. 10%) and two-year women were more likely than men to indicate that they were unable to pay rent (27% vs. 19%).

Table 7. Housing Affordability by Expected Family Contribution

Was there ever a time in the past 12 months when you were:	Two-year college		Four-year college	
	Zero EFC	Positive EFC	Zero EFC	Positive EFC
Unable to pay your rent or mortgage on time	33.65**	16.55	17.42**	10.23
Unable to pay the gas, oil, or electrical bill on time	35.24**	16.87	18.69**	10.56

*p<.05 **p<.01

The frequency of many of the other housing challenges did not vary according to a student's gender or race/ethnicity. However, among two-year college students, racial minorities and those with a $0 EFC were more likely to report living in a location with a broken heating system (in Wisconsin, where winters are severe) and those with a $0 EFC were more likely to indicate that in their living space there were holes in their floor. Among four-year college students, women were more likely to report loud noises where they lived, and less likely than men to indicate that they were holes in their floors. In addition, those with a $0 EFC were more likely to report pests in their living spaces.[6]

We also examine *how safe* students felt at their living location using a 5-point Likert scale ranging from extremely safe to not at all safe. Approximately 80% of students attending two- or four-year colleges indicated that they felt very or extremely safe while 2% reported feeling a little bit or not at all safe. Furthermore, 6% to 7% of students reported having been a victim of a crime in the last two years (Table 8). There were no gender, race, or EFC differences in this measure among two-year college students. Among four-year college students, racial minorities and those with a $0 EFC were more likely to indicate that they felt a little bit or not at all safe. Additionally, four-year college students with a $0 EFC were more likely to report being the victim of a crime.[7]

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[6] Results not shown here, but available upon request.

Table 8. Safety and Security

How safe do you feel where you currently live?	Two-year college N=521, 525	Four-year college N=908
extremely safe	34.75	21.00
very safe	48.52	59.74
somewhat safe	14.64	17.14
a little bit safe	1.29	1.75
not at all safe	0.80	0.38
I was the victim of crime (in the last two years)	7.24	5.60

Note: Weighted results

Finally, we asked students to report on their sleep quality given its relationship to stress and food and housing insecurity. Nearly 30% of students attending two- and four-year colleges reported having restless sleep for 3 or more days in the past week. Approximately 10% indicated that they took medicine to help them sleep at least once a week or had trouble staying awake every day or almost every day in the past week. Among two-year college students, 21% rated their sleep quality as fairly or very bad, as did 16% of four-year college students (Table 9). Tests for subgroup differences indicated that women were more likely than men to report having restless sleep, poor sleep quality and trouble staying awake during the day. For example, one-third of women attending two- and four-year colleges indicated having restless sleep three or more days in the past week compared to one-quarter of men attending a two-year college and one in five men attending a four-year college (Table 10).

Table 9. Sleep Quality

	Two-year college N=519-520	Four-year college N=905-908
Restless sleep 3+ days in past week	29.61	27.9
Sleep quality is fairly or very bad	20.59	15.95
Take medicine to help sleep at least once a week	9.38	9.82
Had trouble staying awake during the day almost everyday or every day in past week	9.91	10.9

Note: Weighted results

Table 10. Sleep Quality by Gender

	Two-year college		Four-year college	
	Women	Men	Women	Men
Restless sleep 3+ days in past week	33.71*	25.39	32.33**	20.64
Sleep quality is fairly or very bad	23.34*	18.24	18.12(+)	12.1
Had trouble staying awake during the day almost everyday or everyday in past week	11.49(+)	6.28	12.65**	8.31

(+) p<.10 *p<.05 **p<.01

Institutional Responses

All of the colleges included in this study are considered public broad access institutions; they are not selective in their admissions decisions and none have a great deal of per-student funding. They largely serve students from their local community and in some cases, from the local state. We identified clear, widespread and deeply ingrained goodwill among their administrators, faculty, and staff toward their students and their institutions. However, there was evident variation in institutional responses to the presence of students who are experiencing economic hardships including hunger or housing insecurity. One group of respondents articulated a belief that ensuring students have their basic needs met is central to the mission of the college. They argued that all students who want to attend college are worthy of investment and drew clear connections between students' economic struggles and their academic outcomes. College, in their view, is a time of growth and development, and the neediest students have the most to gain from the process. We term this group's response "mission driven."

In sharp contrast, another group of respondents questioned the wisdom of enrolling students who faced financial barriers large enough to threaten their access to basic needs. They stated that meeting these needs should be a prerequisite for college enrollment, and equated the ability to meet those needs with other types of college preparedness, such that students enrolled without first establishing these basics were automatically deemed unprepared to succeed, and thus did not deserve to be enrolled. This group articulated a response based on notions of the "undeserving undergraduate."

Finally, a third type of response among institutional leaders was one that rested on "wishful thinking." This group of college administrators and staff were clearly sympathetic to students' hardships, but at the same time were unclear, unsure, and otherwise not active in

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identifying clear roles to support them. Some administrators and staff in this group extended help on a case-by-case basis, but they did not extend more systematic interventions. Among this group, a common conclusion was simply to wish that the problems, rather than the students, would simply disappear or work themselves out.

Mission Driven: Serving All Students' Needs

According to some leaders at open-access community colleges, the only acceptable action in response to students' need is to support them in a holistic manner so that they can continue to pursue an education. In this framework, all students who want to pursue a college education deserve to do so. For this reason, a dean of students explained that it is "totally incorrect" to think that homeless undergraduates are not "college material." He reported, "They *are* college material if they have the support that they need. But they need to have a place where they can go and at least have the basics."

College leaders embracing this view make responsiveness and inclusivity central to their mission. They explained that it was the college's responsibility to help ensure that students' basics needs are met. Acknowledging that students' needs are "profound", one president said, "What I feel our role is, you don't say, 'You're not prepared, you don't fit.' Our role is meeting a student where they are and giving them the things that they need to succeed… you're a [college name] student, and we meet you where you are, and we bring you to where you need to be in a variety of ways." Another president spoke of his personal experiences with students:

> *"I never in my career – except perhaps once - sat in front of a student that did not*
>
> *deserve to be here. And I have sat, you know, …[with] some of the most difficult student*
>
> *cases we have had…I do not know that I ever think that a student does not have a chance*

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to make a better life for themselves. The fact that they are here, they are ready to take a new canvas and draw on it. They may not become artists. But I do not get to be the jury, to say that with so much going on in your life, that you should not be here."

Critically, institutional leaders with this approach view education, and college in particular, as part of a lifelong journey of personal development. For those with this view, postsecondary education is more than merely a means to employment; it is an element of self-actualization. A president told us, "I like to say that we grow people. And part of the growing process is figuring out how to fully support them? How do you connect them to the services that they need in order to be successful?" An academic dean articulated a more expansive view of college, explaining that "It is not only obtaining a degree, it is about overcoming a challenge in life and being grateful."

This sort of response appeared especially prevalent at colleges where students' struggles with meeting basic needs were openly acknowledged and understood by institutional leadership and staff actively struggled with students' food and housing insecurity. At these schools, administrators felt that unless students had their basic needs met, they would not be able to achieve their academic goals. Another college president stated, "If students do not have a safe place to live, food to eat, or a way to get to school, they cannot do their best in the classroom. There are these moments where you are going to continue in college or life is going to get in the way… It is not like they dropped their iPod or phone in the toilet. It is real. There are students that are studying under candlelight because they have not paid their utility bill, and they are still trying to persist. If we do not address some of those issues, they get in the way of the education process. So at the core of our work is this educational mission. That is at the core."

In contrast, other college administrators and staff members (sometimes at the same institutions where mission-driven individuals also worked) expressed concerns about undergraduates struggling with basic needs, drawing on conceptions of deservingness. In particular, they often expressed wonder about why, given their challenges, these students were in college at all. One financial aid officer said, "With the amount of family issues or outside issues that they have, I do not know why they are in school." When asked to describe who struggled and why, she elaborated, "It could be children, it could be parents; we have a number of homeless students [*said in a whisper*]. We have students with mental health issues… and just juggling things. We have a large number of transfer students so we have a significant amount of students who would be considered non-traditional. Veterans, we have a large population of veterans – there is a whole slew of things with that population too."

People with this perspective questioned the "college for all" agenda that asked colleges "to be all things to all people" even though, in their view, not all students are "college material." The result, they worried, was a decline in the quality of the institution. One person said that she felt her college was a "revolving door" and that "sometimes I feel like we have become a halfway house."

While these institutional actors recognize the extreme level of need among some students on their campus, they often felt that financial aid was insufficient and even inappropriate for addressing that need. One said, "The money is there for some of these groups, but that's not it - that alone is not what's going to make them successful." Another said, "Loans are helping students to get money to do whatever they want…. I think they get loans and think okay, I'm going to pay my rent and pay my car note and pay my light bill." Such costs, she said, were

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inappropriate uses of financial aid, and this interviewee felt that, to cover these living costs, students should instead work or rely on social benefits programs.

College officials with an "underserving undergraduate" viewpoint explain that it is not their responsibility or role to intervene in challenges perceived to be non-academic matters. These challenges are up to the student to resolve through his or her own means, and should not be an area in which the college invested resources.

Wishful Thinking

The third group of institutional actors expressed clear acknowledgment of the financial challenges faced by some students and indicated a great deal of sympathy for their needs, but did not take any institutionalized action or provide particular support. Instead, they summoned their hopes that help would come. A faculty member recognized the needs his students' faced, saying, "And these are incredibly hard lives. I mean, they're working, they have kids and they are trying to go to school. Some have two jobs." A financial aid officer explained, "I have students who tell me about their need for federal aid, but their need goes way beyond getting the amount of money they need to pay for tuition… when you go home if you do not have food on the table, if you do not know where housing is going to come from...I pray for them."

This is often an emotional response for college leaders. A college president reporting that upon hearing of a student living in his car, she cried. "You close the door and you cry." "Of course," she added, "you refer them, to the best of your ability, to the resources that are available."

In other cases, college officials expressed sympathy for their students' needs, but mainly observed from a distance, hoping that students would somehow navigate themselves out of their difficulties. For example, when students at one college were faced a lack of childcare during class hours, they often had to bring children to class. One faculty member described the results of this lack of childcare as follows:

> *"A few semesters ago I taught a class at 5:00pm. I had a student who had four children, from ages eight to a baby in a carrier, and they sat outside the classroom on a bench. The door was opened and we could see the kids in the window, and I could barely teach because I was watching these children in a hallway."*

The faculty member explained that the student, a father, did not have family or friends who could care for his children while he attended class. Likely in response, students at the college created an informal, unlicensed community daycare in the campus library. But the college, while sympathetic to the students' needs, did not act to support it. An administrator we spoke with explained, "I admired their ingenuity to try to get [it] done to be able to go to school, but I was really torn because as an administrator I knew the legal liability involved." When we inquired further about what happened to resolve the situation, he stated, "It just disappeared. So I do not know if someone did report it or just what happened to it."

The care expressed by these professionals was matched by only a vague sense of the possibility of helping students. While several respondents indicated that they would refer students to websites or social support agencies, they rarely reported actively helping students gain additional support or resources. In one instance, a college official went out of his way to connect a student facing domestic abuse with a displaced homemakers organization that got her and her daughter into a shelter. But when we asked if the college, as an institution, felt

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comfortable playing this sort of role for students, he stated, "No, very few people know that we did that."

Occasionally, faculty members took more direct action, though on a limited, case-by-case basis, providing small-scale help for individual students without requiring institutional or systemic changes. One faculty member said this was common for him, and recounted a student's recent request for help: "He said, 'I couldn't work last week 'cause I was sick. Could you give me some money for groceries and bus fare?' Now [this student] always pays me back with a little extra. So if he borrows thirty, I'll get thirty-five back. So he's a regular." The faculty member's remarks suggest some processes around these small loans have emerged: the student described (a "regular") has an informal arrangement under which he returns the loan with "a little extra." This faculty member went on to say that individual faculty and staff sometimes have gift cards available that can be distributed as well, but again on a very informal, case-by-case basis. In these scenarios, faculty members accept students' needs as real and dire, and want to provide some help.

Even when faculty and administrators are sympathetic and believe that all students deserve to be in college, they are unsure of the role they can or should play to address a severe lack of financial support. These "wishful thinking" actions, both indirect assistance like providing referrals and small-scale interventions like informal loans do not require an institutional stance regarding assisting poor students with their basic needs, and they allow an institution uneasy about providing non-academic assistance to avoid formally espousing that role.

Taking Action

We found that mission-driven college leaders played an active role in supporting needy students, but the type and level of intervention varied considerably. Students' particular needs as well as the strengths of the college and community are taken into consideration when colleges developed a plan of action right for their unique situation. College officials reported that the resources to support struggling students often come from their own budget, local non-profit and charity organizations, and state or federal social safety net policies. Thus, the local context was an important factor in determining potential and appropriate responses.

Many colleges with very limited resources or community support have created policies, procedures or programs to help struggling students make ends meet. For example, officials at one college saw how the late disbursement of financial aid inhibited students from buying books and schools supplies, renting apartments, or even paying tuition on time. To counter this problem the financial aid office implemented an interest-free short-term loan to students who expected to receive financial aid, but had a delayed payment. Other schools provided small short-term "book loans" to help students purchase books and school supplies before the school term starts. These "book loan" programs are not always tied to the timing of a students' financial aid disbursement, noting that students may have higher costs in the first month of school than in subsequent months. Some colleges established agreements with the school cafeteria to help hungry students gain access to food on campus through the use of food vouchers.

The most strategic college officials took advantage of the community's existing social safety net resources and relocated them on-campus or with a special focus on college students. For example, they coordinated with non-profit organizations that provide direct assistance in filing for public benefits and completing taxes. At least two organizations, Single Stop USA and

the Center for Working Families, provide comprehensive 'one-stop' poverty alleviation programming on college campuses across the nation in addition to running community based sites that do not target college students. These organizations have unique models, but both take a multi-pronged approach to fighting poverty by building clients financial, social, and cultural capital. Because college enrollment is one more anti-poverty tool, it makes sense that these organizations have expanded their community efforts to college campuses. Single Stop USA is currently operating at the five community colleges we visited.

Single Stop USA aims to help students and their families reach self-sufficiency by providing case management services that connect students to public benefits, tax preparation services, legal services, and financial counseling. They report that students, who are screened using their proprietary technological platform and confirm receipt of at least one benefit receive an average of $5,400 in additional cash and non-cash benefits. In addition to these supports, which generally include enrolling students in health care or food stamps, students also receive value through direct services provided (i.e., tax preparation, legal services, and financial counseling) (Goldrick-Rab, Broton, and Frank, 2014). The organization reports, "Single Stop can affect retention rates by as much as 20 percent" (Single Stop USA, 2014).

The Center for Working Families model helps low-income families attain financial stability and move up the economic ladder by providing employment and career advancement services; income and work supports (e.g., public benefits and tax preparation assistance); and financial services and asset-building supports. Like Single Stop USA, the multifaceted approach goes beyond merely alerting students that additional resources are available. Instead, they collaborate closely with college officials to integrate their services into the institution and follow through with students to help them meet their goals. They report that a greater proportion of

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community college students served by CWF persist (80-85%) compared to the overall college persistence rate (66-70%) (Liston & Donnan, 2012).

Moving Forward

The college completion problem is a major impediment to achieving increased economic, political, and social equality. Despite decades of spending on financial aid, undergraduates pursuing degrees while sacrificing food and housing often go unnoticed. The data presented in this paper indicate a sizable fraction of low-income students may be struggling with these challenges. Some institutional leaders respond with action and others with hope, while some take a very different stance, questioning whether they should be in college at all.

What role should colleges and universities play in alleviating poverty, particularly among their own students? Few currently have the necessary skills, experience, or resources to address these challenges. Some have sought help from partners, but most have not yet done so. There is a clear need to bring the resources and knowledge from experts dealing with food and housing insecurity more broadly together with the community of higher education policymakers and practitioners in search of solutions.

In the meantime, program that offer social services to students and those providing emergency financial aid should be expanded and evaluated for efficacy. The Dreamkeepers program led by Scholarship America provides one model, and the food banks that are part of the Coalition for University Food Bank Alliances is another. This is an area in which a cross-agency working group between the U.S. Departments of Education, Housing and Urban Development, and Agriculture could provide a great deal of insight and led future work.

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Appendix

Appendix A: Survey Measures

Concept	Question	Response Options
Level of food security	Getting enough food can be difficult for some people. Which of these statements best describes the food eaten by you during the past 30 days?	1 if enough of the kinds of food I want, 2 if enough but not always the kinds of food I want to eat, 3 if sometimes not enough to eat, 4 if often not enough to eat
Indicators of low food security	During the past 30 days, did you ever: (not have enough money or food stamps to buy food?)	1 if yes, 0 if no
Indicators of low food security	During the past 30 days, did you ever: (eat less than you felt you should because there wasn't enough money to buy food)	1 if yes, 0 if no
Indicators of low food security	During the past 30 days, did you ever: (cut the size of your meals or skip meals because there wasn't enough money for food)	1 if yes, 0 if no
Indicators of low food security	During the past 30 days, did you ever: (not eat for a whole day because there wasn't enough money for food?)	1 if yes, 0 if no
Housing conditions	Are there any of the following conditions present where you currently live? (Regular loud noises from the neighbors or from outside)	1 if yes, 0 if no
Housing conditions	(Problems with pests such as rats, mice, roaches, or other insects)	1 if yes, 0 if no
Housing conditions	(A leaking roof or ceiling)	1 if yes, 0 if no
Housing conditions	(Broken heating system)	1 if yes, 0 if no
Housing conditions	(Broken window glass or windows that can't shut)	1 if yes, 0 if no
Housing conditions	(Exposed electrical wires in the finished areas of your home)	1 if yes, 0 if no
Housing conditions	(A toilet, hot water heater, or other plumbing that doesn't work)	1 if yes, 0 if no
Housing conditions	(Holes in the walls or ceiling, or cracks wider than the edge of a dime)	1 if yes, 0 if no
Housing conditions	(Holes in the floor big enough for someone to catch their foot on)	1 if yes, 0 if no
Housing conditions	(A door to a private space that can't be locked)	1 if yes, 0 if no

Housing affordability	Was there ever a time in the past 12 months when you were unable to pay your rent or mortgage on time?	1 if yes, 0 if no
Housing affordability	Was there ever a time in the past 12 months when you were unable to pay the gas, oil, or electrical bill on time?	1 if yes, 0 if no
Safety and security	How safe do you feel where you currently live?	1 if not at all safe, 2 if a little bit safe, 3 if somewhat safe, 4 if very safe, 5 if extremely safe
Safety and security	In the last two years (I was the victim of crime)	1 if yes, 0 if no
Sleep quality	During the past week: (my sleep was restless)	1 if zero days, 2 if 1-2 days, 3 if 3-4 days, 4 if 5-7 days
Sleep quality	During the past month, how would you rate your sleep quality overall?	1 if very good, 2 if fairly good, 3 if neither bad or good, 4 if fairly bad, 5 if very bad
Sleep quality	During the past month, how often have you taken medicine, including both prescribed and over-the-counter medicine, to help you sleep?	1 if not at all during past month, 2 if less than once a week, 3 if once or twice a week, 4 if three or more times a week
Sleep quality	During the past week, how often have you had trouble staying awake during the day?	1 if never, 2 if a few times, 3 if almost every day, 4 if everyday