

College Students Attending Online Programs have Lower Rates of Food Insecurity than Residential Students



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INTRODUCTION

- Food insecurity is “the limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways”.¹
- Among college students, the prevalence of food insecurity prevalence ranges from 14-59% which is higher than US national household average of 10.5% in 2019 and AL state average of 13.9% in 2017-2019.²⁻⁵
- Residential students living off campus report greater food insecurity than those living on campus.^{4,6}
- Distance education programs are becoming popular and provide a way to continue one’s education from home.
- The food security status of students completing their programs online is unknown.

OBJECTIVE

To assess food security among college students by program type- residential or online.

METHODS

- Study sample comprised college students (≥18 years) from the University of Alabama, one of 22 US higher institutions that participated in the WISH4Campus food insecurity study in 2019.
- Students completed an online survey comprising the ten- item Adult Food Security Survey Module, questions on program status (residential or online program), financial status and demographics.
- Low and very low food secure students were classified as food insecure while food secure and marginally food secure students were classified as food secure.
- Binary logistic regression analysis was used to determine whether food security status and other demographic and financial factors differed by program type (p<0.05).

RESULTS

- The prevalence of food insecurity among the residential students was significantly higher than students obtaining their degree online (44.2% versus 32.6%, OR=2.6, 95% CI=1.8, 3.9).
- When compared to residential students, online students were more likely to be employed full-time (OR:7.7, 95% CI: 4.5,13.0) and less likely to receive financial aid (OR=0.5, 95% CI:0.4, 0.8) and family support (OR=0.6, 95% CI:0.4,0.9).

RESULTS

Table: Selected Characteristics of College Students by Program Type (n=2819)

Characteristic	Sample n (%) n=2819	Residential n (%) n=2543	Online n (%) n=276	^a Odds Ratio	95% Confidence Interval
Age*		21.0 ±3.7	32.3 ±8.8	1.2	1.1,1.2
Food security					
Food secure	1602 (56.8)	1416 (55.7)	186 (67.4)		
Food insecure*	1217 (43.2)	1127 (44.3)	90 (32.6)	2.6	1.8,3.9
Gender					
Male	746 (26.5)	706 (27.8)	40 (14.5)	-	-
Female*	2073 (73.5)	1837 (72.2)	236 (85.5)	3.6	2.2,6.1
Race/ethnicity					
Hispanic	128 (4.5)	114 (4.5)	14 (5.1)	1.3	0.6,2.9
Non-Hispanic White	2335 (82.8)	2104 (82.7)	231 (83.7)	-	-
Non-Hispanic Black	171 (6.1)	150 (5.9)	21 (7.6)	1.6	0.8,3.4
Non-Hispanic Asian	76 (2.7)	71 (2.8)	5 (1.8)	0.6	0.2, 1.8
Others	109 (3.9)	104 (4.1)	5 (1.8)	0.3	0.1,0.9
First generation student					
No	2249 (79.8)	2067 (81.3)	182 (65.9)	-	-
Yes	570 (20.2)	476 (18.7)	94 (34.1)	0.8	0.5,1.3
Financial Aid					
No	732 (26.0)	608 (23.9)	124 (44.9)	-	-
Yes	2087 (74.0)	1935 (76.1)	152 (55.1)	0.5	0.4,0.8
Family Financial Support					
No	731 (25.9)	543 (21.3)	188(68.1)	-	-
Yes	2088 (74.1)	2000 (78.7)	88(31.9)	0.6	0.4,0.9
School year					
1	530 (18.8)	519 (20.4)	11 (4.0)	-	-
2	509 (18.1)	494 (19.4)	15 (5.4)	0.9	0.3,2.7
3	633 (22.4)	576 (22.7)	57 (20.7)	1.9	0.7,4.7
4	650 (23.1)	586 (23.0)	64 (23.2)	1.5	0.6,3.7
5	497 (17.6)	368 (14.5)	129 (46.7)	1.1	0.4,2.9
Marital status					
Single, divorced or widowed	2444 (86.7)	2351 (92.4)	93 (33.7)	-	-
Married or living with a partner*	375 (13.3)	192 (7.6)	183 (66.3)	5.3	3.5,8.0
Employment					
Unemployed	1287 (45.7)	1241 (48.8)	46 (16.7)	-	-
One or more part-time jobs	1162 (41.2)	1094 (43.1)	68 (24.6)	1.3	0.8,2.1
Full-time job*	278 (9.9)	128 (5.0)	150 (54.3)	7.7	4.5,13.0
Other	91 (3.2)	79 (3.1)	12 (4.4)	0.9	0.4,2.2

* Characteristic significantly different among residential and online students

^a Odds refers to online compared to residential students

CONCLUSIONS

- The prevalence of food insecurity among students in this sample is twice as high as that of the state and nation.
- Students in an online program may be more food secure compared to residential students.

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