

Food and Housing Insecurity among UTEP Students: Exploring the Intersection of Federal Aid, Academic Performance, and Diversity

Ebenezer Nkum*
University of Texas at El Paso (UTEP)

May 12, 2023

Contents

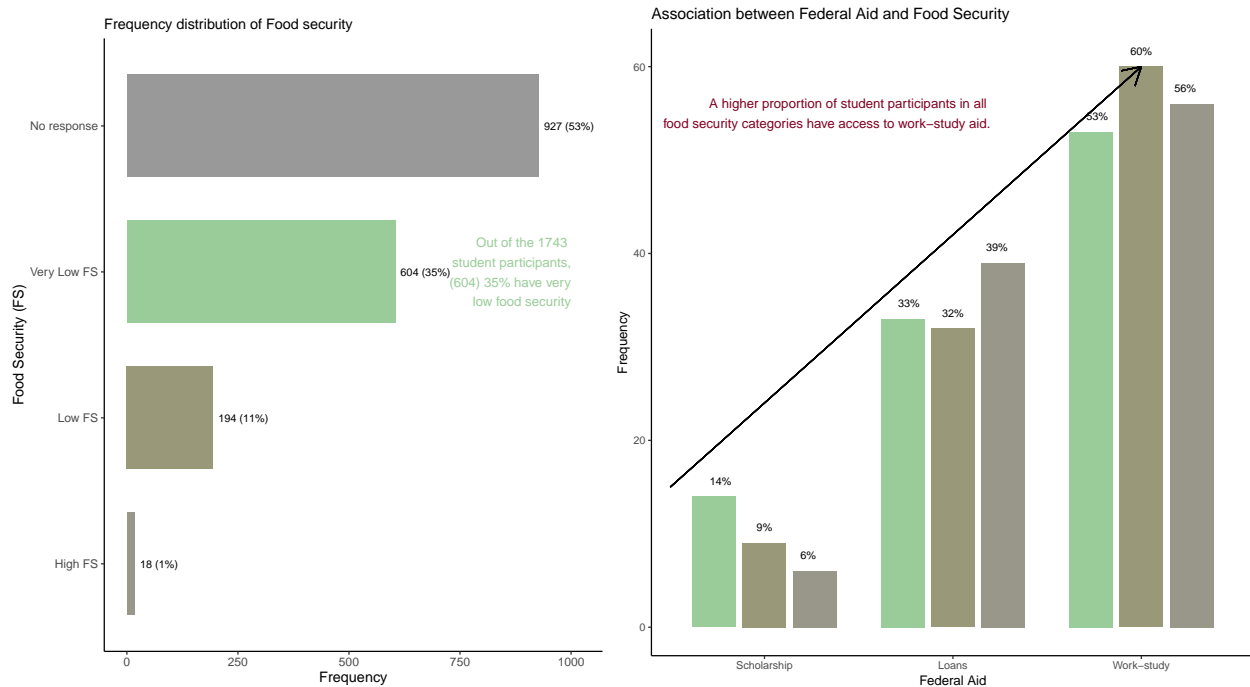
1	Introduction	1
2	How is use of government federal aid/assistance associated with food insecurity as measured by the USDA index or categories?	2
3	2) Does food insecurity (as measured by USDA index or categories) have a relationship with the items pertaining to concentration on school and degree progress/completion?	4
4	3) Are there gender or ethnicity differences in the items pertaining to concentration on school and degree progress/completion?	6
5	Conclusion	7

1 Introduction

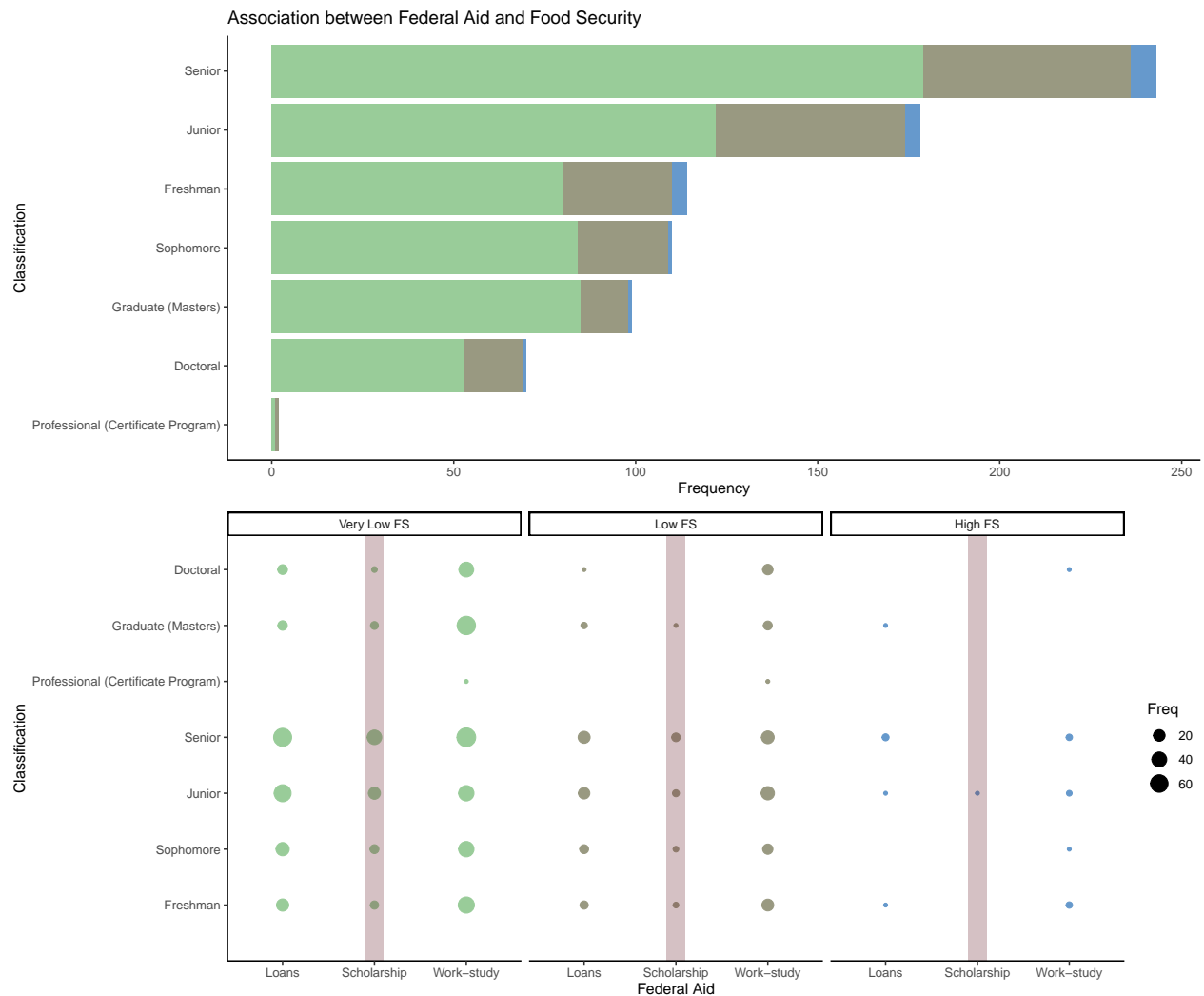
This analysis aimed to investigate the relationship between food security and academic success among college students. The study examined the food security status of 1,716 participants and assessed the impact of food security on various academic outcomes, including access to funds, concentration, degree completion, and gender differences.

*enkum@miners.utep.edu

2 How is use of government federal aid/assistance associated with food insecurity as measured by the USDA index or categories?

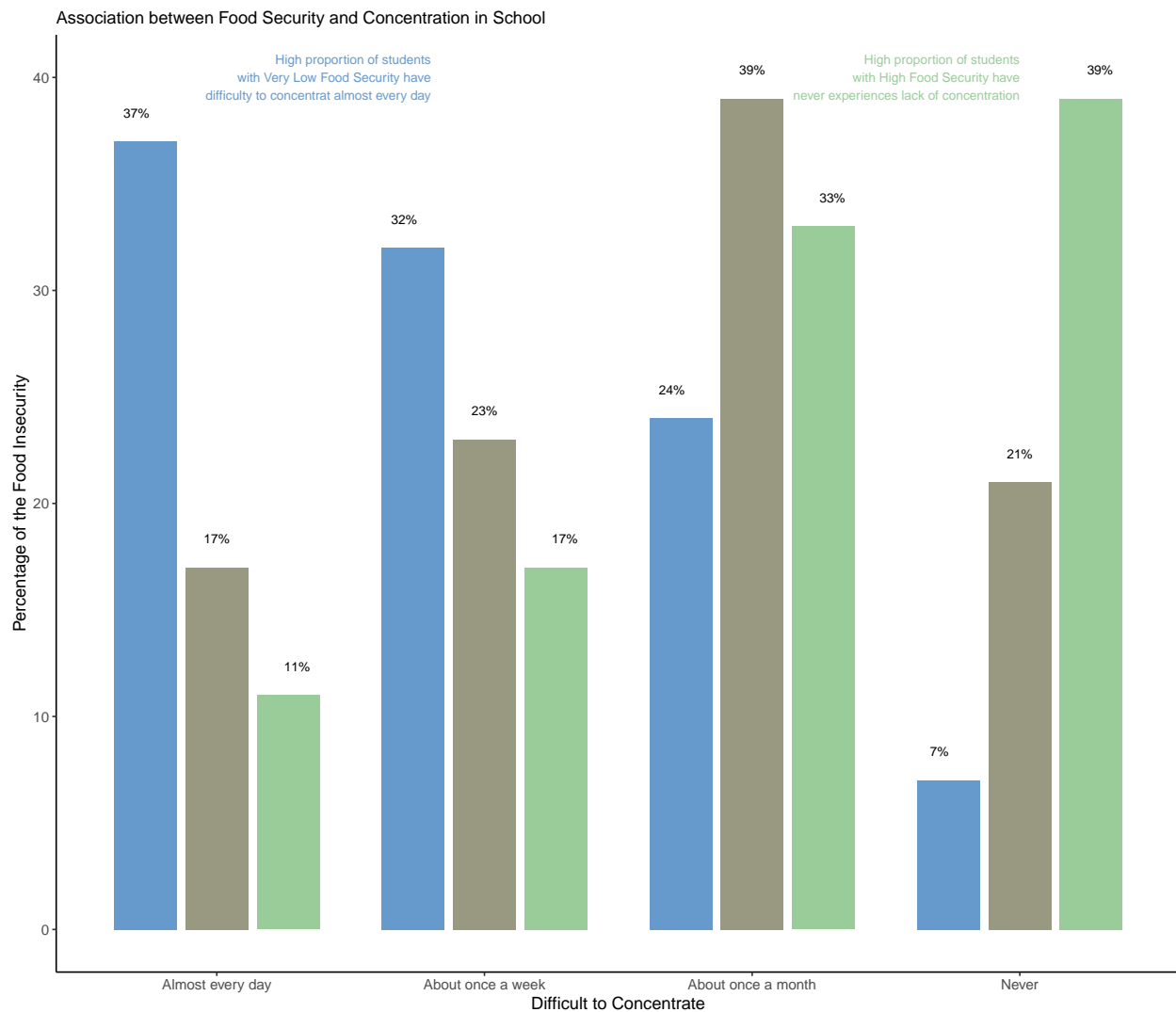


Based on the above figures, it can be observed that 604 (35%) of the total participants in the study experience very low food security, indicating high levels of food insecurity. From the percentage group bar chart based on Food Security, it is evident that out of the 604 participants who experience very low food security, 14% receive scholarship, 33% depend on loans, and the remaining 53% rely on federal work-study aid. Across all three categories of food security (i.e., very low, low, and high), it is consistently noted that not less than 50% of each group depend on work-study aid. It would be valuable to determine which level classification (whether juniors, seniors to doctoral level) among the study participants have greater access to funds, particularly in the form of scholarships.

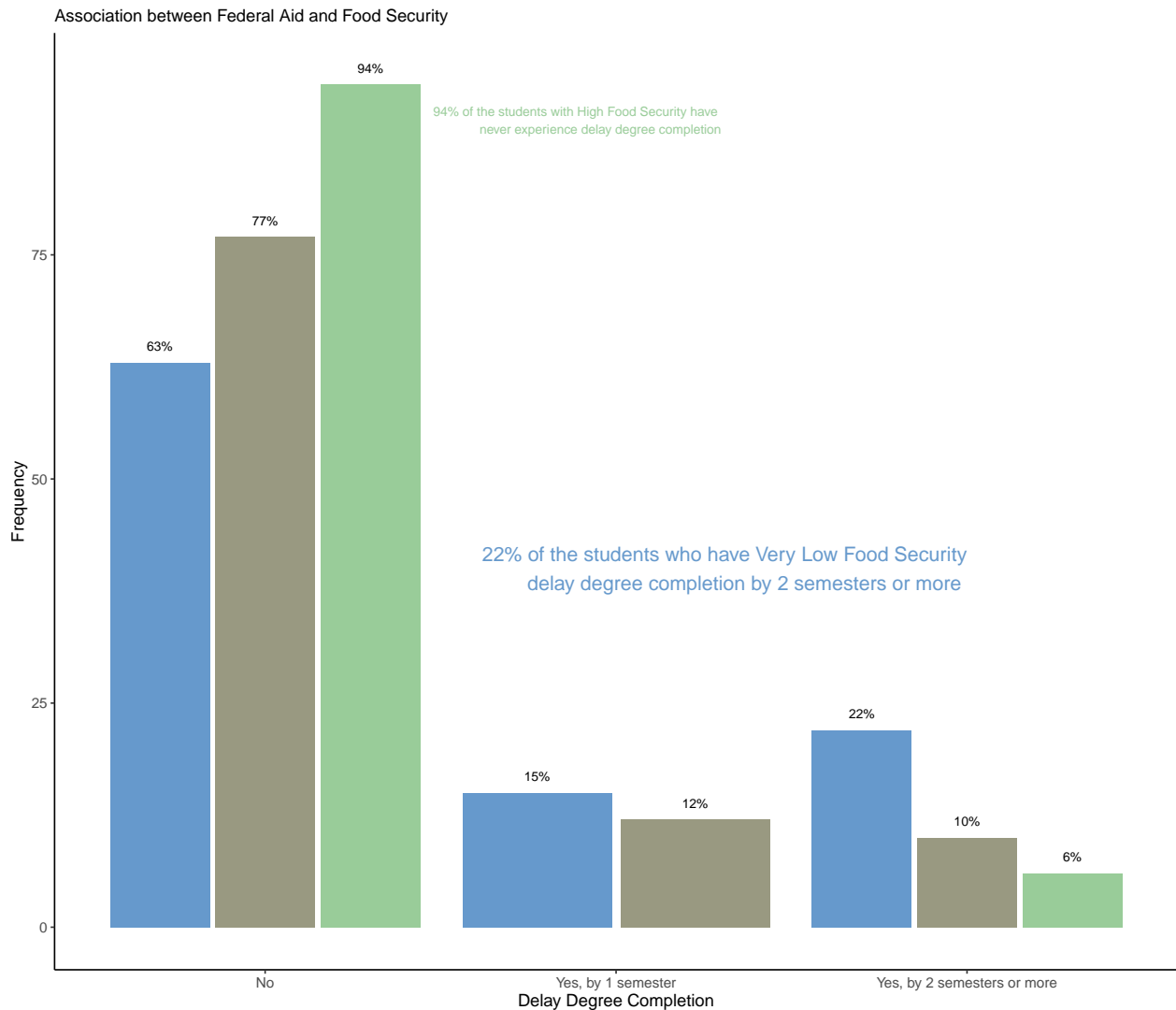


The column barplot reveals that the data or study had the highest representation of seniors followed by juniors, freshmen, sophomores, graduates, doctoral students, and professional (certificate program) students, in that order. However, the bubble plot shows that among the participants with very low food security, the proportion of students receiving scholarships begins to increase from freshmen through to seniors, but decreases from Graduate students to Doctoral students. Notably, the study found that no participants in the professional program received any scholarship during the period under review. The same trend is observed under participants with low food security, but under high food security, only one senior participant received a scholarship. Also, we could observe that larger proportion of Graduate participants receive the work-study aid as compare to Juniors with larger proportion of participants receive loans under the category with very Low Food Security.

3 2) Does food insecurity (as measured by USDA index or categories) have a relationship with the items pertaining to concentration on school and degree progress/completion?

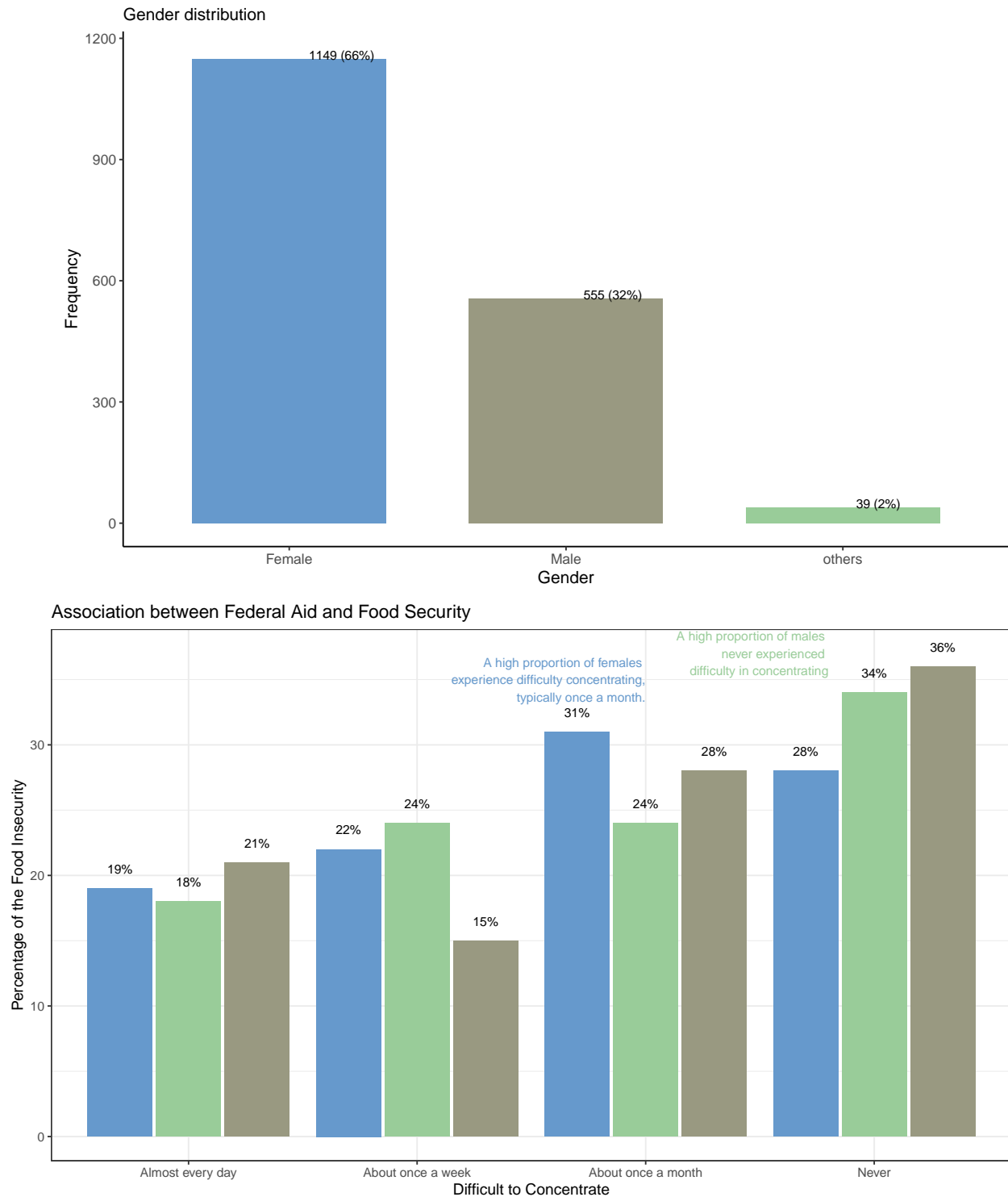


Upon analyzing the graph, it is clear that participants who have Very Low Food Security face significant challenges with concentration, with 37% experiencing difficulties almost every day. Additionally, 32% of participants face difficulties in concentration about once a week, while 24% of participants experience these difficulties about once a month. However, it is worth noting that 7% of these participants have not experienced any difficulty in concentration. On the other hand, participants who have Very High Food Security experience significantly fewer difficulties with concentration, with only 11% reporting difficulties in concentration almost every day compared to the 39% who never experience any difficulty in concentration. These findings demonstrate the clear impact of food security on concentration and highlight the importance of addressing this issue to promote academic success and well-being among college students.



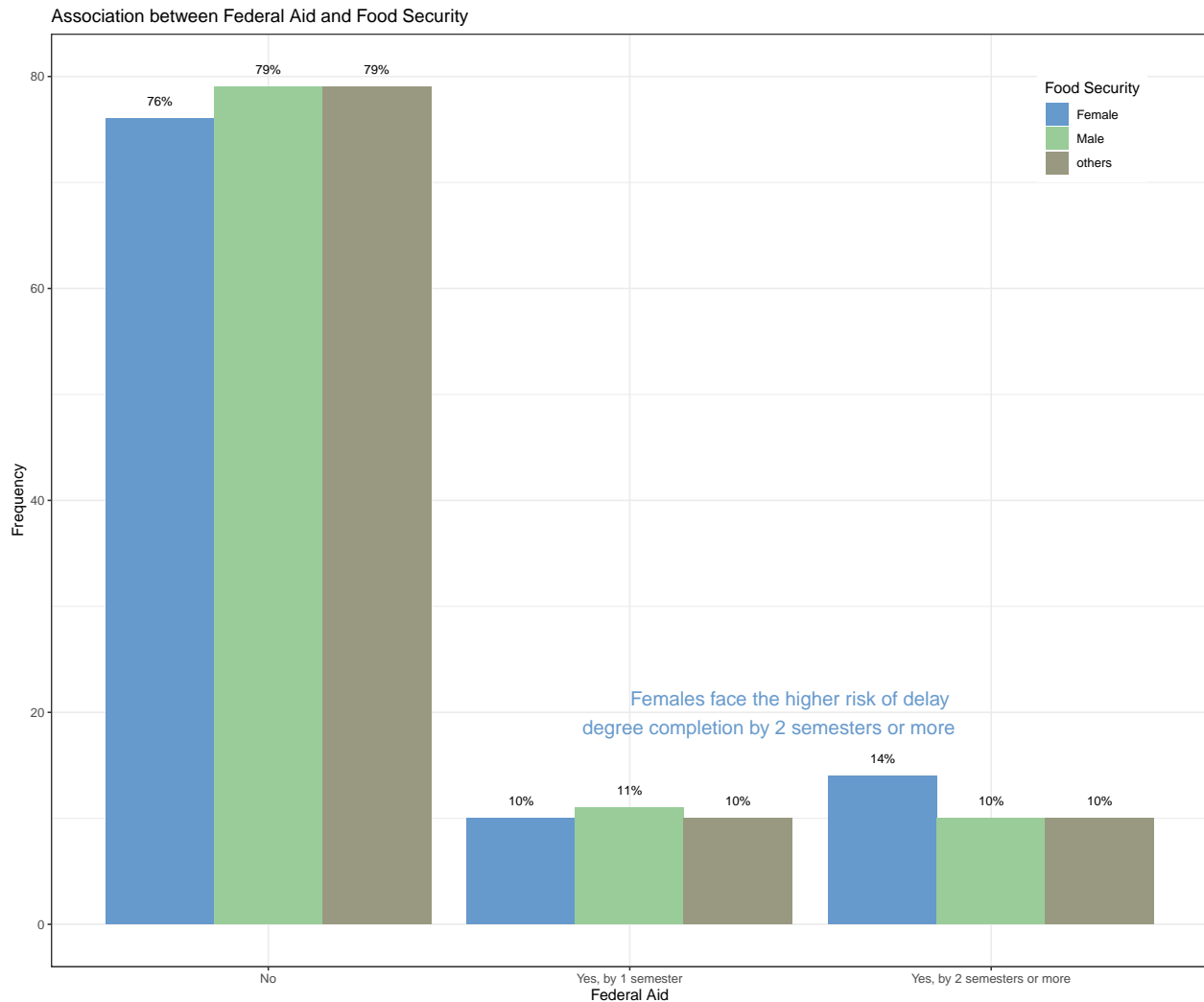
From the data presented, it is evident that the majority of students across all food security categories do not experience delay in degree completion. Specifically, 63% of students who reported Very Low Food Security, 77% of students who reported Low Food Security, and 94% of students who reported High Food Security reported no delay in degree completion. However, it is concerning to note that a significant percentage of students who reported Very Low Food Security, approximately 22%, reported a delay in degree completion by two semesters or more. This highlights the potential impact of food insecurity on academic performance and the need for interventions to support affected students.

4 3) Are there gender or ethnicity differences in the items pertaining to concentration on school and degree progress/completion?



Based on the first plot, it is evident that females comprised the largest proportion of participants at 66%, followed by males at 32%, and other genders at 2%. After examining the percentage bar plot presented above, we can observe that a significant proportion of female student participants

(31%) reported experiencing difficulty in concentration about once a month. In contrast, a higher proportion of male student participants (34%) reported never experiencing difficulty in concentration. This finding is noteworthy as it highlights potential gender differences in the ability to concentrate among the study population.



Based on the plot displayed above, we can observe that both female and male student participants have a low percentage of delay in degree completion, either by a semester or more. However, it is noteworthy that females face a higher risk of delay in degree (14% females against 10% males in this category) completion by 2 semesters or more, compared to males. On the other hand, males have a higher percentage (11% males against 10% females in this category) of delay in degree completion by 1 semester, as compared to females.

5 Conclusion

The findings of this study highlight the significant impact of food security on college students' academic success. The study found that a considerable proportion of students experience very low food security, indicating high levels of food insecurity, and rely heavily on federal work-study aid. While the majority of students across all food security categories do not experience delay in degree completion, a significant percentage of students who reported very low food security reported a

delay in degree completion by two semesters or more. Additionally, female students face a higher risk of delay in degree completion by two semesters or more, while male students have a higher percentage of delay in degree completion by one semester. These findings underscore the importance of addressing food