



Predictors of Food and Water Stockpiling During the COVID-19 Pandemic

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Introduction

The early months of the COVID-19 pandemic resulted in significant disruptions in food supply chains. To ensure personal food security, many consumers began stockpiling food and water in unusually large amounts. African Americans and Latinos were disproportionately affected by the pandemic in regards to job loss and access to food retailers, which may have led to food and water stockpiling (F&WS) behavior. However, it's unclear which consumer groups were more likely to exhibit F&WS behavior.

Research Question: What factors are associated with F&WS during the pandemic among Non-Latino Blacks and Latino adults?

Objective: Identify the impact of age, gender, race/ethnicity, pre-pandemic annual income, food security status, self-quarantine status on F&WS during the COVID-19 pandemic in a Midwest State.

Materials and Methods

We conducted a secondary data analysis of cross-sectional survey data collected by the Center for Social and Behavioral Science (CSBS) at the University of Illinois (UIUC). Two data collection companies recruited adult participants aged > 18 years, with two rounds of data collection. UIUC led the study. Data included 2,174 Non-Latino Black (66.4%) and Latino (33.6%) adults residing in a Midwestern State.

Participants self-reported (yes or no) if they stockpiled food and/or water in the prior seven days in response to the pandemic. They also reported their socio-demographic information, self-quarantine status, concerns about COVID-19, and job status change. Food insecurity status was measured using a USDA's 6-item short module (1). Food security status is assigned as follows:

- High or marginal food security 0-1
- Low food security: 2-4 score
- Very low food security: 5-6 score

Crude and adjusted logistic regressions were used to identify variables associated with F&WS at 5% significance.

Results

Fig. 1: Food and Water Stockpiling (F&WS)

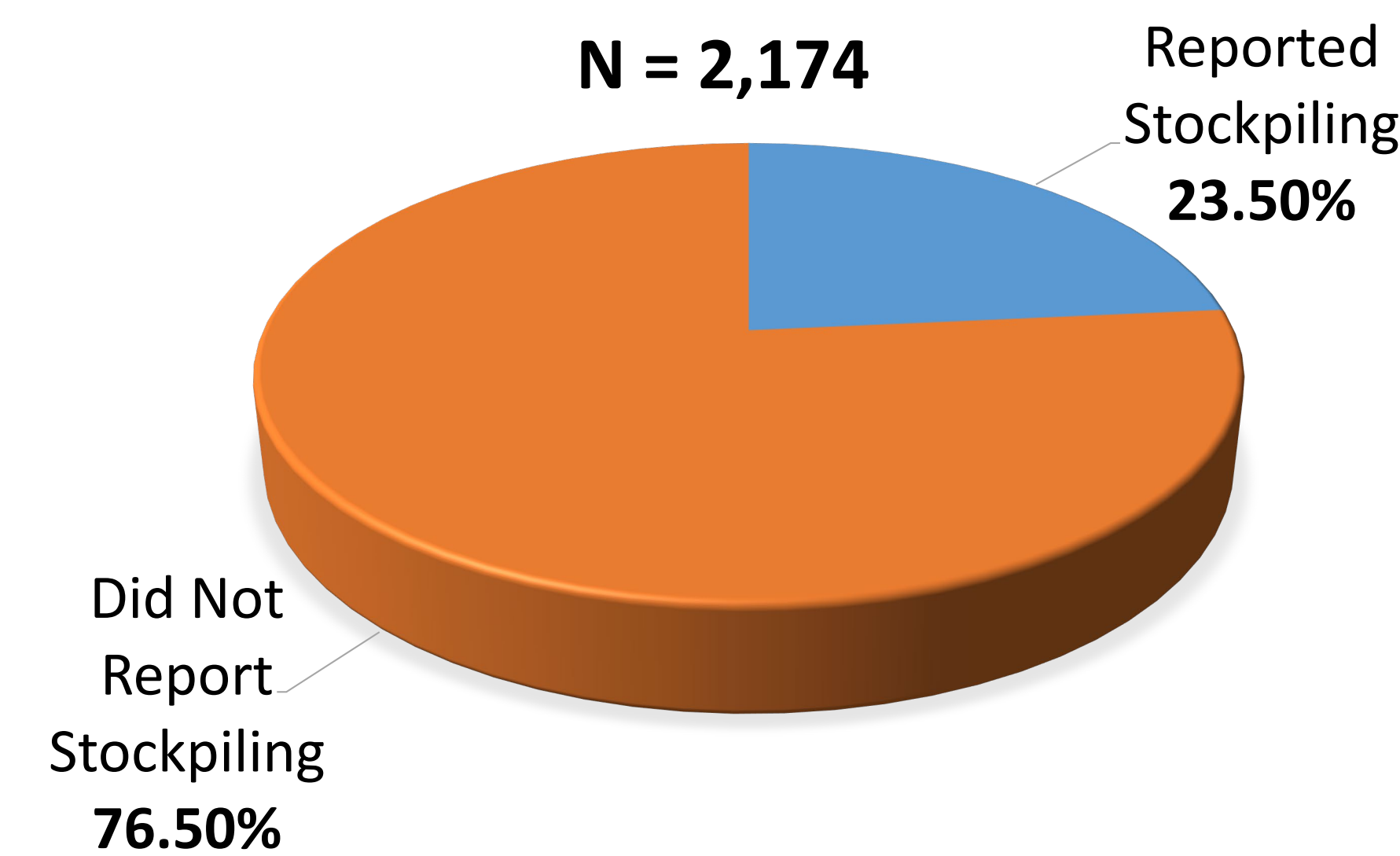
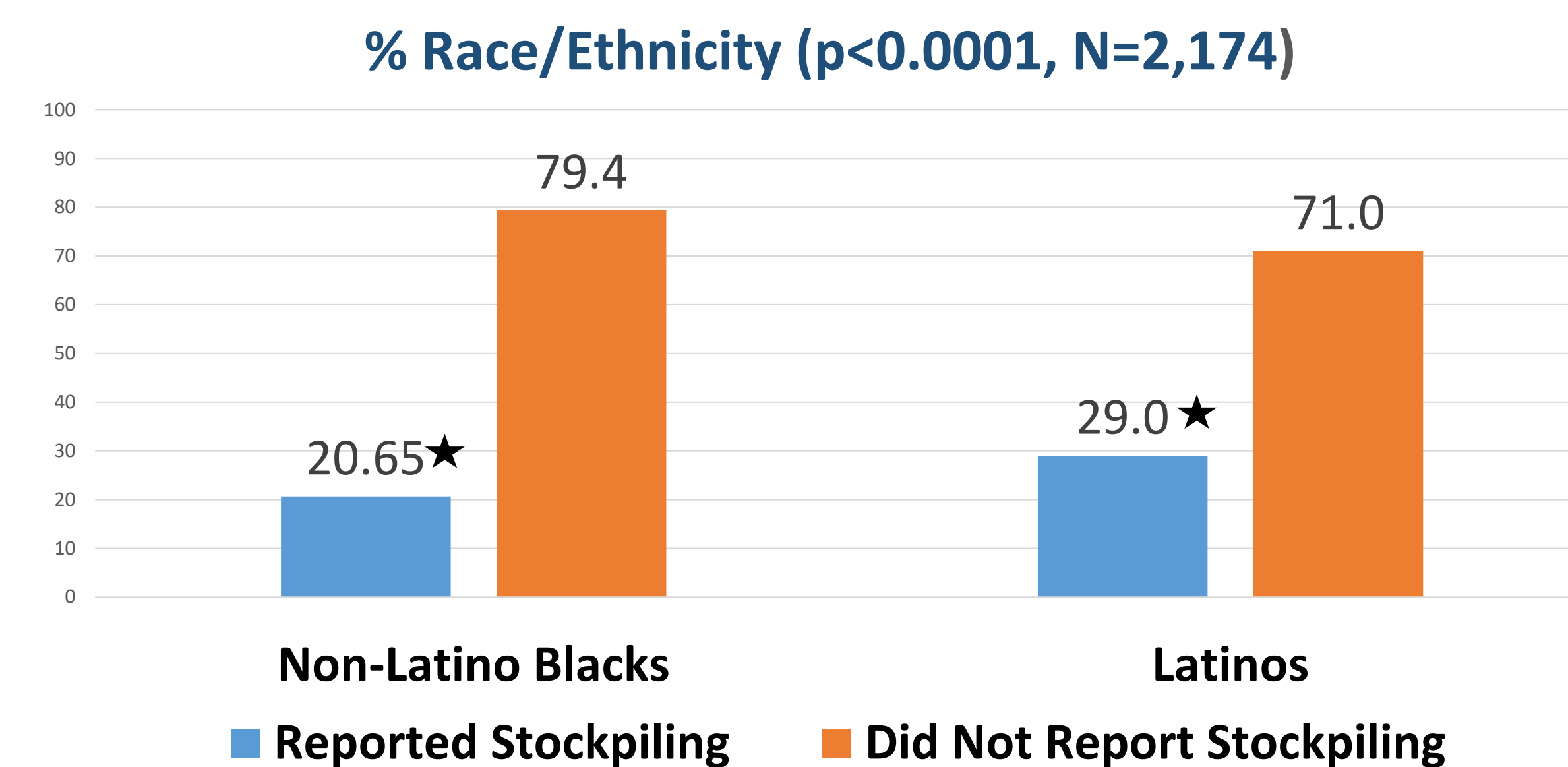
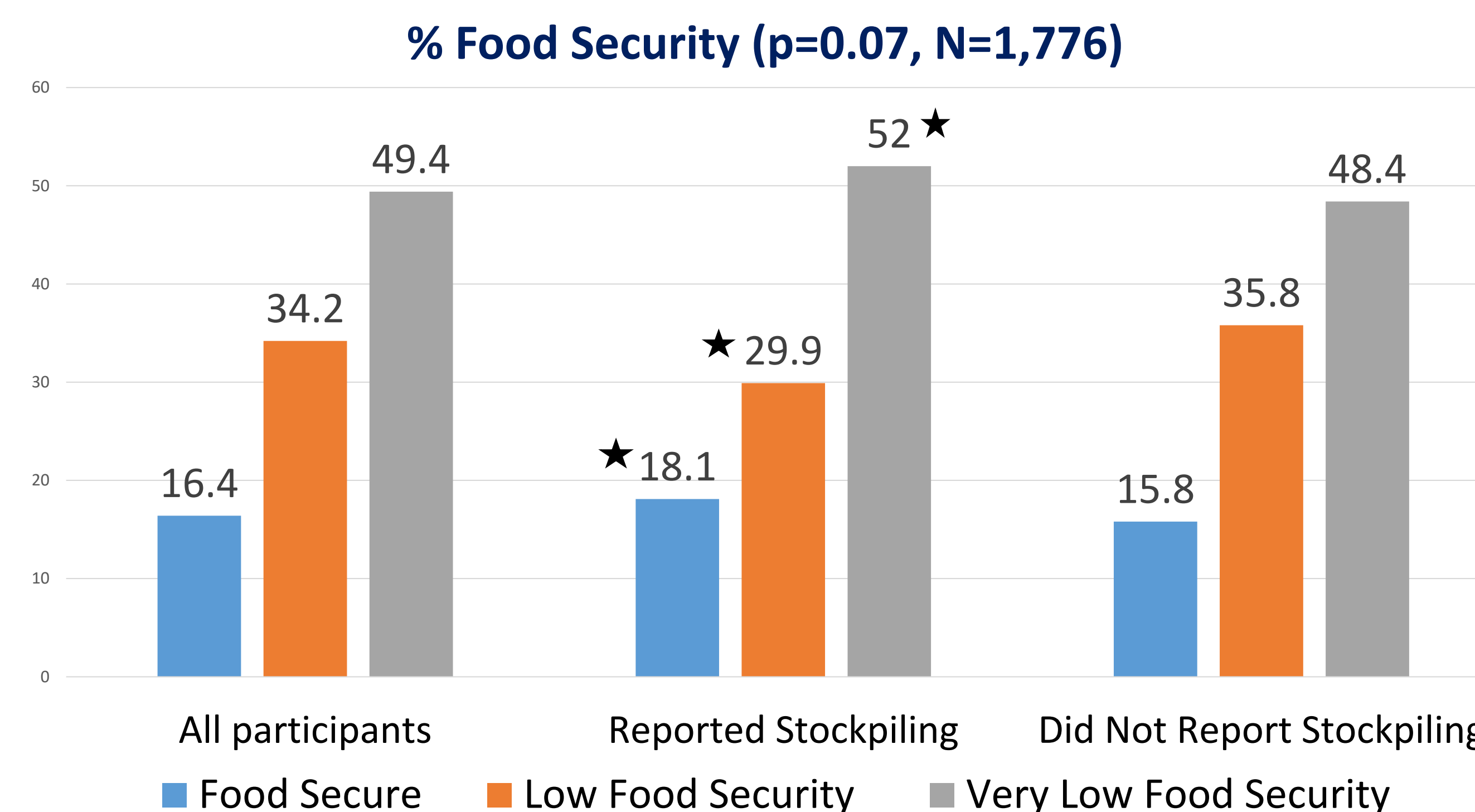


Fig. 2: Latinos were more likely to stockpile F&W compared to Non-Latino Blacks (NLBs)



★ Independent t-test between NLBs & Latinos indicating statistical differences in F&WS

Fig. 3: Participants who had very low food security were more likely to stockpile F&W compared to those with food security



★ Chi-square test of independence indicating statistical differences in F&WS between groups

Results

Table 1: Non-Latino Blacks had lower odds of F&WS

	Adjusted Models OR (95% CI)
Non-Latino Black	0.64 (0.51 – 0.79)
Latino	REF

Table 2: Participants who self-quarantined all or most of the time had higher odds of F&WS

	Adjusted Models OR (95% CI)
All of the time	2.16 (1.31 – 3.59)
Most of the time	1.81 (1.11 – 2.97)
Some of the time	1.21 (0.72 – 2.04)
None of the time	REF

Table 3: Job loss was not associated with F&WS

	Crude Models OR (95% CI)
Lost job entirely	1.18 (0.87 – 1.60)
Paid hours reduced	1.20 (0.92 – 1.58)
Anticipate job lost	0.70 (0.49 – 0.99)
No change	REF

Table 4: Those who were not concerned about COVID-19 had lower odds of F&WS

	Adjusted Model OR (95% CI)
Not at all concerned	0.37 (0.20 – 0.71)
A little concerned	0.52 (0.34 – 0.82)
Moderately concerned	0.61 (0.46 – 0.81)
Very concerned	0.75 (0.58 – 0.98)
Extremely concerned	REF

Conclusion

Participants self-quarantining most or all of the time had higher odds of F&WS early in the pandemic. Non-Latino Blacks and those not concerned about the pandemic were less likely to report F&WS.

References

1. Coleman-Jensen, Alisha, and Mark Nord. "U.S. Adult Food Security Survey Module." : 7.

Acknowledgement

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