

Not All Grocers Are Created Equal: The Impact of Store Type on Food Access and Diet in Detroit



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Detroit's food landscape reflects broader inequities: Independent store use was linked to food insecurity, while transport access correlates with better nutrition.

Background

Detroit's food environment has a high proportion of independent grocery stores, which often have limited selections, higher prices, and lower quality compared to major supermarket chains, potentially leading to difficulties in accessing healthy food for those who rely solely on independent grocers¹⁻².

Specific Aims

To analyze how socioeconomic factors, food access barriers, and neighborhood characteristics shape grocery shopping behaviors and fruit/vegetable consumption among Detroit residents.

Methods

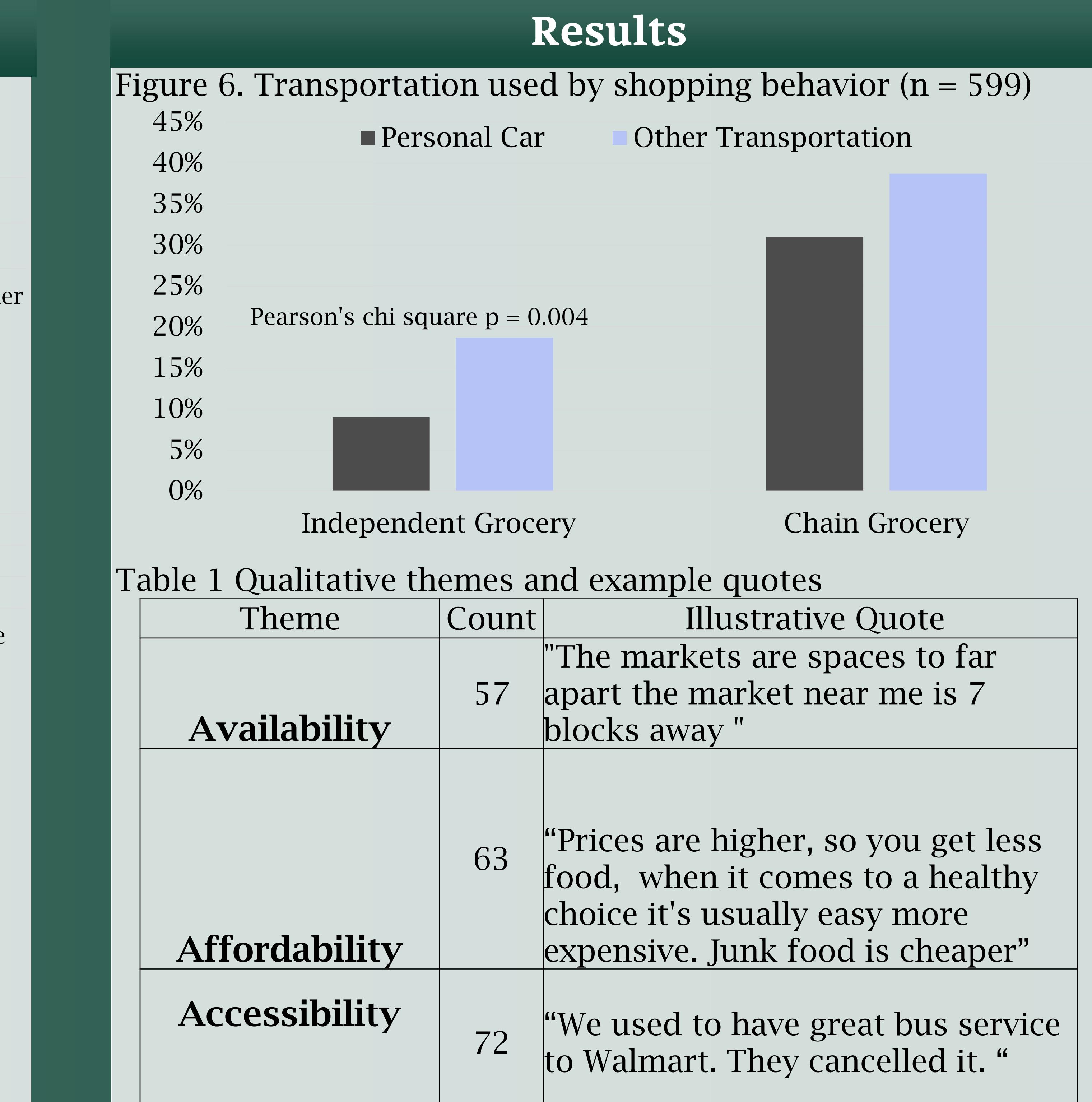
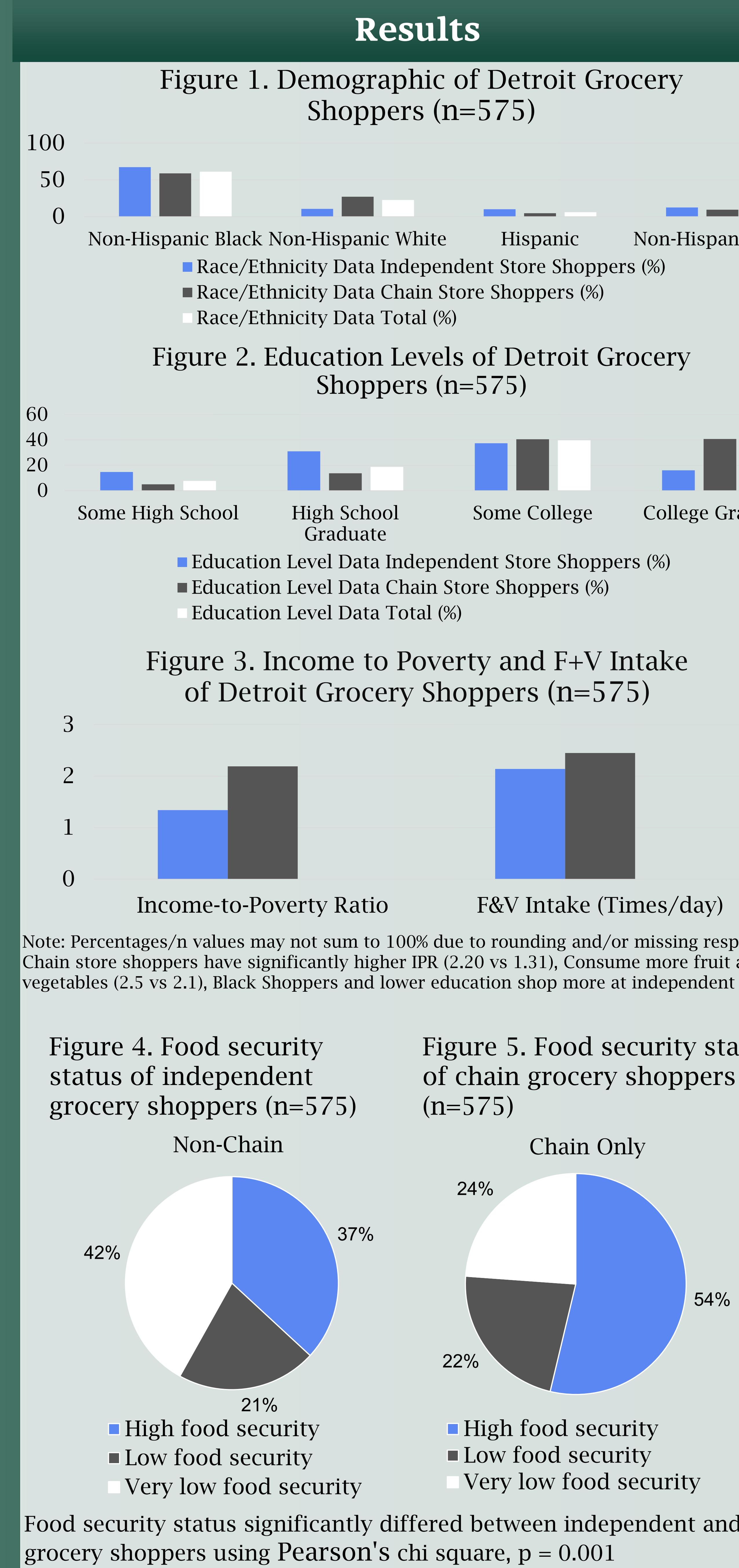
Respondents were recruited through a cross-sectional survey of 656 Detroit adults from December 2021 to May 2022.

Outcome measures

- Fruit and vegetable intake frequency was measured using the Dietary Screener Questionnaire.
- The type of grocery store used (chain vs. independent).
- Food security status using the USDA 6-item module.
- Transportation was assessed using Food Access and Food Security During COVID-19 Survey

Statistical Analysis

- Bivariate associations were tested using chi-square tests for categorical variables and rank-sum tests for ordinal or non-normal continuous variables
- Open-ended questions captured participants' experiences regarding household food needs.



Conclusions

- Independent store use in Detroit is associated with higher rates of food insecurity.
- Shopping at chain grocery stores is associated with higher fruit and vegetable consumption compared to shopping at independent grocery stores in Detroit.
- Sociodemographic factors such as income, education, and race and type of transportation used are associated with the type of grocery store used by residents of Detroit.
- Qualitative responses highlighted poor food quality, high costs, and limited transportation as barriers exacerbating inequities.

References

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