

# Honors in the Major Undergraduate Thesis: Obesity and the Cost of Living by Florida County

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## Background

Since the late 1970's obesity has been classified as an epidemic across the United States (Temple, 2022). Obesity is a public health issue because of the risk it poses on the population. A person with obesity is more likely to contract chronic diseases such as heart disease, type 2 diabetes, high blood pressure, and joint disease (Mozaffarian, 2022). There are many causes of obesity including lack of exercise, diet and other factors (Temple, 2022). Cost of living prices in the United States have risen in recent years (Grailey et al., 2024). Individuals are having to stretch and reconfigure their budgets (Albouy et al. 2016). Having to take from one budget like housing, in order to afford more items like food. Some healthier foods were also found to be more expensive than unhealthier options (Rao et al., 2013).

## Methods

A quantitative study was conducted to understand the relationship between obesity and the cost of living. Secondary obesity data was sourced from the Florida Department of Health's Behavioral Risk Factor Surveillance System. A phone survey collecting data about health behavior risks relating to chronic diseases. Cost of living data came from the Economic Policy Institute's Family Budget Calculator. This includes the cost of housing, food, transportation and healthcare. Cost of living data was then converted from 2024 data to 2022 data to make it the same year as obesity. The cost of living data was cleaned and reframed to only include Florida county data and households with adults and no children. A T-test was completed to look at the relationship between obesity and cost of living.

## Reflection

Participating in the Honors in the Major Program at Florida State University has helped open my eyes to the world of research. Through this journey of conducting a quantitative study, I have gained an abundance of unique knowledge I would not have learned if I didn't participate in this program. Some of these skills are data cleaning, data management, and statistical analysis. I also was able to become more efficient in programs such as Excel and SPSS. Excel was used to clean and organize data, while SPSS was used for the statistical analysis. Using these programs has shown me how complex research is and how many steps there are before getting to the results. Since my data wasn't from the same year I had to use the Bureau of Labor Statistics Consumer Price Index calculator to convert cost of living data to the same year as obesity data. This taught me patience and persistence as it was a long process and important to make sure the results were transferring over to excel correctly. Researching obesity has helped me learn more about a topic I have always been interested in. Teaching me more about the effects of obesity and being able to see the data on a county by county basis. It is also interesting to see the preliminary results and that there is correlation between obesity and cost of living. Overall this project helped me understand more about obesity and its causes.

## Objective

The objective of this study was to see if there was a relationship between obesity and four cost of living categories. The categories include cost of housing, food, transportation, and healthcare.

## Research Questions

- Does cost of living impact the prevalence of obesity in Florida?
- What is the relationship between cost of food, cost of transportation, cost of housing, healthcare costs, and rates of obesity? Is one variable more closely related to obesity than the others?

## Preliminary Data

The data analysis is currently in progress. However, preliminary results show that while the data is significant there are significant between obesity and the cost of housing, food, transportation, or healthcare.

### Sample

	Total Sample N=67	
	Mean	Std. Dev
Obesity	35.30	8.06
Key factors		
Cost of Housing	\$ 12,051.84	\$ 3,604.83
Cost of Food	\$ 5,675.47	\$ 568.73
Cost of Transportation	\$ 12,951.98	\$ 924.29
Cost of Healthcare	\$ 8,508.85	\$ 989.15

### Correlation

		Annual Cost of Housing	Annual Cost of Food	Annual Cost of Transportation	Annual Cost of Healthcare
Adult Obesity Prevalence	Pearson Correlation	-.530**	-.538**	.409**	.377**
	Sig. (2 tailed)	<.001	0.183	<.001	0.002
	N	67	67	67	67

\*\* Correlation is significant at the 0.01 level (2-tailed)

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