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Obesity and Fast Food: National Analysis

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Research Question

Does a increase or decrease in fast food restaurants per capita affect the rate of obesity in the United States?

Research

Behind the research was to see if fast food restaurants has a correlation with obesity rates in the United States. Data was collected for the 2011, 2012, and 2014. To determine whether other factors that affect obesity, data was also collected for income and obesity rates by age group for each state in the United States including the District of Columbia.

Variables

Variables was collected in each state of the United States for three years. Numbers collected were done by taking the total sum of each county in a state. The controlled variable *Obesity* was collected by an overall percentage rate, as well as taking the average rate for three different age groups. The groups are illustrated in the data table.

Controlled Variable:

- Obesity

Independent Variables:

- Fast Food per Capita
- Income
- Obesity18_24
- Obesity25-34
- Obesity35-44

Data

Variable	Observation	Mean	Standard Deviation	Max	Min
Fast Food Restaurants Per Capita	153	.000710	.000102	.001278	.000533
Obesity	153	28.28693	3.335647	35.90000	20.50000
Income	153	54688.84	8680.259	77216.00	36011.00
Obesity 18_24	153	15.78562	3.523986	26.10000	8.500000
Obesity 25_34	153	26.74771	4.347445	40.50000	15.70000
Obesity 35_44	153	31.72484	4.598116	43.70000	20.60000

Model Results

Variable Y= Obesity	Model I	Model II	Model III	Model IV	Model V	Model VI
Fast Food Restaurants Per Capita	-0.00023 (-0.06)	-0.00123 (-0.30)	0.00038 (.097)	0.00124 (.333)	-9.16 (-0.003)	-0.00023 (-0.27)
Income		-6.53* (.075)	-6.12* (-1.74)	-5.54* (-1.66)	-4.75 (-1.61)	
Obesity 18_24			0.10268* (3.01)	0.09468*** (2.92)	0.089*** (3.14)	
Obesity 25_34				0.13230	0.114*** (3.33)	
Obesity 35_44					0.173*** (5.34)	

Theoretical Model

Ob = f (Foodres_pc, Income, Ob18_24, Ob25_34, Ob35_44)

Research Results

Obesity	Fast Food Per Capita
Top 5 • Arkansas • West Virginia • Mississippi • Louisiana • Alabama	Top 5 • Alabama • Nebraska • West Virginia • Oklahoma • Tennessee
Bottom 5 • California • Massachusetts • Hawaii • District of Columbia • Colorado	Bottom 5 • Vermont • New Jersey • New York • Connecticut • Massachusetts

Illustrated in the chart above, the research concluded these states as the top five and bottom five levels of obesity and fast food restaurants in the United States.

Conclusion

To conclude, from the data collected and run in the economic forecasting program eviews, it is illustrated that there is no significant correlation between obesity rates and fast food restaurants per capita. Other variables such as income and age group have a slight significant effect on obesity rates in the United States