

Heading Down the Slope: How Government Officials & Health Insurers Can Take Mississippi Obesity Rates From Its Summit Closer to Its Base

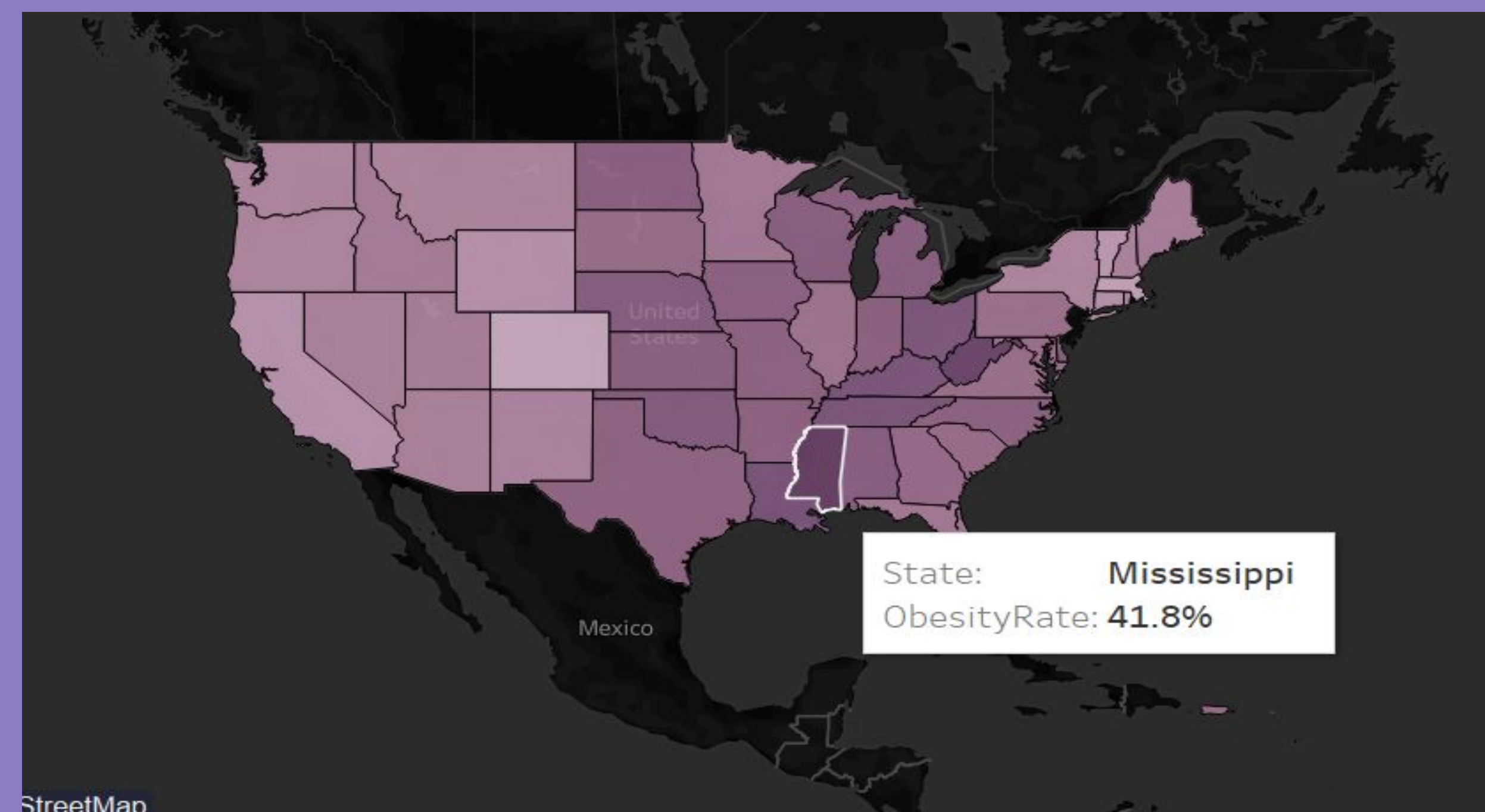
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Highlights

- There is no difference between BMI values of rural or urban residents.
- Black women have the highest BMI values.
- Being married, having high income, and obtaining a college or technical school degree appears to correlate with lower obesity rates for Black women.

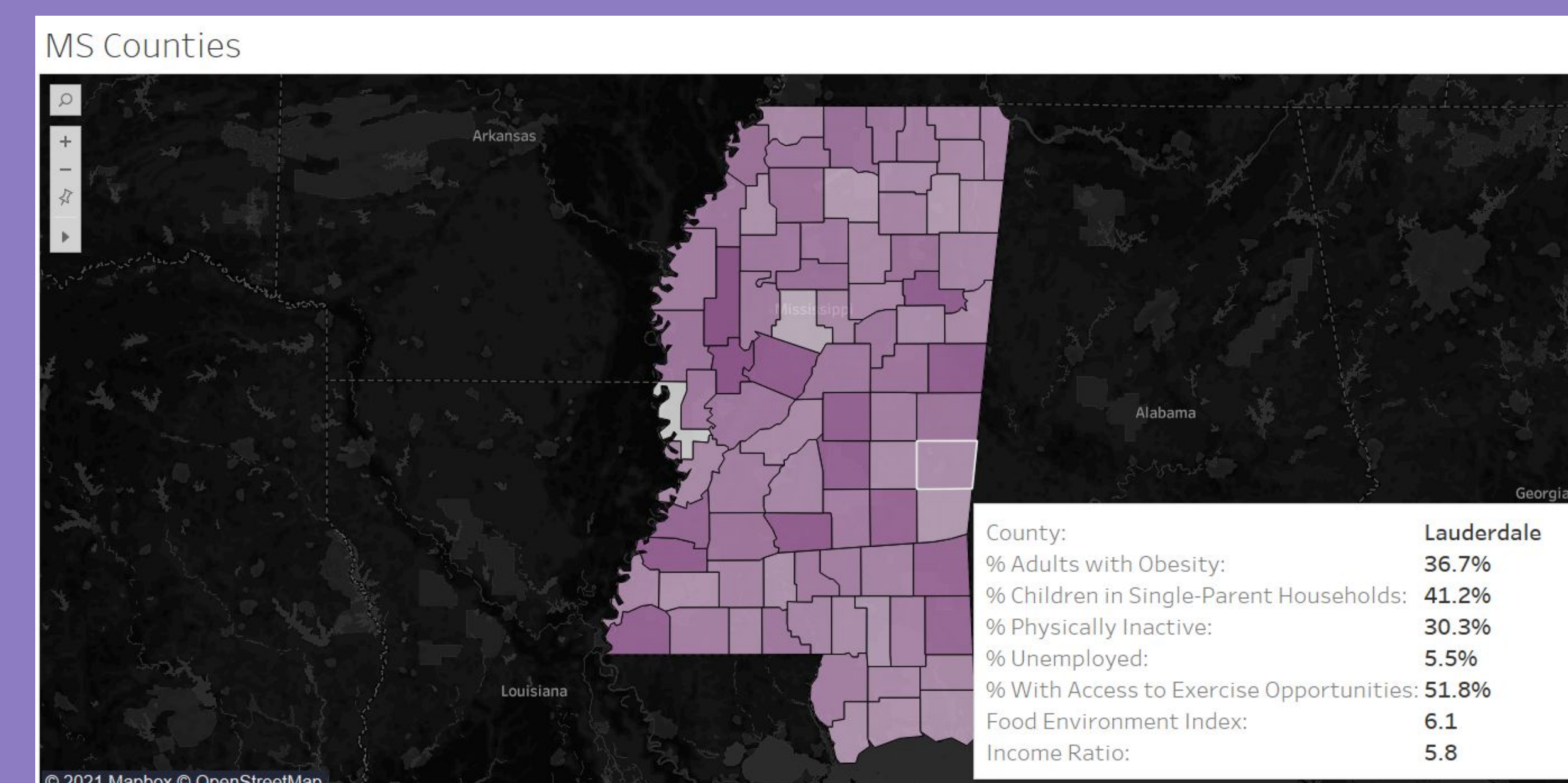
Background

It is estimated that obesity causes around 2.8 million deaths globally each year.¹ In the United States (US), obesity affects more than 1 in 3 adults and about 1 in 5 children and adolescents.² In 2016, obesity cost the US \$260.6 billion in total medical care expenditures.³ Mississippi has the highest obesity prevalence rate in the US at 41.8%.



Data

We used the Behavioral Risk Factor Surveillance System (BRFSS) 2019 and the United States Diabetes Surveillance System 2021 datasets. We cleaned the data using Pandas, and used Tableau and Python's Seaborn library to create visualizations.



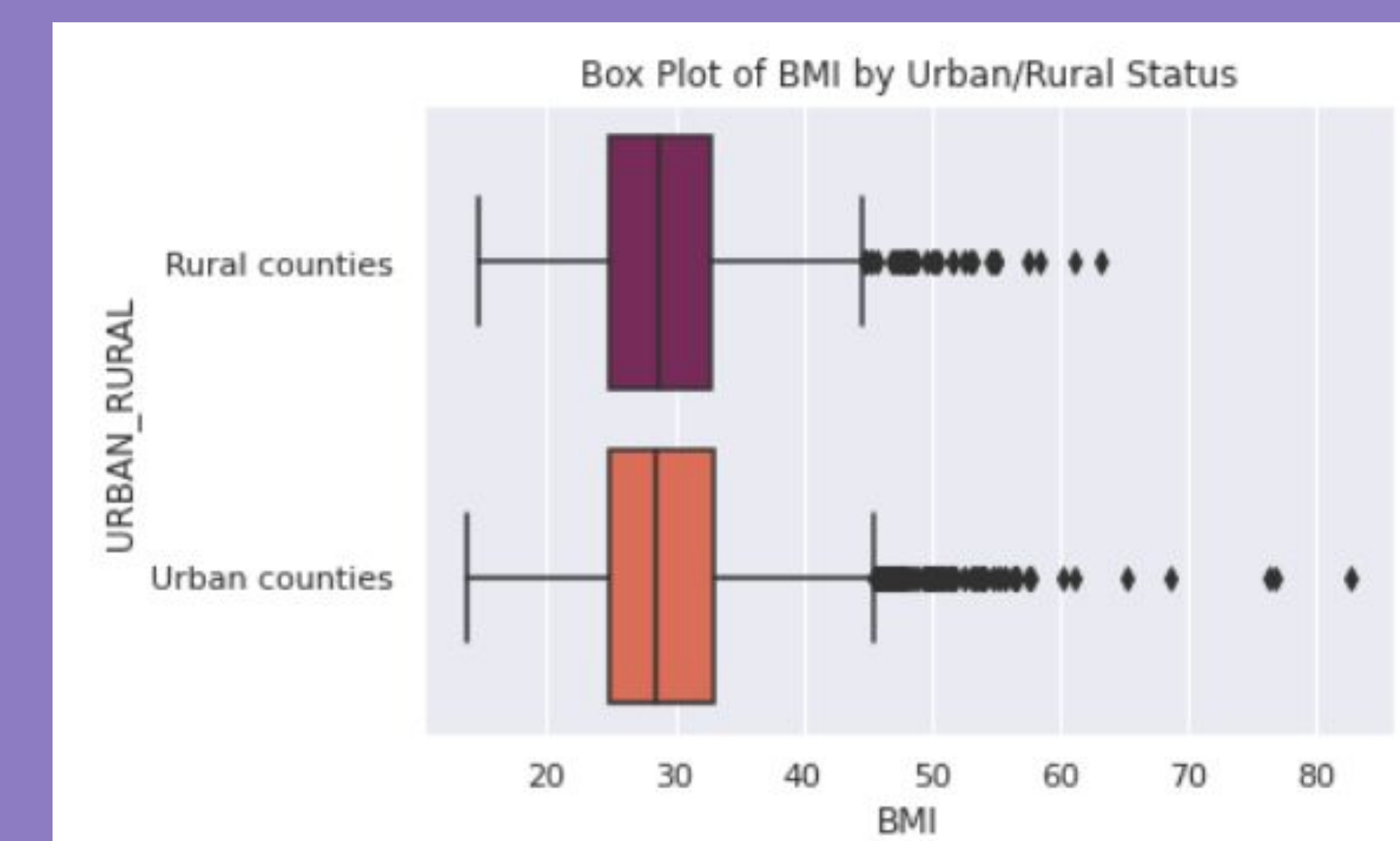
Taking into consideration differences in marital status, education and income level, Black women have the highest obesity rates. However, among Black women, those of higher socioeconomic standing have lower obesity rates.

Race	Education	Female Obese	Male Obese
Black	Did not graduate...	62.4%	34.2%
	Graduated High..	60.0%	37.0%
	Attended Colleg..	56.8%	34.5%
	Graduated from..	57.9%	35.5%
White	Did not graduate...	41.0%	38.1%
	Graduated High..	33.1%	41.8%
	Attended Colleg..	37.0%	42.2%
	Graduated from..	31.7%	31.3%

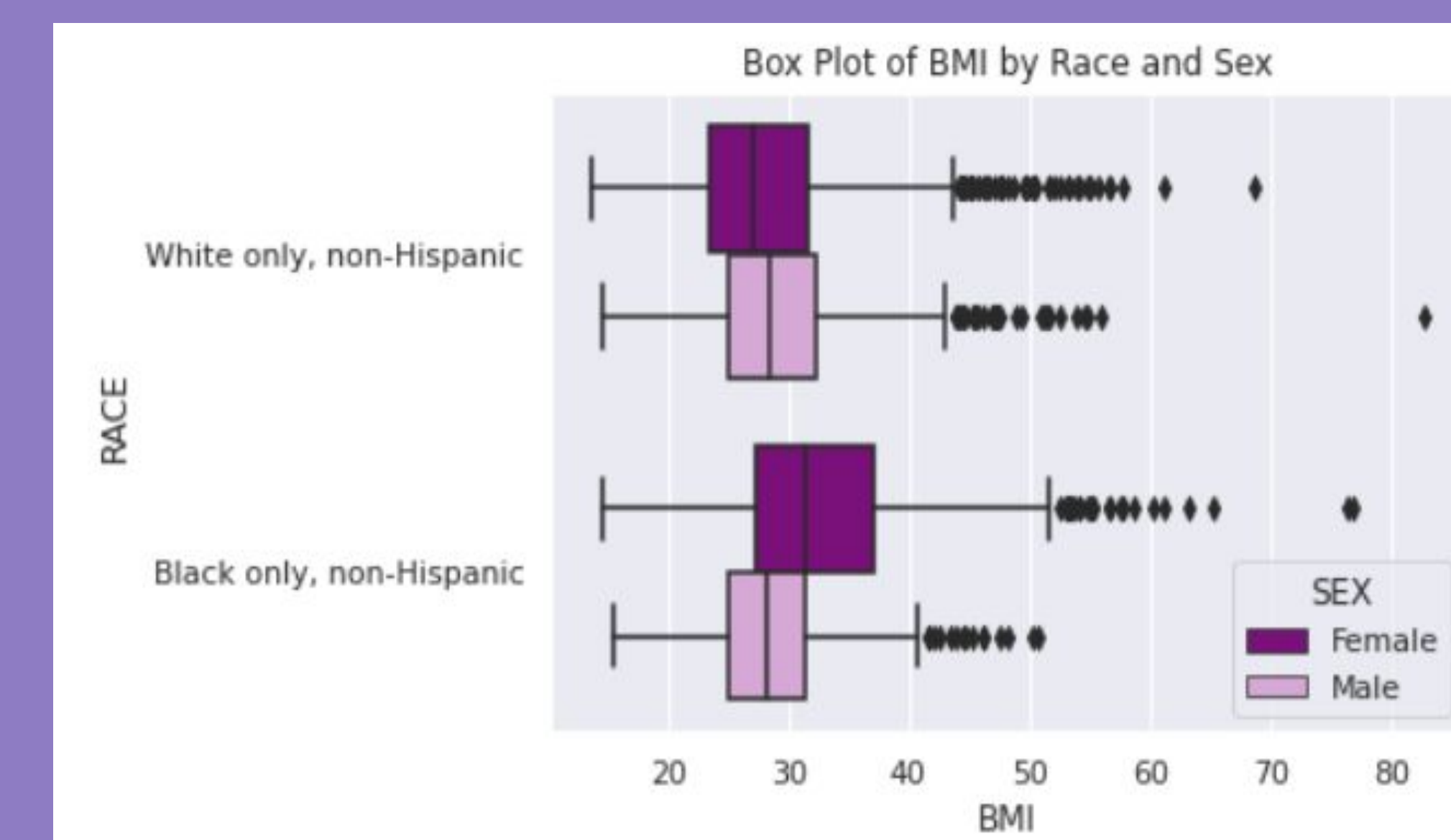
Race	Marital Status	Female Obese	Male Obese
Black	Married	58.7%	36.8%
	Divorced	65.6%	38.7%
	Widowed	50.0%	32.7%
	Never Married	60.0%	35.6%
White	Married	36.2%	41.0%
	Divorced	43.4%	42.7%
	Widowed	26.3%	25.8%
	Never Married	34.9%	27.1%

Race	Income Level	Female Obese	Male Obese
Black	Low Income	62.0%	32.8%
	Moderate In..	63.4%	38.3%
	High Income	53.6%	37.0%
White	Low Income	34.6%	34.2%
	Moderate In..	41.3%	38.2%
	High Income	32.5%	40.0%

As the level of education increases for Black women, their obesity rates decrease. Across the 4 race-sex combinations, divorced people have the highest obesity rates, while widowed people have the lowest obesity rates. Obesity rates of Black and White men increase as their income increases, while obesity rates are the lowest for Black and White women who are high income.

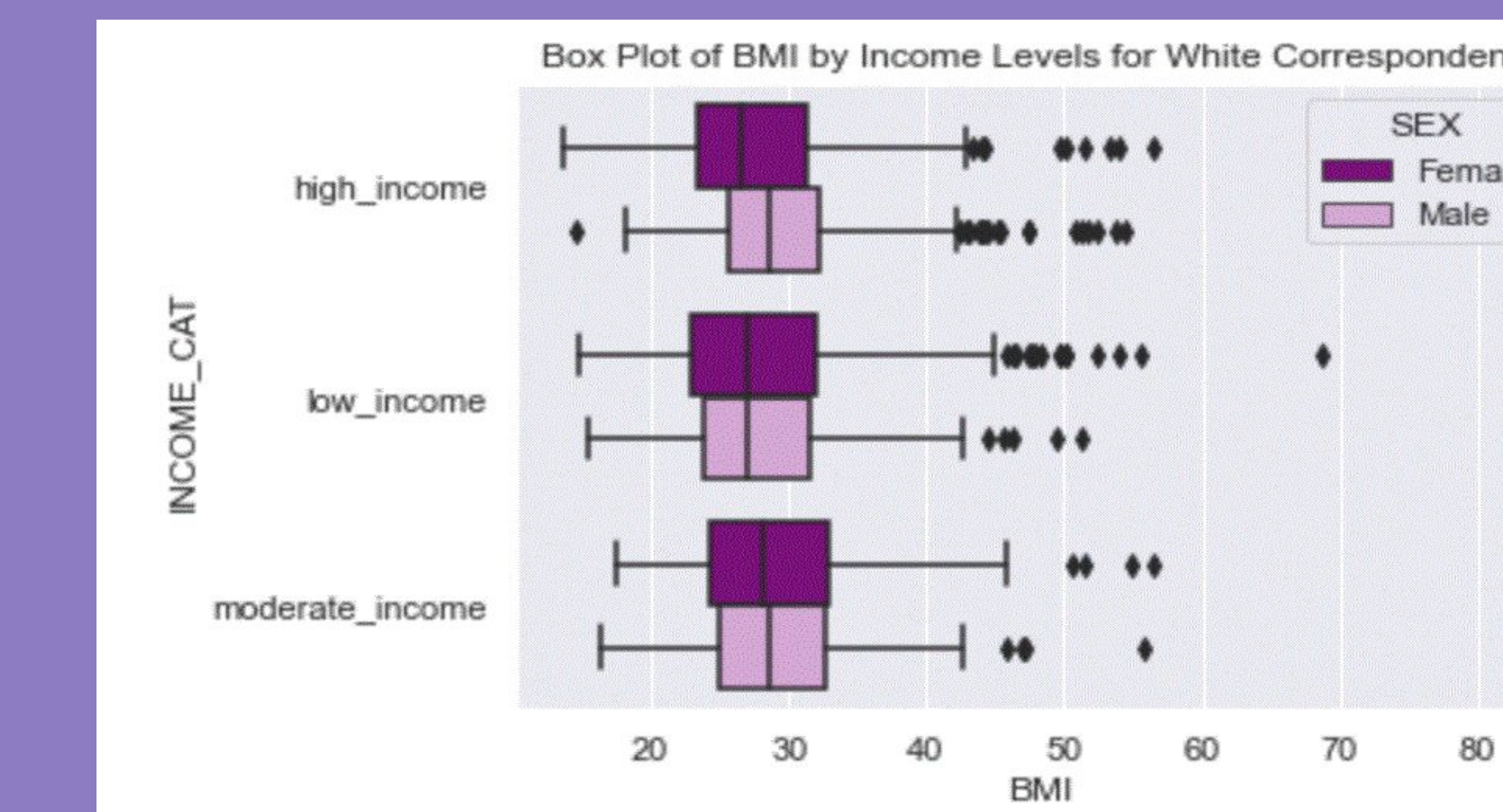
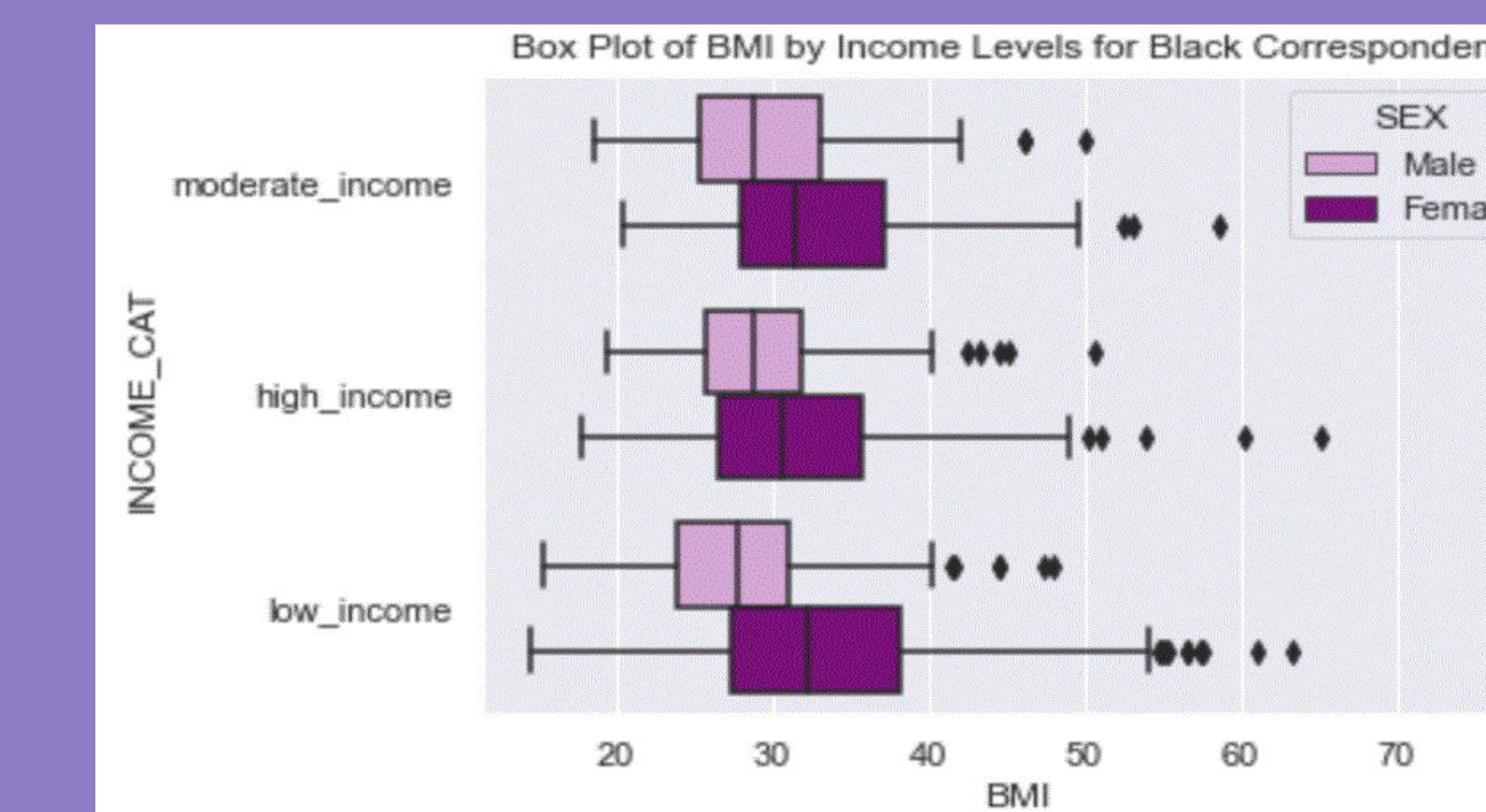


Residence in either a rural or urban county does not appear to affect BMI values in the state of Mississippi.

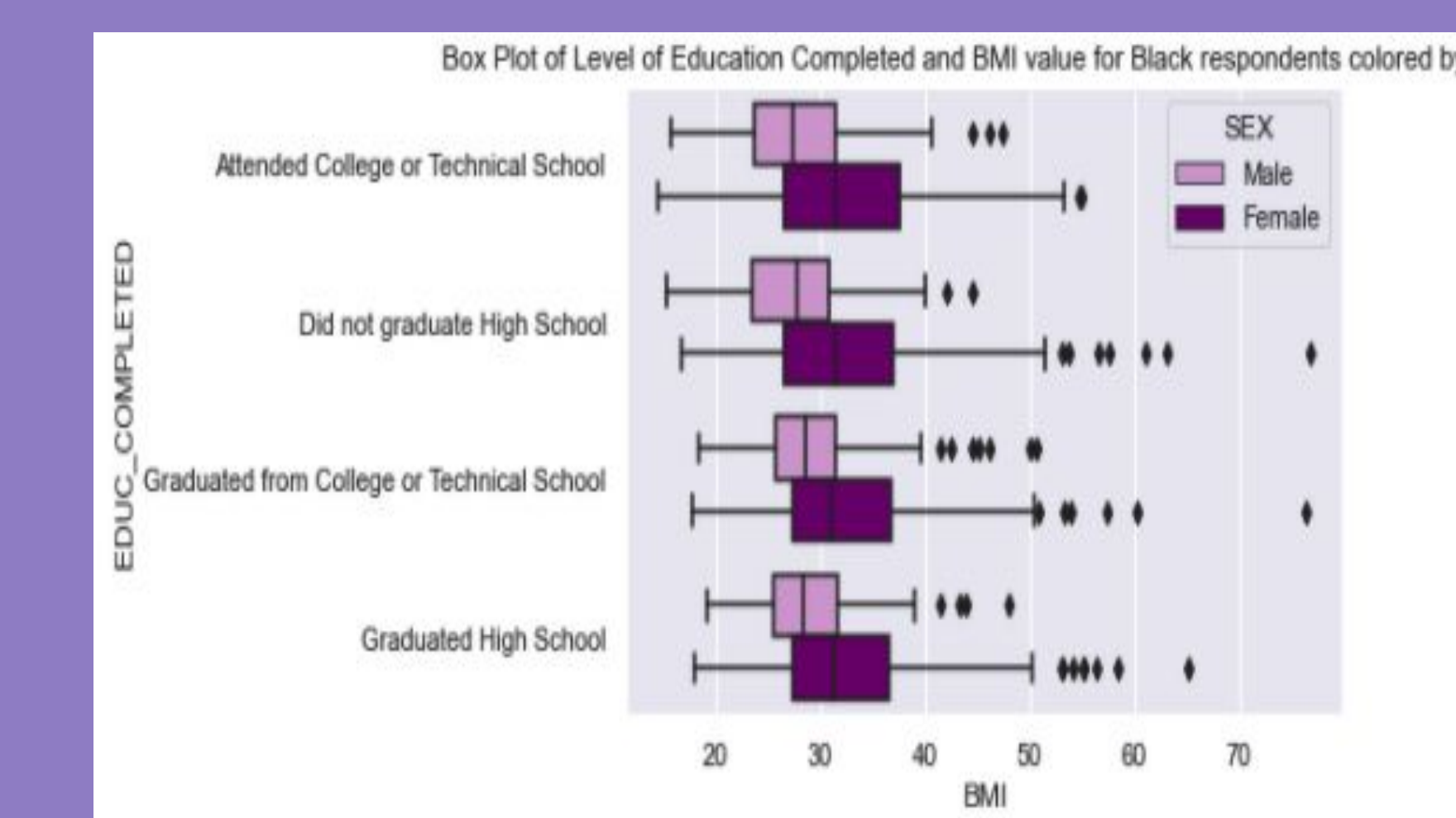


Black women have higher obesity rates both compared to Black men and overall. White men have higher obesity levels than White women.

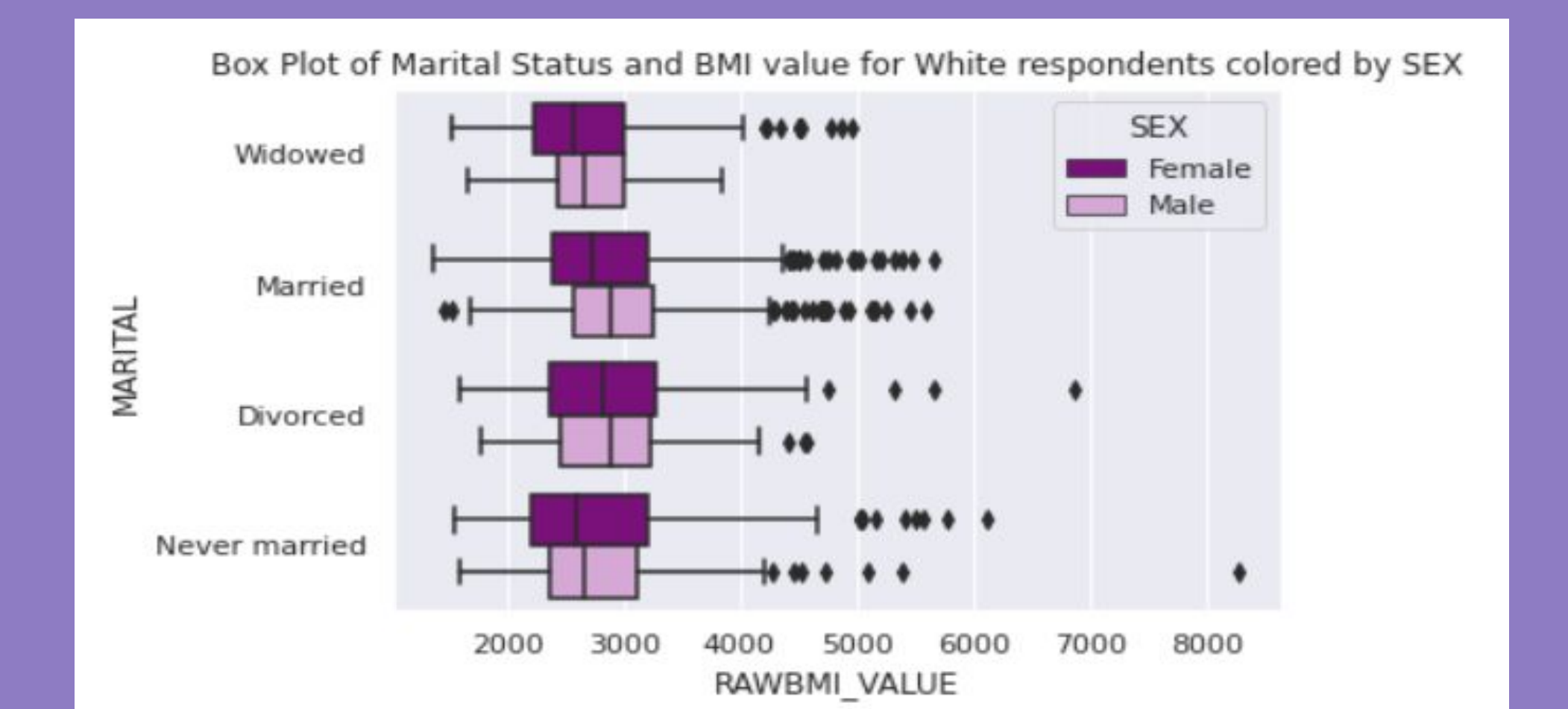
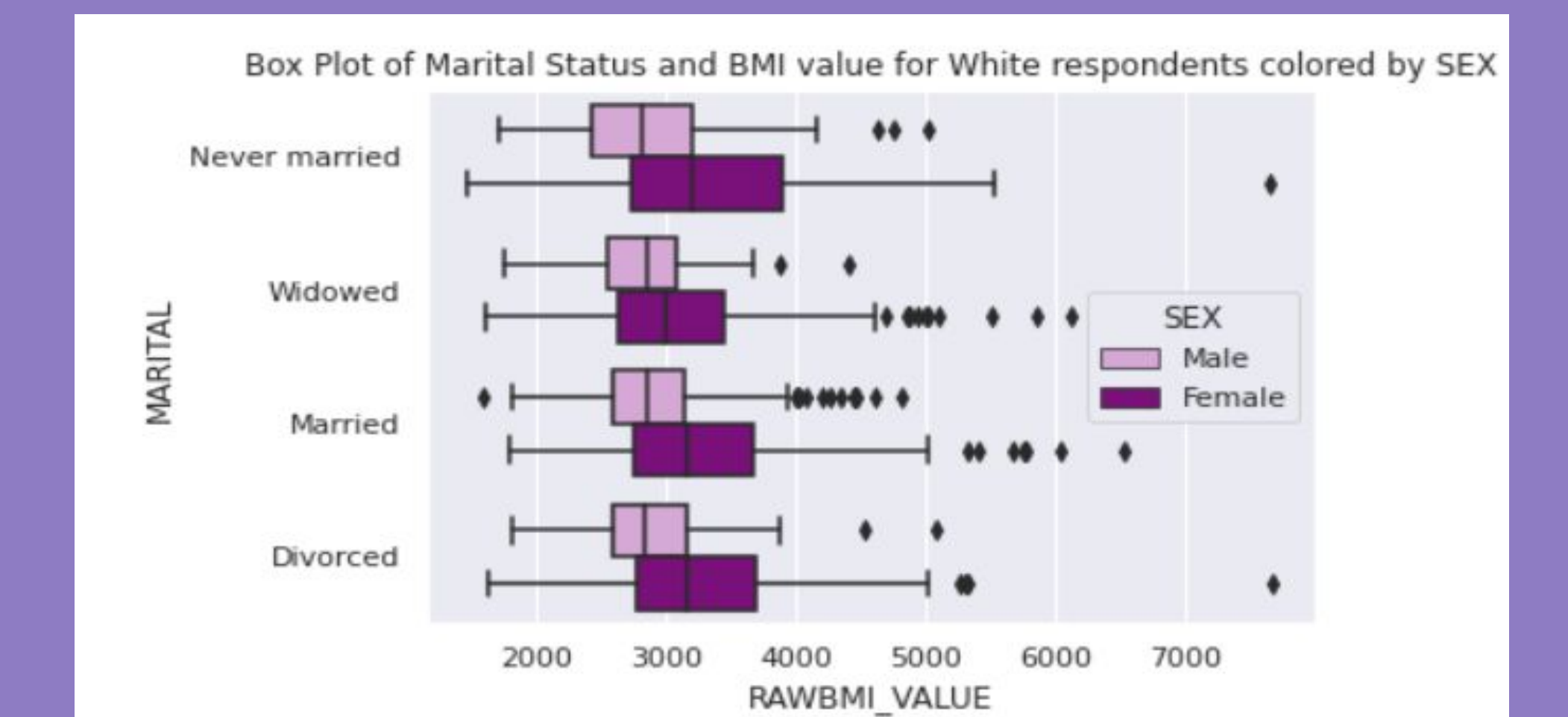
Comparison of BMI values across gender and race for income level, marital status, education level



Black women have higher BMIs than Black men across all income levels. White men have higher BMIs than White women for all income levels except moderate.



Black women have higher BMIs than Black men across all levels of education completed. White men have higher BMIs than White women across all levels of education completed except for did not graduate high school.



Black women have higher BMIs than Black men across all marital statuses. White men have higher BMIs than White women for all marital statuses.

