

## Visualizing the Weight of the Nation: Exploring Obesity Through Data

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### *Delving into Obesity: What You Need to Know*

In today's society, obesity has become more and more prevalent in America and a global population. According to the Mayo Clinic, Obesity can be defined as a disease that causes excess body fat and contributes to other medical risk factors. Obesity is often measured by medical professionals based on a person's height, weight, and Body Mass Index (BMI). Additionally, the US healthcare system spends over \$173 billion a year on obesity.

Obesity has grown significantly in the past two decades. According to the CDC, obesity prevalence has grown from 30.5% in 1999-2000 to 41.9% in 2017-2020. The CDC also states, "1 in 5 children and more than 1 in 3 adults struggle with obesity". The rise of being overweight or obese is due to many factors. A person's healthy lifestyle, age, socioeconomic status, and even race can contribute to their risk for obesity. Many Americans do eat properly or gain adequate amounts of

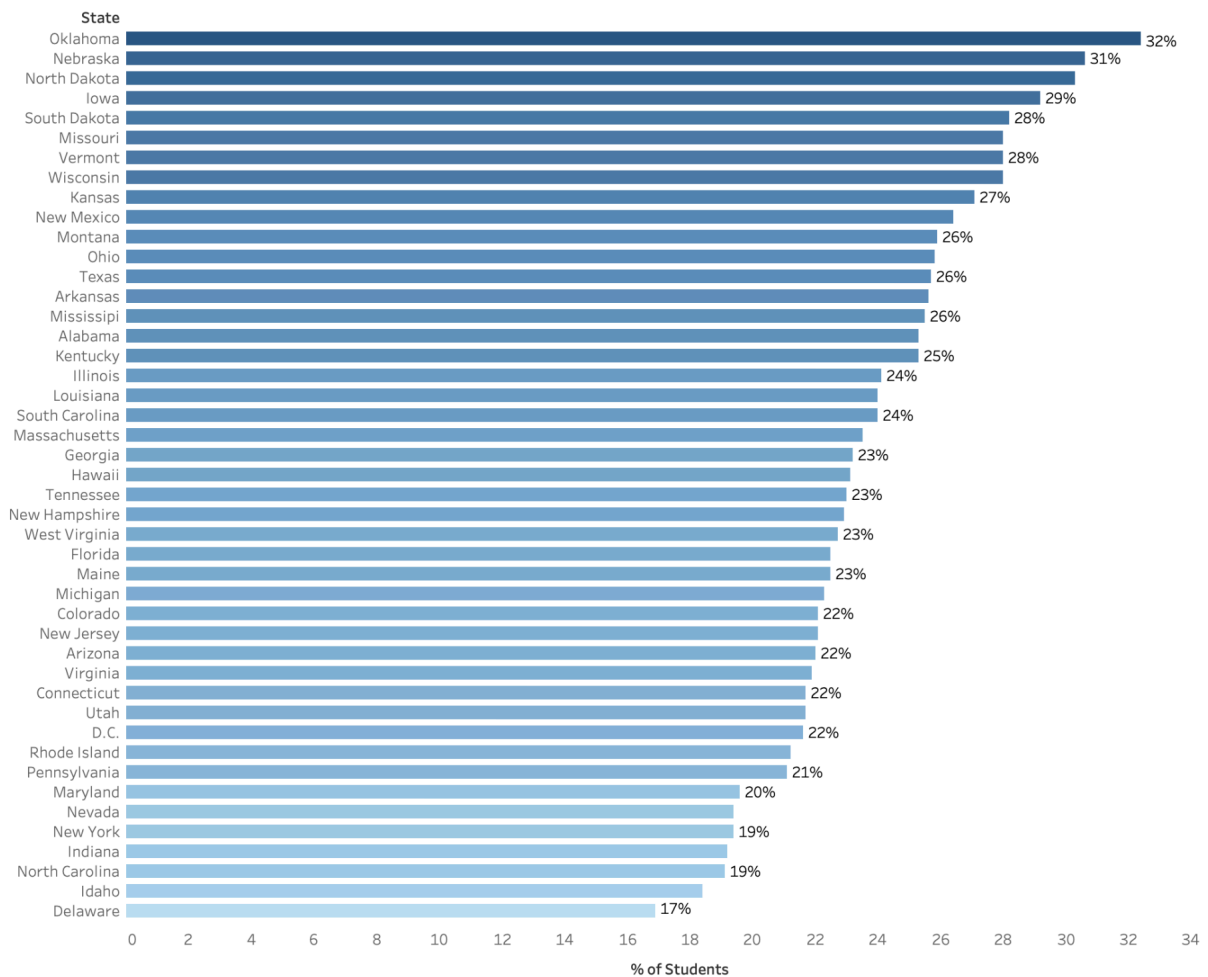
exercise. Only 1 in 4 American adults performs proper amounts of physical activity according to the activity guidelines. Obesity can contribute to many health concerns such as heart disease, type 2 diabetes, and even cancer.

It is crucial to become aware of obesity statistics and how prevalent it is amongst our society. Obesity can affect all adults and children from any background, so it is important to understand the data and what factors contribute to obesity so individuals can live a healthy and obesity reduced lifestyle.

### *Activity Snapshot: American Teens*

#### How many students per state met recommend physical activity?

*This data shows what percentage of highschoolers in the US were physically active at least 60 minutes on all 7 days in 2021 by state.*



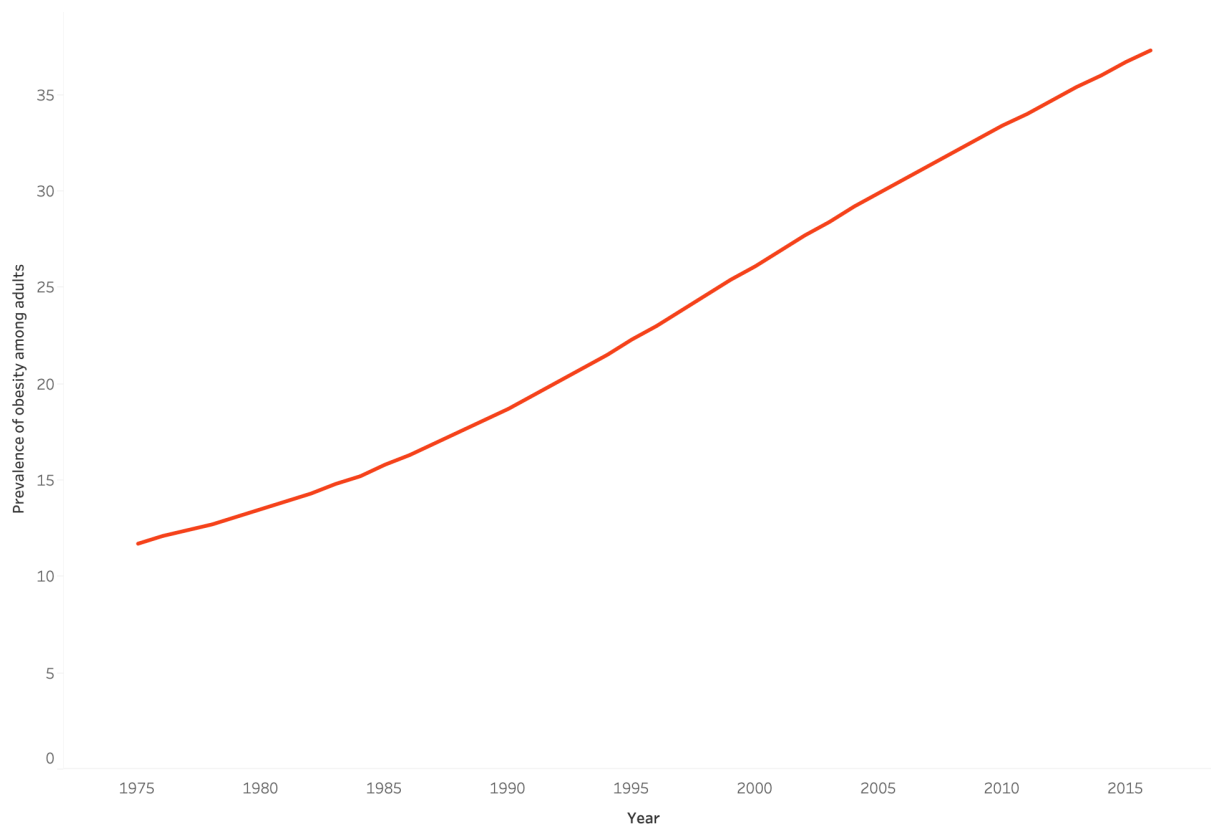
The above graph represents the percentage of highschoolers in the United States that were physically active at least 60 minutes of all 7 days in 2021 by state. When you look at the graph, you will see that not even one state has half of the high school student population get 60 minutes of exercise every day. The state with the highest percentage of students in Oklahoma with only 32% of students. This contrasts with Delaware at the bottom with 17%. These numbers should be much higher, so seeing it visually laid out by state shows that not getting adequate amounts of exercise is a national problem that needs investigation as to why this is occurring and what can we do as a society to help fix this problem.

The above graph looks into physical activity. This is a broad category because physical activity can take various shapes such as playing a sport ,going for a run, lifting at the gym, or even simply going for a walk. For some, it might not be realistic to go to a work out class or visit the gym every single day, however going for a walk should always be an option. If an individual makes it a goal to go for a walk twice a day for 30 minutes, they will be able to meet their goal. This might seem like an easy task, but with further investigation there could be various factors that are prohibiting students from reaching their goal. These problems can include, but aren't limited to, access to safe spaces to workout, balancing multiple commitments (too busy of a schedule), cost of healthy foods, and access to fresh food.

Not getting adequate exercise can lead to a very concerning and real problem: obesity. Obesity doesn't just affect highschoolers, it's much more of a widespread problem. The habits you build in your youth set up for how you will approach your adulthood and your view on wellness. Unfortunately, correcting poor habits can be very difficult to do. The problem of not getting adequate exercise, combined with many other factors listed previously, is a very concerning high percentage of the overall population that experiences obesity.

Below examines the prevalence of obesity among adults that have BMI  $\geq 30$  (*crude estimate*) (%) - Sex: both sexes - Age group: 18+ years.

American Adults: Growth of Obesity



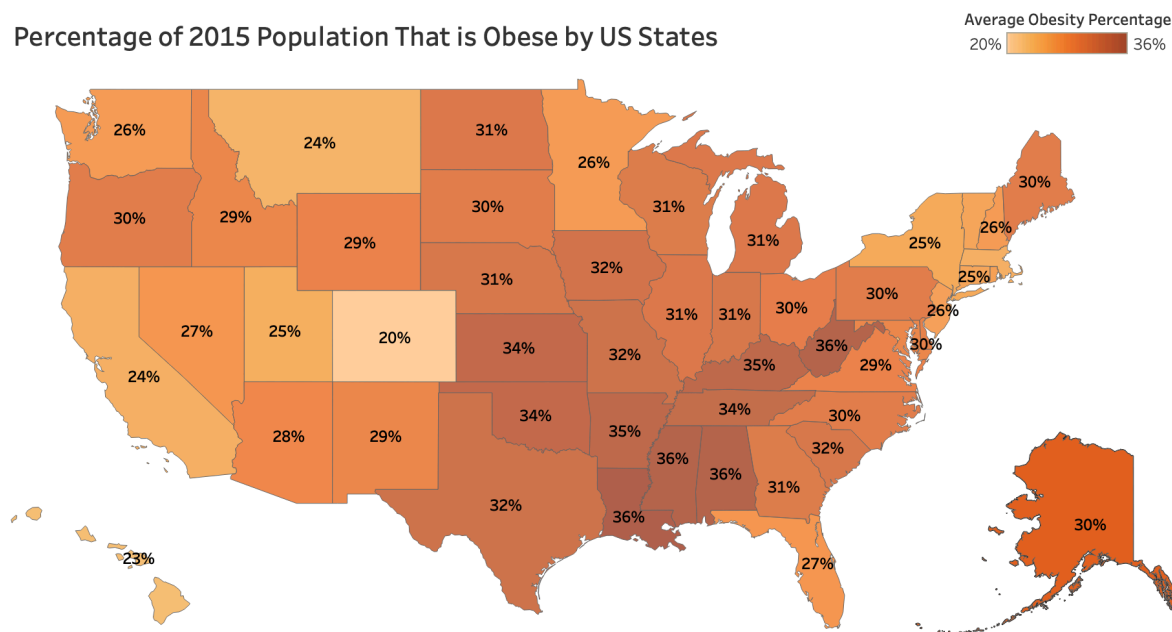
As you can see, this data looked from the year 1975 up into 2015 with a very clear upward trend.

This data shows that the percentage of obesity is unfortunately steadily growing and is a problem that is affecting the US population as a whole.

### ***Understanding the Scope of Obesity***

As we already know, the prevalence of obesity has increased significantly over the past several decades. The below map is an insightful look into obesity rates based on the US states population. The map below demonstrates the 2015 obesity rates based on the population of each US state. The map shows obesity percentages on a gradient orange scale, with the darker orange representing states with the highest obesity rates.

Percentage of 2015 Population That is Obese by US States



As you can see above, the graph illustrates the percentage of the population in 2015 per state that had a BMI high enough to be obese. The lowest percentage of obesity was 20% in Colorado and the highest percentage was 36% in Louisiana, Mississippi, Alabama, and West Virginia. These numbers are very concerning and it now being 2024, one can assume that these numbers might have increased.

The map displays a significantly higher percentage of total population obesity rates in southern and midwestern states. The CDC claims that adults living in more rural counties are more likely to be obese than individuals living in urban cities. Living in a rural community can contribute to factors such as lack of close access to grocery stores, an un walkable community, and lack of access to medical care. According to the US Department of Agriculture, the South had the highest rate of poverty with 19.7% living below the poverty line in nonmetropolitan areas and 13.8% in metropolitan areas. These percentages were the highest compared to northern, western, and eastern states. This statistic relates to obesity because individuals living in poverty are more likely to struggle

with obesity. From looking at the map and the given statistics, we can conclude that poverty and obesity both play a factor in the highest obesity rates in the midwest and southern states.

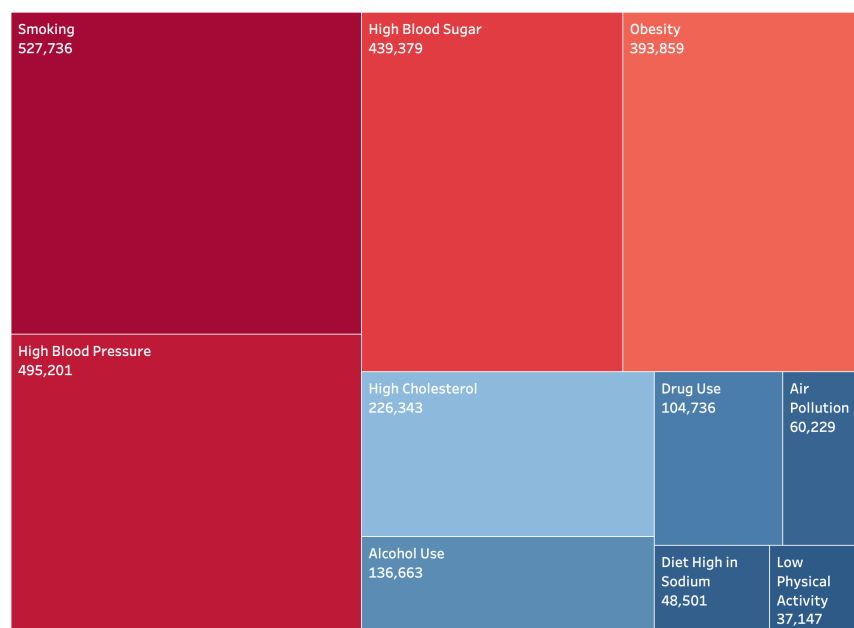
### ***Food Deserts***

Additionally, the concept of a 'Food Desert' relates to obesity rates. A 'Food Desert' describes areas with little to no access to affordable, nutritious food. According to the Food Desert Locator, southern and western states have the most counties with low income and low access to nutritious and accessible food options. Another factor that contributes to obesity is consumption of fast food. In the US culture, it is extremely common for individuals to consume food from fast food restaurants on a regular basis. Oftentimes, in a Food Desert, fast food options are the only places individuals have access and can afford. According to the National Institute of Health, obesity prevalence increases in areas with high fast food density. A study found that adults who consumed fast food 1-2 times a week, did not meet physical activity guidelines, had low self knowledge surrounding healthy eating, lived in high density fast food areas, and were more likely to have obesity.

### ***Why are people dying?***

Having a high percentage of people with obesity is a serious concern. The below graph shows "Deaths Risk By Factor in US in 2019" where you can see obesity is #4.

Estimated Number of Deaths By Risk Factors in The US in 2019



However, it's important to note that since of the death factors listed, such as high blood pressure and high blood sugar, are very common in individuals with obesity. According to the NIL, “Having a large body size may increase blood pressure because your heart needs to pump harder to supply blood to all your cells” which causes high blood pressure. Additionally, according to the CDC, “Obesity is linked to higher triglyceride levels, higher LDL cholesterol levels, and lower HDL cholesterol levels. Also, the NIL writes that “the relationship between excess adiposity and increased blood pressure is well established, and it is estimated that obesity accounts for 65–78% of cases of primary hypertension.”

Based on the data, Obesity can cause high blood pressure, high cholesterol, high blood sugar, and obesity can be caused by having low amounts of physical activities. This means that even though the above graph shows obesity as the #4 causes of death, the effects of obesity are widespread and can lead to other death causes.

### ***Closing Thoughts***

Overall, it is clear the high prevalence of obesity in today's society. It is essential to understand how healthy habits, eating clean, exercising, and being conscious of your environment, can prevent obesity. As college students, it is easy to fall out of these habits, but they must not be forgotten because obesity can contribute to life threatening diseases and even death. We urge you to evaluate your lifestyle habits and read out to a medical professional if you believe you are overweight or are more likely to develop obesity. Obesity is preventable if there are actionable steps you can take to prevent it.

### ***Sources***

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