

## 1           **Body Mass Index of College Students**

2           Obesity is a growing concern in many countries around the world. Due to  
3 stress, lack of sleep, bad eating habits, and not enough exercise, college students in  
4 the United States are more likely to be obese than high school students or older  
5 people. Huang et al. found that 21.6% of college students are considered  
6 overweight by calculating BMI (83). Obesity is a disease in which a person has  
7 excess body fat. Being overweight and being obese are not the same thing and  
8 cannot be used interchangeably. If a person is overweight, it means that they weigh  
9 more than the healthy weight for their height. However, this weight can be a result of  
10 many other factors than just body fat such as muscle, bone, or body water ("Obesity:  
11 MedlinePlus."). Obesity, on the other hand, occurs over time if a person consumes  
12 more calories than are burned. Genetic make-up also affects the likelihood that a  
13 person will get diabetes. Heavy weight caused by obesity can be a result of  
14 overeating, eating unhealthy and fatty foods, and lack of exercise. If not properly  
15 taken care of, obesity can lead to a lot more health problems. For example, excess  
16 body fat and weight can increase the risk of certain cancers, heart disease and  
17 stroke ("Obesity: MedlinePlus."). Obesity is diagnosed through tests after body mass  
18 index has given an indication that the person is overweight and at risk for obesity  
19 and other serious health problems ("How Are Overweight and Obesity Diagnosed?").

20           To get a decent indication of amount of body fat, we can calculate body  
21 mass index (BMI). BMI is calculated by using height and weight. The formula is  
22  $\text{weight (kg)} / [\text{height (m)}]^2$  or  $\text{weight (lb)} / [\text{height (in)}]^2 \times 703$  ("About BMI for  
23 Adults."). BMI is rather reliable and is frequently used to assess the amount of body

1 fat and screen a person to see if they fall in of the weight categories which are  
2 associated with certain health problems. Although it is a good screening tool for  
3 possible problems, BMI cannot be used as a diagnostic tool by itself. Weight, height,  
4 and gender also affect the value of a person's calculated BMI. Therefore, although  
5 there is a strong correlation between BMI and body fatness it is not necessarily the best  
6 indication of obesity ("About BMI for Adults.").

7 The mean for the results in this experiment is 23.30791 with a standard  
8 deviation of 4.638467. The mean for this data falls in the BMI category of "normal"  
9 (18.5-24.9) ("About BMI for Adults."). The frequency distribution histogram of Figure  
10 1 shows that the data is slightlyright skewed and unimodal. The skewness could be  
11 caused by outliers. Without outliers such as 38.7, the histogram would be less  
12 skewed and more normally distributed. Despite the skewness of the histogram and  
13 presence of outliers, the data show that, on average, [REDACTED]  
14 [REDACTED] students are within the "normal" range; however, a good amount of students  
15 are also overweight.

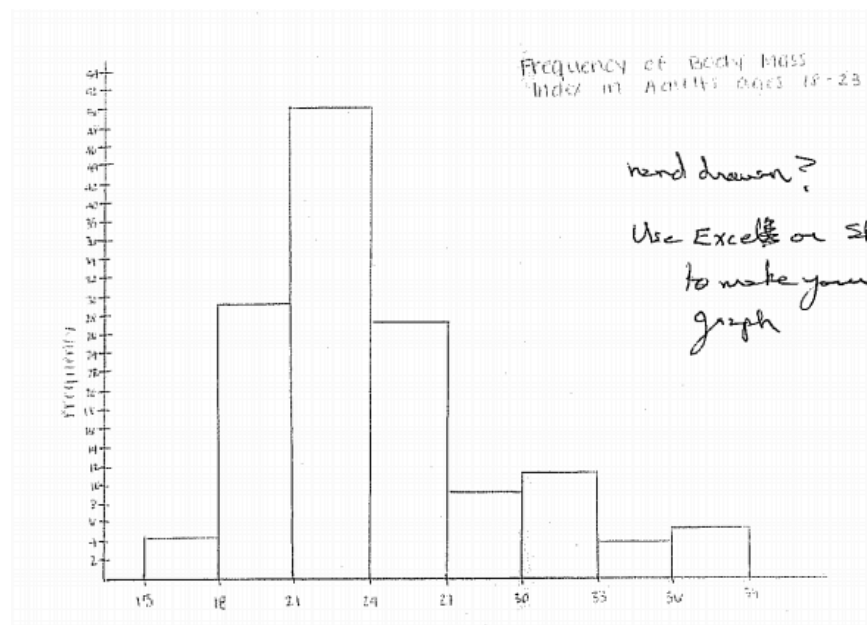
16 Overall, the results show that the data are normally distributed. The data  
17 agree with Huang et al. that according strictly to BMI calculations, the average  
18 college students are overweight. Many of these students could be muscular athletes,  
19 or they could very well just be overweight. Other tests an studies could be done to  
20 decide if BMI is correctly indicating that students are overweight. College students do  
21 not always have the best sleeping habits, the healthiest food options in the cafeteria,  
22 or the time to exercise as much as they want to. These factors, however, are all  
23 ones that students should care more because they are the leading causes of obesity

1 and other health problems. Taking care of one's body is the only way to be healthy  
 2 and prevent such diseases. More college students should calculate their BMI every  
 3 once in a while to have an idea of where they stand and to be able to get to a healthy  
 4 weight for their body size.

Body Mass Index	Frequency
15-17.99	4
18-20.99	29
21-23.99	50
24-26.99	27
27-29.99	9
30-32.99	11
33-35.99	4
36-38.99	5
39-41.99	0

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**Table 1.** Frequency distribution of body mass indices of 139 students between ages 18-23.



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11 **Figure 1.** Frequency distribution histogram Table 1 data. Slight right skewed,  
 12 unimodal.

**Works Cited**

- 1
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