## House prices

## ASSIGN <br> B <br> USTER

MEDGAR EVERS COLLEGE (CUNY) SCHOOL OF BUSINESS ECON 316 (BUSINESS \& ECONOMIC STATISTICS I) SPECIAL CASE ANALYSIS In the Tumbling After Real E Company, the managers would like to explain whether there are differences in the prices of houses in two locations: The Eastville School District and the Apple Valley School District. Jack and Jill have explained to their Area Manager, Mr. Pelo Watar that any differences in the prices of houses in the two districts can be explained by buyers' preference for the Apple Valley School District. The Manager feels, though that the differences in house prices could be explained by differences in the average ages or sizes of the houses in two districts.

You have read the Case in the attached PDF file. A partial summary of the data is presented below in Table 1. Use the information in the Table below to answer the questions raised by Jack, Jill and Pelo Watar, Specifically,

1 List all the questions that should be answered to resolve the issues raised by the three persons in this case
a. Does the price of the house depend on the buyer's preference for Apple Valley School District?
b. Does the price of the house depend on the age of the house?
c. Does the price of the house depend on the size of the house?
d. Does the price of the house depend on the number of bedrooms?

2 Present summary charts regarding
a. Prices of houses in the two districts

Figure 1 Average Prices of the Houses in Two School Districts
b. Ages of houses in the two districts

Figure 2 Average Age of the Houses in Two School Districts
c. Average Number of Bedrooms of houses in the two districts

Figure 3 Average Number of Bedrooms in Two School Districts
d. Sizes of houses in the two districts

Figure 4 Average Sizes of the Houses in Two School Districts
3 Describe your results and explain possible sources of any differences that you observe

Table 1 Comparative Statistics of Houses: Eastville and Apple Valley Districts The School District

Where House is Located N

Mean
Std.

Deviation
Std. Error
Mean
Size of the House in Square Feet
Eastville School District
43
1658. 07
444. 120
67. 728

Apple Valley School District
65
1803. 71
439. 664
54. 534

The Price of the House in Thousands of Dollars
https://assignbuster.com/house-prices/

## Eastville School District

43
87. 675
24. 6065
3. 7525

Apple Valley School District
65
104. 817
25. 5277
3. 1663

The Age of the House in Years
Eastville School District
43
12. 30
4. 274

652
Apple Valley School District
65
10. 52
4. 793

594
a. Does the price of the house depend on the buyer's preference for Apple Valley School District?

At first glance, the average price of the houses for Apple Valley School District is higher than the prices for Eastville School District as illustrated by

Figure 1 . The difference between the mean prices of the two districts is $\$ 17$, 142. However, other factors can affect the high prices in Apple Valley School District such as the age, size, and number of bedrooms. Table 2 shows that the price per square ft in both districts is closer to each other, with a difference of $\$ 6$. 081 . The data shows that the assumption that buyer's prefer the Apple Valley School District has no basis.

Table 2 Comparison on the Price vs the Size of the House
The Prices of the House
Mean Size of the House
Price/Sq Ft
Eastville School District
\$ 87.675
1685. 07
\$ 52.030
Apple Valley School District
\$ 104.817
1803. 71
\$ 58.112
b. Does the price of the house depend on the age of the house?

The price of the house depends on the age of the house. Table 3 shows that the older houses have lower prices than new houses. Houses at Apple Valley School District are newer than the houses at Eastville School District. The Price per Age of house at Apple Valley is almost $\$ 10$ as compared to Eastville which only exceeds $\$ 7$.

Table 3 Comparison on prices vs average age of the house
The Prices of the House

The Age of the House
Price/Age
Eastville School District
87. 675
12. 3
7. 128

Apple Valley School District
104. 817
10. 52
9. 964
c. Does the price of the house depend on the size of the house?

The total price of the house depends on the size of the house as illustrated in
Table 2. The bigger the size of the house in terms of square feet, the higher the price of the house.
d. Does the price of the house depend on the number of bedrooms?

The number of bedrooms in the house affects the price of the house. The greater the number of bedrooms present, the higher the price.

Table 4 Comparison on prices vs number of bedrooms
The Prices of the House
Ave No. of Bedrooms
Price/No. of Bedrooms
Eastville School District
87. 675
3. 36
26. 116

Apple Valley School District
104. 817
3. 45
30. 342

4 Conclusion
Prices of the houses at Apple Valley School District are higher compared to houses at Eastville School district not because of the buyers' preference to the school but for several reasons. First, the average sizes of the houses in Apple Valley are bigger than Eastville. Second, the houses are newer. Third, there are more bedrooms per house in Apple Valley than in Eastville School District.

