

## Data

## Simple Linear Regression Output

| Variable Name | Description                                                                 |
|---------------|-----------------------------------------------------------------------------|
| age           | The age of a home in years.                                                 |
| home_sqft     | The size of a home's floor plan in square feet.                             |
| lot_sqft      | The size of a home's lot in square feet.                                    |
| stories       | The number of floors in a home.                                             |
| rooms         | The number of rooms in a home.                                              |
| grocery       | The distance of a home from its nearest grocery store in miles.             |
| school        | The quality rating (%) of the closest school to a home.                     |
| crime         | The crime rating (%) of the home's neighborhood.                            |
| gated         | Indicates if the home's neighborhood is gated.                              |
| location      | The type of area where the home is located.                                 |
| urban         | Indicates if the home is within city limits.                                |
| suburban      | Indicates if the home is within the suburbs.                                |
| rural         | Indicates if the home is in the country / within the outskirts of the city. |
| value         | The value of the home in thousands of dollars.                              |
| renovated     | Indicates if the home has been renovated.                                   |

| home | age | home_sqft | lot_sqft | stories | rooms | grocery | school | crime | gated | location | urban | suburban | rural | value  | renovated |
|------|-----|-----------|----------|---------|-------|---------|--------|-------|-------|----------|-------|----------|-------|--------|-----------|
| 1    | 15  | 2189      | 6733     | 2       | 4     | 4.79    | 78     | 3.70  | 1     | suburban | 0     | 1        | 0     | 322.59 | 0         |
| 2    | 33  | 1288      | 2935     | 2       | 2     | 2.35    | 88     | 4.40  | 1     | urban    | 1     | 0        | 0     | 155.87 | 1         |
| 3    | 31  | 2250      | 7675     | 2       | 4     | 4.05    | 60     | 5.06  | 1     | suburban | 0     | 1        | 0     | 413.43 | 1         |
| 4    | 30  | 1881      | 7102     | 2       | 3     | 3.02    | 60     | 2.14  | 0     | suburban | 0     | 1        | 0     | 340.36 | 0         |
| 5    | 51  | 2155      | 7142     | 2       | 4     | 1.59    | 60     | 4.80  | 0     | urban    | 1     | 0        | 0     | 472.13 | 1         |
| 6    | 21  | 1810      | 6883     | 1       | 3     | 3.48    | 76     | 4.70  | 0     | rural    | 0     | 0        | 1     | 234.69 | 0         |
| 7    | 30  | 1885      | 6374     | 1       | 3     | 1.99    | 78     | 3.72  | 0     | suburban | 0     | 1        | 0     | 299.15 | 0         |
| :    | :   | :         | :        | :       | :     | :       | :      | :     | :     | :        | :     | :        | :     | :      | :         |
| 73   | 17  | 1862      | 6501     | 2       | 3     | 2.74    | 44     | 5.64  | 1     | rural    | 0     | 0        | 1     | 205.96 | 0         |
| 74   | 45  | 1872      | 6387     | 2       | 3     | 4.49    | 100    | 4.17  | 0     | urban    | 1     | 0        | 0     | 461.84 | 1         |
| 75   | 24  | 1690      | 6571     | 1       | 3     | 4.30    | 60     | 3.04  | 1     | urban    | 1     | 0        | 0     | 419.42 | 0         |
| 76   | 14  | 2386      | 8569     | 1       | 4     | 4.36    | 78     | 3.89  | 1     | urban    | 1     | 0        | 0     | 589.25 | 1         |
| 77   | 35  | 1707      | 6302     | 1       | 3     | 3.38    | 54     | 4.31  | 0     | urban    | 1     | 0        | 0     | 425.25 | 1         |
| 78   | 58  | 1907      | 6547     | 2       | 3     | 4.23    | 82     | 3.63  | 0     | suburban | 0     | 1        | 0     | 444.63 | 1         |
| 79   | 34  | 1931      | 7151     | 1       | 3     | 4.54    | 64     | 3.89  | 0     | urban    | 1     | 0        | 0     | 474.20 | 1         |
| 80   | 59  | 1729      | 6308     | 1       | 3     | 4.51    | 32     | 4.35  | 0     | suburban | 0     | 1        | 0     | 284.52 | 0         |

| Descriptive Statistics |         |          |           |         |         |          |
|------------------------|---------|----------|-----------|---------|---------|----------|
| Variable Name          | Mean    | Std. Dev | Sum       | Median  | Minimum | Maximum  |
| age                    | 34.26   | 13.976   | 2741.00   | 34.00   | 3.00    | 65.00    |
| home_sqft              | 1980.28 | 449.703  | 158422.00 | 1900.50 | 1109.00 | 2927.00  |
| lot_sqft               | 6520.24 | 1848.169 | 521619.00 | 6447.50 | 2494.00 | 10998.00 |
| stories                | 1.59    | 0.520    | 127.00    | 2.00    | 1.00    | 3.00     |
| rooms                  | 3.46    | 0.927    | 277.00    | 3.00    | 2.00    | 5.00     |
| grocery                | 3.93    | 1.324    | 314.11    | 3.72    | 1.06    | 6.76     |
| school                 | 65.53   | 16.358   | 5242.00   | 63.00   | 32.00   | 100.00   |
| crime                  | 3.54    | 1.047    | 283.26    | 3.49    | 1.29    | 5.66     |
| gated                  | 0.24    | 0.428    | 19.00     | 0.00    | 0.00    | 1.00     |
| urban                  | 0.58    | 0.497    | 46.00     | 1.00    | 0.00    | 1.00     |
| suburban               | 0.26    | 0.443    | 21.00     | 0.00    | 0.00    | 1.00     |
| rural                  | 0.16    | 0.371    | 13.00     | 0.00    | 0.00    | 1.00     |
| value                  | 377.48  | 135.836  | 30198.01  | 358.93  | 102.66  | 707.62   |
| renovated              | 0.35    | 0.480    | 28.00     | 0.00    | 0.00    | 1.00     |

## Models

### SUMMARY OUTPUT

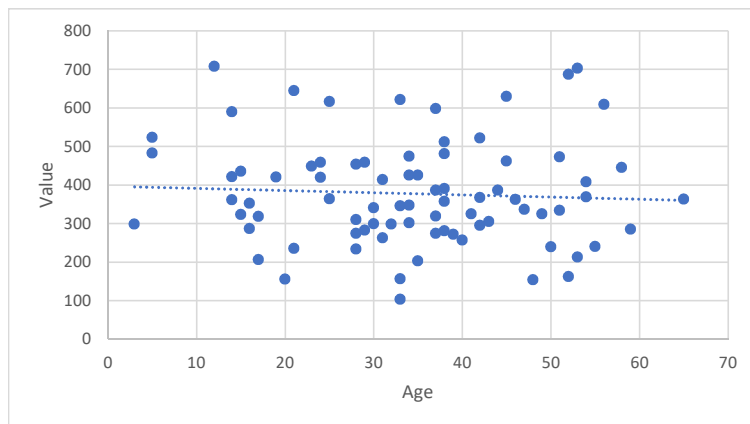
| Regression Statistics |         |  |  |  |  |
|-----------------------|---------|--|--|--|--|
| Multiple R            |         |  |  |  |  |
| R Square              |         |  |  |  |  |
| Adjusted R Square     | -0.0094 |  |  |  |  |
| Standard Error        | 136.474 |  |  |  |  |
| Observations          | 80      |  |  |  |  |

| ANOVA      |    |    |           |   |                |
|------------|----|----|-----------|---|----------------|
|            | df | SS | MS        | F | Significance F |
| Regression | 1  |    | 4896.257  |   | 0.6096         |
| Residual   |    |    | 18625.173 |   |                |
| Total      | 79 |    |           |   |                |

|           | Coefficients | Standard Error | t Stat   | P-value |
|-----------|--------------|----------------|----------|---------|
| Intercept | 396.775      | 40.616         | 3.51E-15 |         |
| age       | -0.563       | 1.099          |          | 0.6096  |



## Simple Linear Regression Output

### SUMMARY OUTPUT

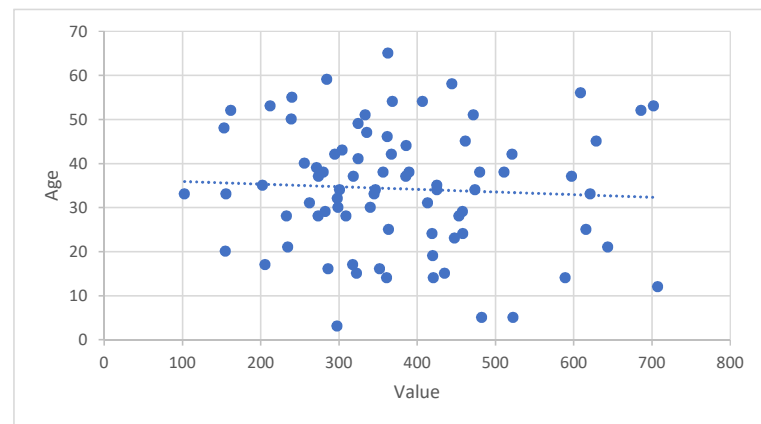
| Regression Statistics |         |  |  |  |  |
|-----------------------|---------|--|--|--|--|
| Multiple R            |         |  |  |  |  |
| R Square              |         |  |  |  |  |
| Adjusted R Square     | -0.0094 |  |  |  |  |
| Standard Error        | 14.042  |  |  |  |  |
| Observations          | 80      |  |  |  |  |

| ANOVA      |    |    |         |   |                |
|------------|----|----|---------|---|----------------|
|            | df | SS | MS      | F | Significance F |
| Regression | 1  |    | 51.834  |   | 0.6096         |
| Residual   |    |    | 197.175 |   |                |
| Total      | 79 |    |         |   |                |

|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 36.513       | 4.662          |        | 2.00E-11 |
| value     | -0.006       | 0.012          |        | 0.6096   |



## Models

### SUMMARY OUTPUT

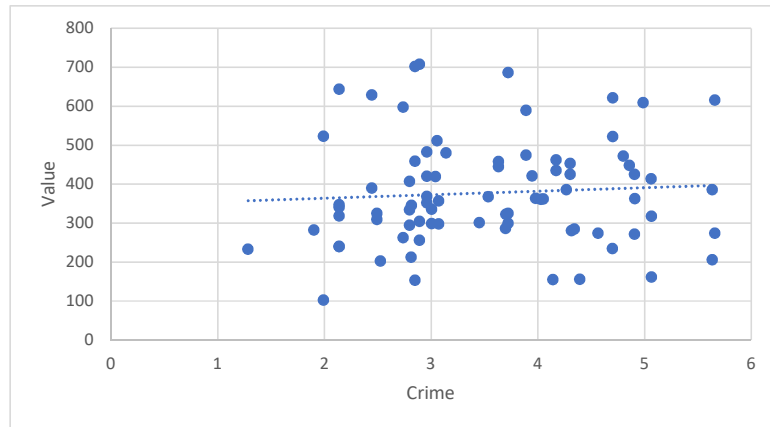
| Regression Statistics |         |  |  |  |  |
|-----------------------|---------|--|--|--|--|
| Multiple R            |         |  |  |  |  |
| R Square              |         |  |  |  |  |
| Adjusted R Square     | -0.0079 |  |  |  |  |
| Standard Error        | 136.375 |  |  |  |  |
| Observations          | 80      |  |  |  |  |

| ANOVA      |    |    |           |   |                |
|------------|----|----|-----------|---|----------------|
|            | df | SS | MS        | F | Significance F |
| Regression | 1  |    | 7011.953  |   | 0.5410         |
| Residual   |    |    | 18598.049 |   |                |
| Total      | 79 |    |           |   |                |

|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 345.619      | 54.076         |        | 1.10E-08 |
| crime     | 8.997        | 14.653         |        | 0.5410   |



## Simple Linear Regression Output

### SUMMARY OUTPUT

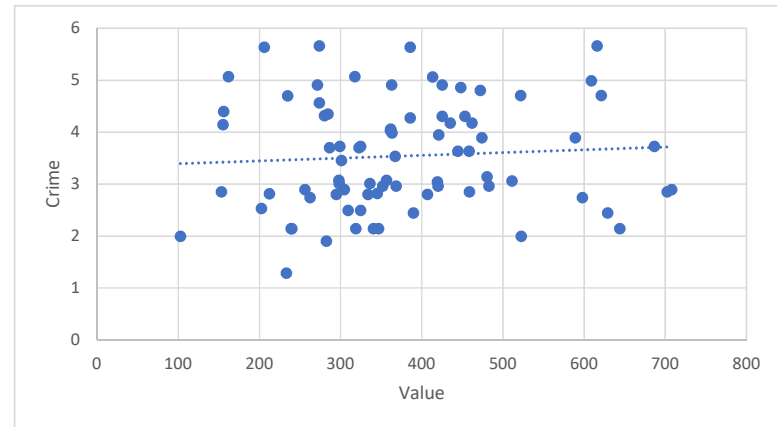
| Regression Statistics |         |  |  |  |  |
|-----------------------|---------|--|--|--|--|
| Multiple R            |         |  |  |  |  |
| R Square              |         |  |  |  |  |
| Adjusted R Square     | -0.0079 |  |  |  |  |
| Standard Error        | 1.051   |  |  |  |  |
| Observations          | 80      |  |  |  |  |

| ANOVA      |    |    |       |   |                |
|------------|----|----|-------|---|----------------|
|            | df | SS | MS    | F | Significance F |
| Regression | 1  |    | 0.417 |   | 0.5410         |
| Residual   |    |    | 1.105 |   |                |
| Total      | 79 |    |       |   |                |

|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 3.339        | 0.349          |        | 8.68E-15 |
| value     | 0.001        | 0.001          |        | 0.5410   |



## Models

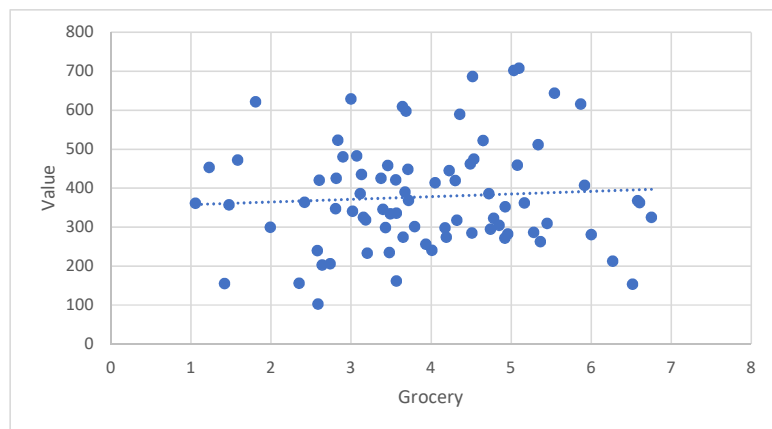
### SUMMARY OUTPUT

| Regression Statistics |         |
|-----------------------|---------|
| Multiple R            |         |
| R Square              |         |
| Adjusted R Square     | -0.0083 |
| Standard Error        | 136.400 |
| Observations          | 80      |

### ANOVA

|            | df | SS | MS        | F | Significance F |
|------------|----|----|-----------|---|----------------|
| Regression | 1  |    | 6482.041  |   | 0.5567         |
| Residual   |    |    | 18604.843 |   |                |
| Total      | 79 |    |           |   |                |

|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 350.603      | 48.012         |        | 2.08E-10 |
| grocery   | 6.844        | 11.595         |        | 0.5567   |



## Simple Linear Regression Output

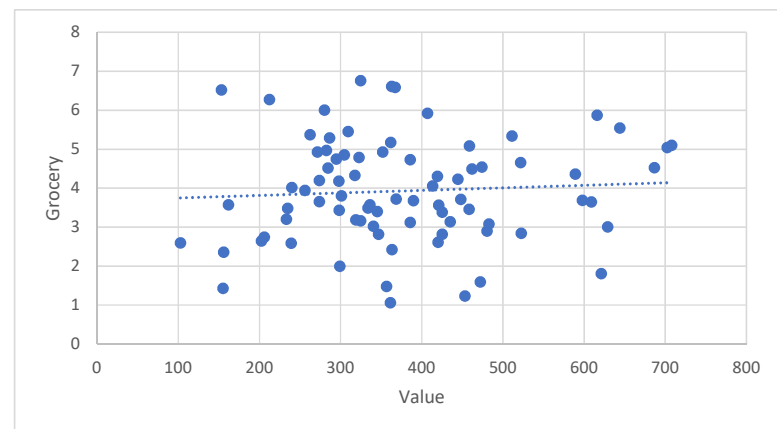
### SUMMARY OUTPUT

| Regression Statistics |         |
|-----------------------|---------|
| Multiple R            |         |
| R Square              |         |
| Adjusted R Square     | -0.0083 |
| Standard Error        | 1.329   |
| Observations          | 80      |

### ANOVA

|            | df | SS | MS    | F | Significance F |
|------------|----|----|-------|---|----------------|
| Regression | 1  |    | 0.615 |   | 0.5567         |
| Residual   |    |    | 1.766 |   |                |
| Total      | 79 |    |       |   |                |

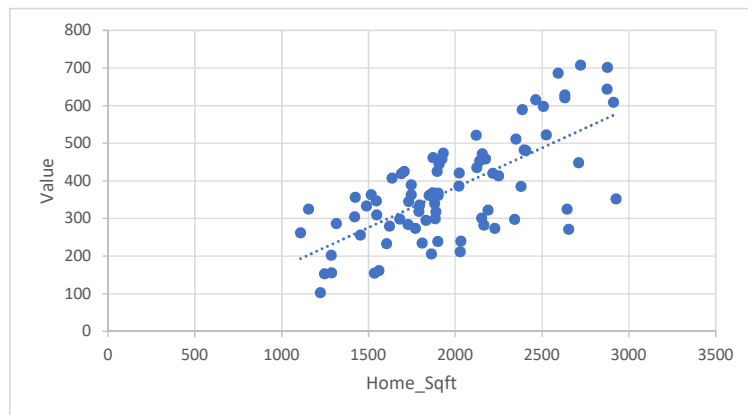
|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 3.681        | 0.441          |        | 2.05E-12 |
| value     | 0.001        | 0.001          |        | 0.5567   |



## Models

### SUMMARY OUTPUT

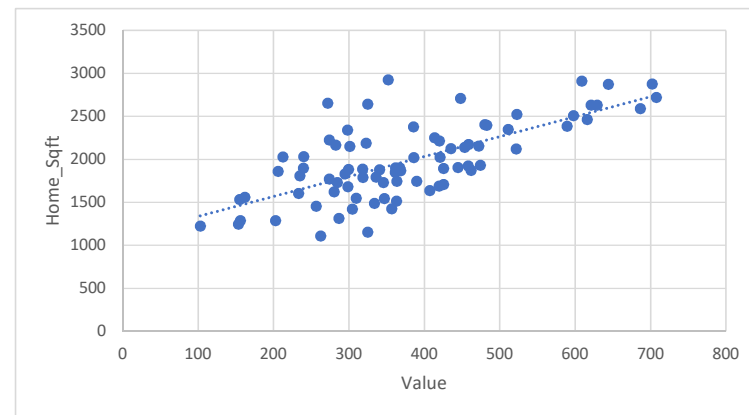
| Regression Statistics |              |                |            |                |
|-----------------------|--------------|----------------|------------|----------------|
| Multiple R            |              |                |            |                |
| R Square              |              |                |            |                |
| Adjusted R Square     | 0.4847       |                |            |                |
| Standard Error        | 97.506       |                |            |                |
| Observations          | 80           |                |            |                |
| ANOVA                 |              |                |            |                |
|                       | df           | SS             | MS         | Significance F |
| Regression            | 1            |                | 716083.460 | 4.54E-13       |
| Residual              |              |                | 9507.389   |                |
| Total                 | 79           |                |            |                |
|                       |              |                |            |                |
|                       | Coefficients | Standard Error | t Stat     | P-value        |
| Intercept             | -41.770      | 49.523         |            | 0.4016         |
| home_sqft             | 0.212        | 0.024          |            | 4.54E-13       |



## Simple Linear Regression Output

### SUMMARY OUTPUT

| Regression Statistics |              |                |             |                |
|-----------------------|--------------|----------------|-------------|----------------|
| Multiple R            |              |                |             |                |
| R Square              |              |                |             |                |
| Adjusted R Square     | 0.4847       |                |             |                |
| Standard Error        | 322.806      |                |             |                |
| Observations          | 80           |                |             |                |
| ANOVA                 |              |                |             |                |
|                       | df           | SS             | MS          | Significance F |
| Regression            | 1            |                | 7848478.496 | 4.54E-13       |
| Residual              |              |                | 104203.685  |                |
| Total                 | 79           |                |             |                |
|                       |              |                |             |                |
|                       | Coefficients | Standard Error | t Stat      | P-value        |
| Intercept             | 1104.378     | 107.185        |             | 3.30E-16       |
| value                 | 2.320        | 0.267          |             | 4.54E-13       |



## Models

### SUMMARY OUTPUT

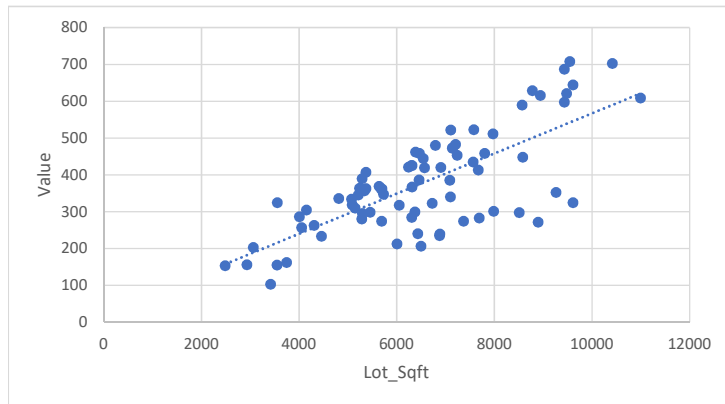
| Regression Statistics |        |  |  |  |
|-----------------------|--------|--|--|--|
| Multiple R            |        |  |  |  |
| R Square              |        |  |  |  |
| Adjusted R Square     | 0.5442 |  |  |  |
| Standard Error        | 91.703 |  |  |  |
| Observations          | 80     |  |  |  |

| ANOVA      |    |    |            |                |
|------------|----|----|------------|----------------|
|            | df | SS | MS         | Significance F |
| Regression | 1  |    | 801720.833 | 3.59E-15       |
| Residual   |    |    | 8409.474   |                |
| Total      | 79 |    |            |                |

|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 22.073       | 37.816         |        | 0.5611   |
| lot_sqft  | 0.055        | 0.006          |        | 3.59E-15 |



## Simple Linear Regression Output

### SUMMARY OUTPUT

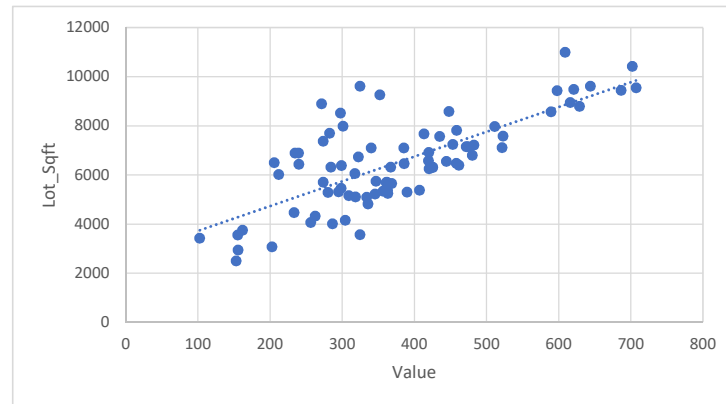
| Regression Statistics |          |  |  |  |
|-----------------------|----------|--|--|--|
| Multiple R            |          |  |  |  |
| R Square              |          |  |  |  |
| Adjusted R Square     | 0.5442   |  |  |  |
| Standard Error        | 1247.704 |  |  |  |
| Observations          | 80       |  |  |  |

| ANOVA      |    |    |               |                |
|------------|----|----|---------------|----------------|
|            | df | SS | MS            | Significance F |
| Regression | 1  |    | 148414906.553 | 3.59E-15       |
| Residual   |    |    | 1556765.384   |                |
| Total      | 79 |    |               |                |

|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 2711.342     | 414.288        |        | 5.71E-09 |
| value     | 10.090       | 1.033          |        | 3.59E-15 |



## Models

### SUMMARY OUTPUT

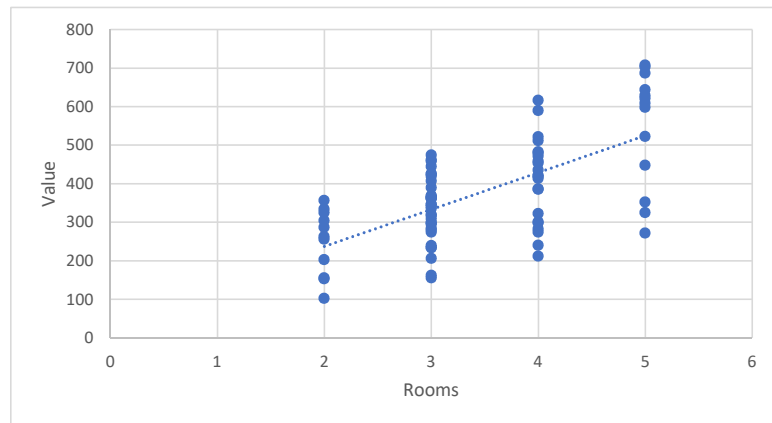
| Regression Statistics |         |  |  |  |  |
|-----------------------|---------|--|--|--|--|
| Multiple R            |         |  |  |  |  |
| R Square              |         |  |  |  |  |
| Adjusted R Square     | 0.4199  |  |  |  |  |
| Standard Error        | 103.458 |  |  |  |  |
| Observations          | 80      |  |  |  |  |

| ANOVA      |    |    |            |   |                |
|------------|----|----|------------|---|----------------|
|            | df | SS | MS         | F | Significance F |
| Regression | 1  |    | 622786.875 |   | 4.93E-11       |
| Residual   |    |    | 10703.499  |   |                |
| Total      | 79 |    |            |   |                |

|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 45.837       | 44.989         |        | 0.3114   |
| rooms     | 95.780       | 12.556         |        | 4.93E-11 |



## Simple Linear Regression Output

### SUMMARY OUTPUT

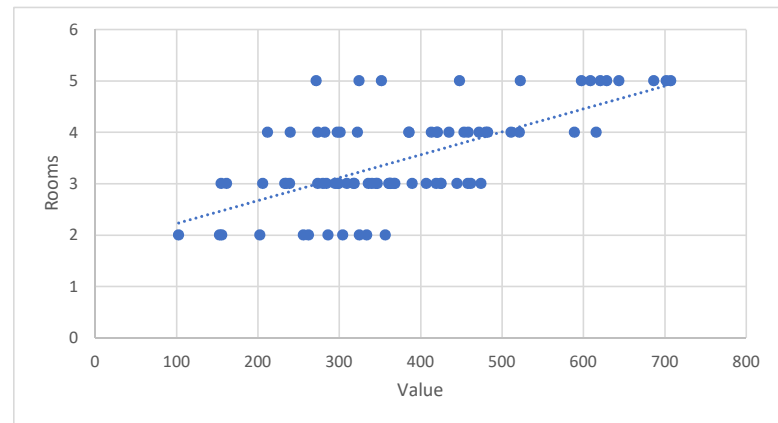
| Regression Statistics |        |  |  |  |  |
|-----------------------|--------|--|--|--|--|
| Multiple R            |        |  |  |  |  |
| R Square              |        |  |  |  |  |
| Adjusted R Square     | 0.4199 |  |  |  |  |
| Standard Error        | 0.706  |  |  |  |  |
| Observations          | 80     |  |  |  |  |

| ANOVA      |    |    |        |   |                |
|------------|----|----|--------|---|----------------|
|            | df | SS | MS     | F | Significance F |
| Regression | 1  |    | 29.005 |   | 4.93E-11       |
| Residual   |    |    | 0.498  |   |                |
| Total      | 79 |    |        |   |                |

|           | Coefficients | Standard Error | t Stat | P-value  |
|-----------|--------------|----------------|--------|----------|
| Intercept | 1.779        | 0.234          |        | 5.91E-11 |
| value     | 0.004        | 0.001          |        | 4.93E-11 |



## Models

### SUMMARY OUTPUT

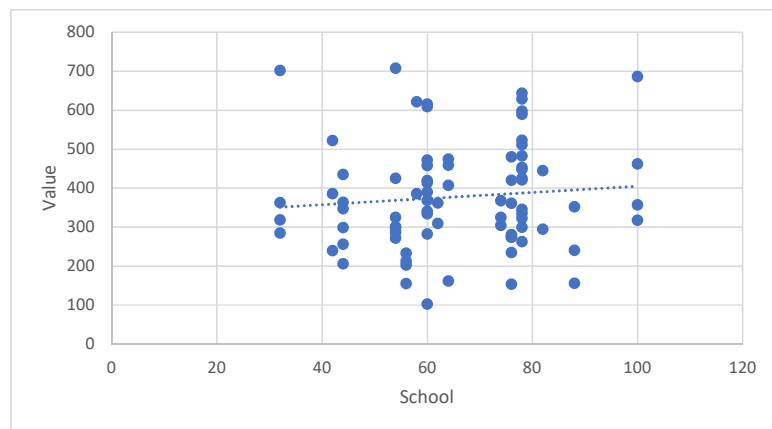
| Regression Statistics |         |  |  |  |  |
|-----------------------|---------|--|--|--|--|
| Multiple R            |         |  |  |  |  |
| R Square              |         |  |  |  |  |
| Adjusted R Square     | -0.0037 |  |  |  |  |
| Standard Error        | 136.087 |  |  |  |  |
| Observations          | 80      |  |  |  |  |

| ANOVA      |    |    |           |   |                |
|------------|----|----|-----------|---|----------------|
|            | df | SS | MS        | F | Significance F |
| Regression | 1  |    | 13123.545 |   | 0.4025         |
| Residual   |    |    | 18519.695 |   |                |
| Total      | 79 |    |           |   |                |

|           | Coefficients | Standard Error | t Stat   | P-value |
|-----------|--------------|----------------|----------|---------|
| Intercept | 325.845      | 63.192         | 1.86E-06 |         |
| school    | 0.788        | 0.936          | 0.4025   |         |



## Simple Linear Regression Output

### SUMMARY OUTPUT

| Regression Statistics |         |  |  |  |  |
|-----------------------|---------|--|--|--|--|
| Multiple R            |         |  |  |  |  |
| R Square              |         |  |  |  |  |
| Adjusted R Square     | -0.0037 |  |  |  |  |
| Standard Error        | 16.388  |  |  |  |  |
| Observations          | 80      |  |  |  |  |

| ANOVA      |    |    |         |   |                |
|------------|----|----|---------|---|----------------|
|            | df | SS | MS      | F | Significance F |
| Regression | 1  |    | 190.308 |   | 0.4025         |
| Residual   |    |    | 268.560 |   |                |
| Total      | 79 |    |         |   |                |

|           | Coefficients | Standard Error | t Stat   | P-value |
|-----------|--------------|----------------|----------|---------|
| Intercept | 61.212       | 5.441          | 5.32E-18 |         |
| value     | 0.011        | 0.014          | 0.4025   |         |

