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QMBE 3730

Assignment (More regression) Answer Document:

1a. I think a quadratic would be a better fit because the linear trend line was not a good fit and it seems like a quadratic would be a better fit

1c. We know that this was a better model because all the variables are now significant because in the first regression, the age variable was not significant but in the quadratic regression, it becomes 1% significant. Also, the residuals are closer together in the second regression compared to the first regression.

1d.

Age 30: $25.85

Age 50: $31.53

Age 70: $26.56

1e. The age with the highest hourly wage with 16 years of education is age 50

2a. It seems like to me the only variable that would benefit from a log transformation is the square ft variable. Also in addition, we would need more data but it could also work with a quadratic trend from what we have with the current data.

2b. We know that transforming the sqft was beneficial because the variable is significant at the 1% level. The estimated rent would be $1,540.37