

Omar Solution

• Statistical Significance of Coefficients :->

• The Age variable " β_2 " is statistically significant with an estimated value of 82.0550, a standard error of 0.4103, t-statistic of 0.8669 and a p-value of 0.0115

Age (β_2) is statistically significant

• Robust Standard Errors and Heteroscedasticity :->

The negative coefficient (-0.0081) on the squared term of "Age" indicates a downward curve in the relationship between age and systolic reading. This suggests a decreasing rate of increase in systolic readings with higher ages.

• Larger robust standard errors (1.4352) for Age suggest potential heteroscedasticity

• Interpretation of the Quadratic Age term :->

The negative coefficients (-0.0081) on the squared term of "Age" indicates a downward curve in the relationship between age and systolic reading. Showing a decreasing rate of increase in systolic readings with higher ages.

• -ve coefficient (-0.0081) on " Age^2 " implies a decreasing rate of systolic increase with age.

• Age of Maximum Systolic Reading:

For this the quadratic function's turning point is calculated, leading to a value of 77.9 yrs

• Interpretation of T-statistics on Age Coefficients:

The t-statistics for "Age" (0.8669) and squared of it (-0.0002) shows that the linear "Age" coefficient is statistically significant and the quadratic term is not. Showing a diminishing effect of age on systolic readings without a clear age because of the insignificant quadratic term, the readings are maximized.

• T-statistics : Age (0.8669) is significant

• Age^2 (-0.0001) is not significant