Weight coefficients: [[ -6.03656992e-06 -4.00993939e-02]]

y-axis intercept: [ 13694514.70586899]

y = Bo + B1X1 + B2X2

y : response

X1: feature of Education Spending

X2: feature of Correction spending

Bo: Intercept

B1: -6.03 coefficient for X1

B2: -4.00 coefficient for X2

Linear model:

y = 13694514.7059 - 6.03656992e-06(Education) - 4.00993939e-02(Corrections)

Interpretation:

A unit increase in Education is associated a decrease of -6.03656992e-06 in crime and a unit increase in Correction is associated a decrease of -4.0099e-02 in Crime.

Training Score: 0.9722864719457672

Testing Score: -0.5330949181589593

Bottom line: a negative R2-Testing Score is not a mathematical impossibility or the sign of a computer bug. It simply means that the chosen model (with its constraints) fits the data really poorly.