

ESM 204 Assignment 3

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1. Linear Probability Model

Create a linear probability model that predicts a respondent's probability of voting "yes" on the ballot based on their age, income, NEP score, the program's risk reduction, and cost of the program to that respondent.

Regression Model:

$$\begin{aligned} \text{Logodds}(\text{Yes Vote}) = & -2.0882917 + 0.0929364(\text{Age to 30}) + -0.1270454(\text{Age to 40}) + 0.0627709(\text{Age to 50}) + \\ & -0.1078858(\text{Age to 60}) + 0.0593664(\text{Income One Percent}) + 0.0402984(\text{Income Poor}) + 0.0602187(\text{Income Rich}) + \\ & 0.2778785(\text{Income Very Rich}) + 0.083213(\text{NEP}) + -0.0058651(\text{Bid}) + 0.0041689(\text{Risk Reduction}) \end{aligned}$$