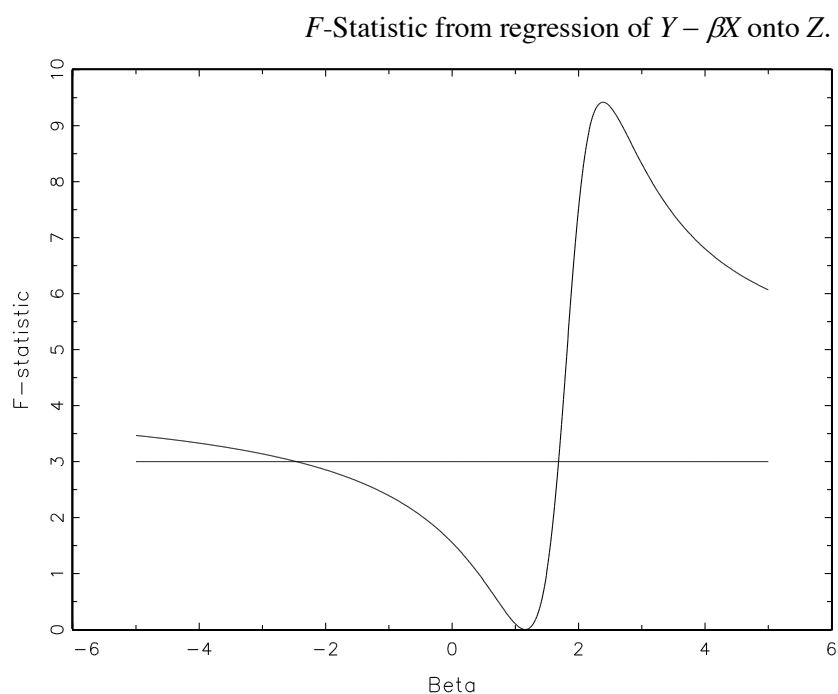


Empirical Exercise 12.3

(a) $\hat{\beta}_2 = 1.26$, $SE(\hat{\beta}_2) = 0.44$, the 95% confidence interval is 0.30 to 2.02

(b) F -statistic = 4.3, which suggests a weak instrument problem.

(c) These are the values of β that are less than 3.84 in the figure below. The 95% confidence interval is $-2.46 < \beta < 1.68$.



(d) The confidence interval in (a) is not reliable because of the weak instrument problem. The confidence interval in (c) is reliable even when instruments are weak.