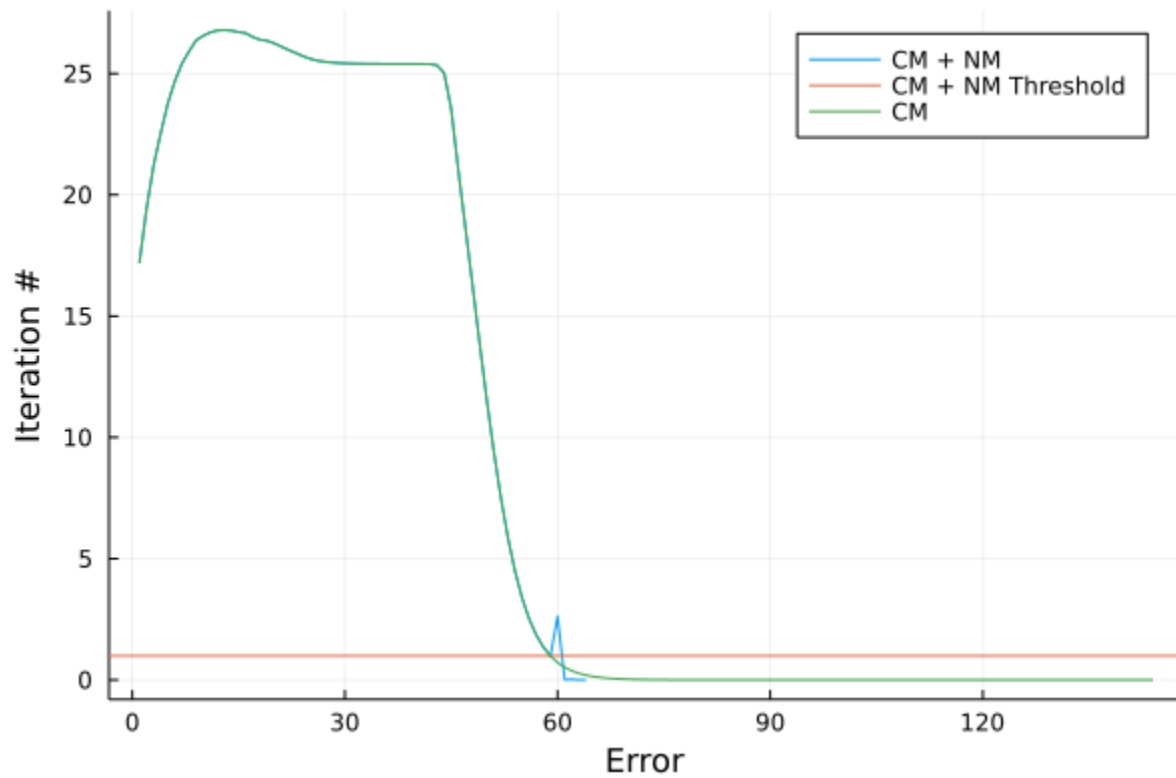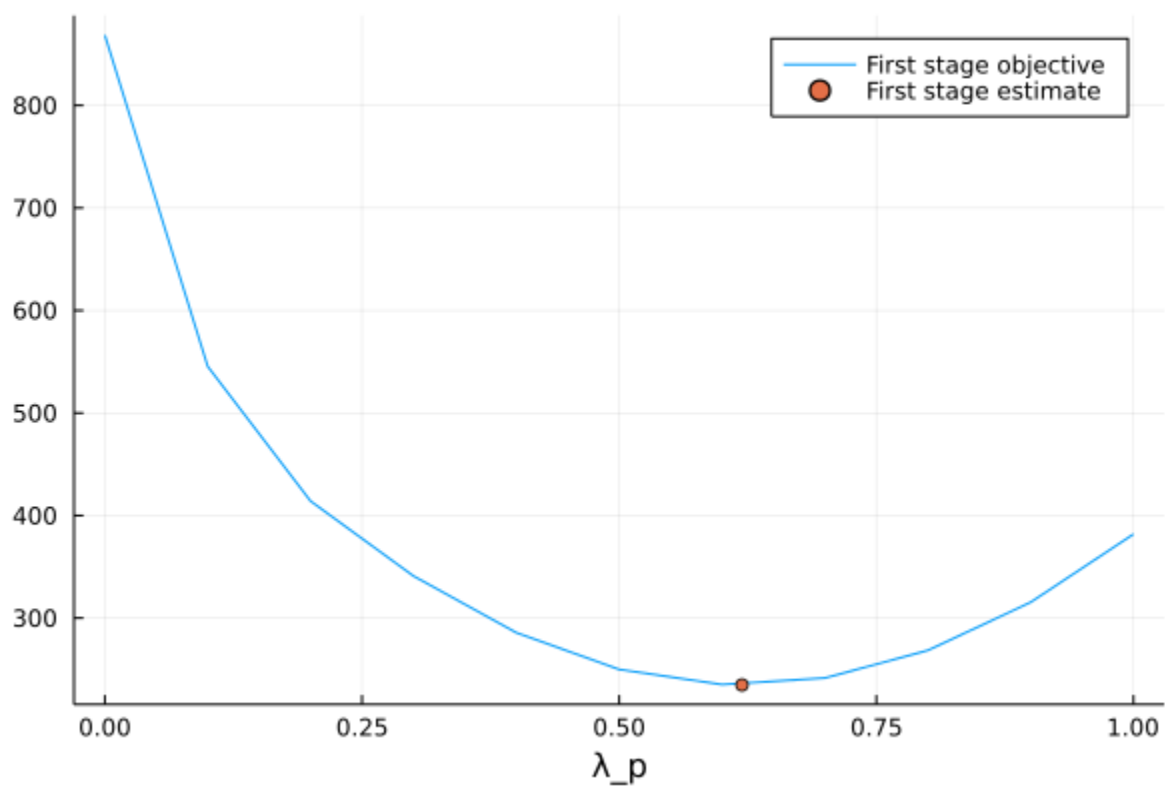# ECON 899B: PS3

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Question 1 - Demand Inversion

CM is the contraction mapping only to invert the demand. CM + NM combines contraction mapping and Newton's Method. I use contraction mapping until the sup norm is 1, then switch to Newton's method. The combined approach takes 65 iterations whereas contraction mapping by itself takes 145 iterations.

Question 2 - GMM First Stage

The first stage of the GMM estimation uses the 2SLS weighting matrix. The objective is minimized at $\lambda_p = 0.619$ where the objective function equals 234.76.

Question 3 - GMM Second Stage

The second stage of the GMM estimation uses weighting matrix based on the first stage estimate. The objective is minimized at $\lambda_p = 0.564$ where the objective function equals 163.85.