Pre-Class Response for Lecture 15:

As one of the examples in the last lecture, we saw an example of the effect of the change in the minimum wage on employment in New Jersey. In that example, the authors (Card and Krueger) surveyed fast food restaurants in PA and NJ before and after a change in the minimum wage in NJ; there was no change in PA.

Suppose that we wanted to run a regression to get at this effect. Here are two possible regressions we could run:

Regression 1: $Y_2 - Y_1 = a + tau^* NJ + noise$, where:

- Y_1 and Y_2 are the employment before and after the change, respectively
- NJ is an indicator variable that is 1 if the fast food restaurant is in NJ, and 0 otherwise

Regression 2: $Y_2 - Y_1 = a + tau^* NJ + b\ Y_1 + noise$,

where the variables are the same as in Regression 1. That is, the only difference is that Regression 2 also includes Y_1 as a control variable.

Suppose we got tau_hat as our estimate for tau. How would you interpret tau_hat in each of these regressions? What are some reasons that the results might be very different? Which regression do you think would better capture the effect of raising the minimum wage in NJ and why?