Econ 755 Lab 2 Writeup

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1 Introduction

This is a test example for the Econ 755 problem sets at UMass Amherst, based on what we covered in lab 2!

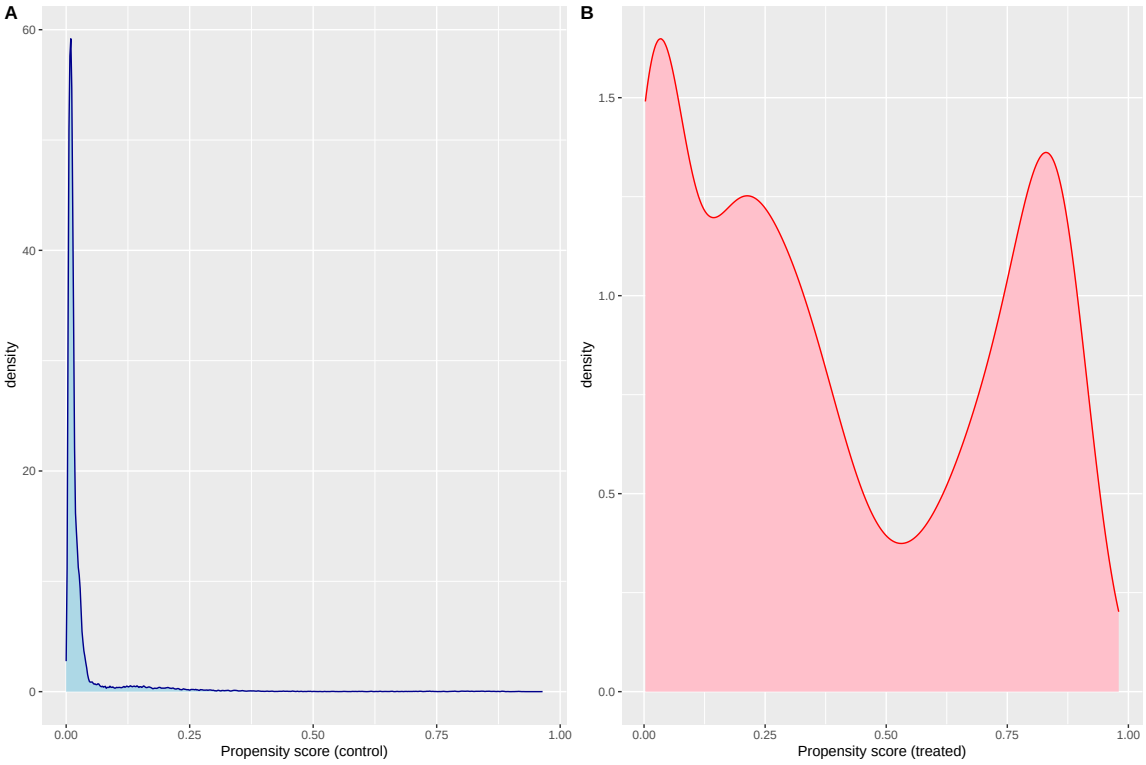
2 Problem 5

My results for problem 5 are shown in table 1. As can be seen, the coefficient estimates are strongly attenuated relative to the bivariate OLS estimate when using matching-based estimators or a rich set of controls. Estimates of the wage penalty vary between 4% to 19%.

Figures 1 and 2 show the propensity score density plots for the unweighted and weighted control and treatment groups, respectively. As can be seen, using IPW weights makes the control group look a lot more like the treated group!

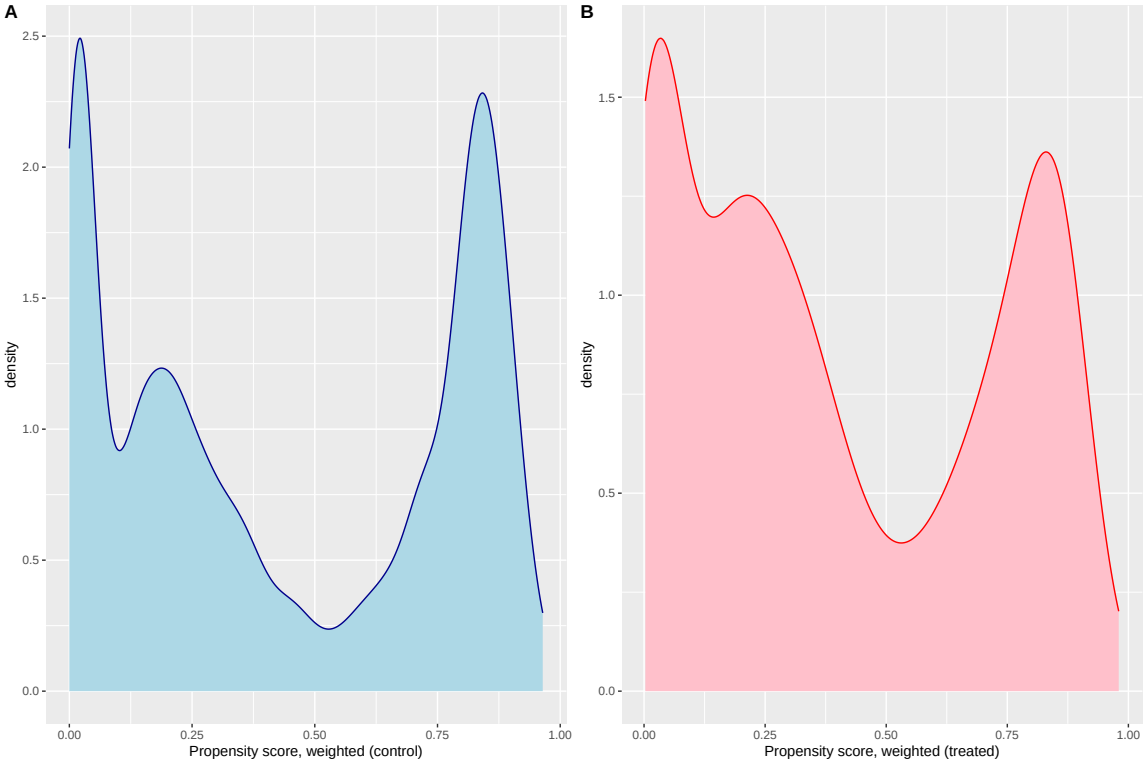
3 Figures and Tables

Figure 1: Unweighted Density Plots



Notes: This figure shows the density plots of unweighted propensity scores for the control and treated groups, respectively.

Figure 2: Weighted Density Plots



Notes: This figure shows the density plots of IPW weighted propensity scores for the control and treated groups, respectively.

Table 1: Regression Results

	Model	Estimate
1	Bivariate OLS	-0.185
2	Multivariate OLS	-0.060
3	Fully saturated OLS	-0.039
4	Propensity score matching (regression)	-0.081
5	Propensity score with 10 nearest-neighbors	-0.059
6	Propensity score with inverse probability weights	-0.084

Notes: This table shows the wage penalty of foreign-born workers using a variety of estimation methods.