

Table 1: Methods

Algorithms	
A1	Propensity Matching
A2	Inverse Propensity Weighting
A3	Doubly Robust Estimation
A4	Regression Estimate (doesn't need PS)
A5	Stratification
A6	Regression Adjustment
A7	Weighted Regression
Propensity Score Estimations	
P1	logistic regression
P2	L1 penalized logistic regression
P3	L2 penalized logistic regression
P4	regression trees
P5	boosted stumps
Distance Measures for A1	
D1	Mahalanobis (doesn't need PS)
D2	Propensity Score
D3	Linear Propensity Score

Table 2: Pairings

Pairings	Algorithms	Propensity Score Estimations
1	A1+D1	
2	A1+D2	P1
3	A1+D2	P2
4	A1+D2	P3
5	A1+D2	P4
6	A1+D2	P5
7	A1+D3	P2
8	A1+D3	P5
9	A2	P2
10	A2	P3
11	A2	P5
12	A3	P2
13	A3	P3
14	A3	P5
15	A4	
16	A5	P3
17	A5	P4
18	A5+A6	P4
19	A6	P3
20	A6	P4
21	A6	P5
22	A7	P1
23	A7	P2
24	A7	P3
25	A5	P5

Table 3: Group Assignment

Group	Pairing Combination	Goal
1	4,10,13	compare Full Matching(PS), IPW, and Doubly Robust Estimation, where PS is based on L2 penalized logsitic regression
2	7,12,15	compare Full Matching(linear PS), Doubly Robust Estimation, and Regression Estimate where PS is based on L1 penalized logsitic regression
3	16,19,24	compare between regression methods with PS based on L2 penalized logsitic regression
4	17,18,20	compare Stratification, Regression Adjustment, and the combined method with PS based on regression trees
5	14,15,21	compare Doubly Robust Estimation, Regression Estimate, and Regression Adjustment where PS is based on boosted stumps
6	9,15,23	compare IPW, Regression Estimate, and Weighted Regression where PS is based on L1 penalized logsitic regression
7	2,3,4,5,6,22	compare different PS methods for Full Matching (PS) and Weighted Regression
8	1,6,8,11,25	compare different distance measures for Full Matching, IPW, and Stratification where PS is based on boosted stumps