

# Data Assignment 3

2025-11-05

## Part A - Covariate Balance

Table 1: Covariate Summary Statistics

	0		1		Diff. in Means	p
	Mean	Std. Dev.	Mean	Std. Dev.		
Respondent's age	32.165	8.189	31.444	8.028	-0.720***	0.000
Respondent's education	4.687	5.125	3.743	4.841	-0.944***	0.000
Years since marriage	14.132	8.716	13.563	8.432	-0.569***	0.001
Religion (Hindu = 1)	0.788	0.408	0.855	0.352	0.067***	0.000
Caste (SC/ST = 1)	0.379	0.485	0.230	0.421	-0.149***	0.000
Husband's Education	6.604	5.176	6.198	5.262	-0.406***	0.000
Houshold size	5.280	2.096	5.701	2.436	0.421***	0.000
Household head's age	44.172	13.567	44.585	14.266	0.413	0.129
Household head's gender	0.175	0.380	0.248	0.432	0.072***	0.000
Place of residence	0.168	0.374	0.145	0.352	-0.023**	0.001
Poorest	0.470	0.499	0.494	0.500	0.024*	0.014
Poorer	0.245	0.430	0.240	0.427	-0.005	0.549
Middle	0.139	0.346	0.145	0.352	0.006	0.357
Richer	0.089	0.284	0.087	0.282	-0.001	0.842
Age x Poorest	15.020	16.883	15.352	16.503	0.332	0.303
Age x Poorer	7.798	14.275	7.611	14.113	-0.187	0.495
Age x Middle	4.481	11.581	4.541	11.454	0.061	0.786
Age x Richer	2.881	9.553	2.847	9.496	-0.034	0.852
Caste x Husband's Education	2.021	3.997	1.095	3.096	-0.926***	0.000
Poorest x Husband's Education	2.032	3.721	1.823	3.555	-0.209**	0.003
Poorer x Husband's Education	1.654	3.720	1.572	3.613	-0.082	0.244
Middle x Husband's Education	1.212	3.484	1.361	3.717	0.149*	0.035
Richer x Husband's Education	0.963	3.306	0.993	3.399	0.030	0.645
Religion x Caste	0.287	0.452	0.217	0.412	-0.070***	0.000
Respondent's Education x Years Since Marriage	49.812	73.789	40.573	69.577	-9.239***	0.000
Hindu x Poorest	0.357	0.479	0.418	0.493	0.061***	0.000
Hindu x Poorer	0.201	0.401	0.207	0.405	0.006	0.438
Hindu x Middle	0.113	0.316	0.125	0.331	0.013*	0.047
Hindu x Richer	0.072	0.258	0.074	0.262	0.002	0.696

## Part B - Propensity Score Weighting

Table 2: Summary of Predicted Propensity Scores by Treatment Group

Treatment	Mean	Median	Min	Max
0	0.2933775	0.2975795	0.0011708	0.7337694
1	0.3679492	0.3663276	0.0218741	0.8263187

Table 3: Covariate Summary Statistics

	0		1		Diff. in Means	p
	Mean	Std. Dev.	Mean	Std. Dev.		
Respondent's age	31.458	7.813	31.444	8.028	-0.014	0.931
Respondent's education	3.756	4.776	3.743	4.841	-0.013	0.893
Years since marriage	13.622	8.280	13.563	8.432	-0.059	0.726
Religion (Hindu = 1)	0.855	0.352	0.855	0.352	0.001	0.917
Caste (SC/ST = 1)	0.230	0.421	0.230	0.421	0.000	0.982
Husband's Education	6.201	5.162	6.198	5.262	-0.003	0.976
Household size	5.708	2.399	5.701	2.436	-0.007	0.892
Household head's age	44.669	14.147	44.585	14.266	-0.084	0.777
Household head's gender	0.252	0.434	0.248	0.432	-0.004	0.631
Place of residence	0.143	0.350	0.145	0.352	0.002	0.755
Poorest	0.493	0.500	0.494	0.500	0.001	0.899
Poorer	0.239	0.426	0.240	0.427	0.002	0.822
Middle	0.146	0.353	0.145	0.352	-0.001	0.872
Richer	0.089	0.285	0.087	0.282	-0.002	0.765
Age x Poorest	15.311	16.432	15.352	16.503	0.041	0.903
Age x Poorer	7.546	14.032	7.611	14.113	0.065	0.818
Age x Middle	4.582	11.487	4.541	11.454	-0.041	0.859
Age x Richer	2.915	9.619	2.847	9.496	-0.068	0.724
Caste x Husband's Education	1.095	3.074	1.095	3.096	0.000	0.998
Poorest x Husband's Education	1.813	3.461	1.823	3.555	0.010	0.884
Poorer x Husband's Education	1.555	3.566	1.572	3.613	0.017	0.818
Middle x Husband's Education	1.370	3.709	1.361	3.717	-0.010	0.901
Richer x Husband's Education	1.008	3.405	0.993	3.399	-0.016	0.818
Religion x Caste	0.217	0.412	0.217	0.412	0.000	0.997
Respondent's Education x Years Since Marriage	40.670	67.845	40.573	69.577	-0.097	0.943
Hindu x Poorest	0.420	0.494	0.418	0.493	-0.001	0.886
Hindu x Poorer	0.203	0.403	0.207	0.405	0.003	0.676
Hindu x Middle	0.125	0.331	0.125	0.331	0.000	0.950
Hindu x Richer	0.075	0.264	0.074	0.262	-0.001	0.797
psvalue	0.368	0.115	0.368	0.114	0.000	0.911

## Part C - Difference in Difference Estimation

% Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gmail.com % Date and time: Wed, Nov 05, 2025 - 12:29:37 PM

Table 4: Effect of Alcohol Ban on IPV

	IPV
year_marr	0.001 (0.001)
bihar	0.083*** (0.024)
year	0.004 (0.024)
bihar:year	-0.033 (0.026)
Observations	12,220
R <sup>2</sup>	0.047
Adjusted R <sup>2</sup>	0.040
Residual Std. Error	0.324 (df = 12127)
F Statistic	6.503*** (df = 92; 12127)

Notes:                    \*\*\*Significant at the 1 percent level.  
                          \*\*Significant at the 5 percent level.  
                          \*Significant at the 10 percent level.

% Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gmail.com % Date and time: Wed, Nov 05, 2025 - 12:29:40 PM

Table 5: Effect of Alcohol Ban on Different Aspects of IPV

	Emotional (1)	Physical (2)	Control (3)	Sexual (4)
year_marr	0.000 (0.001)	0.000 (0.002)	-0.001 (0.002)	0.000 (0.001)
bihar	0.139*** (0.024)	0.070*** (0.026)	0.130*** (0.019)	0.056* (0.031)
year	0.054*** (0.009)	0.059*** (0.016)	0.004 (0.024)	0.006 (0.010)
bihar:year	-0.077 (0.014)	-0.079*** (0.024)	-0.052* (0.028)	-0.055*** (0.014)
Observations	12,307	12,307	12,220	12,307
R <sup>2</sup>	0.039	0.067	0.039	0.035
Adjusted R <sup>2</sup>	0.031	0.060	0.032	0.027
Residual Std. Error	0.286 (df = 12214)	0.368 (df = 12214)	0.354 (df = 12127)	0.232 (df = 12214)
F Statistic	5.319*** (df = 92; 12214)	4.73*** (df = 92; 12214)	3.54*** (df = 92; 12127)	5.54*** (df = 92; 12214)

Notes:                    \*\*\*Significant at the 1 percent level.  
                          \*\*Significant at the 5 percent level.  
                          \*Significant at the 10 percent level.

## Part D - Instrumental Variables Regression