PSET 3: Balance

EDU S598 | Dr.Susan Dynarski

Dean Kaplan

October 3, 2023

Contents

HARVARD
GRADUATE SCHOOL OF EDUCATION

Question 1: Replicate Table

The following data are from Muralidharan et al. (2019). [1]

A) Table 1: Duplicating Table A

	Mean (treatment)	Mean (control)	Difference	Standard Error	Observations (treatment)	Observations (control)
Demographic characteristics						
Female	0.76	0.76	0.004	0.034	314	305
Age (years)	12.67	12.41	0.267	0.143	230	231
SES index	-0.03	0.04	-0.070	0.137	314	305
Grade in School						
Grade 4	0.01	0.01	-0.003	0.007	305	299
Grade 5	0.01	0.02	-0.007	0.010	305	299
Grade 6	0.27	0.30	-0.035	0.037	305	299
Grade 7	0.26	0.26	0.005	0.036	305	299
Grade 8	0.30	0.28	0.017	0.037	305	299
Grade 9	0.15	0.13	0.024	0.028	305	299
Baseline test scores						
Math	-0.01	0.01	-0.016	0.081	313	304
Hindi	0.05	-0.05	0.096	0.081	312	305
Present at endline	0.85	0.90	-0.048	0.027	314	305

[1] Muralidharan, Karthik, Abhijeet Singh, and Alejandro J. Ganimian. "Disrupting education? Experimental evidence on technology-aided instruction in India." American Economic Review 109.4 (2019): 1426-1460

B) Table 2: Duplicating Table B

	Mean (treatment)	Mean (control)	Difference	Standard Error	Observations (treatment)	Observations (control)
Demographic characteristics						
Female	0.77	0.76	0.013	0.036	266	273
Age (years)	12.61	12.37	0.243	0.156	196	203
SES index	-0.17	0.03	-0.193	0.142	266	273
Grade in School						
Grade 4	0.01	0.01	-0.003	0.008	258	269
Grade 5	0.01	0.02	-0.011	0.011	258	269
Grade 6	0.28	0.30	-0.022	0.040	258	269
Grade 7	0.26	0.26	-0.001	0.038	258	269
Grade 8	0.30	0.28	0.020	0.040	258	269
Grade 9	0.14	0.12	0.017	0.029	258	269
Baseline test scores						
Math	-0.03	0.00	-0.031	0.086	265	272
Hindi	0.05	-0.07	0.124	0.084	266	273

Question 2: Added Measures

A) Table 3: Duplicating Table A With Added Covariates

	Mean (treatment)	Mean (control)	Difference	Standard Error	Observations (treatment)	Observations (control)
Demographic characteristics						
Female	0.76	0.76	0.004	0.034	314	305
Age (years)	12.67	12.41	0.267	0.143	230	231
SES index	-0.03	0.04	-0.070	0.137	314	305
Grade in School						
Grade 4	0.01	0.01	-0.003	0.007	305	299
Grade 5	0.01	0.02	-0.007	0.010	305	299
Grade 6	0.27	0.30	-0.035	0.037	305	299
Grade 7	0.26	0.26	0.005	0.036	305	299
Grade 8	0.30	0.28	0.017	0.037	305	299
Grade 9	0.15	0.13	0.024	0.028	305	299
Baseline test scores						
Math	-0.01	0.01	-0.016	0.081	313	304
Hindi	0.05	-0.05	0.096	0.081	312	305
Added Measures						
Private Tutoring	0.77	0.74	0.030	0.035	314	305
Private Math Tutoring	2.70	2.99	-0.290	0.183	138	143
Present at endline	0.85	0.90	-0.048	0.027	314	305

B)Table 4: Duplicating Table B With Added Covariates

	Mean (treatment)	Mean (control)	Difference	Standard Error	Observations (treatment)	Observations (control)
Demographic characteristics						
Female	0.77	0.76	0.013	0.036	266	273
Age (years)	12.61	12.37	0.243	0.156	196	203
SES index	-0.17	0.03	-0.193	0.142	266	273
Grade in School						
Grade 4	0.01	0.01	-0.003	0.008	258	269
Grade 5	0.01	0.02	-0.011	0.011	258	269
Grade 6	0.28	0.30	-0.022	0.040	258	269
Grade 7	0.26	0.26	-0.001	0.038	258	269
Grade 8	0.30	0.28	0.020	0.040	258	269
Grade 9	0.14	0.12	0.017	0.029	258	269
Baseline test scores						
Math	-0.03	0.00	-0.031	0.086	265	272
Hindi	0.05	-0.07	0.124	0.084	266	273
Added Measures						
Private Tutoring	0.78	0.74	0.042	0.037	266	273
Private Math Tutoring	2.66	3.05	-0.391	0.198	116	128

HARVARD
GRADUATE SCHOOL OF EDUCATION