

Preliminary OLS and Diff-in-Diff Results for the Adult Cohort

Reggio Team

Current version: Thursday 1st September, 2016

Time: 15:50:39

List of Tables

1	OLS Result for Cognitive and Education, Municipal vs. None, Reggio	3
2	OLS Result for Employment and Income, Municipal vs. None, Reggio	4
3	OLS Result for Living Environment, Municipal vs. None, Reggio	5
4	OLS Result for Health, Municipal vs. None, Reggio	6
5	OLS Result for Noncognitive, Municipal vs. None, Reggio	7
6	OLS Result for Social Behavior, Municipal vs. None, Reggio	8
7	OLS Result for Religion, Municipal vs. None, Reggio	8
8	OLS Result for Cognitive and Education, Reggio Municipal vs. Padova/Parma None	9
9	OLS Result for Employment and Income, Reggio Municipal vs. Padova/Parma None	10
10	OLS Result for Living Environment, Reggio Municipal vs. Padova/Parma None . . .	11
11	OLS Result for Health, Reggio Municipal vs. Padova/Parma None	12
12	OLS Result for Noncognitive, Reggio Municipal vs. Padova/Parma None	13
13	OLS Result for Social Behavior, Reggio Municipal vs. Padova/Parma None	14
14	OLS Result for Religion, Reggio Municipal vs. Padova/Parma None	14

1 Analysis: Reggio Municipal vs. Reggio No Preschool

Before comparing across cities and across school types, we first check if attending Reggio Approach school has effects relative to not attending any preschool in Reggio. Assuming that people who did not attend any preschool does not have any treatment effect of preschool, this comparison is a

preliminary way of checking the possible treatment effects of the Reggio Approach. Since we limit the estimation only to people in Reggio in either age-30 cohort and age-40 cohort, this eliminates the overall city effect.

However, the above assumption is a bad assumption if there are inherent difference between people who select into municipal school and people who select into no preschool at all. Especially for the older cohorts, richer families might have kept their children at home rather than sending them to preschools. In order to eliminate the possible difference among two groups, we also present the difference-in-difference estimates of (Age-30 Muni - Age-30 None) - (Age-40 Muni - Age-40 None) for people in Reggio. However, this diff-in-diff is based on the assumption that families who send their kids to municipal preschools are similar between age-30 and age-40 cohorts, and vice versa for no preschool groups. It has to be recognized that if there has been a big change in behaviors of families in sending their kids to preschool between two age cohorts, the diff-in-diff estimates might be misleading. We don't use Age-50 municipal group in Reggio, because the accuracy rate for the self-reported school type is low for that group.

Table 1: OLS Result for Cognitive and Education, Municipal vs. None, Reggio

	(1) Muni_Age30	(2) Muni_Age40	(3) DiD
IQ Factor	-0.276 (0.145)	0.0428 (0.151)	-0.115 (0.198)
High School Grade	3.870 (2.177)	1.570 (1.792)	2.905 (2.533)
University Grade	1.574 (2.920)	-5.733 (4.420)	4.965 (4.291)
Graduate from High School	0.0468 (0.0498)	-0.0704 (0.0593)	0.0697 (0.0705)
Max Edu: University	-0.0838 (0.0692)	0.111* (0.0562)	-0.152 (0.0861)
Max Edu: Graduate School	0.00852 (0.00876)	0 (.)	0.00791 (0.00807)

Note: This table shows the estimates for people in Reggio who attended municipal preschools or no preschool at all.

Standard errors are reported in parenthesis. Stars show statistical significance as follows:

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2: OLS Result for Employment and Income, Municipal vs. None, Reggio

	(1) Muni_Age30	(2) Muni_Age40	(3) DiD
Employed	0.0802 (0.0433)	0.0559 (0.0350)	0.0108 (0.0563)
Self-Employed	-0.0836 (0.0627)	0.00955 (0.0539)	-0.0600 (0.0778)
Hours Worked Per Week	5.450** (1.922)	5.679** (1.997)	1.123 (2.852)
Monthly Wage	-170.3 (92.69)	178.3 (785.6)	184.5 (697.5)
H. Income: 5,000 Euros of Less	0.168*** (0.0367)	-0.0180 (0.0171)	0.111*** (0.0319)
H. Income: 5,001-10,000 Euros	-0.0251 (0.0204)	0 (.)	-0.0301 (0.0264)
H. Income: 10,001-25,000 Euros	-0.182* (0.0830)	-0.0903 (0.0792)	-0.124 (0.106)
H. Income: 25,001-50,000 Euros	0.0439 (0.0833)	0.00887 (0.0815)	0.0872 (0.106)
H. Income: 50,001-100,000 Euros	-0.00543 (0.0285)	0.0792* (0.0363)	-0.0400 (0.0472)
H. Income: 100,001-250,000 Euros	0 (.)	0.0202 (0.0345)	-0.00388 (0.0316)
H. Income: More than 250,000 Euros	0 (.)	0 (.)	0 (.)

Note: This table shows the estimates for people in Reggio who attended municipal preschools or no preschool at all.

Standard errors are reported in parenthesis. Stars show statistical significance as follows:

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3: OLS Result for Living Environment, Municipal vs. None, Reggio

	(1) Muni_Age30	(2) Muni_Age40	(3) DiD
Married or Cohabiting	-0.0443 (0.0817)	0.0263 (0.0770)	0.000729 (0.105)
Divorced	0.0232 (0.0137)	-0.0117 (0.0549)	0.0324 (0.0511)
Num. of Children in House	0.0129 (0.0556)	-0.0439 (0.0973)	-0.0132 (0.107)
Own House	0.101 (0.0851)	-0.00685 (0.0702)	0.0965 (0.105)
Live With Parents	-0.0960 (0.0524)	-0.0448 (0.0299)	0.00652 (0.0563)

Note: This table shows the estimates for people in Reggio who attended municipal preschools or no preschool at all.

Standard errors are reported in parenthesis. Stars show statistical significance as follows:

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 4: OLS Result for Health, Municipal vs. None, Reggio

	(1) Muni_Age30	(2) Muni_Age40	(3) DiD
Tried Marijuana	0.0916 (0.0563)	0.0864 (0.0507)	-0.0156 (0.0706)
Smokes	0 (.)	0 (.)	0 (.)
Num. of Cigarettes Per Day	2.431 (1.348)	-0.372 (1.666)	1.866 (1.843)
BMI	0.620 (0.412)	-0.220 (0.482)	0.872 (0.597)
Good Health	0.129 (0.0775)	0.126 (0.103)	0.0362 (0.116)
Num. of Days Sick Past Month	0.285*** (0.0848)	0.0400 (0.0872)	0.200 (0.107)
Engaged in A Fight	0 (.)	0 (.)	0 (.)
Drove Under Influence	0 (.)	0 (.)	0 (.)
Ever Suspended from School	-0.141** (0.0521)	-0.0159 (0.0545)	-0.0963 (0.0685)
Age At First Drink	-0.518 (1.238)	-0.367 (1.396)	0.335 (1.783)

Note: This table shows the estimates for people in Reggio who attended municipal preschools or no preschool at all.

Standard errors are reported in parenthesis. Stars show statistical significance as follows:

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 5: OLS Result for Noncognitive, Municipal vs. None, Reggio

	(1)	(2)	(3)
	Muni_Age30	Muni_Age40	DiD
Locus of Control - positive	-0.153 (0.124)	0.319* (0.136)	-0.175 (0.184)
Depression Score	0.516 (0.847)	-2.116* (1.031)	1.462 (1.238)
Stress	0.0963 (0.108)	0.0969 (0.128)	-0.0395 (0.166)
StressWork	0.0158 (0.0910)	0.220* (0.0917)	-0.0216 (0.127)
Satisfied with Income	0.204 (0.148)	0.221 (0.150)	0.0664 (0.193)
Satisfied with Work	0.0771 (0.145)	0.226 (0.123)	-0.0925 (0.185)
Satisfied with Health	-0.174 (0.117)	-0.0167 (0.0894)	-0.114 (0.133)
Satisfied with Family	-0.0175 (0.137)	0.180 (0.149)	-0.0142 (0.190)
Optimistic Look in Life	-0.151 (0.0838)	0.0613 (0.0841)	-0.142 (0.113)
Return Favor	-0.0905 (0.173)	-0.00000865 (0.161)	0.00425 (0.215)
Put Someone in Difficulty	0.658*** (0.186)	-0.103 (0.201)	0.533* (0.257)
Help Someone Kind To Me	-0.124 (0.119)	-0.0170 (0.114)	-0.0548 (0.150)
Insult Back	0.597*** (0.165)	-0.173 (0.184)	0.772*** (0.233)

Note: This table shows the estimates for people in Reggio who attended municipal preschools or no preschool at all. Standard errors are reported in parenthesis. Stars show statistical significance as follows: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 6: OLS Result for Social Behavior, Municipal vs. None, Reggio

	(1)	(2)	(3)
	Muni_Age30	Muni_Age40	DiD
Favorable to Migrants	-0.0913 (0.0916)	0.0103 (0.107)	-0.0649 (0.126)
Number of Friends	-1.168 (1.644)	0.543 (1.453)	-0.843 (1.787)
Has Migrant Friends	0.0456 (0.0768)	-0.118 (0.0739)	0.133 (0.0970)
Volunteers	-0.127* (0.0494)	-0.119 (0.0676)	0.0161 (0.0824)
Child Eats Meal with Fam	0.0423 (0.229)	0.0204 (0.179)	0.270 (0.319)
Ever Voted for Municipal	0.108 (0.0643)	0.136 (0.0763)	-0.0103 (0.0940)
Ever Voted for Regional	0.0776 (0.0665)	0.144 (0.0795)	-0.0518 (0.0955)
Ever Voted for National	-0.0939 (0.0502)	0.0572 (0.0709)	-0.172* (0.0847)

Note: This table shows the estimates for people in Reggio who attended municipal preschools or no preschool at all. Standard errors are reported in parenthesis. Stars show statistical significance as follows:
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 7: OLS Result for Religion, Municipal vs. None, Reggio

	(1)	(2)	(3)
	Muni_Age30	Muni_Age40	DiD
Faith	-0.141 (0.149)	-0.0964 (0.159)	-0.0152 (0.199)

Note: This table shows the estimates for people in Reggio who attended municipal preschools or no preschool at all. Standard errors are reported in parenthesis. Stars show statistical significance as follows:
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

2 Analysis: Reggio Municipal vs. Parma/Padova No Preschool

Since there are unclear trends in Section 1, we check if attending Reggio Approach school has effects relative to not attending any preschool in Parma or Padova. Assuming that people who did not attend any preschool does not have any treatment effect of preschool, this comparison is a preliminary way of checking the possible treatment effects of the Reggio Approach. Since it is possible that there are inherent difference between people living in Reggio and people living in Parma or Padova, we control for the city effect by putting indicator for either living in Parma or living in Padova.

Table 8: OLS Result for Cognitive and Education, Reggio Municipal vs. Padova/Parma None

	(1)	(2)	(3)	(4)
	Parma30	Parma40	Padova30	Padova40
IQ Factor	-1.002*** (0.167)	-0.474*** (0.127)	-0.699*** (0.158)	-0.478*** (0.135)
High School Grade	17.60*** (3.571)	9.075*** (1.863)	5.655** (2.164)	4.420* (2.103)
University Grade	6.212* (2.575)	2.719 (3.374)	10.92* (4.256)	-1.783 (3.191)
Graduate from High School	-0.0486 (0.0551)	-0.0181 (0.0568)	-0.0156 (0.0494)	0.0581 (0.0680)
Max Edu: University	-0.213* (0.0934)	0.0220 (0.0536)	-0.0335 (0.0726)	0.0109 (0.0712)
Max Edu: Graduate School	0.00744 (0.00824)	-0.00707 (0.00736)	0.00322 (0.00484)	-0.00331 (0.00488)

Note: This table shows the estimates for people in Reggio who attended municipal preschools and people who live in Parma or Padova with no preschool experience. Standard errors are reported in parenthesis. Stars show statistical significance as follows:
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 9: OLS Result for Employment and Income, Reggio Municipal vs. Padova/Parma None

	(1)	(2)	(3)	(4)
	Parma30	Parma40	Padova30	Padova40
Employed	0.0206 (0.0459)	0.0319 (0.0324)	0.0731 (0.0547)	0.0368 (0.0362)
Self-Employed	0 (.)	0.0463 (0.0530)	0.0183 (0.0500)	0.0516 (0.0589)
Hours Worked Per Week	4.138* (1.969)	3.070* (1.232)	2.952* (1.422)	3.441* (1.500)
Monthly Wage	164.0 (266.9)	0 (.)	47.41 (187.8)	0 (.)
H. Income: 5,000 Euros of Less	0.141*** (0.0421)	-0.0176 (0.0168)	0.182*** (0.0435)	0 (.)
H. Income: 5,001-10,000 Euros	-0.0536 (0.0394)	-0.0204 (0.0152)	0.00663 (0.00771)	0 (.)
H. Income: 10,001-25,000 Euros	-0.162 (0.0982)	-0.116 (0.0694)	-0.309*** (0.0908)	-0.187* (0.0835)
H. Income: 25,001-50,000 Euros	0.111 (0.106)	0.112 (0.0721)	0.0999 (0.0958)	0.122 (0.0889)
H. Income: 50,001-100,000 Euros	-0.0370 (0.0395)	0.0120 (0.0298)	0.0211 (0.0171)	0.0155 (0.0482)
H. Income: 100,001-250,000 Euros	0 (.)	0.0298 (0.0196)	0 (.)	0.0493 (0.0315)
H. Income: More than 250,000 Euros	0 (.)	0 (.)	0 (.)	0 (.)

Note: This table shows the estimates for people in Reggio who attended municipal preschools and people who live in Parma or Padova with no preschool experience.

Standard errors are reported in parenthesis. Stars show statistical significance as follows:

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 10: OLS Result for Living Environment, Reggio Municipal vs. Padova/Parma None

	(1)	(2)	(3)	(4)
	Parma30	Parma40	Padova30	Padova40
Married or Cohabiting	0.0370 (0.0950)	0.154* (0.0693)	0.0237 (0.0846)	0.233** (0.0889)
Divorced	-0.0217 (0.0265)	-0.0627 (0.0466)	0.0235 (0.0185)	-0.219** (0.0718)
Num. of Children in House	0.155 (0.0979)	-0.00802 (0.0834)	0.0375 (0.0810)	0.184 (0.109)
Own House	0.139 (0.102)	-0.0164 (0.0677)	-0.0230 (0.0835)	0.0375 (0.0830)
Live With Parents	-0.0569 (0.0577)	-0.0477* (0.0219)	-0.276*** (0.0699)	-0.0902* (0.0411)

Note: This table shows the estimates for people in Reggio who attended municipal preschools and people who live in Parma or Padova with no preschool experience. Standard errors are reported in parenthesis. Stars show statistical significance as follows:
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 11: OLS Result for Health, Reggio Municipal vs. Padova/Parma None

	(1) Parma30	(2) Parma40	(3) Padova30	(4) Padova40
Tried Marijuana	0.125 (0.0652)	0.0888* (0.0346)	0.154* (0.0604)	0.1000 (0.0578)
Smokes	0 (.)	0 (.)	0 (.)	0 (.)
Num. of Cigarettes Per Day	3.484 (2.787)	1.428 (1.671)	0 (.)	3.307 (1.805)
BMI	-0.172 (0.443)	-0.351 (0.418)	-0.0533 (0.435)	0 (.)
Good Health	0.104 (0.122)	0.333*** (0.0845)	0.207 (0.114)	0.489*** (0.119)
Num. of Days Sick Past Month	0.506*** (0.109)	-0.0171 (0.102)	0.513*** (0.109)	0.0257 (0.105)
Engaged in A Fight	0 (.)	0 (.)	0 (.)	0 (.)
Drove Under Influence	0 (.)	0 (.)	0 (.)	0 (.)
Ever Suspended from School	0.0153 (0.0442)	0.0228 (0.0408)	-0.00293 (0.0503)	0.0664 (0.0548)
Age At First Drink	-4.384*** (1.241)	-3.781** (1.204)	0 (.)	-2.141 (1.543)

Note: This table shows the estimates for people in Reggio who attended municipal preschools and people who live in Parma or Padova with no preschool experience. Standard errors are reported in parenthesis. Stars show statistical significance as follows:

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 12: OLS Result for Noncognitive, Reggio Municipal vs. Padova/Parma None

	(1)	(2)	(3)	(4)
	Parma30	Parma40	Padova30	Padova40
Locus of Control - positive	0.468** (0.167)	0.373** (0.129)	-0.233 (0.161)	-0.150 (0.148)
Depression Score	2.698* (1.150)	-0.107 (0.792)	1.579 (1.087)	1.088 (1.063)
Stress	0.0774 (0.166)	0.189 (0.112)	0.0378 (0.133)	-0.230* (0.117)
StressWork	-0.127 (0.130)	0.195* (0.0900)	0.293* (0.132)	0.402*** (0.107)
Satisfied with Income	0.398* (0.176)	0.595*** (0.119)	-0.0218 (0.135)	0.302* (0.135)
Satisfied with Work	0.469* (0.189)	0.521*** (0.103)	0.267 (0.180)	0.396** (0.147)
Satisfied with Health	-0.354** (0.119)	0.166 (0.0866)	-0.0445 (0.121)	0.0829 (0.120)
Satisfied with Family	0.391** (0.139)	0.191 (0.102)	0 (.)	0.316* (0.137)
Optimistic Look in Life	0.131 (0.110)	0.281*** (0.0763)	-0.0515 (0.0997)	0.0723 (0.109)
Return Favor	-0.469** (0.163)	-0.0872 (0.144)	-0.0928 (0.175)	-0.262 (0.154)
Put Someone in Difficulty	0.798*** (0.229)	0.126 (0.184)	1.494*** (0.190)	0.812*** (0.222)
Help Someone Kind To Me	-0.133 (0.111)	-0.0269 (0.117)	0.0983 (0.131)	-0.154 (0.134)
Insult Back	0.214 (0.227)	-0.0454 (0.168)	0.699*** (0.173)	0.0819 (0.197)

Note: This table shows the estimates for people in Reggio who attended municipal preschools and people who live in Parma or Padova with no preschool experience. Standard errors are reported in parenthesis. Stars show statistical significance as follows:
* p < 0.05, ** p < 0.01, *** p < 0.001.

Table 13: OLS Result for Social Behavior, Reggio Municipal vs. Padova/Parma None

	(1) Parma30	(2) Parma40	(3) Padova30	(4) Padova40
Favorable to Migrants	-0.0832 (0.127)	-0.166 (0.0873)	0.321** (0.103)	0.0741 (0.123)
Number of Friends	-3.365* (1.390)	-1.585 (1.120)	-4.916** (1.604)	0 (.)
Has Migrant Friends	-0.0388 (0.0990)	-0.0648 (0.0699)	0.198* (0.0902)	0.110 (0.0884)
Volunteers	-0.253** (0.0799)	-0.0547 (0.0580)	-0.0587 (0.0494)	0.0341 (0.0669)
Child Eats Meal with Fam	0.0799 (0.248)	0.131 (0.167)	0.876*** (0.201)	0.108 (0.208)
Ever Voted for Municipal	0.265*** (0.0717)	0.308*** (0.0603)	0.393*** (0.0697)	0.277*** (0.0763)
Ever Voted for Regional	0.312*** (0.0744)	0.384*** (0.0615)	0.364*** (0.0706)	0.306*** (0.0770)
Ever Voted for National	0.0931 (0.0858)	0.0515 (0.0555)	-0.0400 (0.0696)	-0.0934 (0.0558)

Note: This table shows the estimates for people in Reggio who attended municipal preschools and people who live in Parma or Padova with no preschool experience. Standard errors are reported in parenthesis. Stars show statistical significance as follows:
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 14: OLS Result for Religion, Reggio Municipal vs. Padova/Parma None

	(1) Parma30	(2) Parma40	(3) Padova30	(4) Padova40
Faith	-0.116 (0.189)	-0.272 (0.148)	-0.383* (0.179)	-0.338 (0.176)

Note: This table shows the estimates for people in Reggio who attended municipal preschools and people who live in Parma or Padova with no preschool experience. Standard errors are reported in parenthesis. Stars show statistical significance as follows:
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.