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Postal Address:
Institut d'Economia de Barcelona
Facultat d'Economia i Empresa
Universitat de Barcelona
C/ Tinent Coronel Valenzuela, 1-11
(08034) Barcelona, Spain
Tel.: + 34 93 403 46 46
Fax: + 34 93 403 98 32
ieb@ub.edu
http://www.ieb.ub.edu

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FISCAL DECENTRALISATION, PRIVATE SCHOOL FUNDING, AND STUDENTS' ACHIEVEMENTS. A TALE FROM TWO ROMAN CATHOLIC COUNTRIES [*]

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ABSTRACT: The objective of the paper is to study the disciplining role of both market forces and regional governments own resources in the provision of educational services. The historical evolution of school regulation in Italy and Spain (in particular regarding the funding of private schools run by Roman Catholic Church, and the role of regional governments financing education) created different institutions in terms of both dimensions, private funds and regional governments funds. We take advantage of these institutional diversities to estimate the disciplining role of different sources of funds in the context of educational production function using PISA data. Our results provide support to these accountability drivers. Moreover, we find evidence on the role played by a national standardised test in providing adequate incentives to improve schools' performance.

JEL Codes: H75, I22

Keywords: Public and private schools, accountability, fiscal federalism

Gilberto Turati
University of Torino
Department of Economics and Public Finance
Corso Unione Sovietica 218 bis
10134 Torino (Italia)
E-mail: turati@econ.unito.it

Daniel Montolio
Universitat de Barcelona & IEB
Avda. Diagonal 690
08034 Barcelona, Spain
E-mail: montolio@ub.edu

Massimiliano Piacenza
University of Torino
Department of Economics and Public Finance
Corso Unione Sovietica 218 bis
10134 Torino (Italia)
E-mail : piacenza@econ.unito.it

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1. Introduction

Historical accounts of the evolution in school regulation all around the world suggest that this is a policy issue subject of bitter confrontations. Two questions emerge as important: on the one hand, what is the role that *private schools* should play in the provision of education. On the other hand, what is the role *regional governments* should play in the provision of education. In countries where the Roman Catholic Church is still an important actor in social life, the first question is basically centred on the role, if any, private schools run by Catholic Church should play in education, and whether these schools should be financed with public funds. The institutional answers are different on this point between two countries, like Italy and Spain, where the Roman Catholic Church is still considered a sort of "state religion". In Italy, starting from the Unification in the second half of the XIX century, there was a strong push towards a public free-for-all education centrally provided. In Spain, after the success of Franco's *coup d'etat* in 1939, the Catholic Church is still receiving a high share of public funds. As for the second question, Italy and Spain have also followed different paths with regard to decentralization patterns. In the last thirty years Spain has moved from being a unitary state to a much more decentralized one, with the regions (*Comunidades Autónomas*) having Parliaments and Governments that can decide on a broad range of public services, among which educational services represent a large share of regional public expenditures. On the other hand, Italian regional governments (*Regioni*) play, in general, a minor role in deciding over public expenditures; with regard to school funding, this is consistent with the process of centralization and secularization of education undertaken in Italy.

Given these combinations of private funds (coming from households paying a price for educational services) and public funds (both from regional and central governments), it is not clear how the "accountability effects" suggested by the literature on private markets and fiscal federalism impact on the production of education. The goal of the paper is to explore this issue. In particular, we study the

disciplining role of both market forces and regional governments' own resources in the provision of educational services. We exploit two different sources of variation: on the one hand, the difference between private and public schools suggests that – in the presence of standardised national tests to assess the level of students' achievements – private schools should be more productive than public schools in providing better attainments, given that households pay a price to access the service. This first "market-accountability" effect should be stronger the higher the share of funding coming directly from markets. On the other hand, the difference between schools funded with regional governments resources and schools centrally funded suggests that – according to second generation fiscal federalism theories – the former should be more productive than the latter, given the "fiscal-accountability" role played by own resources for regional governments. The historical evolution of school regulation in Italy and Spain, in particular regarding the funding of private schools run by Roman Catholic Church and the role of regional governments, created different institutions in terms of both dimensions, private funds and regional governments funds. We take advantage of these institutional diversities to estimate the disciplining role of different sources of funds in the context of educational production function using PISA data.

We build on two papers. First, Barankay and Lockwood (2007) provide empirical evidence on the claim that fiscal decentralisation promotes - amongst other benefits - the productive efficiency in the delivery of government services. The evidence is based on a data-set of Swiss cantons. The authors first offer careful evidence that expenditure decentralisation is a powerful proxy for factual regional/local autonomy. Further panel regressions on Swiss cantons supply then robust evidence that more decentralisation is associated with higher educational attainment. They also show that these gains lead to no adverse effects across education types, but that male students benefited more from educational decentralisation closing, for the Swiss case, the gender education gap. Finally, they present evidence of the importance of competence in government and how it can reinforce the gains from

decentralisation. Here we add to this paper by considering *tax* decentralisation and not *expenditure* decentralisation in the analysis of efficiency in educational spending, noting that the former should be the real source of accountability for regional governments according to recent literature on fiscal federalism (e.g., Oates, 2005; Weingast, 2009). Our aim is to study whether regions with more tax autonomy are more productive in terms of education attainment.

Second, West and Woessmann (2010) argue that nineteenth-century Catholic doctrine strongly opposed state schooling. The authors show that countries with larger shares of Catholics in 1900 (but without a Catholic state religion like Italy or Spain) tend to have larger shares of privately operated schools even today. They use this historical pattern as a natural experiment to estimate the causal effect of contemporary private competition on student achievements in cross-country student-level analyses. Results show that larger shares of privately operated schools lead to better student achievements in mathematics, science and reading, and to lower total education spending, even after controlling for current Catholic shares. We add to West and Woessmann (2010) by showing that *within countries with Catholic state religion*, there are strong differences in public and private schools depending *both on historical reasons and the degree of fiscal decentralisation*. Indeed, in Italy, private schools are only partially financed by the state and play a minor role in the provision of education. The opposite occurs in Spain, where schools run by the Roman Catholic Church represent a relevant share of total educational supply (about 30% of children attend private schools, the great majority of which are operated by the Roman Catholic Church) and are still now highly financed by the state. Our aim is to study - besides regional funding - the role of public/private funding in increasing school accountability.

Results obtained by estimating an education production function using PISA data for 2003 on the sample of Italian and Spanish regions provide support to both the "market-accountability" and the "fiscal-accountability" effects. In particular, we find that a larger share of private funding and a a larger share of local public funding

are consistently associated with better outcomes. Moreover, we find evidence on the role played by a national standardised test in providing adequate incentives to improve schools' performance.

The remainder of the paper is structured as follows. Section 2 provides a brief introduction on schooling systems in Italy and Spain, along both an historical and an institutional perspective. Section 3 discusses our empirical strategy, and presents the PISA data and our estimates, adding robustness tests and a brief policy discussion. Section 4 collects the final remarks.

2. Italy and Spain: historical and institutional differences

2.1 Educational systems

While sharing a number of cultural traits characterising the Mediterranean countries, Italy and Spain show large institutional differences rooted in the historical evolution of the two countries. Limiting the analysis to schooling, one can show two important sources of variation: on the one hand, the role of private schools; on the other hand, the role of fiscal decentralisation and regional funding for schools. The present day situation is the result of different historical patterns.

The Italian school system has been heavily influenced after the unification of the country in 1861 by the Coppino Law promulgated in 1877. This law has been introduced by a left-wing government headed by Agostino Depretis, establishing two basic principles: first, free-of-charge elementary schooling for all the citizens, with municipalities responsible of maintaining and funding schools; second, compulsory education for all, with sanctions and fines for all the citizens not attending schools. The implicit aim of this model was to create a national identity in a country with substantial differences across regions. Catholics strongly criticised this law with a secular taste that excluded religion from curricula in public schools, and sent their children to private institutions run by the Catholic Church. The

compulsory free-for-all public schooling system designed at the end of the XIX century was further emphasised by the Republican Constitution in 1948. Despite the contribution of different layers of governments, decisions and funding were almost totally centralised. The Constitution also stated that it is possible to establish and run private schools, but without any financial burden for the state. This is a formula that was (and still is) subject to bitter debates in the following years, with supporters of the public schools strongly opposing to any transfers of public funds to private schools, especially the religious ones. The Italian schooling system was subjected to a number of different reforms since then, but none of them changed the two fundamental principles of a compulsory and free-of-charge public school centrally managed and financed. Only in the proposed constitutional reform of 2005, schooling has been thought as an exclusive responsibility of Regional government like health care (that in Italy is the most important task devolved to Regions). However, a national referendum rejected this project, confirming the favour towards a highly centralised public schooling.

The Spanish schooling system followed a different route, with the Catholic Church playing a more or less prominent role according to the specific historical period. The 1812 Constitution established that schooling was the basic responsibility of the state. However, throughout the XIX century, liberals and conservatives engaged in bitter battles over educational issues and the role of the Catholic Church. In particular, the Revolution of 1868 and the subsequent advent of the First Republic pointed to the importance of academic freedom, and the separation of the Church and the State in education matters. While in the period of the Bourbon Restoration (1874 - 1931), the conservatives sought to re-establish the Catholic Church control in education, supported by a series of *Concordats* with the Vatican that went in the direction of solidifying the relationship between the State and the Catholic Church. The new Constitution, promulgated with the advent of the Second Republic in 1931, revoked the 1851 Concordat with the Vatican – which established Catholicism as the official state religion in Spain – and brought new important educational reforms, including

the call for free compulsory primary education and non-religious instruction. All these changes came to an end with the failure of the Republic and the success of the fascist forces of General Franco at the end of the Spanish Civil War in 1939. During subsequent years, education in Spain was converted into the transmission of Franco's views of Spanish Nationalism and Catholic ideology, and the power of the Catholic Church was restored with the approval of the 1952 Concordat. This agreement had important implications for education: Catholic religious instruction was to be mandatory in all schools, even in the public ones; moreover, the Catholic Church was given the right to establish their own universities. With the democratic regime following Franco's death (1975), some laws were issued aiming at reducing the role of state subsidies for education. In particular, in 1990, there was a profound reform of the educational system (*Law on the General Organization of the Educational System* – LOGSE) that tried to take into account the new reality of Spain, which was no longer a centralized but an increasingly decentralized state, with some regions having competencies to legislate on education from the early eighties. However, the issues surrounding government subsidies to Catholic Church education had not been resolved and, at the end of the XX century, the government continued (and still continue) to subsidize private church-affiliated schools.

2.2 Decentralization patterns

As for fiscal decentralisation, Italy and Spain have also followed different patterns. Nowadays, considering taxes and revenues defined by regional governments, Italy can be considered a "centralized" country compared to Spain. IMF data from Government Finances Statistics show that sub-central governments in Italy (including regions, provinces and municipalities) account in 2007 for around 28% of total revenue and 27% of total spending. On the contrary, in Spain, the 1978 democratic Constitution created the *Comunidades Autónomas* (CA) as an intermediate level of government aimed at recognizing the internal heterogeneity of

the country. This level of government soon took responsibility over matters related to the Welfare State, such as education and health, that were before in the hands of the central government. In 2005, IMF figures show that 55.3% of total spending in Spain is decided by the central government, while the remaining 44.7 refers to sub-central governments (31.6% to regional governments, and 13.1% to local governments).

With respect to decentralization in education, the share of funding coming from regional governments is very different between Italy and Spain. In Italy, only schools belonging to the two Autonomous Provinces of Trento and Bolzano (*de facto*, two regional governments) are financed by own regional funds, while schools in the other regions are almost totally financed by the Central government. For instance, the Provincial Law n. 5/2006 disciplines the educational system in the province of Trento, by assigning full autonomy (including financial autonomy) to each school. It also introduces additional tools for evaluating at the provincial level the productivity of schools. Notice that fiscal decentralisation results in a higher share of income devoted to public education: the spending-to-GDP ratio for schooling was 6.2% in the Autonomous Province of Trento in 2002, while 4.7% in Italy. At the national level, available statistics for 2003 shows that more than 82.7% of total spending in education is allocated at the central level, 2.3% is decided by regional governments and 15% by local governments (see, e.g., MIUR, 2007). In Spain, regions such as Andalusia, Basque Country, Canary Islands, Catalonia, Galicia and Comunidad Valenciana received responsibility over education between 1980 and 1983 for primary and secondary schools, and between 1985 and 1987 for higher education. Navarra received responsibility for all schools' grades in 1990. The remaining regions joined between 1995 and 2000. In 2005, IMF figures show that in Spain 4.5% of total spending devoted to education is decided by the central government; 89.5% by regional governments, and 6% by local governments.

In the remainder of the paper, we exploit these institutional differences in terms of the role played by public funds in financing private schools and of fiscal

decentralisation in order to identify the "accountability effects" played by both market forces and (regional) tax autonomy.

3. The empirical analysis

3.1. The strategy

According to the institutional differences described in the previous Section, we basically have two important sources of variation to identify the impact of the two accountability mechanisms:

a. The first one is the degree of fiscal decentralisation, which is different *within* Italy, between ordinary statute regions and the Autonomous Provinces of Trento and Bolzano; and *between* Italy and Spain. The degree of fiscal decentralisation is important because, as suggested, for instance, by Oates (2005) and Weingast (2009), the higher the share of funding provided by regional governments to finance services to citizens, the lower the Vertical Fiscal Imbalance, the higher their accountability, hence the efficiency of public spending. In terms of schooling, we should expect that an higher degree of fiscal decentralisation will lead to improved outcomes.

b. The second source of variation is the public/private dimension, which is different between Spain and Italy both for the role assigned to private providers of education and, more importantly, to public funding of these private schools. In particular, private schools in Spain (especially *escuelas concertadas*) are an important actor in the national education system and are consistently financed with public funds (e.g., Calero and Escardíbul, 2007), whereas private schools in Italy (both secular and religious schools) play a minor and residual role, and receive a relatively little financial support from

the government. Besides public funding, the private nature of schools is important in itself, especially in the presence of a nationally administered test. As suggested by Woessmann *et al.* (2009), external exams increase schools' accountability along several dimensions, including the enhanced monitoring of teachers and schools. This effect should be stronger the higher the share of educational costs paid by citizens. However, while in Spain, at the end of secondary (non compulsory) education, there is a unique (global) exam for students aiming at enrolling in a university course (*selectividad*), similar evaluation exercises have not been systematically introduced so far in Italy.

Starting from these premises, the disciplining effects stemming from both fiscal decentralisation and market incentives provide a ranking of different types of schools in terms of accountability:

i. At one extreme, Italian private schools are those financed mostly with fees paid by households (i.e., they are "private-independent" schools; e.g., Dronkers and Avram, 2009; Dronkers and Robert, 2008). In principle, then, market forces should strongly discipline them. However, this argument can be displaced by the fact that – in the absence of a national standardised test on attainment in Italy – these schools do not need to be as productive in terms of education as they should be in the presence of an external exam, just providing students with a "certificate" to enter the labour market. That private schools will provide lower quality education than public schools is not only theoretically feasible, but also somewhat consistent with available evidence (e.g., Bertola *et al.*, 2007, and Brunello and Rocco, 2008).

ii. At the other extreme, Italian public schools in ordinary statute regions are financed (almost) completely and staffed completely by the Central government. They are not subject to any evaluation program, and enjoy a very modest degree of autonomy over their budget. According to the theory, they should be the less accountable type of school.

iii. In between, we have Spanish public and private schools and Italian public schools in the Autonomous Provinces of Bolzano and Trento. Their degree of accountability should increase with the share of funding coming from the market (in the presence of nationally administered external exams) and from regional governments. Notice that Spanish private schools are mostly "private government dependent" schools (Dronkers and Avram, 2009; Dronkers and Robert, 2008), but they receive an important share of regional funding.

Having created a ranking of different types of schools according to their accountability, our strategy is to define a set of variables which basically identify each school type on the basis of the "degree of accountability", measured by the share of funding by regional governments, the share of public funding, and their nature (public or private). In particular, we define the dummy *DECENTR* to identify the schools located in Regions where this level of government plays an important role in education, and the variable *PUB_FUND*, which measures the percentage of total funding in a typical school year coming from public funding (including local, regional and central governments). The interaction *DECENTR*×*PUB_FUND* allows us to differentiate schools according to the degree of regional funding, hence test for the "fiscal-accountability" effect. The variable *PUB_FUND* allows us also to somewhat differentiate private-dependent schools from private-independent ones, and test the accountability role played by market incentives. Finally, the dummy *PUBLIC* identifies the public *nature* of schools.

Notice that, in most of the literature on schooling, accountability is defined according to the role of standardised external exams and other devices, but the role of fiscal decentralisation is hardly mentioned. In our exercise, we build a link with the fiscal federalism literature, and explicitly control also for the role of fiscal decentralization in order to provide a more clear evidence on the accountability role played by the different sources of public and private funding.

As for the econometric specification, we take a very simple route following West and Woessmann (2010) and Barankay and Lockwood (2007). Both papers consider an education production function where the dependent variable is the test score (*SCORE*), and the covariates can be grouped in regional controls, school controls, and (eventually) student controls. The general model to be estimated can be written as follows:

$$SCORE_i = \alpha + \beta_1 DECENTR_i + \beta_2 PUB\_FUND_i + \beta_3 DECENTR \times PUB\_FUND_i + \\ + \beta_4 PUBLIC_i + \sum \beta_k PUBLIC \times X_{ki} + \sum \beta_h X_{hi} + \varepsilon_i \qquad [1]$$

where i identifies the different schools, the $\boldsymbol{X_h}$'s are a set of controls deemed to be important determinants of school outcomes (including, for instance, the total number of students, the share of female students, and the pupils per teacher ratio), while $\boldsymbol{X_k}$ are variables to be interacted with *PUBLIC* in order to identify the different institutions providing education in Spain and Italy. According to our "accountability" story, we are particularly interested in the coefficients on *DECENTR*, *PUB_FUND*, *PUBLIC*, and their interactions.

3.2. The data

We consider the 2003 data from the OECD Programme for International Student Assessment (PISA), a widely used survey which takes place every three years to collect information on the educational competencies of 15-years-old students in

different countries (OECD, 2005a and 2005b). The 2003 wave is particularly interesting for our purposes, since it allows us to identify a number of different regions within each country. To be more precise, while usually conducted at the country level, the 2003 wave makes publicly available for Italy and Spain information on some participating regions. In particular, we are able to identify Lombardia, Piemonte, Toscana and Veneto as ordinary statute regions, and the two Autonomous Provinces of Bolzano and Trento in Italy; the Basque Country, Catalonia and Castilla y León in Spain. In both countries, we also have a residual category of "Other Regions". According to institutional details discussed above, we set the dummy *DECENTR* equal to one for all the Spanish regions and for the two Autonomous Provinces in Italy. Regional funding of schools represents an important share of total funding in all these regions, even though there are institutional differences across regions. To catch this variation, we consider in particular the interaction $DECENTR \times PUB\_FUND$.

Educational attainments. PISA surveys report students' performance through *plausible values*. These need to be thought as random draws from posterior distributions of students' test scores. In other words, instead of obtaining a point estimate of student ability, once collecting the raw score for each student on the number of correct answers, the distribution of student proficiency is computed, and the survey report random values from this (estimated) posterior distribution. Needless to say, this requires appropriate tools for the empirical analysis, even for descriptive statistics. We will take into account the particular nature of the data by considering the PV Stata module discussed in Lauzon (2004) and MacDonald (2008) for all our estimates.

Students' knowledge and ability (our dependent variable *SCORE* in Equation [1]) is assessed along four main domains: problem solving (PV_PROB), mathematical literacy (PV_MATH), reading literacy (PV_READ), and scientific literacy (PV_SCIE). Descriptive statistics for these variables for all the schools in the

Table A.7. "Market accountability" and "fiscal accountability" (PV_SCIE)

VARIABLES	(1)	(2)	(3)	(4)	(5)
PUP_TEACH_RATIO	3.640*	4.038*	4.433*	4.453*	4.687
	[1.924]	[2.214]	[2.472]	[2.405]	[2.953]
TOT_ENROLL	0.0315	0.0304	0.0261	0.0251	0.0297
	[0.0220]	[0.0285]	[0.0307]	[0.0319]	[0.0227]
SHARE_FEM	0.278	0.400	0.345	0.402	0.381
	[0.211]	[0.249]	[0.279]	[0.270]	[0.256]
SHORTAGE_SCIE	-69.28	-82.46	-73.24	-84.64	-84.34
	[48.01]	[50.68]	[50.39]	[52.77]	[51.97]
D_SMALL	-4.426	-17.30	-8.452	-18.67	-17.06
	[23.26]	[30.15]	[26.80]	[30.83]	[27.84]
D_LARGE	-4.025	-2.773	-5.917	-1.118	-2.085
	[24.94]	[26.93]	[28.88]	[25.91]	[28.01]
PUB_FUND	-0.563***				
	[0.180]				
DECENTR		143.0***			
		[28.01]			
PUB_FUND×DECENTR			0.0423		
			[0.227]		
PUBLIC				13.01	
				[12.70]	
PUBLIC×D_ESP					23.27
					[27.97]
PUBLIC×D_ITA					0.984
					[38.33]
Regional fixed effects	yes	yes	yes	yes	yes
Country fixed effects	yes	yes	yes	yes	yes
Observations	619	637	619	637	637
R^2	0.9796	0.9772	0.9783	0.9773	0.9774

Note: Standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1

Table A.8. The complete model (PV_SCIE)

VARIABLES	(1)	(2)	(3)	(4)
PUP_TEACH_RATIO	4.715**	4.556*	4.740**	4.361*
	[2.314]	[2.559]	[2.289]	[2.354]
TOT_ENROLL	0.0176	0.0139	0.0213	0.0153
	[0.0315]	[0.0298]	[0.0270]	[0.0271]
SHARE_FEM	0.246	0.256	0.226	0.235
	[0.232]	[0.231]	[0.213]	[0.209]
SHORTAGE_SCIE	-74.43	-74.38	-74.79	-74.94
	[53.21]	[53.02]	[53.67]	[53.47]
D_SMALL	-6.302	-7.240	-4.760	-5.872
	[23.07]	[22.02]	[21.61]	[20.56]
D_LARGE	2.706	3.780	2.298	4.661
	[18.33]	[18.00]	[18.54]	[16.17]
PUB_FUND	-0.889***	-0.936***	-0.991***	-1.190***
	[0.271]	[0.266]	[0.356]	[0.419]
DECENTR	143.9***	144.7***	99.38***	87.35***
	[26.90]	[27.11]	[36.79]	[31.72]
PUB_FUND×DECENTR			0.403	0.727*
			[0.407]	[0.418]
PUBLIC	45.87***		43.38**	
	[17.69]		[17.45]	
PUBLIC×D_ESP		40.35*		27.55
		[24.30]		[24.77]
PUBLIC×D_ITA		57.20*		69.73**
		[31.59]		[29.80]
Regional fixed effects	yes	yes	yes	yes
Country fixed effects	yes	yes	yes	yes
Observations	619	619	619	619
R^2	0.9805	0.9806	0.9807	0.9809

Note: Standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1

Table A.9. The role of school autonomy (PV_SCIE)

VARIABLES	(1)	(2)	(3)	(4)
PUP_TEACH_RATIO	4.827**	4.631*	4.847**	4.448*
	[2.455]	[2.639]	[2.440]	[2.456]
TOT_ENROLL	0.0180	0.0130	0.0214	0.0142
	[0.0311]	[0.0310]	[0.0270]	[0.0284]
SHARE_FEM	0.237	0.249	0.219	0.226
	[0.227]	[0.229]	[0.210]	[0.205]
SHORTAGE_SCIE	-74.31	-74.13	-74.67	-74.64
	[53.02]	[52.79]	[53.45]	[53.16]
D_SMALL	-6.308	-7.588	-4.888	-6.217
	[23.16]	[22.52]	[21.77]	[21.01]
D_LARGE	2.210	3.649	1.848	4.566
	[18.55]	[17.77]	[18.74]	[15.99]
AUTCURR	-4.916	-6.551	-4.274	-7.134
	[9.502]	[8.918]	[9.047]	[9.665]
AUTRES	-1.128	-1.294	-1.270	-1.765
	[5.660]	[5.678]	[5.500]	[5.118]
PUB_FUND	-0.900***	-0.967***	-0.998***	-1.236***
	[0.271]	[0.281]	[0.358]	[0.465]
DECENTR	143.3***	144.1***	101.8***	84.78***
	[26.29]	[26.75]	[34.96]	[29.54]
PUB_FUND×DECENTR			0.377	0.752*
			[0.398]	[0.448]
PUBLIC	42.33*		39.99*	
	[24.33]		[23.36]	
PUBLIC×D_ESP		33.76		19.33
		[28.43]		[25.08]
PUBLIC×D_ITA		57.39*		69.89**
		[31.81]		[30.70]
Regional fixed effects	yes	yes	yes	yes
Country fixed effects	yes	yes	yes	yes
Observations	617	617	617	617
R^2	0.9806	0.9807	0.9807	0.9810

Note: Standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1.

Table A.10. The role of parental background (PV_SCIE)

VARIABLES	(1)	(2)	(3)	(4)
PUP_TEACH_RATIO	4.356	4.216	4.381	4.015
	[2.762]	[3.083]	[2.728]	[2.891]
TOT_ENROLL	0.0179	0.0147	0.0220	0.0161
	[0.0273]	[0.0248]	[0.0229]	[0.0221]
SHARE_FEM	0.217	0.226	0.196	0.205
	[0.227]	[0.222]	[0.208]	[0.200]
SHORTAGE_SCIE	-78.92	-78.85	-79.34	-79.46
	[59.07]	[58.87]	[59.58]	[59.27]
D_SMALL	-2.021	-2.869	-0.346	-1.448
	[19.68]	[18.46]	[18.30]	[17.14]
D_LARGE	-1.201	-0.237	-1.663	0.641
	[14.48]	[14.27]	[14.57]	[12.41]
MOTHER_HIGH	82.99	82.70	83.55	83.17
	[78.49]	[79.46]	[78.39]	[81.09]
PUB_FUND	-0.662**	-0.704**	-0.769*	-0.962**
	[0.327]	[0.300]	[0.407]	[0.425]
DECENTR	138.2***	139.0***	103.5***	80.21**
	[23.82]	[23.93]	[34.60]	[33.24]
PUB_FUND×DECENTR			0.431	0.744**
			[0.363]	[0.365]
PUBLIC	43.22***		40.53***	
	[15.24]		[15.36]	
PUBLIC×D_ESP		38.33		25.22
		[23.92]		[26.49]
PUBLIC×D_ITA		53.26		66.06**
		[33.13]		[32.35]
Regional fixed effects	yes	yes	yes	yes
Country fixed effects	yes	yes	yes	yes
Observations	617	617	617	617
R^2	0.9810	0.9817	0.9818	0.9818

Note: Standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1.

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