

Family and State Spending on Education in Spain: Differences between Public and Publicly-Funded Private Educational Institutions

Gasto público y de las familias en educación en España: diferencias entre centros públicos y concertados

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Key words

Educational Inequalities
 • Public Schools
 • Grant-Aided Private Schools
 • Government Spending
 • Educational Policy
 • Family School Relationship

Palabras clave

Desigualdad educativa
 • Escuelas públicas
 • Escuelas concertadas
 • Gasto público
 • Políticas educativas
 • Relación familia-escuela

Abstract

This paper estimates public and private (household) spending per student on education in early childhood, primary and secondary education in Spain, in public educational institutions and in publicly-funded private educational institutions. We use 2007 data from the Household Spending on Education Survey and the Statistics on Public Spending on Education. Public expenditure on education per student in publicly-funded private educational institutions was 49.9% that spent on public educational institutions. The cost assumed by families in public institutions was 38.7% that spent on publicly-funded private educational institutions. The total expenditure per student on publicly-funded private educational institutions was 66.9% that spent on public educational institutions. Enrollment in publicly-funded private educational institutions implies a reduction of public expenditure on education and the transfer of part of those educational expenses to families.

Resumen

Este trabajo realiza una estimación del gasto por alumno en educación infantil, primaria y secundaria de las administraciones públicas y las familias, en función de la titularidad del centro educativo. Se usan datos de 2007 de la Encuesta sobre Gasto de los Hogares en Educación y de la Estadística del Gasto Público en Educación. El gasto público anual por estudiante matriculado en centros concertados fue un 49,9% respecto al gasto en centros públicos. El gasto anual de las familias en centros públicos fue un 38,7% del gasto en centros concertados. El gasto total por estudiante en centros concertados constituyó el 66,9% del gasto en centros públicos. La escolarización en centros concertados supone una reducción del gasto público, así como el trasvase de parte de los costes educativos a las familias.

Citation

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INTRODUCTION¹

In Spain there are three types of non-university educational institutions that are defined by their main source of funding and their ownership: state schools (publicly owned and publicly funded), private schools (privately owned and privately funded) and publicly-funded private schools (hereinafter the phrase 'publicly-funded private schools' will be used to describe the Spanish phrase 'centros concertados'). These last are managed privately and receive public funding through a system of agreements with the public authorities, provided that they meet a number of requirements, including: covering an educational need demanded by one part of the population; being non-fee-paying (all activities should be non-profit, and any activities that involve payment by families must be approved by the education authorities); having the same student admission criteria as state schools; and making religious activities available on a voluntary basis (Law 8/1985 and Law 2/2006).

Both the regulation and the proportion of state and publicly-funded private schools in the non-university system have been the object of a permanent debate since their co-existence was regulated by the Organic Law on the Right to Education (LODE in its abbreviated form in Spanish) (Pérez-Díaz et al., 2001; Fernández Enguita, 2008). One of the main aspects of the debate refers to the efficiency of state and publicly-funded private schools, that is, the relationship between their educational achievements (measured, for example, by students academic perfor-

mance, or the equality of their results) and the resources invested in them (measured, for example, by the economic cost of the schools).

The majority of the studies carried out in Spain on the academic results according to school ownership have concluded that, once controlled for the variables related to the students socio-economic origin, no significant differences exist (Anghel and Cabrales, 2010; Gutiérrez-Domenech and Adsera, 2012; Pelerman and Santín, 2011; Calero and Escardíbul, 2007; Cordero Ferrera et al., 2012). For their part, Mancebón-Torrubia et al. (2012) found that students who attend state schools achieve better results, whilst Doncel et al. (2012) concluded that publicly-funded private schools obtain better results than state schools. The academic results are related to the distribution of the students. In this respect, it has been shown that students from families with higher income, more highly qualified professions and higher educational levels were largely concentrated in publicly-funded private schools (Escardíbul and Villarroja, 2009; Mancebón-Torrubia and Pérez-Ximénez de Embún, 2010; Instituto de Evaluación, 2011a). This differentiation in the type of students has its origin, in part, in the different selection mechanisms applied by publicly-funded private schools (Mancebón-Torrubia and Pérez-Ximénez de Embún, 2007; Bonal, 2002; Villarroja, 2000; Fernández Enguita et al., 2010).

Unlike the studies which compared the academic performance of state and publicly-funded private schools, those that addressed public spending on each type of schools were few and, when data were available, they seemed to be too general and lacking in accuracy. In addition, despite the fact that some valuable contributions have analysed the cost of education and its funding in detail (for example, see Uriel et al. (1997) and Pérez-Díaz and Rodríguez (2003)), no study has been found to provide a thorough review of a comparison between the public expenditure

¹ Translator's note: What are known as 'centros concertados' in Spain (in the context of education) are usually referred to as 'charter schools', 'grant-aided schools' or 'voluntary-aided private schools', amongst others, or in more general, descriptive terms, as 'publicly-funded private schools', depending on the context or country. Depending on where the term is used, it often has implications of a varying degree of state or local government control over curriculum content, as well as finance.

and the cost incurred by families for state schools and publicly-funded private schools for the same period. Previous studies have shown that publicly-funded private schools have a lower cost for governments than state schools (Mourshed et al., 2010; Pérez-Díaz and Rodríguez, 2011). The most recent studies have shown that public expenditure per student on non-university education in publicly-funded private schools was 45% of the public expenditure per student in state schools in 2007 (Pérez-Díaz and Rodríguez, 2011) and 42% in 2008 (CECE, 2008). However, previous studies had not taken into account that part of the expenditure allocated to public education inures to the benefit of publicly-funded private education.

Families finance the education of their school-age members by both direct costs (fees), and indirect costs (travel, transport, etc.) (Calero et al., 2008). These costs vary significantly according to the ownership of the schools students attend (Villarroya, 2003). Whilst charging enrolment fees is not allowed, voluntary donations have been found to have been made, which in practice constitute payments by all of the families (Mancebón-Torrubia and Pérez-Ximénez de Embún, 2007; Villarroya, 2003). It has also been identified that other education expenses, such as clothing or school materials, are typically higher than those in state schools (Hidalgo, 2005).

The aim of this study is to offer an adjusted comparison of the economic implications of both types of schools for Spanish society. Its objectives are: 1) estimating the public expenditure per student in Infant, Primary and Secondary Education (compulsory, higher and training cycles), according to the type of school (state or publicly-funded private school), taking into account not only the financing through supply (resources granted directly to the schools), but also through demand (grants, financial assistance for the purchase of books and school materials, transport, etc.); 2) estimating the private ex-

pense (of families) per student according to the type of school, taking into account both direct and indirect costs; and 3) finding out the total spending (for both households and public authorities) per student according to the type of school.

METHOD

Different data sources of information on public and private spending on education were used for the year 2007. This year was chosen because, at the time of making the analysis, it was the last year for which comparative data were available on education expenditure by type of school by both families and public authorities. Public expenditure on Infant Education, Primary education and Secondary Education was analysed by using the Statistics on Public Expenditure on Education (*Estadística del Gasto Público en Educación* (EGPE)) 2007, and the Statistics for Education Grants and Scholarships (*Estadística de Becas y Ayudas al Estudio*) carried out annually by the Ministry for Education, Culture and Sports (Ministry of Education and Science, 2007, 2009). These statistics collected together all of the expenditure on education by the different public authorities (state, regional, and local governments).

The study of the private expenditure on education by families was conducted by using the Household Expenditure Survey (2007 EPF Pilot Module ('EGHE' in its abbreviated form in Spanish)) (*Encuesta sobre Gasto de los Hogares en Educación (Módulo Piloto de la EPF 2007)* (EGHE)). The total sample included 3,299 households. The estimations carried out were of students in the 2006/2007 school year, accounted for by the Statistics on non-University Education (*Estadística de las Enseñanzas no Universitarias*) conducted by the Ministry for Education, Culture and Sports (Table 1).

In the calculation of public expenditure, the amount for grants and scholarships, and

TABLE 1. Number of students by levels of education and type of school. Spain 2006/2007

	Total	State schools	Publicly-funded private schools	Percentage of total for publicly-funded private schools
Infant (first and second cycle) and Primary education	3,820,209	2,701,231	1,118,978	29.3
Secondary (Compulsory - ESO -, Vocational Training and Baccalaureate)	2,788,747	2,062,065	726,682	26.1
Total	6,608,956	4,763,296	1,845,660	27.9

Source: Authors' research based on the Statistics for non-University Education (*Estadística de las Enseñanzas no Universitarias*).

of extra-curricular activities in state and publicly-funded private schools, is redistributed. It does not include other items that are not relevant for the comparison (general administration, educational research and teacher training), since the purpose of the expenditure inures to the benefit of both types of education. The aggregates used regarding public expenditure on state schools are defined below:

$GPUA_p$. Public Expenditure per student on Infant Education, Primary Education and Secondary Education (including Vocational Training) in state schools.

$$GPUA_p = \frac{AE_p + SC_p + AEX_p + BTM_p + BCR_p + CS_p}{NA_p}$$

Where:

AE_p . Public expenditure on educational activities in Infant, Primary and Secondary Education: teaching and non-teaching staff salaries, running costs of goods and services, investments and psychological and pedagogical consultancy, both internal and external, in state schools.

SC_p . Public expenditure on services complementary to Infant, Primary and Secondary education: School meals, free transport and boarding are provided based on the student's place of residence (scholarships and grants are excluded from these) in state schools.

AEX_p . Public expenditure on extra-curricular and related activities for Infant, Primary and Secondary

Education: activities of an educational nature, although not strictly involving formal teaching (cultural, artistic, social, sports or recreational training courses) for school children, such as resources aimed at the promotion of sports in the school system. Expenses to be allocated to state schools.

BTM_p . Public expenditure on grants and scholarships for textbooks for Infant, Primary and Secondary students in state schools. The calculation has been made by dividing the volume of investment in these levels by the number of grant-holding students in state schools.

BCR_p . Public expenditure on grants and scholarships for transport, meals and boarding of Infant, Primary and Secondary students in state schools. The calculation has been made by dividing the volume of investment in these levels by the number of grant-holding students in state schools.

CS_p . Public expenditure on social security contributions for Infant, Primary and Secondary Education.

NA_p . Number of Infant, Primary and Secondary students enrolled in state schools.

The following items are not included: a) *general administration, educational research, compensatory education and teacher training and professional development*, given the impossibility of allocating the relevant part correctly to the two types of teaching, and to the assumption that these items are outside of the financing system for schools; b) *support ex-*

tra-curricular activities outside of the school, since they are beyond the scope of formal education and are optional for families; they are outside of the aims of the education system and so do not form part of the State's commitment to publicly-funded education; c) *special education, adult education, education abroad*, as it is assumed that these expenses are outside of the financing system for Infant, Primary and Secondary schooling, whose expenses are the subject of this study.

The public expenditure in publicly-funded private schools was calculated in the following way:

GPUA_c. Public Expenditure per student on Infant education, Primary Education and Secondary Education (including Vocational Training) in publicly-funded private schools.

$$GPUA_c = \frac{AE_c + AEX_c + BTM_c + BCR_c}{NA_c}$$

Where:

AE_c. Public expenditure on educational activities in Infant, Primary and Secondary Education: transfers aimed to finance teaching in publicly-funded private schools. For 2007 the types of expenses considered per school unit (classroom) were: teaching staff salaries, variable expenses and other expenses. These included those school expenses not derived from the teaching body, including payments to administrative and service personnel, and replacement of real investments (Law 2/2006).

AEX_c. Public expenses in extra-curricular and related activities in Infant, Primary and Secondary education: activities of an educational nature, but not strictly involving formal teaching ones (cultural, artistic, social, sports or recreational activities) aimed at students, such as resources aimed at the promotion of sports in the school system. Expenses allocated to publicly-funded private schools.

BTM_c. Public expenditure on scholarships and grants for textbooks for Infant, Primary and Secondary students in publicly-funded private schools. The calculation has been made by dividing the volume of investment in these levels by

the number of grant-holding students enrolled in publicly-funded private schools.

BCR_c. Public expenditure on scholarships and grants for transport, school meals and boarding of Infant, Primary and Secondary students enrolled in publicly-funded private schools. The calculation has been made by dividing the volume of investment in these levels by the number of students enrolled in publicly-funded private schools.

NA_c. Number of Infant, Primary and Secondary students enrolled in publicly-funded private schools.

The aggregates related to private spending (of families) on education (both for state school students and publicly-funded private school students) are expressed as follows:

GPR_{IP}. Private expense per student in Infant and Primary Education.

$$GPR_{IP} = CL_{IP} + AE_{IP} + SC_{IP} + BS_{IP}$$

GPR_s. Private expenditure per student in Secondary Education and Vocational Training.

$$GPR_s = CL_s + AE_s + SC_s + BS_s$$

Where:

CL. Private expenditure per student in taught classes: Including both classes taught by teachers (free of charge in the state and publicly-funded private system for the 2nd cycle infant, primary and compulsory secondary education levels) and voluntary supplementary teaching. This grouping was made because of the difficulty involved in differentiating between both items in informant households.

AE. Private expenditure per student on extra-curricular activities at the school (both of a supporting and leisure-time nature).

SC. Private expenditure per student on complementary services (school meals, boarding and transport).

BS. Private expenditure per student on goods and services (textbooks, uniforms, etc.).

GPR_T . Total expenditure per student in Infant, primary and Secondary Education.

$$GPR_T = \frac{GPR_{IP} \times NA_{IP} + GPR_S \times NA_S}{NA_C}$$

Where:

NA_{IP} . Number of students enrolled in infant and primary schools.

NA_S . Number of students enrolled in secondary schools.

NA_T . Total number of students.

RESULTS

In 2007 the total public expenditure on education reached 46,453 million euros, 4.41% of the GDP (Instituto de Evaluación, 2011b - *Assessment Institute*). The annual public expenditure in Spain in 2007 for Infant, Primary and Secondary education on teaching, supplementary services, extra-curricular and related activities, grants and social security contributions was 30,403.5 million euros (Table 2). Of these expenses, 16.2% (4,928.2 million euros) was used to finance publicly-funded private schools. The greater part of

this financing was used for teaching activities: by level, the percentage expenditure on publicly-funded private schooling in infant and primary levels was 19%, whilst in secondary, it was 16.1%.

From the data concerning public expenditure and the number of students, it is possible to estimate the annual public expenditure per student according to school ownership (Table 3). The public authorities spent almost 4,600 euros per student in non-university education in 2007. For students enrolled in state schools, the total reached 5,348 euros, whilst the expense per student in publicly-funded private schools was 2,670 euros. The public expenditure per student in publicly-funded private schools was 49.9% of the expenditure per student in state schools.

In 2007, the average annual private cost to families for a student enrolled in a state school was 473 euros, whilst this cost in a publicly-funded private school was 1,222 euros (Table 4). Therefore families that enrolled their children in state schools paid 750 euros a year per child less than those who enrolled their children in publicly-funded private

TABLE 2. Annual public expenditure on education (thousands of euros). Spain 2007

	Total	State schools	Publicly-funded private schools	Percentage of total for publicly-funded private schools
Teaching activities	26,634,036	21,953,348	4,680,688	17.6
Infant and Primary	13,491,921	10,928,418	2,563,502	19.0
Secondary	13,142,115	11,024,929	2,117,186	16.1
Supplementary Services	665,708	665,708	0	0.0
Extra-curricular and related activities	551,197	397,266	153,931	27.9
Grants and scholarships for textbooks and material	142,753	111,204	31,548	22.1
Scholarships and grants for transport, school meals and boarding	280,858	218,789	62,070	22.1
Social Security contributions	2,128,952	2,128,952	0	0
Total	30,403,504	25,475,267	4,928,237	16.2

Source: Authors' research based on the EGPE and Statistics on Study Grants and Scholarships for academic year 2006/2007. (*Estadística de Becas y Ayudas al estudio curso 2006/2007*).

TABLE 3. Annual public expenditure per student (euros). Spain 2007

	Total	State schools	Publicly-funded private schools	Percentage of publicly-funded private compared to state
Teaching activities	4,030	4,609	2,536	55.0
Infant (first and second cycle) and Primary education	3,532	4,046	2,291	56.6
Secondary (Compulsory - ESO -, Vocational Training and Baccalaureate)	4,713	5,347	2,913	54.5
Supplementary Services	101	140	0	0.0
Extra-curricular and related activities	83	83	83	100.0
Grants and scholarships for textbooks and material	22	23	17	73.2
Scholarships and grants for transport, school meals and boarding	42	46	34	73.2
Social Security contributions	322	447	0	0.0
Total	4,600	5,348	2,670	49.9

Source: Authors' research based on the EGPE and Statistics on Study Grants and Scholarships for academic year 2006/2007. (*Estadística de Becas y Ayudas al estudio curso 2006/2007*).

schools – 61.3% less. In infant and primary state and publicly-funded private schooling, private expenses were 538 euros and 1,375 euros per student, respectively. The private cost for a secondary school student was 387 euros in a state school and 987 euros in a publicly-funded private school. The expenses incurred by families on education in 2007 were 4,507.111 million euros, of which approximately half corresponded to publicly-funded private school expenses.

With the available data for both public and private expenses per student, it is possible to estimate the total annual expenditure on each type of school (Table 5). The total expenditure on educational activities, supplementary services, and extra-curricular and related activities per student in a state school was 5,824 euros. The total expenditure for each student in a publicly-funded private school was 3,892 euros, 33.1% less than the expenditure per student in a state school.

DISCUSSION AND CONCLUSION

The main objective of this study consisted in estimating the public expenditure per student for state and publicly-funded private schools, respectively, from a double perspective: a calculation based on supply (arrangements for public funding) and demand (grants and scholarships). This focus made possible a more accurate comparison of the budgetary demands each type of education involved for the public authorities. According to the Instituto de Evaluación (2011b), 10.7% of the public expenditure for 2007 went to publicly-funded private education through different direct transfers (arrangements for public funding). Previous studies quoted the public expenditure per student in a publicly-funded private school as being 45% of the public expenditure per student attending a state school in 2007 (Pérez-Díaz and Rodríguez, 2011) and 42% in 2008 (CECE, 2008). Our results show that public expenditure per student in publicly-funded

TABLE 4. Annual private expenditure on educational goods and services by levels of education, ownership and type of good or service purchased. Spain 2007

	Private expense per student (euros)				Total expense private Spain (thousands of euros) ¹		
	State	Publicly-funded private	Difference (Publicly-funded private-Public)	Percentage of state compared to publicly-funded private	State	Publicly-funded private	Total
Infant and primary							
Total	538	1,375	837	39,1	1,453,262	1,538,595	2,991,857
Classes taught in the school	39	391	352	10,0	105,348	437,520	542,868
Extra-curricular activities (support and leisure)	39	99	60	39,4	105,348	110,779	216,127
Supplementary services (transport, school meals and boarding)	142	328	186	43,3	383,575	367,025	750,600
Goods and services (textbooks, uniforms,...)	318	557	239	57,1	858,991	623,271	1,482,262
Secondary							
Total	387	987	600	39.2	798,019	717,235	1,515,254
Classes taught in the school	18	267	249	6.7	37,117	194,024	231,141
Extra-curricular activities (support and leisure)	7	37	30	18.9	14,434	26,887	41,322
Supplementary services (transport, school meals and boarding)	29	144	115	20.1	59,800	104,642	164,442
Goods and services (textbooks, uniforms,...)	333	539	206	61.8	686,668	391,682	1,078,349
Total expense	473	1,222	750	38.7	2,251,281	2,255,830	4,507,111

¹ Total expense: Expense per student x number of students in each of the levels of education.

Source: Authors' research based on the EGHE and EGPE.

private schools at infant, primary and secondary education levels in 2007 represented 49.9% of the expenditure per student in state schools, and that the percentage of public expenditure on publicly-funded private schooling was 16.2%. The variation between our figures and previous ones is due, firstly, to the fact that this study includes an estimation of the cost of

grants and extra-curricular activities for both types of schools, whilst the previous estimations allocated these items to state schools as a whole or did not take them into consideration; and secondly, our calculations did not allocate to state schools any general system costs that remained stable regardless of the type of financing of schools, such as costs re-

TABLE 5. Expense per student according to educational activity, ownership of school and type of finance (euros), Spain 2007

	Public expense per student			Private expense per student			Total expense (public + private) per student		
	State	Publicly-funded private	Percentage of publicly-funded private compared to state	State	Publicly-funded private	Percentage of total for publicly-funded private compared to state	State	Publicly-funded private	Percentage of publicly-funded private compared to state
Teaching activities	4,609	2,536	55.0	30	352	8.5	4,639	2,888	62.3
Infant and primary	4,046	2,291	56.6	39	391	10.0	4,085	2,682	65.7
Secondary	5,347	2,913	54.5	18	267	6.7	5,365	3,180	59.3
Transport, school meals and boarding	186	34	18.1	93	256	36.4	279	289	103.7
Extra-curricular activities and support	83	83	100.0	25	65	38.7	109	148	136.6
Textbooks and material	23	17	73.2	324	550	59.0	348	567	163.0
Social security contributions	447	0	0.0	0	0	0.0	447	0	0.0
TOTAL	5,348	2,670	49.9	473	1,222	38.7	5,821	3,892	66.9

Source: Authors' research based on EGPE, EGHE and Statistics on Study Grants and Scholarships for the academic year 2006/2007 (*Estadística de Becas y Ayudas al estudio curso 2006/2007*).

lated to general administration, educational research and teacher training.

The greater public cost of state schools can be partly explained by the different costs in personnel (Uriel et al., 1997) and, specifically, by the working conditions of teachers. Firstly, teacher salaries in private schools are lower than in state schools (Fernández Enguita, 2008). Secondly, the teacher/student ratio is lower in state schools: in 2006-2007 the number of students per teacher was 10.6 in state schools and 14.2 in private and publicly-funded private schools (aggregated data), 25% lower (Ministry for Education and Science, 2008). Thirdly, teachers have more teaching hours in publicly-funded private education (Cañadell, 2008). Another relevant reason that helps explain the differences in public expenditure according to type of school ownership, is that state schools also cover the general needs of rural areas (Gurrutxaga and Unceta, 2010), in which the cost per student is much higher (Pérez-Díaz and Rodríguez, 2011).

The second objective of this study was to find out the families education costs according to the type of school the school-age family members attended. Families paid an average of 1,222 euros a year per student in publicly-funded private schools, 750 euros more than in state schools. These differences, on the one hand, cause the families that enrol their children in publicly-funded private schools to make an additional economic effort to meet the costs of education and, on the other hand, promote a concentration of students from families with higher spending power in publicly-funded private schools, thus generating inequality in education (Fernández Llera and Muñoz Pérez, 2012). Besides, this study has not found any evidence that the concentration of students from a lower socio-economic background is the cause of the greater public expenditure on state schools, given that our calculations did not include the items for special education and compensatory education and, despite this, significant differences still exist. Thirdly,

this study intended to calculate the total expenditure per student for both types of education. The aggregate cost of education for the public authorities and families is 33.1% greater if the student is enrolled in a state school than in a publicly-funded private school. Previous studies have calculated that the average costs per student were 11.7% higher in the state-owned system than in the publicly-funded private system in the 1994-1995 academic year (Villarroya, 2000). The difference between this figure (costs) and our results (expenses) may be due to two reasons: on the one hand, the difference in costs between each type of education may have increased between 1995 and 2007, and on the other hand, some costs may not be borne by either families or the government (for example, they may be covered by a company or by the Catholic Church), and therefore they were not included in our analysis.

This study has limitations that should be taken into account when interpreting the results. Firstly, there are significant gaps in the information on public expenditure when broken down by type of education. Amongst these, no data are known about the public expenditure used for the construction of buildings that were subsequently used by publicly-funded private schools. These investment costs in turn involve a significant increase in financing costs (debt repayments, etc.) (Uriel et al. 1997) that were erroneously attributed exclusively to state school expenditure. Other data, whilst of small consequence, are not broken down appropriately; for example, external psychological and pedagogical consultants, as well as school transport routes have been charged here to expenditure on state schools, because the specific item is not known, nor is it known which part of their service includes students in publicly-funded private schools. Additionally, with the available data, it is not possible to know if the Catholic Church gives part of the public money that it receives from various sources (for example, through income tax) to the publicly-funded

private schools that they manage; and vice versa, if a part of the money that publicly-funded private schools receive is used for other purposes. Therefore there is work to be done in terms of the availability of data broken down by school ownership. It would also be desirable to provide empirical evidence on the causes of educational spending on each type of schools, and specific evidence of teachers' working conditions, the geographic distribution of schools by ownership type, as well as the cost of education in urban and rural areas. Finally, and given the limits of this paper, no analysis has been made of the cost structure of non-publicly-funded private schools. However, it would be interesting for future studies to include this information and compare it with expenditure on state and publicly-funded private schools.

This study offers, despite its limitations, new and relevant information on the economic implications of the financing of state and publicly-funded private schools in Spain. The wide scope of publicly-funded private education results in public expenditure reduction and an increase in the economic efforts required to be made by families. Consequently, significant economic differences exist in access to education which generate educational inequalities and require corrective measures in the public sphere. Likewise, the wide scope of publicly-funded private schools, as they currently stand, entails a decrease in equality, due to the concentration of students according to family background, different working conditions for education professionals (more direct teaching hours, more students per class and lower salary), opaque access to the teaching profession and, generally, a commitment to an educational model characterised by religious confessional ideology since, in the 2006-7 academic year, 74% of students in publicly-funded private schools were enrolled in Catholic schools (General Council for Catholic Education, 2008 - *Consejo General de la Educación Católica, 2008*). From the point of view of public

education policy, the question lies, firstly, in determining what the criteria should be for distributing public money among schools according to their ownership, and secondly, in defining and adequately articulating the publicly-funded private model that is intended to be achieved.

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Gasto público y de las familias en educación en España: diferencias entre centros públicos y concertados

Family and State Spending on Education in Spain: Differences between Public and Publicly-Funded Private Educational Institutions

Jesús Rogero-García y Mario Andrés-Candelas

Palabras clave

- Desigualdad educativa
- Escuelas públicas
- Escuelas concertadas
- Gasto público
- Políticas educativas
- Relación familia-escuela

Key words

- Educational Inequalities
- Public Schools
- Grant-Aided Private Schools
- Government Spending
- Educational Policy
- Family School Relationship

Resumen

Este trabajo realiza una estimación del gasto por alumno en educación infantil, primaria y secundaria de las administraciones públicas y las familias, en función de la titularidad del centro educativo. Se usan datos de 2007 de la Encuesta sobre Gasto de los Hogares en Educación y de la Estadística del Gasto Público en Educación. El gasto público anual por estudiante matriculado en centros concertados fue un 49,9% respecto al gasto en centros públicos. El gasto anual de las familias en centros públicos fue un 38,7% del gasto en centros concertados. El gasto total por estudiante en centros concertados constituyó el 66,9% del gasto en centros públicos. La escolarización en centros concertados supone una reducción del gasto público, así como el trasvase de parte de los costes educativos a las familias.

Abstract

This paper estimates public and private (household) spending per student on education in early childhood, primary and secondary education in Spain, in public educational institutions and in publicly-funded private educational institutions. We use 2007 data from the Household Spending on Education Survey and the Statistics on Public Spending on Education. Public expenditure on education per student in publicly-funded private educational institutions was 49.9% that spent on public educational institutions. The cost assumed by families in public institutions was 38.7% that spent on publicly-funded private educational institutions. The total expenditure per student on publicly-funded private educational institutions was 66.9% that spent on public educational institutions. Enrollment in publicly-funded private educational institutions implies a reduction of public expenditure on education and the transfer of part of those educational expenses to families.

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INTRODUCCIÓN

En España hay tres tipos de centros educativos no universitarios según el origen principal de los fondos que los sostienen y su titularidad: centros públicos (de titularidad pública y sostenidos con fondos públicos), centros privados (de titularidad privada y sostenidos con fondos privados) y centros privados-concertados (de titularidad privada y sostenidos con fondos públicos —en adelante, centros concertados—). Estos últimos son de gestión privada y reciben financiación pública a través del sistema de conciertos, a cambio de cumplir una serie de condiciones. Entre ellas, deben cubrir una necesidad de escolarización demandada por parte de la población, ser gratuitos (cualquier actividad en su seno no podrá tener ánimo de lucro y las actividades que signifiquen pago por parte de las familias deberán ser aprobadas por las administraciones educativas), tener las mismas condiciones para la admisión de alumnos que los centros públicos y disponer las actividades confesionales con carácter voluntario (Leyes 8/1985 y 2/2006).

Tanto la regulación como la proporción de centros públicos y concertados en el conjunto del sistema educativo no universitario han sido objeto de un permanente debate desde la regulación de su coexistencia a través de la Ley Orgánica del Derecho a la Educación (LODE) (Pérez-Díaz *et al.*, 2001; Fernández Enguita, 2008). Uno de los principales aspectos del debate se refiere al nivel de eficiencia de unos y otros centros, es decir, a la relación entre sus logros educativos (por ejemplo, medidos a través del rendimiento académico de los alumnos o de la equidad de sus resultados) y los recursos invertidos (por ejemplo, medidos a través del coste económico de los centros).

La mayoría de las investigaciones realizadas en España sobre resultados académicos según titularidad de centro concluyen que, una vez controladas las variables relaciona-

das con el origen socioeconómico de los alumnos, no existen diferencias significativas (Anghel y Cabrales, 2010; Gutiérrez-Domech y Adsera, 2012; Peleman y Santín, 2011; Calero y Escardíbul, 2007; Cordero Ferrera *et al.*, 2012). Por su parte, Mancebón-Torrubia *et al.* (2012) encuentran que las escuelas públicas obtienen mejores resultados, mientras que Doncel *et al.* (2012) concluyen que los centros concertados obtienen mejores resultados que los públicos. Los resultados académicos están relacionados con la distribución del alumnado. Al respecto, se ha indicado que los alumnos cuyas familias disponen de mayores ingresos, profesiones de mayor cualificación y niveles de estudios más altos se concentran mayoritariamente en centros concertados (Escardíbul y Villarroya, 2009; Mancebón-Torrubia y Pérez-Ximénez de Embún, 2010; Instituto de Evaluación, 2011a). Esta diferenciación del tipo de alumno tiene su origen, en parte, en los diferentes mecanismos de selección practicados por la escuela concertada (Mancebón-Torrubia y Pérez-Ximénez de Embún, 2007; Bonal, 2002; Villarroya, 2000; Fernández Enguita *et al.*, 2010).

A diferencia de las investigaciones que comparan el rendimiento académico de las escuelas públicas y las privadas concertadas, los trabajos que abordan el gasto público dedicado a unos y otros centros son escasos y, cuando se ofrecen datos, suelen ser excesivamente generales o poco precisos. Asimismo, y a pesar de que existen valiosas aportaciones que analizan pormenorizadamente los costes de la educación y su financiación (por ejemplo, Uriel *et al.*, 1997 y Pérez-Díaz y Rodríguez, 2003), no se ha encontrado ningún estudio que ofrezca una visión completa y comparable del gasto público y de las familias en centros públicos y concertados para un mismo periodo. Las investigaciones previas han observado que los centros concertados suponen un menor coste para las administraciones públicas que los centros públicos (Mourshed *et al.*, 2010;

Pérez-Díaz y Rodríguez, 2011). Los estudios más recientes muestran que el gasto público por alumno de enseñanzas no universitarias en los centros concertados era un 45% del gasto público por alumno en los centros públicos en 2007 (Pérez-Díaz y Rodríguez, 2011) y un 42% en 2008 (CECE, 2008). No obstante, los estudios precedentes no tienen en cuenta que una parte del gasto imputado a la educación pública revierte en la educación privada concertada.

Por su parte, las familias financian la educación de sus miembros en edad escolar a través de gastos en costes directos (matrículas) e indirectos (desplazamiento, transporte, etc.) (Calero *et al.*, 2008). Estos gastos varían significativamente según la titularidad de los centros a los que acuden los alumnos (Villarroya, 2003). Aunque el cobro de matrículas no está permitido, se ha observado que existen donaciones voluntarias que en la práctica son cuotas pagadas por todas las familias (Mancebón-Torrubia y Pérez-Ximénez de Embún, 2007; Villarroya, 2003), y que otros gastos educativos, como la indumentaria o el material escolar, suelen ser mayores que en los centros públicos (Hidalgo, 2005).

Este trabajo tiene como finalidad ofrecer una comparación ajustada sobre las implicaciones económicas de ambos tipos de centro para la sociedad española. Sus objetivos son: 1) estimar el gasto público por estudiante de Educación Infantil, Educación Primaria y Educación Secundaria (obligatoria, superior y ciclos formativos), según el tipo de centro (público o concertado), teniendo en cuenta no solo la financiación a través de la oferta (recursos otorgados directamente a los centros educativos), sino también a través de la demanda (becas, subvenciones a la compra de libros y material escolar, transporte, etc.); 2) estimar el gasto privado (de las familias) por estudiante según tipo de centro, teniendo en cuenta los costes directos e indirectos; y 3) conocer el gasto total (para los hogares y las ad-

ministraciones públicas) por estudiante según tipo de centro.

MÉTODO

Se utilizan diferentes fuentes sobre financiación pública y privada de la educación en el año 2007. Se ha escogido ese año porque, en el momento de elaborar este análisis, es el último sobre el que se cuenta con datos comparables sobre gasto en educación según tipo de centro por parte de las familias y de las administraciones públicas. El gasto público en Educación Infantil, Educación Primaria y Educación Secundaria se analiza a través de la *Estadística del Gasto Público en Educación* (EGPE) del año 2007 y de la *Estadística de Becas y Ayudas al Estudio*, elaboradas anualmente por el Ministerio de Educación, Cultura y Deporte (Ministerio de Educación y Ciencia, 2007, 2009). Esta estadística recoge todo el gasto educativo ejecutado por las diferentes administraciones públicas (estatales, autonómicas o locales).

El estudio del gasto privado de las familias en educación se realiza a partir de la *Encuesta sobre Gasto de los Hogares en Educación (Módulo Piloto de la EPF 2007)* (EGHE) (Instituto Nacional de Estadística, 2009). Su muestra es de 3.299 hogares. Las estimaciones se realizan a partir del número de alumnos correspondiente al curso 2006/2007 contabilizado por la *Estadística de las Enseñanzas no Universitarias*, elaborada por el Ministerio de Educación, Cultura y Deporte (tabla 1).

El cálculo del gasto público redistribuye el importe destinado a becas y ayudas, y a actividades extraescolares entre la escuela pública y privada concertada, y no incluye otras partidas que no son pertinentes en la comparación (administración general, investigación educativa y formación del profesorado), puesto que la finalidad del gasto revierte en ambos tipos de educación. A continuación se definen los agregados utili-

TABLA 1. Número de estudiantes según nivel de formación y titularidad del centro. España 2006/2007

	Total	Pública	Privada concertada	Porcentaje concertada sobre total
Infantil (primer y segundo ciclo) y primaria	3.820.209	2.701.231	1.118.978	29,3
Secundaria (ESO, FP y Bachillerato)	2.788.747	2.062.065	726.682	26,1
Total	6.608.956	4.763.296	1.845.660	27,9

Fuente: Elaboración propia a partir de la Estadística de las Enseñanzas no Universitarias.

zados respecto al gasto público en centros públicos:

$GPUA_p$. Gasto público por alumno en Educación Infantil, Primaria y Secundaria (incluye Formación Profesional) en centros públicos.

$$GPUA_p = \frac{AE_p + SC_p + AEX_p + BTM_p + BCR_p + CS_p}{NA_p}$$

Donde:

AE_p . Gasto público en actividades de la enseñanza en Educación Infantil, Primaria y Secundaria: remuneraciones del personal docente y no docente, gastos corrientes en bienes y servicios, inversiones y gabinetes psicopedagógicos internos y externos a los centros, en centros públicos.

SC_p . Gasto público en servicios complementarios correspondientes a Educación Infantil, Primaria y Secundaria: servicios de comedor, transporte e internado que se prestan gratuitamente por el lugar de residencia del alumno (no se incluyen becas y ayudas en estos conceptos), en centros públicos.

AEX_p . Gasto público en actividades extraescolares y anexas correspondientes a Educación Infantil, Primaria y Secundaria: actividades de naturaleza formativa, aunque no estrictamente docente (cursos de formación cultural, artística, social, deportiva o recreativa) destinadas a escolares, así como las dotaciones destinadas al impulso de la práctica deportiva en el sistema escolar. Gasto imputable a centros públicos.

BTM_p . Gasto público en becas y ayudas en libros de texto y material de alumnos de Educación Infantil, Primaria y Secundaria matriculados en cen-

tros públicos. Para su estimación se ha dividido el volumen de inversión en estos niveles por el número de becarios matriculados en centros públicos.

BCR_p . Gasto público en becas y ayudas en transporte, comedor y residencia de alumnos de Educación Infantil, Primaria y Secundaria matriculados en centros públicos. Para su estimación se ha dividido el volumen de inversión en estos niveles por el número de becarios matriculados en centros públicos.

CS_p . Gasto público en cotizaciones sociales imputable a Educación Infantil, Primaria y Secundaria.

NA_p . Número de alumnos de Educación Infantil, Primaria y Secundaria matriculados en centros públicos.

No se incluyen las siguientes partidas: a) *administración general, investigación educativa, educación compensatoria y formación y perfeccionamiento del profesorado*, debido a la imposibilidad de imputar la parte correspondiente a los dos tipos de enseñanza, y a que se asume que son partidas independientes al sistema de financiación de los centros educativos; b) *las actividades extraescolares de apoyo fuera del centro*, dado que escapan a la formación reglada y quedan a elección de las familias; son actividades externas a los objetivos del sistema educativo y, por tanto, no forman parte de los compromisos del Estado con la educación financiada públicamente; c) *educación especial, educación de adultos y educación en el exterior*, al asumir que estos gastos son independientes del sis-

tema de financiación de los centros educativos de Educación Infantil, Educación Primaria y Educación Secundaria, cuyos gastos son objeto de esta investigación.

El gasto público en centros concertados se ha calculado del siguiente modo:

GPA_{c} . Gasto público por alumno en Educación Infantil, Primaria y Secundaria (incluye Formación Profesional) en centros concertados.

$$GPA_{c} = \frac{AE_{c} + AEX_{c} + BTM_{c} + BCR_{c}}{NA_{c}}$$

Donde:

AE_{c} . Gasto público en actividades de la enseñanza en Educación Infantil, Primaria y Secundaria: transferencias destinadas a financiar la enseñanza en centros concertados (conciertos). Para el año 2007, los tipos de gasto considerados por unidad escolar (aula) concertada eran: salarios del personal docente, gastos variables y otros gastos. Aquí se incluyen aquellos gastos del centro no derivados del coste del profesorado, incluidas retribuciones de personal de administración y servicios, y reposición de inversiones reales (Ley 2/2006).

AEX_{c} . Gasto público en actividades extraescolares y anexas correspondientes a Educación Infantil, Primaria y Secundaria: actividades de naturaleza formativa, aunque no estrictamente docente (cursos de formación cultural, artística, social, deportiva o recreativa) destinadas a escolares, así como las dotaciones destinadas al impulso de la práctica deportiva en el sistema escolar. Gasto imputable a centros concertados.

BTM_{c} . Gasto público en becas y ayudas en libros de texto y material de alumnos de Educación Infantil, Primaria y Secundaria matriculados en centros concertados. Para su estimación se ha dividido el volumen de inversión en estos niveles por el número de becarios matriculados en centros concertados.

BCR_{c} . Gasto público en becas y ayudas en transporte, comedor y residencia de alumnos de Educación Infantil, Primaria y Secundaria matriculados en centros concertados. Para su estimación

se ha dividido el volumen de inversión en estos niveles por el número de becarios matriculados en centros concertados.

NA_{c} . Número de alumnos de Educación Infantil, Primaria y Secundaria matriculados en centros concertados.

Los agregados respecto al gasto privado (de las familias) en educación (tanto para alumnos de centros públicos como de centros concertados) se expresan del siguiente modo:

GPR_{IP} . Gasto privado por alumno en Educación Infantil y Educación Primaria.

$$GPR_{IP} = CL_{IP} + AE_{IP} + SC_{IP} + BS_{IP}$$

GPR_{S} . Gasto privado por alumno en Educación Secundaria y Formación Profesional.

$$GPR_{S} = CL_{S} + AE_{S} + SC_{S} + BS_{S}$$

Donde:

CL . Gasto privado por alumno en clases lectivas: Incluye tanto las clases docentes (de carácter gratuito en el sistema público y concertado para los niveles de infantil 2º ciclo de primaria y Enseñanza Secundaria Obligatoria) como las enseñanzas complementarias de carácter voluntario. Se realizó esta agrupación debido a la dificultad que suponía, para los hogares informantes, diferenciar ambos conceptos.

AE . Gasto privado por alumno en actividades extraescolares (de apoyo y ocio) en el centro.

SC . Gasto privado por alumno en servicios complementarios (comedor, residencia y transporte).

BS . Gasto privado por alumno en bienes y servicios (libros de texto, uniformes, etc.).

GPR_{T} . Gasto privado total por alumno en Educación Infantil, Primaria y Secundaria.

$$GPR_{T} = \frac{GPR_{IP} \times NA_{IP} + GPR_{S} \times NA_{S}}{NA_{c}}$$

Donde:

NA_{IP} . Número de alumnos matriculados en centros de infantil y primaria.

NA_S . Número de alumnos matriculados en centros de secundaria.

NA_{IT} Número total de alumnos.

RESULTADOS

En 2007, el gasto público total en educación ascendió a 46.453 millones de euros, el 4,41% del Producto Interior Bruto (Instituto de Evaluación, 2011b). El gasto público anual en España en 2007 correspondiente a educación infantil, primaria y secundaria en actividades de enseñanza, servicios complementarios, actividades extraescolares y anexas, becas y cotizaciones sociales fue de 30.403,5 millones de euros (tabla 2). De estos gastos, el 16,2% (4.928,2 millones de euros) fue destinado a financiar la educación privada concertada. La mayor parte de esta financiación se destinó a actividades de la enseñanza: por niveles, el porcentaje de gasto en la escuela concertada en educación infantil y primaria fue del 19%, mientras que en secundaria fue del 16,1%.

A partir de los datos sobre gasto público y número de estudiantes es posible estimar el gasto público anual por estudiante según titularidad del centro (tabla 3). Las administraciones públicas gastaron en 2007 aproxi-

madamente 4.600 euros por estudiante en las enseñanzas no universitarias. Entre los estudiantes matriculados en centros públicos, el gasto ascendió a 5.348 euros, mientras que el gasto por estudiante de los centros concertados fue de 2.670 euros. Así, el gasto público por estudiante de la escuela concertada fue un 49,9% del gasto por estudiante de la escuela pública.

En 2007, el gasto privado familiar promedio anual de un estudiante matriculado en un centro público fue de 473 euros, mientras que dicho gasto en un centro concertado ascendió a 1.222 euros (tabla 4). De este modo, las familias que matriculan a sus hijos en centros públicos pagan 750 euros anuales menos por hijo que aquellas que los matriculan en centros concertados —un 61,3% menos—. En infantil y primaria, los gastos privados se situaron en 538 y 1.375 euros por estudiante de centro público y concertado, respectivamente. El gasto privado de un estudiante de secundaria fue de 387 euros en centros públicos y de 987 euros en centros concertados. El gasto de las familias en educación en el año 2007 ascendió a 4.507,111 millones de euros, de los que aproximadamente la mitad correspondió a gastos en educación concertada.

TABLA 2. Gasto público anual en educación (miles de euros). España 2007

	Total	Pública	Privada concertada	Porcentaje concertada sobre total
Actividades de enseñanza	26.634.036	21.953.348	4.680.688	17,6
Infantil y primaria	13.491.921	10.928.418	2.563.502	19,0
Secundaria	13.142.115	11.024.929	2.117.186	16,1
Servicios complementarios	665.708	665.708	0	0,0
Actividades extraescolares y anexas	551.197	397.266	153.931	27,9
Becas y ayudas en libros de texto y material	142.753	111.204	31.548	22,1
Becas y ayudas en transporte, comedor y residencia	280.858	218.789	62.070	22,1
Cotizaciones sociales	2.128.952	2.128.952	0	0
Total	30.403.504	25.475.267	4.928.237	16,2

Fuente: Elaboración propia a partir de la EGPE y Estadística de Becas y Ayudas al estudio curso 2006/2007.

TABLA 3. Gasto público anual por estudiante según actividad educativa y titularidad del centro (euros). España 2007

	Total	Pública	Privada concertada	Porcentaje concertada sobre pública
Actividades de enseñanza	4.030	4.609	2.536	55,0
Infantil (primer y segundo ciclo) y primaria	3.532	4.046	2.291	56,6
Secundaria (ESO, FP y Bachillerato)	4.713	5.347	2.913	54,5
Servicios complementarios	101	140	0	0,0
Actividades extraescolares y anexas	83	83	83	100,0
Becas y ayudas en libros de texto y material	22	23	17	73,2
Becas y ayudas en transporte, comedor y residencia	42	46	34	73,2
Cotizaciones sociales	322	447	0	0,0
Total	4.600	5.348	2.670	49,9

Fuente: Elaboración propia a partir de la EGPE y Estadística de Becas y Ayudas al estudio curso 2006/2007.

Con los datos de gasto público y privado por estudiante es posible estimar el gasto total anual en cada tipo de centro (tabla 5). El gasto total por cada estudiante de la escuela pública en actividades de enseñanza, servicios complementarios y actividades extraescolares y anexas asciende a 5.821 euros. El gasto total por cada estudiante de un centro concertado es de 3.892 euros, un 33,1% menor que el gasto de un estudiante en un centro público.

DISCUSIÓN Y CONCLUSIONES

El primer objetivo de este trabajo consistía en estimar el gasto público por estudiante en la escuela pública y en la escuela privada concertada, desde una doble perspectiva: el cálculo a través de la oferta (concertados) y a través de la demanda (becas y otras ayudas). Este enfoque hace posible efectuar una comparación más ajustada del esfuerzo presupuestario que suponen ambos tipos de enseñanza para las administraciones públicas. De acuerdo con el Instituto de Evaluación (2011b), el 10,7% del gasto público de 2007 fue destinado a la educación concertada a

través de transferencias directas (concertados). Asimismo, estudios previos cifran el gasto público por alumno en la escuela concertada en un 45% del gasto por alumno en la escuela pública en 2007 (Pérez-Díaz y Rodríguez, 2011) y en un 42% en 2008 (CECE, 2008). Nuestros resultados indican que el gasto público por alumno en centros concertados de educación infantil, primaria y secundaria constituyó en 2007 un 49,9% en relación con el gasto público por alumno en centros públicos, y que el porcentaje de gasto público dedicado a la enseñanza privada concertada fue del 16,2%. La variación de nuestras cifras respecto a las precedentes se debe, primero, a que este trabajo incorpora una estimación del gasto de becas y de actividades extraescolares para ambos tipos de centros, mientras que las estimaciones anteriores imputan estas partidas a los centros públicos en su totalidad o no las toman en consideración; y segundo, a que nuestro cálculo no imputa a los centros públicos gastos generales del sistema que, a priori, permanecerían estables independientemente del tipo de financiación de los centros educativos, como la administración general, la investigación educativa y la formación del profesorado.

TABLA 4. Gasto privado anual en bienes y servicios educativos por niveles de formación, titularidad y tipo de bien o servicio adquirido. España 2007

	Gasto privado por estudiante (euros)				Gasto privado total en España (miles de euros) ¹		
	Pública	Privada concertada	Diferencia (concertada-pública)	Porcentaje pública sobre concertada	Pública	Privada concertada	Total
Infantil y Primaria							
Total	538	1.375	837	39,1	1.453.262	1.538.595	2.991.857
Clases lectivas	39	391	352	10,0	105.348	437.520	542.868
Actividades extraescolares (de apoyo y ocio) en el centro	39	99	60	39,4	105.348	110.779	216.127
Servicios complementarios (comedor, residencia y transporte)	142	328	186	43,3	383.575	367.025	750.600
Bienes y servicios (libros de texto, uniformes...)	318	557	239	57,1	858.991	623.271	1.482.262
Secundaria							
Total	387	987	600	39,2	798.019	717.235	1.515.254
Clases lectivas	18	267	249	6,7	37.117	194.024	231.141
Actividades extraescolares (de apoyo y ocio) en el centro	7	37	30	18,9	14.434	26.887	41.322
Servicios complementarios (comedor, residencia y transporte)	29	144	115	20,1	59.800	104.642	164.442
Bienes y servicios (libros de texto, uniformes...)	333	539	206	61,8	686.668	391.682	1.078.349
Gasto total	473	1.222	750	38,7	2.251.281	2.255.830	4.507.111

¹ Gasto total: gasto por estudiante × número de estudiantes en cada uno de los niveles de formación.

Fuente: Elaboración propia a partir de la EGHE y EGPE.

El mayor gasto público de los centros públicos se puede explicar, en parte, por los diferentes gastos de personal (Uriel *et al.*, 1997) y, en concreto, por las condiciones de trabajo de los docentes. En primer lugar, los salarios de los profesores de la enseñanza privada son más bajos que los de la pública (Fernández Enguita, 2008). En

segundo lugar, la ratio profesor/alumno es más baja en la educación pública: en 2006-2007 el número de alumnos por profesor fue de 10,6 en centros públicos y 14,2 en centros privados y concertados (dato agregado), un 25% menor (Ministerio de Educación y Ciencia, 2008). En tercer lugar, se ha observado que la dedicación horaria a cla-

TABLA 5. Gasto por estudiante según actividad educativa, titularidad del centro y tipo de financiación (euros), España 2007

	Gasto público por estudiante			Gasto privado por estudiante			Gasto total (público + privado) por estudiante		
	Pública	Privada concertada	Porcentaje concertada sobre pública	Pública	Privada concertada	Porcentaje pública sobre concertada	Pública	Privada concertada	Porcentaje concertada sobre pública
Actividades de enseñanza	4.609	2.536	55,0	30	352	8,5	4.639	2.888	62,3
Infantil y primaria	4.046	2.291	56,6	39	391	10,0	4.085	2.682	65,7
Secundaria	5.347	2.913	54,5	18	267	6,7	5.365	3.180	59,3
Transporte, comedor y residencia	186	34	18,1	93	256	36,4	279	289	103,7
Actividades extraescolares y anexas	83	83	100,0	25	65	38,7	109	148	136,6
Libros de texto y material	23	17	73,2	324	550	59,0	348	567	163,0
Cotizaciones sociales	447	0	0,0	0	0	0,0	447	0	0,0
TOTAL	5.348	2.670	49,9	473	1.222	38,7	5.821	3.892	66,9

Fuente: Elaboración propia a partir de la EGPE, EGHE y Estadística de Becas y Ayudas al estudio curso 2006/2007.

ses lectivas de los profesores de la enseñanza concertada es más elevada (Cañadell, 2008). Otra razón relevante que explica las diferencias en el gasto público según titularidad de centro es que la enseñanza pública cubre las necesidades de las zonas rurales de forma generalizada (Gurrutxaga y Unceta, 2010), en las que el coste por alumno es mucho más elevado (Pérez-Díaz y Rodríguez, 2011).

El segundo objetivo de este trabajo consistía en conocer los gastos de las familias en educación según el centro al que acuden los escolares. Las familias pagan un promedio de 1.222 euros anuales al año por alumno en los centros concertados, 750 euros más que en los centros públicos. Estas diferencias, por un lado, provocan que las familias que matriculan a sus hijos en centros concertados realicen un esfuerzo económico extra para sufragar los gastos educativos y, por otro, promueven la concentración de alumnos de familias con mayor poder adquisitivo en centros concertados y, consiguientemente, son generadoras de inequidad educativa (Fernández Llera y Muñoz Pérez, 2012). Por otro lado, este trabajo no encuentra evidencias de que la concentración de alumnos de condición socioeconómica más baja sea la causa del mayor gasto público en centros públicos, puesto que nuestra estimación no ha integrado las partidas destinadas a educación especial y educación compensatoria y, a pesar de ello, persisten diferencias significativas.

En tercer lugar, este artículo pretendía calcular el gasto total por estudiante para ambos tipos de enseñanza. El gasto educativo agregado de las administraciones públicas y de las familias es un 33,1% mayor si el alumno se matricula en un centro público que si lo hace en un centro concertado. Estudios previos realizados han calculado que los costes medios por alumno eran un 11,7% superiores en el sistema público que en el sistema concertado en el curso 1994-1995 (Villarroya, 2000). La dife-

rencia entre esta cifra (costes) y nuestros resultados (gastos) puede deberse a dos causas: por un lado, la diferencia en los costes de ambos tipos de enseñanza podría haber aumentado entre 1995 y 2007 y, por otro, es posible que haya costes que no son sufragados ni por las familias ni por las administraciones públicas (por ejemplo, a través de empresas o de la Iglesia), y que por tanto no estén integrados en nuestro análisis.

Este estudio contiene limitaciones que deben tenerse en cuenta a la hora de interpretar los resultados. En primer lugar, existen importantes carencias en la información sobre gasto público desagregado según tipo de enseñanza. Entre ellas, no se conoce el gasto educativo público en construcción de edificios que, ulteriormente, son utilizados por colegios concertados. Estos gastos de inversión implican, a su vez, un aumento significativo en los gastos de financiación (amortizaciones de deuda, etc.) (Uriel *et al.*, 1997) que se atribuyen erróneamente de manera exclusiva al gasto en centros públicos. Otros datos, aunque de menor cuantía, tampoco se desagregan convenientemente; por ejemplo, los gabinetes psicopedagógicos externos a los centros o las rutas de transporte escolares se han imputado aquí al gasto en centros públicos porque no se conoce la partida específica y tampoco qué parte de su servicio se desarrolla con alumnos de centros concertados. Por otro lado, con los datos disponibles, no es posible saber si la Iglesia destina parte del dinero público que recibe por otras vías (por ejemplo, a través del IRPF) a los centros concertados que gestiona; o viceversa, si una parte del dinero que recibe vía conciertos la destina a otros fines. Queda, por tanto, camino por recorrer en cuanto a la disponibilidad de información desagregada por titularidad de centro se refiere. Asimismo, es conveniente aportar evidencia empírica sobre las causas del gasto educativo en unos y otros centros, y en concreto

sobre las condiciones laborales de los docentes, la distribución geográfica según titularidad de centro y el coste de la educación en áreas urbanas y rurales. Finalmente, y debido a los límites de este artículo, no se ha realizado aquí un análisis de la estructura de gasto en los centros privados no concertados. No obstante, sería interesante que futuras investigaciones incorporaran esta información y la compararan con el gasto en centros públicos y concertados.

Este artículo ofrece, a pesar de sus limitaciones, información novedosa y relevante sobre las implicaciones económicas de la financiación de centros públicos y centros concertados en España. La extensión de la educación concertada implica, a priori, una reducción del gasto público y un aumento del esfuerzo económico que deben hacer las familias. Existen, por tanto, diferencias económicas significativas en el acceso a la educación que son generadoras de desigualdades educativas y que requieren medidas correctoras desde el ámbito público. Asimismo, la extensión de los centros concertados, en las condiciones y con las características actuales, conlleva la disminución de la equidad debido a la concentración de alumnos según origen familiar, diferentes condiciones de trabajo de los profesionales de la educación (más horas de docencia directa, más alumnos por clase y menos salario), un acceso opaco a la función docente y, generalmente, la apuesta por un modelo educativo caracterizado por un ideario religioso-confesional, ya que el 74% de los alumnos de centros concertados estaban matriculados en centros católicos en el curso 2006/2007 (Consejo General de la Educación Católica, 2008). Desde el punto de vista de la política educativa pública, la cuestión radica, primero, en determinar cuáles deben ser los criterios para distribuir el dinero público entre los centros según su titularidad, y segundo, en definir y articular adecuadamente el modelo de educación concertada que se pretende conseguir.

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Family and State Spending on Education in Spain: Differences between Public and Publicly-Funded Private Educational Institutions

Gasto público y de las familias en educación en España: diferencias entre centros públicos y concertados

Jesús Rogero-García and Mario Andrés-Candelas

Key words

Educational Inequalities
 • Public Schools
 • Grant-Aided Private Schools
 • Government Spending
 • Educational Policy
 • Family School Relationship

Palabras clave

Desigualdad educativa
 • Escuelas públicas
 • Escuelas concertadas
 • Gasto público
 • Políticas educativas
 • Relación familia-escuela

Abstract

This paper estimates public and private (household) spending per student on education in early childhood, primary and secondary education in Spain, in public educational institutions and in publicly-funded private educational institutions. We use 2007 data from the Household Spending on Education Survey and the Statistics on Public Spending on Education. Public expenditure on education per student in publicly-funded private educational institutions was 49.9% that spent on public educational institutions. The cost assumed by families in public institutions was 38.7% that spent on publicly-funded private educational institutions. The total expenditure per student on publicly-funded private educational institutions was 66.9% that spent on public educational institutions. Enrollment in publicly-funded private educational institutions implies a reduction of public expenditure on education and the transfer of part of those educational expenses to families.

Resumen

Este trabajo realiza una estimación del gasto por alumno en educación infantil, primaria y secundaria de las administraciones públicas y las familias, en función de la titularidad del centro educativo. Se usan datos de 2007 de la Encuesta sobre Gasto de los Hogares en Educación y de la Estadística del Gasto Público en Educación. El gasto público anual por estudiante matriculado en centros concertados fue un 49,9% respecto al gasto en centros públicos. El gasto anual de las familias en centros públicos fue un 38,7% del gasto en centros concertados. El gasto total por estudiante en centros concertados constituyó el 66,9% del gasto en centros públicos. La escolarización en centros concertados supone una reducción del gasto público, así como el trasvase de parte de los costes educativos a las familias.

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INTRODUCTION¹

In Spain there are three types of non-university educational institutions that are defined by their main source of funding and their ownership: state schools (publicly owned and publicly funded), private schools (privately owned and privately funded) and publicly-funded private schools (hereinafter the phrase 'publicly-funded private schools' will be used to describe the Spanish phrase 'centros concertados'). These last are managed privately and receive public funding through a system of agreements with the public authorities, provided that they meet a number of requirements, including: covering an educational need demanded by one part of the population; being non-fee-paying (all activities should be non-profit, and any activities that involve payment by families must be approved by the education authorities); having the same student admission criteria as state schools; and making religious activities available on a voluntary basis (Law 8/1985 and Law 2/2006).

Both the regulation and the proportion of state and publicly-funded private schools in the non-university system have been the object of a permanent debate since their co-existence was regulated by the Organic Law on the Right to Education (LODE in its abbreviated form in Spanish) (Pérez-Díaz et al., 2001; Fernández Enguita, 2008). One of the main aspects of the debate refers to the efficiency of state and publicly-funded private schools, that is, the relationship between their educational achievements (measured, for example, by students academic perfor-

mance, or the equality of their results) and the resources invested in them (measured, for example, by the economic cost of the schools).

The majority of the studies carried out in Spain on the academic results according to school ownership have concluded that, once controlled for the variables related to the students socio-economic origin, no significant differences exist (Anghel and Cabrales, 2010; Gutiérrez-Domenech and Adsera, 2012; Pelerman and Santín, 2011; Calero and Escardíbul, 2007; Cordero Ferrera et al., 2012). For their part, Mancebón-Torrubia et al. (2012) found that students who attend state schools achieve better results, whilst Doncel et al. (2012) concluded that publicly-funded private schools obtain better results than state schools. The academic results are related to the distribution of the students. In this respect, it has been shown that students from families with higher income, more highly qualified professions and higher educational levels were largely concentrated in publicly-funded private schools (Escardíbul and Villarroya, 2009; Mancebón-Torrubia and Pérez-Ximénez de Embún, 2010; Instituto de Evaluación, 2011a). This differentiation in the type of students has its origin, in part, in the different selection mechanisms applied by publicly-funded private schools (Mancebón-Torrubia and Pérez-Ximénez de Embún, 2007; Bonal, 2002; Villarroya, 2000; Fernández Enguita et al., 2010).

Unlike the studies which compared the academic performance of state and publicly-funded private schools, those that addressed public spending on each type of schools were few and, when data were available, they seemed to be too general and lacking in accuracy. In addition, despite the fact that some valuable contributions have analysed the cost of education and its funding in detail (for example, see Uriel et al. (1997) and Pérez-Díaz and Rodríguez (2003)), no study has been found to provide a thorough review of a comparison between the public expenditure

¹ Translator's note: What are known as 'centros concertados' in Spain (in the context of education) are usually referred to as 'charter schools', 'grant-aided schools' or 'voluntary-aided private schools', amongst others, or in more general, descriptive terms, as 'publicly-funded private schools', depending on the context or country. Depending on where the term is used, it often has implications of a varying degree of state or local government control over curriculum content, as well as finance.

and the cost incurred by families for state schools and publicly-funded private schools for the same period. Previous studies have shown that publicly-funded private schools have a lower cost for governments than state schools (Mourshed et al., 2010; Pérez-Díaz and Rodríguez, 2011). The most recent studies have shown that public expenditure per student on non-university education in publicly-funded private schools was 45% of the public expenditure per student in state schools in 2007 (Pérez-Díaz and Rodríguez, 2011) and 42% in 2008 (CECE, 2008). However, previous studies had not taken into account that part of the expenditure allocated to public education inures to the benefit of publicly-funded private education.

Families finance the education of their school-age members by both direct costs (fees), and indirect costs (travel, transport, etc.) (Calero et al., 2008). These costs vary significantly according to the ownership of the schools students attend (Villarroya, 2003). Whilst charging enrolment fees is not allowed, voluntary donations have been found to have been made, which in practice constitute payments by all of the families (Mancebón-Torrubia and Pérez-Ximénez de Embún, 2007; Villarroya, 2003). It has also been identified that other education expenses, such as clothing or school materials, are typically higher than those in state schools (Hidalgo, 2005).

The aim of this study is to offer an adjusted comparison of the economic implications of both types of schools for Spanish society. Its objectives are: 1) estimating the public expenditure per student in Infant, Primary and Secondary Education (compulsory, higher and training cycles), according to the type of school (state or publicly-funded private school), taking into account not only the financing through supply (resources granted directly to the schools), but also through demand (grants, financial assistance for the purchase of books and school materials, transport, etc.); 2) estimating the private ex-

pense (of families) per student according to the type of school, taking into account both direct and indirect costs; and 3) finding out the total spending (for both households and public authorities) per student according to the type of school.

METHOD

Different data sources of information on public and private spending on education were used for the year 2007. This year was chosen because, at the time of making the analysis, it was the last year for which comparative data were available on education expenditure by type of school by both families and public authorities. Public expenditure on Infant Education, Primary education and Secondary Education was analysed by using the Statistics on Public Expenditure on Education (*Estadística del Gasto Público en Educación* (EGPE)) 2007, and the Statistics for Education Grants and Scholarships (*Estadística de Becas y Ayudas al Estudio*) carried out annually by the Ministry for Education, Culture and Sports (Ministry of Education and Science, 2007, 2009). These statistics collected together all of the expenditure on education by the different public authorities (state, regional, and local governments).

The study of the private expenditure on education by families was conducted by using the Household Expenditure Survey (2007 EPF Pilot Module ('EGHE' in its abbreviated form in Spanish)) (*Encuesta sobre Gasto de los Hogares en Educación (Módulo Piloto de la EPF 2007)* (EGHE)). The total sample included 3,299 households. The estimations carried out were of students in the 2006/2007 school year, accounted for by the Statistics on non-University Education (*Estadística de las Enseñanzas no Universitarias*) conducted by the Ministry for Education, Culture and Sports (Table 1).

In the calculation of public expenditure, the amount for grants and scholarships, and

TABLE 1. Number of students by levels of education and type of school. Spain 2006/2007

	Total	State schools	Publicly-funded private schools	Percentage of total for publicly-funded private schools
Infant (first and second cycle) and Primary education	3,820,209	2,701,231	1,118,978	29.3
Secondary (Compulsory - ESO -, Vocational Training and Baccalaureate)	2,788,747	2,062,065	726,682	26.1
Total	6,608,956	4,763,296	1,845,660	27.9

Source: Authors' research based on the Statistics for non-University Education (*Estadística de las Enseñanzas no Universitarias*).

of extra-curricular activities in state and publicly-funded private schools, is redistributed. It does not include other items that are not relevant for the comparison (general administration, educational research and teacher training), since the purpose of the expenditure inures to the benefit of both types of education. The aggregates used regarding public expenditure on state schools are defined below:

$GPUA_p$. Public Expenditure per student on Infant Education, Primary Education and Secondary Education (including Vocational Training) in state schools.

$$GPUA_p = \frac{AE_p + SC_p + AEX_p + BTM_p + BCR_p + CS_p}{NA_p}$$

Where:

AE_p . Public expenditure on educational activities in Infant, Primary and Secondary Education: teaching and non-teaching staff salaries, running costs of goods and services, investments and psychological and pedagogical consultancy, both internal and external, in state schools.

SC_p . Public expenditure on services complementary to Infant, Primary and Secondary education: School meals, free transport and boarding are provided based on the student's place of residence (scholarships and grants are excluded from these) in state schools.

AEX_p . Public expenditure on extra-curricular and related activities for Infant, Primary and Secondary

Education: activities of an educational nature, although not strictly involving formal teaching (cultural, artistic, social, sports or recreational training courses) for school children, such as resources aimed at the promotion of sports in the school system. Expenses to be allocated to state schools.

BTM_p . Public expenditure on grants and scholarships for textbooks for Infant, Primary and Secondary students in state schools. The calculation has been made by dividing the volume of investment in these levels by the number of grant-holding students in state schools.

BCR_p . Public expenditure on grants and scholarships for transport, meals and boarding of Infant, Primary and Secondary students in state schools. The calculation has been made by dividing the volume of investment in these levels by the number of grant-holding students in state schools.

CS_p . Public expenditure on social security contributions for Infant, Primary and Secondary Education.

NA_p . Number of Infant, Primary and Secondary students enrolled in state schools.

The following items are not included: a) *general administration, educational research, compensatory education and teacher training and professional development*, given the impossibility of allocating the relevant part correctly to the two types of teaching, and to the assumption that these items are outside of the financing system for schools; b) *support ex-*

tra-curricular activities outside of the school, since they are beyond the scope of formal education and are optional for families; they are outside of the aims of the education system and so do not form part of the State's commitment to publicly-funded education; c) *special education, adult education, education abroad*, as it is assumed that these expenses are outside of the financing system for Infant, Primary and Secondary schooling, whose expenses are the subject of this study.

The public expenditure in publicly-funded private schools was calculated in the following way:

GPUA_c. Public Expenditure per student on Infant education, Primary Education and Secondary Education (including Vocational Training) in publicly-funded private schools.

$$GPUA_c = \frac{AE_c + AEX_c + BTM_c + BCR_c}{NA_c}$$

Where:

AE_c. Public expenditure on educational activities in Infant, Primary and Secondary Education: transfers aimed to finance teaching in publicly-funded private schools. For 2007 the types of expenses considered per school unit (classroom) were: teaching staff salaries, variable expenses and other expenses. These included those school expenses not derived from the teaching body, including payments to administrative and service personnel, and replacement of real investments (Law 2/2006).

AEX_c. Public expenses in extra-curricular and related activities in Infant, Primary and Secondary education: activities of an educational nature, but not strictly involving formal teaching ones (cultural, artistic, social, sports or recreational activities) aimed at students, such as resources aimed at the promotion of sports in the school system. Expenses allocated to publicly-funded private schools.

BTM_c. Public expenditure on scholarships and grants for textbooks for Infant, Primary and Secondary students in publicly-funded private schools. The calculation has been made by dividing the volume of investment in these levels by

the number of grant-holding students enrolled in publicly-funded private schools.

BCR_c. Public expenditure on scholarships and grants for transport, school meals and boarding of Infant, Primary and Secondary students enrolled in publicly-funded private schools. The calculation has been made by dividing the volume of investment in these levels by the number of students enrolled in publicly-funded private schools.

NA_c. Number of Infant, Primary and Secondary students enrolled in publicly-funded private schools.

The aggregates related to private spending (of families) on education (both for state school students and publicly-funded private school students) are expressed as follows:

GPR_{IP}. Private expense per student in Infant and Primary Education.

$$GPR_{IP} = CL_{IP} + AE_{IP} + SC_{IP} + BS_{IP}$$

GPR_s. Private expenditure per student in Secondary Education and Vocational Training.

$$GPR_s = CL_s + AE_s + SC_s + BS_s$$

Where:

CL. Private expenditure per student in taught classes: Including both classes taught by teachers (free of charge in the state and publicly-funded private system for the 2nd cycle infant, primary and compulsory secondary education levels) and voluntary supplementary teaching. This grouping was made because of the difficulty involved in differentiating between both items in informant households.

AE. Private expenditure per student on extra-curricular activities at the school (both of a supporting and leisure-time nature).

SC. Private expenditure per student on complementary services (school meals, boarding and transport).

BS. Private expenditure per student on goods and services (textbooks, uniforms, etc.).

GPR_T . Total expenditure per student in Infant, primary and Secondary Education.

$$GPR_T = \frac{GPR_{IP} \times NA_{IP} + GPR_S \times NA_S}{NA_C}$$

Where:

NA_{IP} . Number of students enrolled in infant and primary schools.

NA_S . Number of students enrolled in secondary schools.

NA_T . Total number of students.

RESULTS

In 2007 the total public expenditure on education reached 46,453 million euros, 4.41% of the GDP (Instituto de Evaluación, 2011b - *Assessment Institute*). The annual public expenditure in Spain in 2007 for Infant, Primary and Secondary education on teaching, supplementary services, extra-curricular and related activities, grants and social security contributions was 30,403.5 million euros (Table 2). Of these expenses, 16.2% (4,928.2 million euros) was used to finance publicly-funded private schools. The greater part of

this financing was used for teaching activities: by level, the percentage expenditure on publicly-funded private schooling in infant and primary levels was 19%, whilst in secondary, it was 16.1%.

From the data concerning public expenditure and the number of students, it is possible to estimate the annual public expenditure per student according to school ownership (Table 3). The public authorities spent almost 4,600 euros per student in non-university education in 2007. For students enrolled in state schools, the total reached 5,348 euros, whilst the expense per student in publicly-funded private schools was 2,670 euros. The public expenditure per student in publicly-funded private schools was 49.9% of the expenditure per student in state schools.

In 2007, the average annual private cost to families for a student enrolled in a state school was 473 euros, whilst this cost in a publicly-funded private school was 1,222 euros (Table 4). Therefore families that enrolled their children in state schools paid 750 euros a year per child less than those who enrolled their children in publicly-funded private

TABLE 2. Annual public expenditure on education (thousands of euros). Spain 2007

	Total	State schools	Publicly-funded private schools	Percentage of total for publicly-funded private schools
Teaching activities	26,634,036	21,953,348	4,680,688	17.6
Infant and Primary	13,491,921	10,928,418	2,563,502	19.0
Secondary	13,142,115	11,024,929	2,117,186	16.1
Supplementary Services	665,708	665,708	0	0.0
Extra-curricular and related activities	551,197	397,266	153,931	27.9
Grants and scholarships for textbooks and material	142,753	111,204	31,548	22.1
Scholarships and grants for transport, school meals and boarding	280,858	218,789	62,070	22.1
Social Security contributions	2,128,952	2,128,952	0	0
Total	30,403,504	25,475,267	4,928,237	16.2

Source: Authors' research based on the EGPE and Statistics on Study Grants and Scholarships for academic year 2006/2007. (*Estadística de Becas y Ayudas al estudio curso 2006/2007*).

TABLE 3. Annual public expenditure per student (euros). Spain 2007

	Total	State schools	Publicly-funded private schools	Percentage of publicly-funded private compared to state
Teaching activities	4,030	4,609	2,536	55.0
Infant (first and second cycle) and Primary education	3,532	4,046	2,291	56.6
Secondary (Compulsory - ESO -, Vocational Training and Baccalaureate)	4,713	5,347	2,913	54.5
Supplementary Services	101	140	0	0.0
Extra-curricular and related activities	83	83	83	100.0
Grants and scholarships for textbooks and material	22	23	17	73.2
Scholarships and grants for transport, school meals and boarding	42	46	34	73.2
Social Security contributions	322	447	0	0.0
Total	4,600	5,348	2,670	49.9

Source: Authors' research based on the EGPE and Statistics on Study Grants and Scholarships for academic year 2006/2007. (*Estadística de Becas y Ayudas al estudio curso 2006/2007*).

schools – 61.3% less. In infant and primary state and publicly-funded private schooling, private expenses were 538 euros and 1,375 euros per student, respectively. The private cost for a secondary school student was 387 euros in a state school and 987 euros in a publicly-funded private school. The expenses incurred by families on education in 2007 were 4,507.111 million euros, of which approximately half corresponded to publicly-funded private school expenses.

With the available data for both public and private expenses per student, it is possible to estimate the total annual expenditure on each type of school (Table 5). The total expenditure on educational activities, supplementary services, and extra-curricular and related activities per student in a state school was 5,824 euros. The total expenditure for each student in a publicly-funded private school was 3,892 euros, 33.1% less than the expenditure per student in a state school.

DISCUSSION AND CONCLUSION

The main objective of this study consisted in estimating the public expenditure per student for state and publicly-funded private schools, respectively, from a double perspective: a calculation based on supply (arrangements for public funding) and demand (grants and scholarships). This focus made possible a more accurate comparison of the budgetary demands each type of education involved for the public authorities. According to the Instituto de Evaluación (2011b), 10.7% of the public expenditure for 2007 went to publicly-funded private education through different direct transfers (arrangements for public funding). Previous studies quoted the public expenditure per student in a publicly-funded private school as being 45% of the public expenditure per student attending a state school in 2007 (Pérez-Díaz and Rodríguez, 2011) and 42% in 2008 (CECE, 2008). Our results show that public expenditure per student in publicly-funded

TABLE 4. Annual private expenditure on educational goods and services by levels of education, ownership and type of good or service purchased. Spain 2007

	Private expense per student (euros)				Total expense private Spain (thousands of euros) ¹		
	State	Publicly-funded private	Difference (Publicly-funded private-Public)	Percentage of state compared to publicly-funded private	State	Publicly-funded private	Total
Infant and primary							
Total	538	1,375	837	39,1	1,453,262	1,538,595	2,991,857
Classes taught in the school	39	391	352	10,0	105,348	437,520	542,868
Extra-curricular activities (support and leisure)	39	99	60	39,4	105,348	110,779	216,127
Supplementary services (transport, school meals and boarding)	142	328	186	43,3	383,575	367,025	750,600
Goods and services (textbooks, uniforms,...)	318	557	239	57,1	858,991	623,271	1,482,262
Secondary							
Total	387	987	600	39.2	798,019	717,235	1,515,254
Classes taught in the school	18	267	249	6.7	37,117	194,024	231,141
Extra-curricular activities (support and leisure)	7	37	30	18.9	14,434	26,887	41,322
Supplementary services (transport, school meals and boarding)	29	144	115	20.1	59,800	104,642	164,442
Goods and services (textbooks, uniforms,...)	333	539	206	61.8	686,668	391,682	1,078,349
Total expense	473	1,222	750	38.7	2,251,281	2,255,830	4,507,111

¹ Total expense: Expense per student x number of students in each of the levels of education.

Source: Authors' research based on the EGHE and EGPE.

private schools at infant, primary and secondary education levels in 2007 represented 49.9% of the expenditure per student in state schools, and that the percentage of public expenditure on publicly-funded private schooling was 16.2%. The variation between our figures and previous ones is due, firstly, to the fact that this study includes an estimation of the cost of

grants and extra-curricular activities for both types of schools, whilst the previous estimations allocated these items to state schools as a whole or did not take them into consideration; and secondly, our calculations did not allocate to state schools any general system costs that remained stable regardless of the type of financing of schools, such as costs re-

TABLE 5. Expense per student according to educational activity, ownership of school and type of finance (euros), Spain 2007

	Public expense per student			Private expense per student			Total expense (public + private) per student		
	State	Publicly-funded private	Percentage of publicly-funded private compared to state	State	Publicly-funded private	Percentage of total for publicly-funded private compared to state	State	Publicly-funded private	Percentage of publicly-funded private compared to state
Teaching activities	4,609	2,536	55.0	30	352	8.5	4,639	2,888	62.3
Infant and primary	4,046	2,291	56.6	39	391	10.0	4,085	2,682	65.7
Secondary	5,347	2,913	54.5	18	267	6.7	5,365	3,180	59.3
Transport, school meals and boarding	186	34	18.1	93	256	36.4	279	289	103.7
Extra-curricular activities and support	83	83	100.0	25	65	38.7	109	148	136.6
Textbooks and material	23	17	73.2	324	550	59.0	348	567	163.0
Social security contributions	447	0	0.0	0	0	0.0	447	0	0.0
TOTAL	5,348	2,670	49.9	473	1,222	38.7	5,821	3,892	66.9

Source: Authors' research based on EGPE, EGHE and Statistics on Study Grants and Scholarships for the academic year 2006/2007 (*Estadística de Becas y Ayudas al estudio curso 2006/2007*).

lated to general administration, educational research and teacher training.

The greater public cost of state schools can be partly explained by the different costs in personnel (Uriel et al., 1997) and, specifically, by the working conditions of teachers. Firstly, teacher salaries in private schools are lower than in state schools (Fernández Enguita, 2008). Secondly, the teacher/student ratio is lower in state schools: in 2006-2007 the number of students per teacher was 10.6 in state schools and 14.2 in private and publicly-funded private schools (aggregated data), 25% lower (Ministry for Education and Science, 2008). Thirdly, teachers have more teaching hours in publicly-funded private education (Cañadell, 2008). Another relevant reason that helps explain the differences in public expenditure according to type of school ownership, is that state schools also cover the general needs of rural areas (Gurrutxaga and Unceta, 2010), in which the cost per student is much higher (Pérez-Díaz and Rodríguez, 2011).

The second objective of this study was to find out the families education costs according to the type of school the school-age family members attended. Families paid an average of 1,222 euros a year per student in publicly-funded private schools, 750 euros more than in state schools. These differences, on the one hand, cause the families that enrol their children in publicly-funded private schools to make an additional economic effort to meet the costs of education and, on the other hand, promote a concentration of students from families with higher spending power in publicly-funded private schools, thus generating inequality in education (Fernández Llera and Muñoz Pérez, 2012). Besides, this study has not found any evidence that the concentration of students from a lower socio-economic background is the cause of the greater public expenditure on state schools, given that our calculations did not include the items for special education and compensatory education and, despite this, significant differences still exist. Thirdly,

this study intended to calculate the total expenditure per student for both types of education. The aggregate cost of education for the public authorities and families is 33.1% greater if the student is enrolled in a state school than in a publicly-funded private school. Previous studies have calculated that the average costs per student were 11.7% higher in the state-owned system than in the publicly-funded private system in the 1994-1995 academic year (Villarroya, 2000). The difference between this figure (costs) and our results (expenses) may be due to two reasons: on the one hand, the difference in costs between each type of education may have increased between 1995 and 2007, and on the other hand, some costs may not be borne by either families or the government (for example, they may be covered by a company or by the Catholic Church), and therefore they were not included in our analysis.

This study has limitations that should be taken into account when interpreting the results. Firstly, there are significant gaps in the information on public expenditure when broken down by type of education. Amongst these, no data are known about the public expenditure used for the construction of buildings that were subsequently used by publicly-funded private schools. These investment costs in turn involve a significant increase in financing costs (debt repayments, etc.) (Uriel et al. 1997) that were erroneously attributed exclusively to state school expenditure. Other data, whilst of small consequence, are not broken down appropriately; for example, external psychological and pedagogical consultants, as well as school transport routes have been charged here to expenditure on state schools, because the specific item is not known, nor is it known which part of their service includes students in publicly-funded private schools. Additionally, with the available data, it is not possible to know if the Catholic Church gives part of the public money that it receives from various sources (for example, through income tax) to the publicly-funded

private schools that they manage; and vice versa, if a part of the money that publicly-funded private schools receive is used for other purposes. Therefore there is work to be done in terms of the availability of data broken down by school ownership. It would also be desirable to provide empirical evidence on the causes of educational spending on each type of schools, and specific evidence of teachers' working conditions, the geographic distribution of schools by ownership type, as well as the cost of education in urban and rural areas. Finally, and given the limits of this paper, no analysis has been made of the cost structure of non-publicly-funded private schools. However, it would be interesting for future studies to include this information and compare it with expenditure on state and publicly-funded private schools.

This study offers, despite its limitations, new and relevant information on the economic implications of the financing of state and publicly-funded private schools in Spain. The wide scope of publicly-funded private education results in public expenditure reduction and an increase in the economic efforts required to be made by families. Consequently, significant economic differences exist in access to education which generate educational inequalities and require corrective measures in the public sphere. Likewise, the wide scope of publicly-funded private schools, as they currently stand, entails a decrease in equality, due to the concentration of students according to family background, different working conditions for education professionals (more direct teaching hours, more students per class and lower salary), opaque access to the teaching profession and, generally, a commitment to an educational model characterised by religious confessional ideology since, in the 2006-7 academic year, 74% of students in publicly-funded private schools were enrolled in Catholic schools (General Council for Catholic Education, 2008 - *Consejo General de la Educación Católica, 2008*). From the point of view of public

education policy, the question lies, firstly, in determining what the criteria should be for distributing public money among schools according to their ownership, and secondly, in defining and adequately articulating the publicly-funded private model that is intended to be achieved.

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