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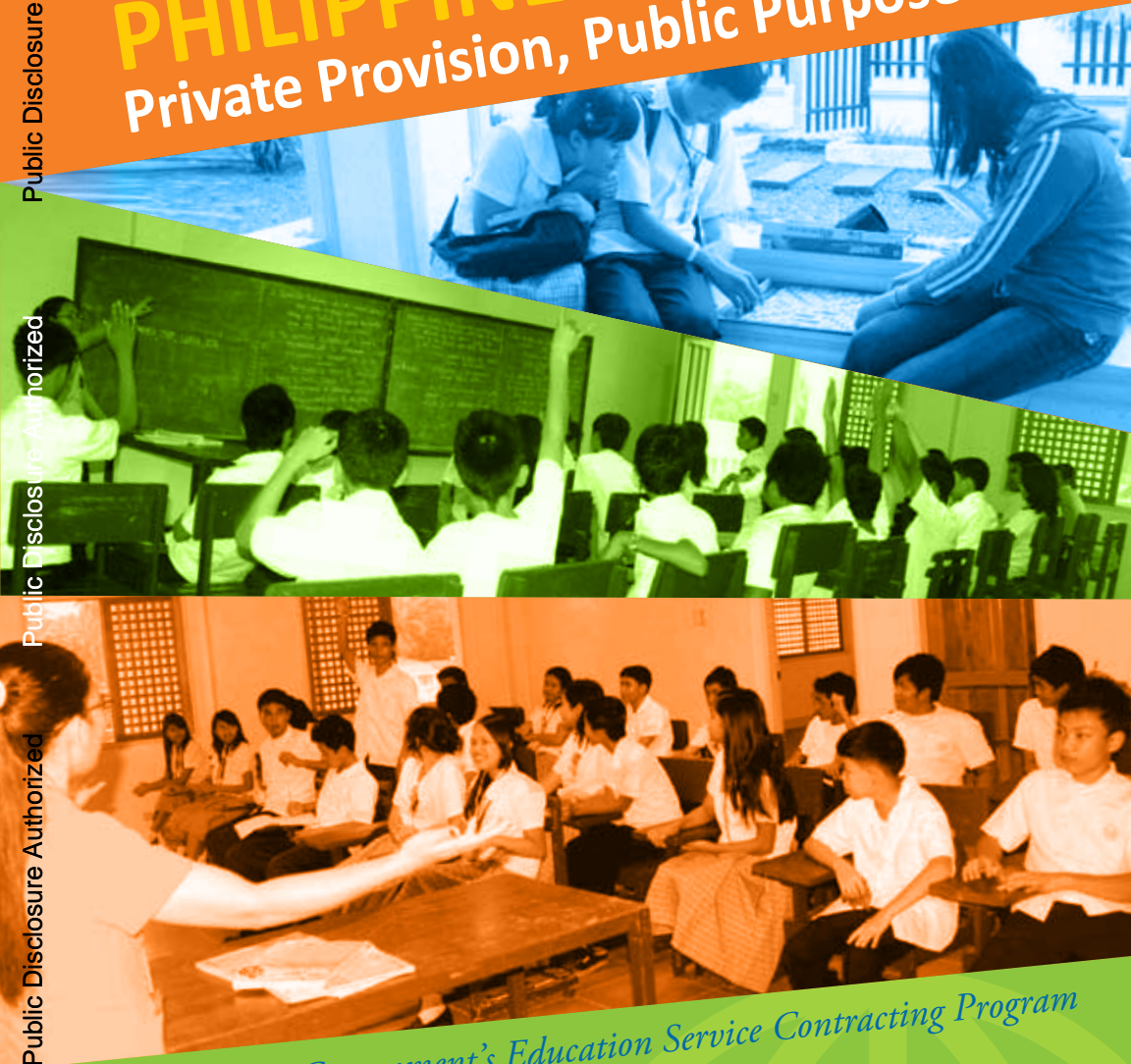
Private Provision, Public Purpose

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A Review of the Government's Education Service Contracting Program



THE WORLD BANK



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Making Growth Work for the Poor



PHILIPPINES

Private Provision, Public Purpose

A Review of the Government's Education Service Contracting Program



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Abbreviations and Acronyms

BEIS	Basic Education Information System
BSE	Bureau of Secondary Education, DepED
CO	Capital Outlay
DBM	Department of Budget and Management
DepED	Department of Education
DPWH	Department of Public Works and Highways
EO	Executive Order
ESC	Education Service Contracting
EVS	Education Voucher System
FAPE	Fund for Assistance to Private Education
FMS	Financial Management Services
GAA	General Appropriations Act
GASTPE	Government Assistance to Students and Teachers in Private Education
HS	High School
LGU	Local Government Unit
MOA	Memorandum of Agreement
MOOE	Maintenance and Other Operating Expenses
NCA	Notice of Cash Allocation
NETRC	National Education Testing and Research Center
OPS	Office of Planning Service, DepED
PEAC	Private Education Assistance Committee
PhP	Philippine Peso
PS	Personal Services
PTCA	Parent-Teacher-Community Association
RA	Republic Act
RPC	Regional Program Coordinator
RPCOM	Regional Program Committee
SEF	Special Education Fund
SY	School Year
TIMSS	Trends in International Mathematics and Science Study
\$	All dollar amounts refer to U.S. dollars

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Executive Summary

The Philippines has one of the largest public-private partnership programs in education in the world, serving more than 567,500 students who represent almost 9 percent of the 6.5 million high school students in 2009. The Government of the Philippines explicitly recognizes the complementary roles played by public and private schools in the education system. The Education Service Contracting (ESC) program aims to increase access to quality basic education at the secondary level by extending financial assistance from the public budget to “poor but deserving” elementary school graduates to attend private high schools that have contracted with the government. The ESC program improves school quality, relieves congestion in public high schools, maintains the financial viability of private secondary schools (more than one-third of private secondary school enrollments are supported by the program), keeps the overall costs of public secondary education in check, and encourages households to invest in education.

The ESC program has evolved over its years of operation into a useful mechanism that enables students to enroll in private schools. The program has grown tremendously in terms of both the number of grantees and the number of participating private schools over the last 20 years. In 2009, grantees numbered almost half a million or 9 percent of the 5 million students in public high schools and 36 percent of the 1.3 million students in private high schools. In fact, nearly half of the more than 4,000 private secondary schools in the country have enrolled ESC grantees.

The ESC program generates considerable cost-savings for the government. Evidence from around the world suggests that the private sector can deliver high-quality education at relatively low cost as correlations between the private provision of education on the one hand and indicators of education quality are positive (Woessmann 2005). Therefore, partnerships in which the private sector is the operator

and the public sector is the financier of schools have the potential to increase enrollment while keeping the education budget in check. In the Philippines, the direct per student cost of public secondary schools (or direct GAA cost per public secondary school student per year) is estimated to be PhP 9,048 (\$185) or a total of PhP 47 billion for 5,241,806 students. At the same time, the ESC cost per grantee is only PhP 5,233 (\$107) per year. Thus, the government is able to enroll a student in a private school at a cost that is only 58 percent of the unit cost of attending a public high school.

The ESC program also encourages households to invest in education. On average, the families of ESC grantees pay PhP 4,298 (\$88) to cover the difference between the amount of grant that they receive and the actual cost of tuition at the private school attended by their child. Estimates show that further cost savings could be realized. In fact, in a simulation, an upper bound estimate showed that the ESC program could accommodate all “excess students” (also known as aisle students) at a cost of only PhP 7,761 million per year compared with a cost of PhP 10,963 million to expand capacity in the public sector.

Two kinds of service contracts are used in the ESC program. First, the Department of Education (DepED) contracts with selected private schools to deliver services to students who would otherwise have been public school students and, second, it contracts with a private agency (the Fund for Assistance to Private Education or FAPE) to carry out the day-to-day administration of the program. Thus, the ESC is a publicly funded program administered by a private agency, and this public-private partnership arrangement has been proven to be cost-effective. Estimates show that it would cost the Department of Education more than PhP 117 million a year to administer the ESC and the Education Voucher System (EVS), a similar program funded from the same budgetary source but subject to fewer controls. In comparison, continuing to contract with FAPE to administer the program will cost only PhP 62 million. Moreover, there is an added benefit to working with FAPE, in that the agency certifies the participating private schools (which DepED does not or is unable to do), which is a way of ensuring quality. FAPE uses criteria similar to those imposed by accrediting agencies.

Challenges

The ESC program as it is currently constituted faces a number of challenges in living up to its original objectives and intentions. One issue is that the

current distribution of ESC grantees by region is not proportional with the estimated number of aisle students in each region. This is not surprising because, until recently, the authorities had no method for measuring the full capacity of public schools and, therefore, the number of aisle students in a region as a whole, let alone each public school in the country. As a result, some “lucky” regions have a larger than proportional share while other “unlucky” regions have a smaller than proportional share of ESC grantees.

There are also some shortcomings in the regulatory framework of the ESC program. The ESC contract with FAPE takes the form of an annual agreement or Memorandum of Agreement (MOA). One basic problem that afflicts the agreement has to do with the fact that the DepED Secretary is also the ex-officio chair of the Private Education Assistance Committee (PEAC), FAPE’s Board of Trustees, so that in effect the Secretary is contracting the services of a private organization whose board of trustees he or she heads. The remedy used thus far has been that the Secretary does not sign the agreement. Nevertheless, it can be argued that DepED is left open to regulatory capture by FAPE through the Secretary. There are other limitations. For example, nowhere in the MOA or elsewhere is DepED’s responsibility for overseeing FAPE’s implementation of the ESC program specified or recognized. Consequently, no one in DepED has been appointed to fill this role, thus limiting ownership within DepED of the program. The functions that DepED has been given in relation to the ESC program are not specifically funded, which limits DepED’s ability to carry out its responsibilities. Because there is no office within DepED that is tasked with overseeing FAPE’s implementation of the program, it is not clear to both DepED and FAPE to which DepED officials FAPE staff should report.

Another issue is related to equity. Since ESC grantees have to pay out of pocket for any difference between the ESC subsidy and the fees charged by their private school, the fact that most are able to do so suggests that they do not come from poor households. However, one of the original objectives of the program was to extend financial assistance from the public budget to “poor but deserving” students. If most of the grantees come from relatively well-off households, then this objective is not being met. It seems possible, however, that moving non-poor students out of public high schools would help to improve quality within those public high schools by reducing congestion, thus making quality secondary education more accessible to poor students, but this dynamic has yet to be proven. The contract between DepED and FAPE does not specify any

performance criteria for FAPE, including any regarding targeting those most in need.

Another recurring problem is the deficit between the funding available for the program and the amounts awarded to grantees. The main reason is that the funds intended by the General Appropriations Act (GAA) for the ESC are not fully released to DepED. Furthermore, FAPE and DepED have based the allocation of ESC slots only on the number of grantees per school instead of basing it on the more relevant number of grantee-years. For example, 50 grantees in the first year imply 200 grantee-years of financial support until graduation, but 50 grantees in the third year imply only 100 grantee-years of support.

Overall, student test scores in the Philippines are very low, though they have been improving over time. The available test scores suggest that private schools have the potential to improve learning outcomes significantly. The raw differential between private and public schools is huge, yet even after controlling for background and other observable differences, there is still a significant benefit in favor of private schools. More rigorous methods of controlling for the fact that attending a private school depends on selection do not diminish the private school advantage very much. Given that ESC students are likely to be less wealthy students than their peers, the results across the socioeconomic distribution suggest that less able students who are likely to attend private schools because of the extra funding they receive through the ESC are also likely to benefit academically. Therefore, enrollment in private schools by students who would otherwise have to attend public schools is likely to improve their scores and, thereby, the academic test scores of the Philippines as a whole.

Recommendations

This study has exposed several areas in which the ESC could be improved so that it could fulfill its original objectives more effectively and to meet the challenges outlined above. These areas relate mainly to the administration and implementation of ESC and could be addressed by: (i) streamlining its regulatory framework; (ii) clarifying the roles and responsibilities of the managing agency (DepED) and the implementing agency (FAPE); and (iii) introducing a results-oriented approach in the contractual agreement (MOA). We also recommend that DepED monitor and evaluate the ESC to collect empirical data on schools, students, family background, and learning outcomes that will enable policymakers, researchers, and stakeholders to assess the ESC's effectiveness.

1. *Expand the ESC to cover more students and schools instead of expanding public schools.* In this study, we determined that it would be more expensive to accommodate all aisle students in public schools within DepED's service standards than to provide them with ESC grants to attend private schools. By leveraging private school capacity, the ESC program has the potential to alleviate public school overcrowding in the Philippines without the need to incur the costs of constructing so many new school buildings and hiring so many new teachers.
2. *Enhance the agreement between the implementing agency (FAPE) and the managing agency (DepED) to define their current and new responsibilities.* The Memorandum of Agreement (MOA) between DepED and FAPE is a fixed-price contract, which is an extremely high-powered payment scheme that it makes FAPE the residual claimant of any savings, or, conversely, the bearer of cost overruns. In other words, FAPE has a powerful incentive to keep its ESC-related costs low. Given that DepED does not systematically monitor or evaluate FAPE's activities, it is both a credit to FAPE and an indication of its commitment to upholding the quality of private education that it even conducts a school certification process, which must be costly but is not mandated in the current MOA.
3. *Introduce performance measures in the agreement between the administering agency (DepED) and the implementing agency (FAPE).* This can be done by gradually shifting to a performance-based agreement that divides FAPE's funding into a fixed payment for low-risk activities such as administration, school certification, and training costs and variable bonuses to be paid when FAPE meets mutually agreed specified performance targets for its high-risk activities such as research projects. It would also make sense to design the payment scheme to give FAPE an incentive not only to be efficient but also to meet other ESC program objectives such as alleviating congestion in public schools, targeting the benefits of ESC to poor students and improving outcomes, not only for ESC grantees but also for the school system as a whole. Other countries have introduced performance measures in their contracts, notably Colombia and Pakistan.
4. *Estimate the capacity of private schools and demand for the ESC.* So far no systematic study has been done to estimate demand (the number of aisle students in congested public schools) and supply (the number of empty seats in nearby private schools). DepED and FAPE could

cooperate to collect more data on the spare capacity available in nearby private schools. Also, DepED could use data from its Basic Education Information System (BEIS) and the methods that we advocate in this study to estimate the full capacity of public schools and thereby infer the number of aisle students in school divisions and municipalities.

5. *Create a high-level committee to oversee the implementation of the program through which DepED would establish its ownership of the ESC.* This committee would consist of a high-level GASTPE Board within DepED charged with regulating the ESC program and a GASTPE Secretariat to provide support to the board.
6. *Consider establishing performance measures for private schools receiving public funds to encourage quality improvements.* Similar contracting programs between the public and the private sectors in other countries have taken a performance-based approach. In this approach, participating private schools are required to reach minimum targets of student achievement (such as scoring above national average in national achievement tests and ensuring a minimum pass rates) to ensure the continuation of their public funding.
7. *Strengthen the methodologies used to evaluate the impact of the ESC program.* The first step in evaluating the performance of the ESC would be to allocate the resources necessary to fund a full monitoring operation within DepED. Thereafter, DepED would be in a position to initiate a rigorous impact evaluation. This would require the establishment of a baseline group of students who are participating in the program and a counterfactual group of students who would have qualified for the program if it had existed earlier. We estimate that devising a framework for evaluating the ESC would require a three-year research agenda. This would involve collecting data on achievement test scores and other variables for students in public high schools, students in private high schools that do not participate in the ESC program, both regular students and ESC grantees in ESC-participating schools, and students who applied for but were not awarded an ESC grant. Ideally, a randomized longitudinal study should be established. To ensure objectivity, transparency, and fairness, it may be necessary to contract with an independent body to evaluate the ESC program on the basis of the analytical framework devised by the research activities.

8. *Improve the budgeting and slot-allocation process to stay within budgetary constraints.* A first step would be to keep track of grantee-years, not just the total headcount of grantees in each school. This is useful information because, while every new ESC grant represents a four-year commitment by the government, grantees in the upper years represent shorter funding commitments. Another necessary step would be for DepED to persuade the Department of Budget and Management (DBM) to release the entire General Appropriations Act (GAA) appropriations for the GASTPE program promptly every year.
9. *Change gradually but methodically the distribution of ESC grants to reflect the regional distribution of aisle students and varying degrees of need among students from different socioeconomic backgrounds.* The rational allocation goal can be reached, first, by estimating the full capacity of public schools, thus inferring the number of aisle students, and then over a five-year period methodically aligning the number of ESC grants in proportion to the number of excess students in each municipality or division, and factoring in the capacity of private schools. As for the social equity goal, the ESC currently meets this goal only indirectly, by moving some students out of public high schools, thus liberating space and resources to improve the quality of the education provided to the remaining students. However, given that most ESC beneficiaries have to pay the differential between the public subsidy and the actual private school tuition and all other fees required by the receiving school, we concluded that most current ESC grantees are not necessarily poor. There is a need to verify this finding and to measure the benefits that accrue to poor public school students by virtue of reduced congestion in their schools.
10. *Share best practices.* The ESC and EVS programs have no “constituency” that is concerned about their accomplishments and developments. Thus, it would be useful to build this constituency by holding an annual convention of ESC stakeholders. This would also provide a forum where FAPE could present the ESC’s annual report and DepED could present the results of its ESC evaluation to stakeholders. In addition, the convention could be a venue for the systematic dissemination of best practices, which are currently shared only on a limited and informal basis in the school certification process and in training programs.

Based on international experience, we suggest that policymakers consider the following models:

11. *Experiment with the private management of under-achieving public schools for a 15-year period.* The objective of this type of partnership is two-fold: (i) it is a way to introduce performance-based funding to private schools as operators would be bound by their contract to achieve certain goals as a condition of continuing to receive public funds and (ii) it would introduce competition and risk-sharing by requiring private operators to undergo a bidding process.
12. *Consider more innovative ways of expanding access.* Given excess demand and a lack of existing supply in the public sector, one way to afford the costs of building new schools might be to attract private investors to fund the school's construction in a private finance initiative (PFI). The private investors would assume the full costs of the construction and maintenance of the school buildings for a period of 25 to 30 years and would be repaid by the government in annual installments pre-agreed in the PFI contract. Once the school is built, the government could adopt the concession school model that has been used successfully in Colombia and contract out the operation of the school to a private school operator with a demonstrated record of achievement. The private investors and school operators would be selected by competitive bidding to ensure best value for the money.

CHAPTER 1

Education Service Contracting

Background

For decades, the Philippines could boast of being one of the most highly educated developing countries. Up until the late 1990s, it had high enrollment rates at all levels of education, and it had achieved near universal access to primary education. Despite these successes, repetition and dropout rates in basic education are high at around 7 to 10 percent, and a large number of children who enter school do not reach the last grade in the cycle. Also, its regional dominance has been surpassed by other developing countries, such as Indonesia, Malaysia, Thailand, and Vietnam, which have achieved higher enrollment rates, even at the secondary level. Moreover, students do not learn what they are supposed to in schools. Average student achievement has also been disappointing in recent years. Filipino second year high school students perform well below average on international student achievement assessments. In spite of a high economic growth rate of around 6 percent, 30 percent of the population lives below the national poverty line. Most of the children who do not receive an education are living in poverty and/or in hard-to-reach localities. This further contributes to growing inequalities in the country.

The Philippine agenda for reforming basic education and its commitment to the Millennium Development Goals (MDGs) have given rise to the need to rethink the modalities and strategies for delivering, funding, and managing basic education. Studies have documented the fact that the non-government sector plays a large and growing role in the delivery of education in many countries in the East Asia and the Pacific Region. In countries such as China and Vietnam, private provision of education is growing in places where education has traditionally been an important political instrument among other things, national unity, and

the exclusive domain of the public sector. The World Bank has observed that in Indonesia, the Philippines, and Korea the private sector delivers more than 30 percent of the education at the elementary and secondary levels. In countries where the private sector share is still relatively small, the growth of non-government alternatives has been dramatic. In terms of financing, over half of all spending comes from outside the public budget.

The Philippines Republic Act 8545 passed in 1998 (amending RA 6728, which was passed in 1989), otherwise known as the Expanded Government Assistance to Students and Teachers in Private Education (EGASTPE) Act, demonstrated that the State recognizes the complementary roles played by public and private schools in the education system. The first step taken by the government in this direction was to include FAPE's Education Service Contracting (ESC) project under the bigger GASTPE program¹ in 1982 and then to expand it in 1989. The Fund for Assistance to Private Education (FAPE), a non-profit organization, manages the program under contract to the Department of Education (DepED). The aim of the ESC is to increase access to quality basic education at the secondary level by extending financial assistance to "poor but deserving" elementary school graduates. In school year (SY) 2006-07, following a directive from President Arroyo, the DepED also implemented the Education Voucher System (EVS) – which is not reviewed here – which provided the same level of benefits as the ESC and funded it from the same GASTPE appropriations used for the ESC, which meant fewer funds available for the ESC. On top of this, DepED also initiated service contracting, albeit on a smaller scale, at the pre-school level and in the Alternative Learning System programs.

Over the years, the coverage of the ESC program has increased significantly. In SY 2008-09, there were about 477,000 ESC grantees – equivalent to 9.3 percent of the estimated 5.1 million public high school students and 35.8 percent of the estimated 1.3 million private high school students. There were 2,003 private high schools participating in the ESC program in that year – equivalent to 39.2 percent of the estimated 5,110 public high schools and 46.3 percent of the estimated 4,392 private high schools in the country. With the 91,000 grantees of the voucher system (a similar program funded from the same source as the ESC), this equals 567,500 grantees in, equivalent to 11 percent of the 5 million students in

¹ The government created the Government Assistance to Students and Teachers in Private Education (GASTPE) Program in 1989 to assist poor but deserving students with the financial burden of studying in private institutions. Other schemes under the GASTPE include among others the Tuition Fee Supplements and the Private Education Student Financial Assistance Program.

public high schools and 43 percent of the more than a million students in private high schools.

At the same time, the annual subsidy per grantee increased to Philippine peso (PhP) 10,000 (\$219) in the National Capital Region (NCR) and PhP 5,000 (\$102) in the rest of the country in SY 2008-09. In the aggregate, the ESC subsidies total PhP 2.4 billion (\$5 million) – equivalent to 5 percent of the PhP 47.2 billion (\$968 million) allotted directly to secondary education in 2009 (DepED 2008). On top of all that, PhP 486 million was spent on the EVS in 2007-08.

Over the years, no organized or formal studies have been done to assess whether the ESC has been effective in terms of achieving its policy objectives and of being cost-efficient. In the meantime, the DepED estimates the public direct per student cost of public secondary schools as being PhP 9,048 (\$185) or PhP 47.4 billion for 5,241,806 students.

It is in this context that this study was undertaken. Phase 1 reviewed the government's Education Service Contracting program as will be described in this report. Phase 2 of the study will assess the financial requirements and technical feasibility of the government expanding the contracting or purchasing of basic education services to cover other levels of education (early childhood education, elementary education, and alternative learning system) and may include a randomized impact evaluation of the ESC. In brief, this report:

- Describes the history and evolution of the ESC program
- Provides a detailed description of the coverage of the program
- Assesses the types and overall quality of private schools in the Philippines
- Describes and assesses how DepED administers the ESC and how FAPE implements it
- Describes the financial aspects of the program and estimates the savings it yields to the government
- Recommends policies and procedures to DepED for improving the administration of the ESC and to FAPE for improving its implementation of the ESC.

Education Contracting as a Form of Public-Private Partnership

The ESC represents one of the largest education contracting (a form of public-private partnership) in the world (Patrinos et al. 2009). Governments around the world have often chosen to pursue partnerships with the private sector to help them increase access to basic education services,

to improve the quality of the services (by leveraging private sector capacity and expertise), and to generate efficiencies in service delivery. The financing and provision of education can be combined in a variety of different ways, but in most existing partnerships the public sector finances and regulates and the private sector provides the services. Thus, these partnerships recognize the critical role played by the government in guiding policy and providing financing with the goal of ensuring equity of access to quality education, given the positive externalities of basic education, which is the foundation of economic growth and social welfare.

Globally, enrollment in private institutions has grown over the past 15 years in all types of communities including both high-income and low-income families. Between 1991 and 2004, enrollment in private primary schools worldwide grew by 58 percent, compared to only 10 percent in public primary schools. Approximately 113 million students are currently enrolled in non-government schools, 51 million of whom are studying at the secondary level (Patrinos et al. 2009).

In contracting forms of partnerships, the government procures education or education-related services of a defined quantity and quality from private providers at an agreed price for a specific period of time. These contracts include rewards and sanctions for non-performance and can include situations in which the private sector shares the financial risk involved in the delivery of public services. This partial definition covers several types of contracts depending on the specific services that are provided. The contracts vary in their degree of complexity. In the education sector, the services provided can range from the construction, management, or maintenance of infrastructure (often referred to as a private finance initiative) to the provision of education services and operations, as in vouchers or charter schools.

The private sector's role in education has several potential advantages over the traditional public delivery of education:

- Contracts can be more flexible than most public sector arrangements.
- Governments can choose private providers by means of an open bidding process in which the government defines specific requirements for the quality of education that it expects the contractor to deliver.
- Contracts can create competition in the education market.
- Contracts can achieve an optimal level of risk-sharing between the government and the private sector.

Whether these benefits are actually realized depends greatly on how well designed the partnership between the public and private sector is,

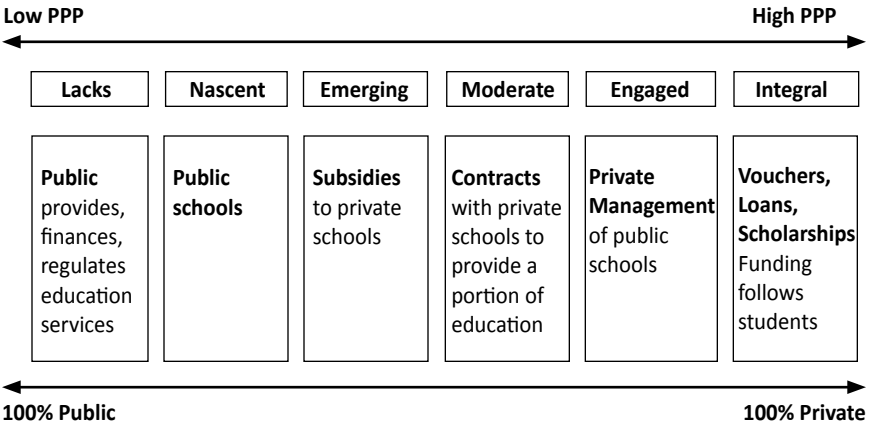
on the regulatory framework of the country, and on the capacity of the government to oversee and enforce its contracts and partnerships with the private sector (LaRocque 2008; Patrinos et al. 2009). A partial summary of the evidence is presented in Annex Tables 1, 2, and 3.

Patrinos et al. (2009) contains a continuum that depicts the main forms of publicly funded and privately provided education around the world. The continuum illustrates how the use of different types of contracts causes an education system to be more or less integrated with the private sector and shows some qualitative features of such engagements. It ranges from systems in which all provision is strictly by the public sector to systems where it is almost entirely publicly funded and privately provided. The continuum (Figure 1) assumes that the main responsibility for funding and regulation remains with the public sector. It illustrates the range of systems from those that use public funds to finance privately provided education (government subsidies for private school inputs) to contracts that influence changes in the supply side of public education (the private operation of public schools) to vouchers that have the potential to generate systemic changes by promoting school competition (subsidies that follow the student). This conceptual framework is useful for identifying the extent of each country's engagement with the private sector in education.

There are two dimensions to the continuum. The first relates to the content and qualitative characteristics of the mechanism. The progression of stages within the continuum reflect whether the agreement includes quality provisions that guide the terms of the partnership (a moderate degree of engagement with the private sector), the extent of the level of autonomy that is granted to the private provider over the provision of the service (engaged), and whether competition is allowed and encouraged by allowing students free choice between public and private schools (integral).

The second dimension of the continuum relates to the extent to which the partnership applies to the whole education system. A government might decide to allow the private sector to manage public schools but might do so as a small pilot scheme. This would put its policy in the "engaged" category but with only limited small coverage. This is the case in the city of Bogota, Colombia, where the local government authorized in 1999 the private management of 25 public schools, which cover only a small percentage of the total number of students enrolled in the city. On the other hand, another government might establish a partnership with very extensive coverage, but its qualitative features of the policy might be located towards the left extreme of the continuum, suggesting that the contract with the private sector is not very focused on outcomes. For example, the government of Bangladesh subsidizes the salaries of

Figure 1: Public-Private Partnership Continuum



Source: Patrinos et al. 2009

teachers in private schools, a policy which covers 98 percent of secondary school students but does not make this funding conditional on quality or performance measures. This is a case where the partnership is in the “emerging” category (see Figure 1) but has a high coverage rate of 98 percent (Patrinos et al. 2009).

Within this analytical framework, the Philippines ESC program can be regarded as having a “moderate” level of engagement with the private sector. The ongoing partnerships between non-government schools and DepED, managed by FAPE, channel public funds to private schools to educate a pre-determined number of students who would otherwise have attended public schools or been unable to afford private school tuition, thus liberating much-needed slots in public schools. With regard to the second dimension of the continuum, the coverage of the ESC program is quite substantial. ESC beneficiaries represent 9.3 percent of all public secondary school students and one-third of all students in private secondary schools, and involve 46 percent of all private secondary schools in the Philippines. Thus, the coverage of ESC is extensive and has been growing over the years, with 477,000 grantees being covered in SY 2008-09, up from the 210,630 grantees in SY 1996-97.

A Brief Description of the ESC

In the Philippines, most students receive their basic education in public schools, in other words, in buildings built, maintained, owned, operated, and administered by DepED. The curriculum is delivered by teachers who are public employees and who are supervised by government-paid school

heads and officials in division, regional, and national offices. Students in public schools do not pay any tuition fees and are entitled to the use of free textbooks.

Education service contracting (ESC) has been put into practice in the Philippines in the following forms:

- Qualified private high schools are paid a fixed amount per grantee by DepED to accept “would-have-been” public school students who could not be accommodated in nearby, highly congested public high schools but who are willing to pay the unsupported portion of their private school tuition and all other fees.
- A private agency, the Fund for Assistance to Private Education (FAPE), a non-profit organization, is paid by DepED to handle the day-to-day administration/implementation of the ESC program.

History

The Education Service Contracting (ESC) program began as a modest social experiment by FAPE involving elementary schools in the Bicol Region (Region V) in 1977 (Felipe 2009; Galace 2009). The premise, according to Felipe (2009), was that private schools provided better value for money, in other words, that they delivered a higher quality of education at a lower cost. Around 1981, encouraged by bishops at a private educators’ conference, Onofre D. Corpuz, then Minister of Education, initiated a similar pilot project at the high school level, which became the model for the ESC program that was first implemented nationwide by FAPE in 1989.

The proponents of the ESC saw it as a possible solution for four key problems that beset the Philippine education sector in the 1970s (Felipe 2009):

1. *Congestion in public high schools*: In the mid-1970s, enrollment in secondary schools expanded at a rate that was almost twice as fast as the 2.5 percent average annual growth rate in elementary enrollment. This was not due to a spike in the population of an age cohort – there had been no baby boom. Instead, supply and demand factors may have been at work, plus the advocacy by Pedro Orata, an educator, for the establishment of a high school in *every barangay* (village) may have triggered a huge increase in demand for secondary education. Education was underfunded during the martial law years, which led to deficits in school infrastructure spending, which also increased congestion.

2. *The low quality of education offered in public high schools:* Results from the National College Entrance Exam (NCEE), a test created in 1974 that high school graduates must pass to be eligible for college, repeatedly showed that students from private schools outperformed their peers from public schools. Other research confirms this (Jimenez et al. 1988). A 1983 survey of 5,190 secondary school students nationwide showed a private school advantage in both English and Pilipino (by more than half a year or roughly 15 percent of the sample mean achievement scores). In mathematics there was a relatively small difference in favor of the public schools – roughly 4 percent of the sample mean score.
3. *The higher per student cost of public secondary education:* Private schools claimed that they were more efficient than public schools, and this has been confirmed by research (Jimenez et al. 1988). On average, public schools spend roughly twice as much as private schools per student. Nevertheless, private students perform better academically in English and Pilipino. Moreover, even in mathematics where public school students do better, their advantage is slight and is unlikely to outweigh the substantial public/private cost differential.
4. *The declining viability of private high schools:* The Free Secondary Education Act of 1988 (otherwise known as Republic Act 6655) expanded secondary enrollment, but it also caused an exodus of students away from private to public high schools. This occurred because of increased public spending on education and a substantial program of school construction. While Sakellariou (2006) showed that liquidity-constrained individuals who benefitted from the free education policy experienced large earnings premiums as a result of their education, the expansion of free secondary education was not without negative consequences.

The expansion of public schooling changed the education market in the Philippines. Jimenez and Sawada (2001) explored the existence of a crowding-out effect using regional data over a 10-year period from after the passing of the Free Secondary Education Act in 1988. They concluded that the large expansion in the public secondary education sector was negatively associated with private secondary enrollment. The range of the response was around four or five fewer private school students for an increase of 10 public school students. Because the government had set a ceiling on tuition fee increases at that time, this limited the options available to private schools to make up for lost revenues. The fact that private schools complained about this policy implies that the ceilings were effective in the sense that they set tuition fees at the inelastic portion of the demand curves facing private

schools. In other words, for private schools, the increase in revenue due to a further marginal increase in tuition fees would have more than offset the decrease in their revenues due to the marginal reduction in enrollment resulting from the higher tuition fees.

The ESC, as originally conceived by Felipe (2009, 10) to address the aforementioned problems, was designed to be “a public school system in a private school setting” and was inspired by the school desegregation policy of the United States in the 1950s and 1960s. The program required four conditions to be satisfied:

1. An ESC grantee must have an “overflow” certification. The principal of the public high school where the grantee initially sought admission (known as the sending school) certify that the school is too congested to accept his or her enrollment. The private school in which the grantee eventually enrolls is referred to as the receiving school. The overflow certification allows the ESC authorities to track the sending-receiving relationship between a congested public school and a private school with spare capacity.
2. The receiving private high school must have a curriculum that has been approved by the Ministry of Education.
3. The private high school cannot impose admission standards on ESC grantees other than those found in public high schools. Therefore, the private school cannot require ESC grantees to pass entrance tests that the school may require of its other students. Indeed, the only way in which a private school can refuse admission to an ESC grantee is if it is itself overcrowded.
4. ESC grantees cannot be expelled from private schools for academic deficiencies. As in public high schools, they can only be made to repeat the year level or to retake the subjects in which they failed.

FAPE’s records reveal the timeline of the ESC program. The pilot project at the high school level mentioned by Felipe (2009) was undertaken between 1983 and 1985. Starting in 1986, the Department of Education assumed responsibility for the funding of the ESC program, although FAPE continued to implement it. In 1989, the program was expanded nationwide, as mandated by the law RA 6728. Between 1991 and 1996, the DepED took over the implementation of the ESC program. Because of numerous complaints by participating private schools about long payment delays and even non-payment, the DepED (then called the Department of Education, Culture and Sports or DECS) returned the day-to-day administration of the program to FAPE in 1996, and FAPE has been the implementing agency ever since (see Table 1).

Table 1: Timeline of the ESC Program

Year	DECS/DepED Order No.	DECS/DepED Order Approval	DECS/DepED Secretary	Grantee Selection	Slot Allocation	School Participation	Grant (PhP)	Releasing of ESC Payments
1996-97	53 s. 1996	Ricardo T. Gloria	Ricardo T. Gloria	Public High School Principal	Overflow from Public High Schools	Any duly recognized private high school	1,700	FAPE
1997-98	75 s. 1997	Ricardo T. Gloria	Ricardo T. Gloria	Public High School Principal	Overflow from Public High Schools	Any duly recognized private high school	1,700	FAPE
1998-99			Ricardo T. Gloria	Local Screening Team	Regional Quota System	Any duly recognized private high school	1,700	FAPE
1999-00			Andrew Gonzalez	Local Screening Team	Regional Quota System	Any duly recognized private high school	1,700	FAPE
2000-01	40 s. 2000	Andrew Gonzalez	Andrew Gonzalez	Private High School Principal	Replacement of Graduates, Dropouts, Transfer-out	Any duly recognized private high school	2,500	FAPE
2001-02			Raul Roco	Private High School Principal	Replacement of Graduates, Dropouts, Transfer-out	Any duly recognized private high school	2,500	FAPE
2002-03	232 s. 2002	Edilberto de Jesus	Raul Roco/ Edilberto de Jesus	School Committee	Replacement of Graduates, Dropouts, Transfer-out	Any duly recognized private high school	2,500	DepED

2003-04	40 s. 2003	Edilberto de Jesus	Edilberto de Jesus	School Committee	Replacement of Graduates, Dropouts, Transfer-out	Any duly recognized private high school	2,500	DepED
2004-05	36 s. 2004	Edilberto de Jesus	Edilberto de Jesus/ Florencio Abad	School Committee	DepED Priority Areas/ Certification Results	ESC Certification	4,000	DepED
2005-06	31 s. 2005	Florencio Abad	Florencio Abad/ Fe Hidalgo	School Committee	DepED Priority Areas/ Certification Results	ESC Certification	4,000	DepED
2006-07			Fe Hidalgo/ Jesli Lapus	School Committee	DepED Priority Areas/ Certification Results	ESC Certification	4,000	DepED
2007-08	37 s. 2007	Jesli Lapus	Jesli Lapus	School Committee	Regional Quota System	ESC Certification	5,000	DepED
2008-09	21 s. 2008	Jesli Lapus	Jesli Lapus	School Committee	Regional Quota System	ESC Certification	5,000 NCR: 10,000	DepED
2009-10	86 s. 2009	Jesli Lapus	Jesli Lapus	School Committee	Regional Quota System	ESC Certification	5,000 NCR: 10,000 (1 st and 2 nd year students); 5,000 (3 rd and 4 th year students)	DepED
2010-11	31 s. 2010	Vilma Labrador (Officer-in-Charge)	Mona Valisno	School Committee	Regional Quota System	ESC Certification	5,000 NCR: 10,000 (1 st to 3 rd year students); 5,000 (4 th year students)	DepED

CHAPTER 2

The Expanding Coverage of the ESC Program

The coverage of the Education Service Contracting (ESC) Program at the secondary level has expanded tremendously in terms of the number of grantees and the number of participating private schools over the 21 years since the passage of Republic Act (RA) 6728 (Government Assistance to Students and Teachers in Private Education or GASTPE Law) in 1989 and the 12 years since the enactment of RA 8545 (expanded GASTPE) in 1998. The ESC program now involves a significant number of enrollments, schools, and pesos. In SY 2008-09, the ESC grantees numbered almost 477,000 – the equivalent of 9.3 percent of the 5.1 million students in public high schools and 35.8 percent of the 1.3 million students in private high schools. Forty-six percent (or 2,033 or nearly half) of the 4,392 private secondary schools in the country have ESC grantees enrolled in them.

If we combine these numbers with the approximately 91,000 Education Voucher System (EVS) grantees (who are funded from the same GASTPE appropriations used for the ESC), this equals 567,500 ESC and EVS grantees in SY 2008-09, the equivalent of 11.1 percent of the 5.1 million students in public high schools and of 42.6 percent of the 1.3 million students in private high schools. The 2,508 high schools that participate in the ESC, the EVS, or both are equivalent to 49.1 percent of the 5,110 public high schools and 57.1 percent of the 4,392 private high schools in the country.

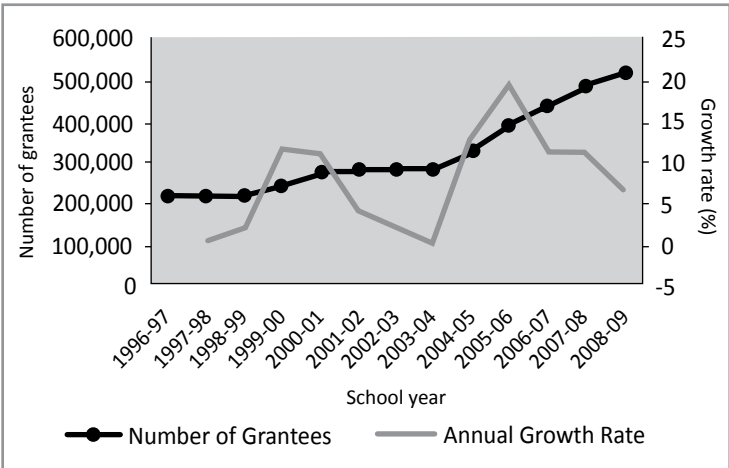
Trends in the Number of Grantees

Since SY 1997-98, the number of ESC grantees has been increasing. Until SY 2003-04, however, the yearly increases were quite modest. Between 1996-97 and 2003-04, the average annual growth rate was only 4 percent. In contrast, since 2003-04, the average annual rate of increase has jumped to 12 percent, a three-fold increase over the earlier period (Figure 2).

Between SY 2003-04 and 2008-09, the allocations of ESC grants among the regions did not change much in terms of rankings based on their percentage shares of the overall amount allocated (Table 2). Central Luzon (Region 3), CALABARZON (Region 4-A), Western Visayas (Region 6), and SOCCSKSARGEN (Region 12) all had the largest allocations in both school years, while the NCR, Caraga, ARMM, Zamboanga Peninsula (Region 9), and MIMAROPA (Region 4-B) had the smallest. Given that ARMM and MIMAROPA are two of the regions with the highest poverty incidence, while Central Luzon and CALABARZON have two of the lowest, the regional distributions of ESC grants does not seem to have been consistent with the geographic distribution of poverty. As is pointed out below, one problem may be that poor areas are plagued by supply constraints. In other words, private schools in poor areas may have only limited capacity to take in ESC grantees.

To look further into this, we looked at whether the regional growth rates of ESC slot allocations are consistent with the regional distribution

Figure 2: Number and Annual Growth Rate of ESC Grantees, SY 1996-97 to SY 2008-09



Source: DepED and FAPE

Table 2: Percentage Share of ESC Slots and Average Annual Growth Rate, by Region, SY 2003-04 and SY 2008-09

Region	Share in 2003-04	Rank	Share in 2008-09	Rank	Ave. Annual Growth Rate	Rank
Philippines	100.0		100.0		12.0	
NCR	0.3	17	1.9	17	50.6	1
Ilocos	7.1	6	8.3	4	15.3	3
Cagayan Valley	6.0	8	5.4	9	10.0	12
Central Luzon	11.8	1	11.4	1	11.4	7
CALABARZON	9.5	2	11.0	2	15.0	4
MIMAROPA	4.5	12	3.6	13	7.5	15
Bicol	6.1	7	5.9	7	11.2	8
Western Visayas	7.6	4	9.8	3	17.0	2
Central Visayas	7.3	5	6.8	6	10.6	10
Eastern Visayas	5.2	11	4.6	11	9.6	13
Zamboanga Peninsula	3.9	15	2.8	16	5.5	17
Northern Mindanao	5.5	9	5.6	8	12.3	6
Davao	4.4	14	4.9	10	14.1	5
SOCCSKSARGEN	7.8	3	7.1	5	10.2	11
CAR	5.2	10	4.5	12	9.3	14
ARMM	4.5	13	3.3	14	5.6	16
Caraga	3.4	16	3.3	15	11.0	9

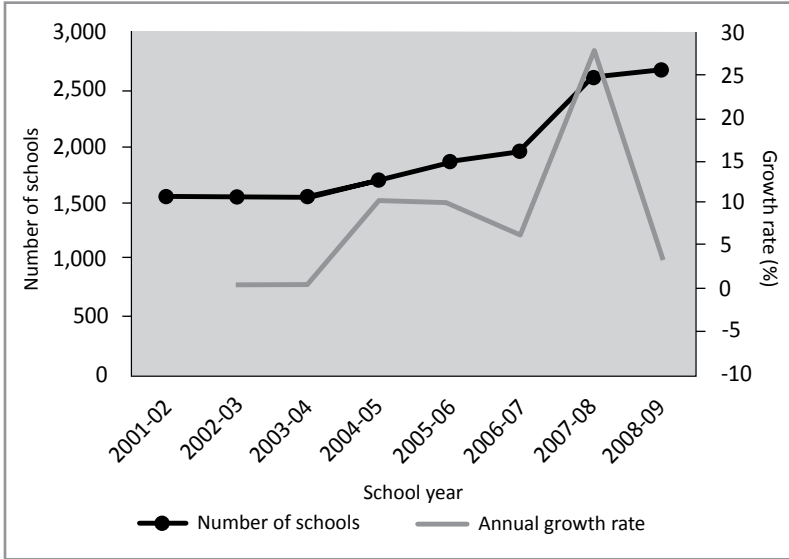
Source: DepED and FAPE

of poverty incidence. Unfortunately, it turns out that this has not been the case. Regions with the highest growth rates include the NCR (because it started from a very low base), Ilocos (Region 1), CALABARZON, and Western Visayas, while regions with the lowest growth rates are ARMM, Zamboanga Peninsula, and MIMAROPA. Again, the poorest regions also have the lowest growth rates in ESC slots, probably because few households can take up the slots due to their inability to pay for the difference between the subsidy amount and the tuition fees.

Trends in the Number of Private Schools Participating in the ESC

Since SY 2003-04, the number of private schools participating in the ESC has been increasing at an average annual rate of 11 percent – about as fast as the average annual rate of increase of ESC grantees (Figure 3).

Figure 3: Number and Annual Growth Rate of ESC-Participating Schools, SY 2001-02 to SY 2008-09

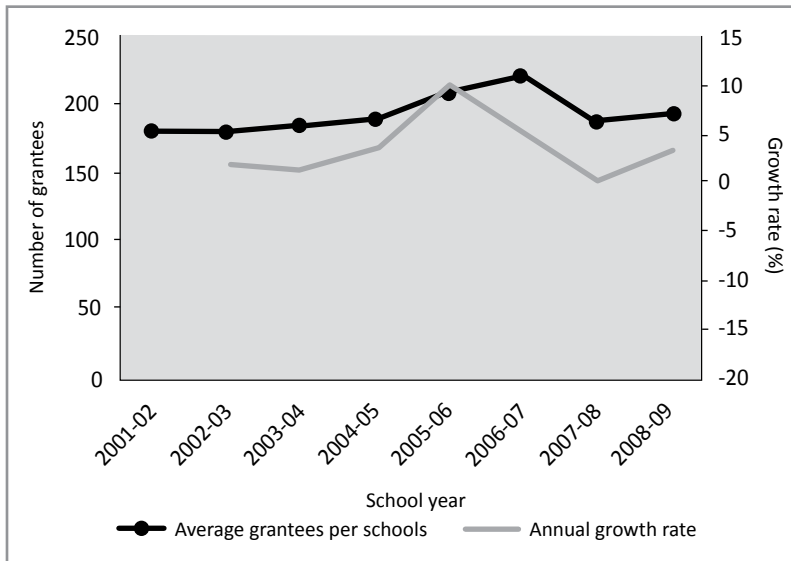


Source: DepED and FAPE

The fact that the numbers of schools and grantees are increasing at almost the same rate is probably due to the practice of FAPE of allocating about one section's worth of slots (that is, 50) to schools that are just starting to participate in the program. This is not consistent with the intent of the ESC program to fill up only the excess capacity of private schools. Moreover, the "minimum 50" policy has the potential to breed a culture of dependency and government entitlement among ESC-participating schools and resentment in schools that are deemed by FAPE's certification process to be not good enough. Furthermore, allocating one section worth of ESC slots to a newly participating school encourages the segregation of ESC grantees rather than "mainstreaming" them into the general population in the private school.

Indeed, the number of grantees per school increased at an average rate of only 0.9 percent per year between SY 2001-02 and 2008-09 (confirming the analysis above). However, this average rate hides some intra-period variability. For instance, the annual rate of change was as high as 9.8 percent between SY 2004-05 and SY 2005-06 but also as low as -16.9 percent between SY 2006-07 and SY 2007-08 (Figure 4).

Figure 4: Average Number and Annual Growth Rate of Grantees per School, SY 2001-02 to SY 2008-09



Source: DepED and FAPE

Trends by Region

However, the national trend hides a lot of interregional variation. Between SY 2003-04 and SY 2008-09, there was positive average annual growth in the average number of ESC grantees per participating school in most regions (Table 3), ranging from 0.5 percent in Zamboanga Peninsula, 1.2 percent in MIMAROPA, and 1.8 percent in ARMM to 7.2 percent in Caraga, 7.4 percent in the Cordillera Administrative Region and 11.3 percent in Ilocos. In contrast, the three contiguous regions of the NCR, Central Luzon, and CALABARZON exhibited negative average annual growth rates of -22.2 percent, -1.5 percent, and -6.4 percent.

The reason for these trends is that, since the total number of ESC grants increased significantly but the regional distribution of the slots did not change much, regions in which there were large increases in the number of participating schools experienced declines or only modest increases in the average numbers of grantees per school. On the other hand, regions in which there were no increases in the number of participating schools registered large increases in the average numbers of grantees per school. Note, in particular, that ARMM, the region with the highest poverty incidence, had the highest average number of grantees per school in both

Table 3: Average Number and Annual Growth Rate of Grantees per School, by Region, SY 2003-04 and SY 2008-09

Region	Grantees per School in 2003-04	Rank	Grantees per School in 2008-09	Rank	Ave. Annual Growth Rate	Rank
NCR	111.29	17	36.60	17	-22.24	8
Ilocos	134.20	15	236.57	7	11.34	17
Cagayan Valley	219.45	3	254.11	5	2.93	14
Central Luzon	209.88	5	195.25	13	-1.45	2
CALABARZON	183.94	10	133.84	16	-6.36	7
MIMAROPA	220.05	2	233.60	8	1.20	10
Bicol	172.42	11	228.18	9	5.60	12
Western Visayas	191.25	9	254.45	4	5.71	5
Central Visayas	151.17	14	187.98	14	4.36	13
Eastern Visayas	204.74	7	241.48	6	3.30	6
Zamboanga Peninsula	207.21	6	212.06	11	0.46	1
Northern Mindanao	127.78	16	169.18	15	5.61	4
Davao	171.25	12	202.00	12	3.30	16
SOCCSKSARGEN	215.84	4	260.45	3	3.76	11
CAR	202.94	8	294.26	2	7.43	9
ARMM	303.61	1	331.88	1	1.78	15
Caraga	153.50	13	220.08	10	7.21	3

Source: DepED and FAPE

years. The reason for this may be that the few private schools in the region do not have the capacity to absorb more ESC students. Clearly, in such regions, the government needs to improve the quality of public secondary education as well as to increase the capacity of the public school system to take in more students.

Relating the Number of ESC Slots to the Number of Excess Students

In the early days of the ESC, FAPE and DepED explicitly tracked the relationship between the sending public school (which was congested) and the nearby receiving private school (which had open places). In recent years, however, DepED and FAPE have stopped tracking this relationship. As a result, the current distribution of ESC slots is not allocated according to the pattern of congestion in public schools, and there are now areas in which an ESC-participating private school is located close to at least one public school with spare capacity.

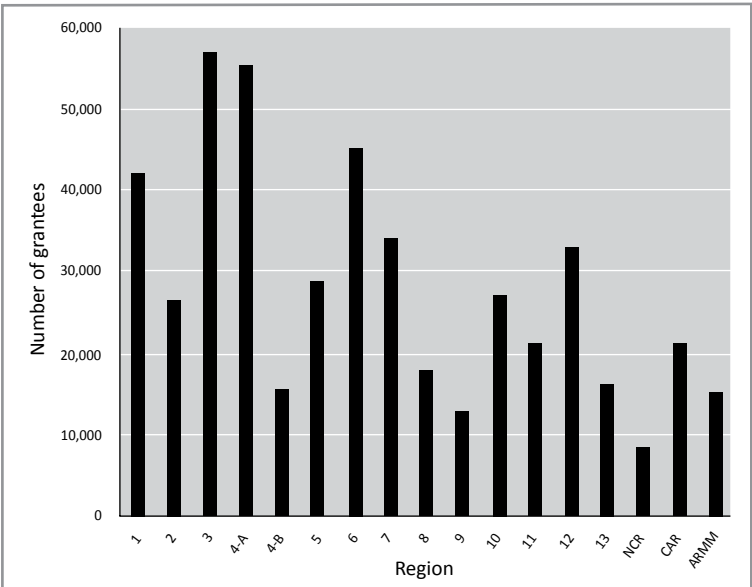
Nor have the municipalities or school divisions been tracking ESC “supply” (the slack capacity or number of empty seats in private schools) and ESC “demand” (the number of excess or “aisle” students in congested public schools). Instead, over recent years, the monitoring of ESC slots has been done by the regions (each of which, on average, contains 300 public and 258 private high schools).

The allocation of ESC slots per region is supposed to be guided by the pupil-teacher and pupil-classroom ratios by region, which DepED publishes in an annual memo. Unfortunately, there is no algorithmic procedure that FAPE and DepED could use to link these indicator ratios by region to the number of ESC slots by region, and certainly no formula to guide FAPE and DepED in assigning slots to specific private schools. Figure 5 shows the SY 2008-09 regional distribution of ESC grantees, while Figure 6 shows the regional distribution of ESC-participating private schools. In both cases, it is difficult to explain how or why these regional distributions came about over the years.

Estimating the Full Capacity of Public Schools and the Number of Aisle Students

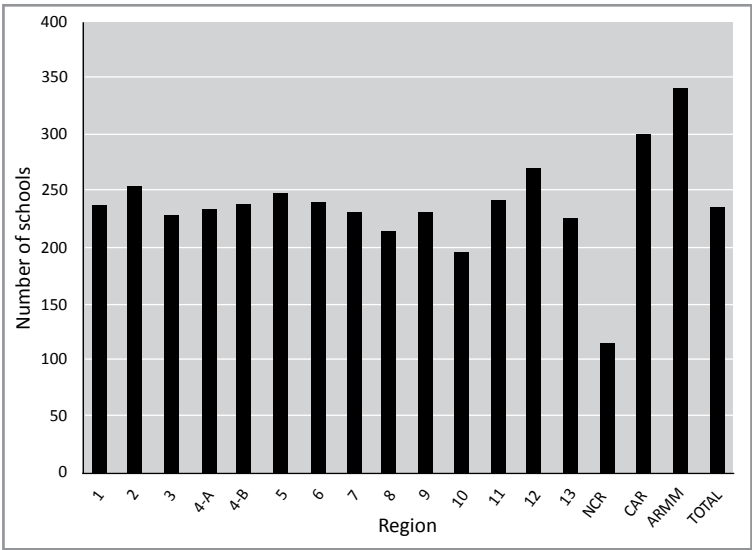
The measure of the demand for ESC slots in a region or division is the number of excess/aisle students in the congested public schools in that region or division. To estimate the number of excess/aisle students in public schools, it is first necessary to determine what constitutes the full capacity of each public school. For instance, if the full capacity of a public school is determined to be 800 but the actual enrollment is 900, we infer that it has 100 aisle students. These students still attend that public school but have to sit or stand, so to speak, “in the aisles.” It can therefore be said that the public school has 100 students who are natural candidates for ESC slots in nearby private schools that have the necessary spare capacity.

Figure 5: Number of ESC Grantees, by Region, SY 2008-09



Source: DepED and FAPE

Figure 6: Distribution of ESC-Participating Private schools, by Region, SY 2008-09



Source: DepED and FAPE

The study team conducted simulations to estimate the full capacity of each public school and then thereby to infer the number of aisle students of each public school. According to the Basic Education Information System (BEIS) database compiled by the DepED there are about 6,500 of these schools in the Philippines. We used two sets of assumptions: (1) assumptions leading to a high estimate of capacity in public secondary schools and (2) assumptions leading to a low estimate of capacity. The two sets of assumptions were as follows:

Assumptions resulting in a high estimate of capacity:	Assumptions resulting in a low estimate of capacity:
<ul style="list-style-type: none"> • Each teacher has 50 students • Each classroom fits 50 students • Number of shifts allowed for urban schools with enough teachers: 2; all other schools will offer only one shift • Count all national and local teachers listed in the BEIS for the school; in other words, assume 150,826 teachers • Assume full teaching load for every teacher • Subject specialization ratio: 7:4 (7 specialized teachers are enough to handle 4 secondary school sections, one section in each year level) 	<ul style="list-style-type: none"> • Each teacher has 45 students • Each classroom fits only 45 • Number of shifts allowed for urban schools with enough teachers: 2; all other schools will offer only one shift • Count only national teachers listed in the BEIS as actually teaching in school; thus, assume 118,316 teachers • Assume full teaching load for every teacher • Subject specialization ratio: 9:4 (9 specialized teachers are needed to handle 4 secondary school sections, one section in each year level)

Note: These subject specialization ratios were suggested by DepED Bureau of Secondary Education.

Given these assumptions, how did we estimate the potential capacity of a public school? To illustrate the method that we used, suppose the norm class size is 50 and the subject specialization ratio is set at 7:4 (as set under the high capacity assumptions). If the school has T teachers (national and local teachers combined) and C classrooms, then the potential capacity of the school is defined simply as:

$$\text{Potential capacity} = \text{Minimum}\{[\text{ROUND}(T*4/7)]*50, C*50*IF(\text{URBAN},2,1)\}$$

where the function “IF (URBAN,2,1)” =2 if the school is in an urban area (and therefore can offer a second shift if some teachers are available) and =1 if the school is a non-urban area. There is an obvious adjustment in the formula if the norm class size is 45 and the subject specialization ratio is set at 9:4 (as in the low capacity assumptions). If the actual enrollment exceeds potential capacity, then the difference is the implied number of aisle students. If the actual enrollment is less than potential capacity, then the difference is the implied number of unfilled enrollment slots.

We carried out two sets of computations for each public secondary school using data from the SY 2007-08 BEIS as supplied to us by DepED (Table 4). We found that, based on the enumerated norms, the full capacity of the public secondary school sector was between 3.8 million (the high estimate of capacity) and 2.3 million (the low estimate of capacity) – although actual enrollment is 5.1 million. We also found that the estimated number of aisle students to be between 1.5 million (inferred from the high estimate of capacity) and 2.8 million (inferred from the low estimate of capacity). This implies that public schools are operating at somewhere between 39 and 123 percent above their actual capacity.

Table 4: High versus Low Estimates of School Capacity

	Assuming High Capacity	Assuming Low Capacity
Computed public secondary school capacity	3,790,450	2,299,815
Aisle students	1,464,355	2,832,891
Teacher shortage	58,931	155,690
Classroom shortage	21,455	28,862

Source: ESC Study Team computations using SY 2007-08 DepED and FAPE data

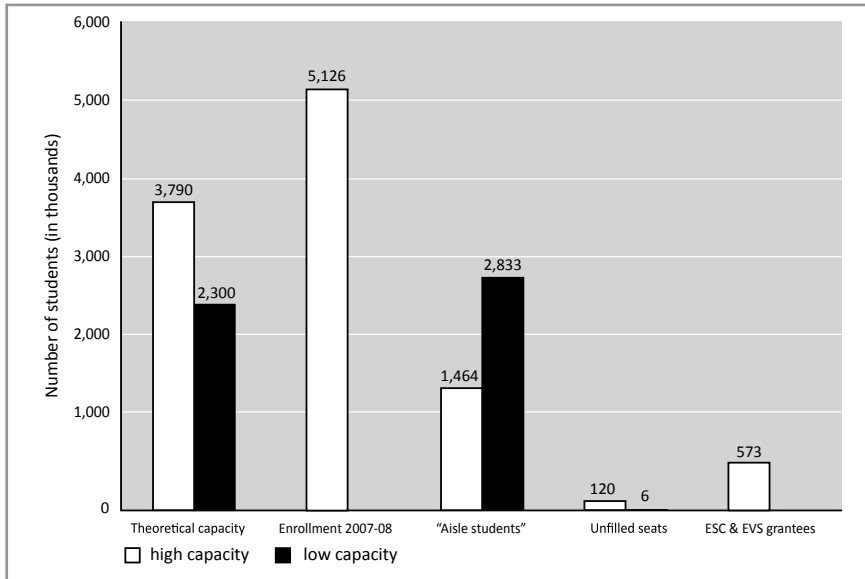
In Figure 7, the bar at the left of each pair shows the figure under assumptions that lead to the high estimate of capacity. By contrast, the bar at the right of each pair shows the figure under assumptions that lead to the low estimate of capacity.

The study could have obtained more refined results if there were detailed data on the full capacity of each public and private high school. As it was, the study had to form some assumptions to estimate the full capacity of each public high school. On private high schools, the study was not provided any data on their full capacity and therefore none on slack capacity either. Indeed there should have been information too, on a municipality by municipality basis, on the proximity between congested public schools and private schools with spare capacity.

The Extent of Congestion in Public Schools by Region

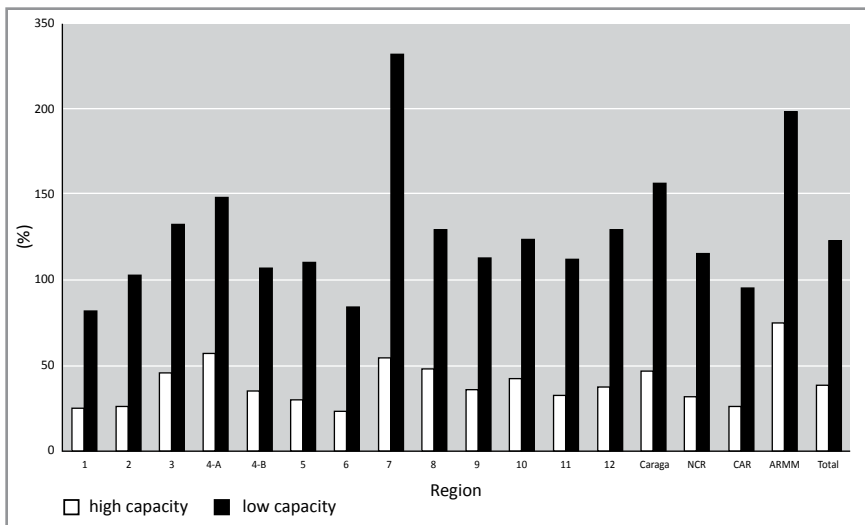
The extent of congestion in public secondary schools by region as estimated for this study is presented in Figure 8. The left bar shows the level of overcrowding based on our high capacity assumptions. The right bar shows

Figure 7: Theoretical Capacity of Public Secondary Schools – High versus Low Estimates



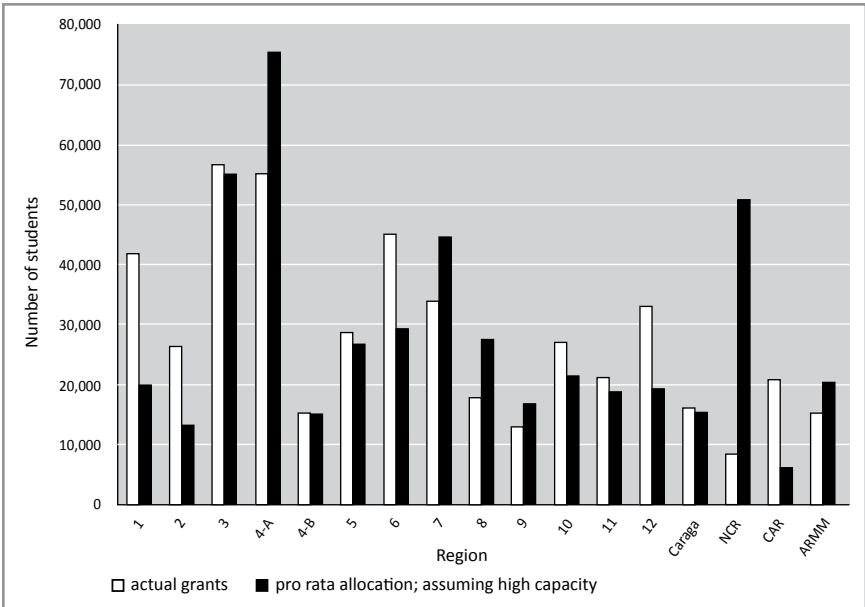
Source: ESC Study Team computations using SY 2007-08 DepED and FAPE data

Figure 8: Extent of Congestion in Public Secondary Schools (Aisle Students as Percent of Capacity)



Source: ESC Study Team computations using SY 2007-08 DepED and FAPE data

Figure 9: Actual ESC Allocations versus “Ideal” Pro Rata Allocation



Source: ESC Study Team computations using SY 2007-08 DepED and FAPE data

the level of overcrowding based on our low capacity assumptions. For instance, in Region 7, we estimated congestion to be between 55 percent (assuming high capacity) and 232 percent (assuming low capacity).

Aligning the Distribution of ESC Slots with the Distribution of Aisle Students

Evidently the current distribution of ESC grantees by region is not proportional to the estimated number of aisle students in each region. This is not surprising because, until recently, DepED had no way of measuring the full capacity of schools and the implied number of aisle students in a region, let alone in each public school in the country. Figure 9 shows how the current number of grantees by region compares with the hypothetical pro-rata distribution of ESC slots based on our estimation of the number of aisle students in each region. The disproportion is evident in the figure as some “lucky” regions (for example, Regions 1 and 2) have more than their would-be proportional share while other “unlucky” regions (for example, Regions 4-A, 7, and the NCR) have fewer than their would-be proportional share.

Ensuring that the distribution of ESC slots is aligned with the distribution of aisle students cannot be done in one fell swoop. The alignment should be attempted over a multi-year period (say five years) and can be done without reducing the ESC quotas of those private schools that are currently participating in the ESC.

The method that we recommend is to methodically allocate additional ESC slots in proportion to the number of aisle students within each school division rather than at the regional level. Assuming that enough new ESC and EVS slots can be added each year to the national pool, we project, that after about five or six years, the resulting distribution of ESC and EVS slots within school divisions will be close of being in correct proportion to the numbers of aisle students in each school division. This method would slowly but systematically reestablish the direct relationship between reducing congestion in public schools by using the spare capacity in private schools. This of course means that a survey is needed to estimate spare capacity in private schools, but so far, neither DepED nor FAPE has attempted to carry out such a survey.

CHAPTER 3

The Regulatory Framework

This chapter discusses the ESC program from a regulatory perspective, a vantage point that DepED does not seem to have taken into account so far. First, we describe the institutional setup of the ESC program as it is currently implemented. Second, we present a normative regulatory framework of analysis. Finally, we analyze ESC's enabling laws and the Memorandum of Agreement (MOA) between DepED and FAPE for SY 2008-09 in the light of this regulatory framework.

Current Practice

In the current institutional setup of the ESC program, DepED contracts with FAPE to be the implementing agency of the program through a MOA that is renegotiated on an annual basis. In return for its services, FAPE receives a fixed administrative services fee, currently (based on the MOA for SY 2008-09) set at PhP 100 per grantee, plus PhP 40 million for managing and conducting training programs for teachers and administrators of ESC-participating schools and PhP 30 million for research activities. FAPE is able to retain any savings thus giving it an incentive to minimize its expenditures.

FAPE administers the ESC program on the basis of guidelines and procedures for participating schools that DepED issues in the form of an annual order. Starting in SY 2006-07, following a directive from President Gloria Macapagal Arroyo, DepED implemented the Education Voucher System (EVS), which is financed from the same GASTPE fund used for the ESC. FAPE also implements the EVS on the basis of a separate MOA with DepED. The main difference between the ESC and EVS grants is

that the ESC grant can be granted only for schools that have been pre-selected or certified by FAPE, whereas EVS vouchers can be redeemed in any government-recognized private secondary school. FAPE determines the number of ESC slots allocated to a school based on regional quotas provided by the DepED's Office of Planning Service. These quotas are based on overall program costs and school congestion as measured by indicative student-teacher ratios.

The private schools participating in the ESC program go through a FAPE certification process to ensure school quality. If FAPE finds a participating school to be below standard in the recertification process it does not allocate any first-year slots to that school in the next school year, although the school is allowed to keep existing grantees until those students either drop out or graduate. Private schools compile billing statements that list the names of all grantees enrolled in the school. In SY 2006-07, the ESC grant was fixed at PhP 5,000 per year, but, starting in SY 2008-09, the grant in all regions except the NCR was retained at PhP 5,000, while in the NCR, it was raised to PhP 10,000. This was in recognition of the higher tuition and other school fees in the NCR, which average PhP 26,432 per year (SY 2007-08) compared with a little less than PhP 10,000 outside the NCR. In SY 2008-09, there were 477,100 ESC grantees, whose grants totaled PhP 2.8 billion.

Each of the 2,300 participating private schools submits a billing statement to their FAPE's regional coordinator who checks it for completeness and correctness. The corrected billing statements are sent to and compiled at the FAPE national office and then sent over to the DepED central office for processing by the Bureau of Secondary Education and the Accounting Office. Thereafter, DepED pays the schools directly by making electronic transfers to their official bank accounts at the Land Bank, a government bank. No ESC grants are paid directly to grantees or to school officials. Nor does FAPE handle any GASTPE funds except for what it receives from DepED for its services.

Analysis of the Regulatory Framework

The framework of analysis that we used is the new economics of regulation (see, for example, Laffont 1994, 2005; Laffont and Tirole 1993), which applies the theory of incentives (from information economics) and the concerns of welfare and public economics to regulatory issues. This section has two parts. The first part discusses the elements of regulation that apply to the relationship between the DepED (as the regulator) and FAPE (as the regulated firm) that are needed to improve the implementation

of the ESC program. The second part describes the possible regulatory instruments and incentive schemes.

Design Elements of a Regulation Framework

How can a contract between DepED (as the principal) and FAPE (as the agent) to be designed so that FAPE will: (i) find it worthwhile to implement the ESC (that is, its participation constraint is satisfied) and (ii) be induced to achieve the ESC-related objectives of DepED (that is, the reward system is incentive-compatible) so that socially optimal outcomes in the education sector (explicitly defined and measured in a particular way) can be achieved? Complicating this fundamental problem are three kinds of regulatory constraints: (i) informational; (ii) transactional; and (iii) administrative and political.

Informational constraints consist of information to which DepED has no access or, more generally, that a court of law cannot verify. Since contracts that depend on inaccessible or unverifiable information are unlikely to produce socially optimal outcomes, informational constraints limit the extent to which DepED can regulate FAPE. There are two types of informational constraints: moral hazard and adverse selection. Moral hazard is the hidden action variable that is generically referred to as (unobservable) effort. Specifically, moral hazard pertains to endogenous variables (that is, variables within the control of FAPE) that cannot be observed by DepED or to discretionary actions taken by FAPE that affect the cost of ESC operations or the quality of ESC outcomes (judged by criteria such as the number and appropriateness of the beneficiaries, the choice of participating schools, or learning outcomes). Examples include how hard the officials work and what perks they enjoy, such as the discretion to: (i) hire assistants and consultants to lighten their work load; (ii) delay implementing unpleasant tasks, such as taking cost-cutting measures or banning schools that perform badly from participating in the ESC in the future, and (iii) drawing large per diems in out-of-town trips or taking long vacations.

Adverse selection is the hidden attribute parameter that is generically referred to by the literature as the type of agent or regulated firm that FAPE is (for example, whether it is a low-cost/efficient or high-cost/inefficient operation). Specifically, adverse selection involves exogenous variables (that is, variables that are not under FAPE's control but that affect its performance) that cannot be observed by DepED. Examples include FAPE's cost structure (including how unit costs and marginal costs are affected as ESC operations are scaled up or combined with those

of another program) and technology (including its actual operations and procedures or the ways in which it combines manpower and other resources to implement the ESC). Another example might be collecting data on demand for ESC grants by schools and students since the frequent interactions between FAPE, schools, and students or their parents make the gathering of information by FAPE less expensive than the equivalent exercise undertaken by DepED.

Because of moral hazard and adverse selection, DepED loses some of its regulatory control over FAPE, and this in turn has generated a demand in DepED (as regulator) for public audits and hearings to hold FAPE fully accountable. However, as noted in Laffont and Tirole (1993), a regulated firm has a lot of discretion in managing the information that it discloses to the regulator.

Transactional constraints arise from the writing and enforcement of regulatory contracts. Williamson (1975) classifies transaction costs as follows. The first category involves costs associated with the need to make the regulatory contract as complete as possible, in the sense that it foresees and allows for all possible contingencies. These costs may include the fees of researchers as well as the time cost of the research activity. In the second category are costs associated with specifying the obligations of the transacting parties under each and every possible contingency in the regulatory contract. The time cost of directing lawyers and the lawyers' fees would also come into this category. The third set of costs involves those associated with the supervision and enforcement of the contract by the regulator, including the costs of setting up an office, hiring staff and inspectors, and, in the worst case, litigation.

Administrative and political constraints cover the regulatory codes, administrative orders, and laws that circumscribe what a regulator can and cannot do. In certain cases, the law limits the scope of the regulation. For instance, DepED may be prohibited from examining FAPE's non-ESC related activities. In other cases, the instruments that regulators can use are limited by law. For instance, while DepED is allowed to make monetary transfers to FAPE, it may not be allowed to levy a "participation fee" on private high schools who apply to be part of the ESC program. The duration of a regulatory contract can be limited in some cases. For instance, the law may allow only annual contracts between DepED and FAPE because the GASTPE appropriation comes from the budget of DepED, which is set yearly by the government. In addition, there are some procedural requirements in how DepED interacts with FAPE. For instance, the DepED Secretary is not allowed to give directives to FAPE without the concurrence of the Private Education Assistance

Committee (PEAC), FAPE's trustee, of which he or she is the ex-officio chair. Finally, politicians can also affect DepED's regulatory independence, for example, through their control over budgets and appropriations, by threatening to impeach officials, and by changing the responsibilities of the agency.

Regulatory Instruments and Incentive Schemes

As the regulator, DepED needs to acquire information on the costs of FAPE, and the demand for ESC grants with the aim of improving the performance of the ESC. Specifically DepED needs accounting data on FAPE's costs of implementing the ESC program and any profits (revenues in excess of costs) it may have made in doing so. These data are likely to provide DepED with indications of where effort (moral hazard) could be increased or costs (adverse selection) could be minimized. This would be particularly helpful if FAPE were to categorize its costs by activity, for example, costs associated with: (i) coordinating with DepED's Office of Planning Service on the yearly allocation of ESC grants; (ii) collecting and processing forms; (iii) following up the payments of ESC grants to participating schools; (iv) certifying the participating schools; (v) conducting training activities; and (vi) negotiating the annual MOA with DepED.

DepED also needs data on the target clientele of ESC and their welfare gains from the program (demand data). Information on the applicants (and non-applicants) to the ESC program, the grantees who were chosen by the school committees, and the performance of the grantees compared with other public and private school students (including the unsuccessful grant applicants) would make it possible to improve the targeting of ESC grantees. Estimates of marginal willingness to pay for extra school fees conditional on receiving the ESC grant can be used to measure welfare gains.

As regulator, DepED could propose a variety of incentive schemes to address FAPE's participation constraint (in other words, to induce FAPE to implement the ESC program for DepED in a socially optimal way). The schemes would have to be incentive-compatible, in other words, designed to ensure that FAPE would exert its best effort to achieve the program's objectives. These might involve offering a (high enough) fixed-price contract, which would make FAPE the residual claimant of any savings or a cost-plus reimbursement contract, which ensures that FAPE both recovers its costs and receives revenue or a combination of both. Performance rewards could also be included to induce FAPE to exert more effort. These incentive schemes obviously have different implications for

the relative burden of risks borne by DepED and FAPE: In a fixed-price contract, for example, FAPE bears the risk of cost overruns. Its focus would therefore be on cost efficiency rather than on achieving ESC program objectives such as better targeting of ESC grantees and more equitable distribution of slots. By contrast, in a cost-plus contract, DepED bears the risk of escalating costs, while FAPE is assured of a given rate of return. FAPE would therefore not have strong incentive to cut costs. Indeed, if the rate-of-return formula depends on some base, such as FAPE's capital stock, the firm would want to overinvest in capital equipment and other such assets. Finally, if FAPE is given performance incentives, it can be expected to weigh these rewards against the cost of exerting greater effort to achieve the stipulated performance standards.

Analyzing the ESC Program from a Regulatory Perspective

This section identifies a number of regulatory problems with respect to the ESC program in its current form. These include: (i) the lack of coherence between the provisions of the enabling laws on the one hand and the program objectives as stated in the DepED-FAPE MOA and the allocation of ESC grants by both DepED and FAPE on the other; (ii) the absence of safeguards against regulatory capture of DepED by FAPE (iii) the lack of recognition that a regulatory situation exists within DepED; (iv) the absence of ESC program objectives in FAPE's incentives; (v) the lack of a regular audit of FAPE's costs or of any evaluation of its activities relative to the program's objectives; and (vi) the absence of any dissemination of best practices technologies to develop public support for the ESC program. These problems are discussed in turn.

Incoherence between ESC's Enabling Laws and its Program Objectives and Allocation of Grants

As currently implemented, the ESC program draws its legal authority from Republic Acts 6728 and 8545. The former is otherwise known as the Government Assistance to Students and Teachers in Private Education (GASTPE) Act of 1989, while the latter tends to be referred to as the Expanded GASTPE Act of 1998.

Amending RA 6728, which specified "excess students in public high schools" as the target beneficiaries of the ESC program, RA 8545 simply identifies "students who enroll in private high schools" as the program's clientele. In contrast, the DepED-FAPE MOA mentions "poor Filipino students" as the intended beneficiaries of the ESC program.

Both RAs 6728 and 8545 set the “per student cost in public high schools” as the benefit ceiling of the ESC grant and require an “equalization scheme” to be designed and implemented to ensure the equitable distribution of ESC grants among the regions. Yet neither the laws nor their implementing guidelines specify how per student cost is to be estimated. Also, more than 10 years after the 1998 deadline set by RA 8545 for the implementation of the equalization scheme, no formula is yet in place. Instead, the allocation of grants is done on an ad hoc basis by DepED’s Office of Planning Service in coordination with FAPE.

Absence of Safeguards against Regulatory Capture

There are two possible instances where regulatory capture may occur. First, the signatories to the DepED-FAPE MOA are the DepED Secretary, as the representative of DepED, and members of the Private Education Assistance Committee (PEAC), FAPE’s trustee, of which the DepED Secretary is also the ex-officio chair. Thus, in effect, the DepED Secretary contracts the services of a private organization whose board he heads. The safeguard used so far has been that the Secretary does not sign the PEAC side of the MOA, presumably on the grounds that PEAC decisions are based on a simple majority of votes by committee members. Nonetheless, a problem remains in that DepED is left open to regulatory capture by FAPE through the Secretary. How is DepED to properly monitor FAPE’s performance when, in his role as DepED Secretary, the chair of PEAC can ask his subordinates in DepED to do his bidding?

Second, in its school certification activities, FAPE contracts with the staff of the Bureau of Secondary Education (BSE) in their personal capacities to be members of its evaluation teams. Because these contracts provide DepED personnel with extra income (which they can count on every year), this practice builds goodwill for FAPE within DepED. However, it also raises questions about propriety, since the ESC is a high school program and therefore falls under the BSE’s remit.

Absence of a Regulatory Perspective in DepED

Nowhere in the DepED-FAPE MOA is the regulatory function of DepED over FAPE’s implementation of the ESC program recognized. Indeed, no special board is constituted nor is there an office within DepED that assumes the role of regulator specifically of the ESC program. Consequently, there is no ownership within DepED of the ESC program. Neither is there any systematic monitoring of FAPE’s ESC-related

activities, since no specific office is charged with the task. Also, no budgetary resources are allocated for DepED to carry out its regulatory responsibilities over the ESC program.

Absence of ESC Program Objectives in FAPE's Incentives

As mentioned above, FAPE operates under a fixed-price contract, which makes it the residual claimant of any savings it may make. Its primary incentive is therefore to be as cost-efficient as possible. Since the contract does not relate FAPE's responsibilities to any of the stated objectives in the MOA, there is no reason for FAPE to take any of these objectives seriously in its implementation of the ESC program. This makes it all the more commendable that FAPE even does its school certification activities, which are not required in the MOA.

No Regular Audit of FAPE's Costs or Evaluation of its Performance

Apparently, the ESC program has never been evaluated prior to this report, and FAPE's costs in relation to the ESC program (including the research and training components) have never been audited. Consequently, DepED has no idea about the cost structure of the program or about whether moral hazard and adverse selection problems are present. Not having recognized that it has a regulatory responsibility in the first place, DepED has also failed to understand the importance of its lack of information not only about the costs of the ESC but also about the marginal willingness of households to pay for a higher quality of high school education than is offered in public schools.

No Dissemination of Best-practice Technologies to Develop Public Support for the ESC Program

The 2,300 private schools that participate in the ESC constitute a base for building public support not only for the ESC program in particular but also for public-private partnerships in education in general. Holding annual conferences of these schools could be a way of disseminating best practices on teaching and student learning in general and for shepherding the ESC grantees in particular. Doing so would allow participating schools to learn from each other and benchmark themselves against other schools, which hopefully would lead to a better quality of education all around. Unfortunately, DepED has not thought to avail itself of these opportunities so far.

CHAPTER 4

Financial Aspects of Education Service Contracting

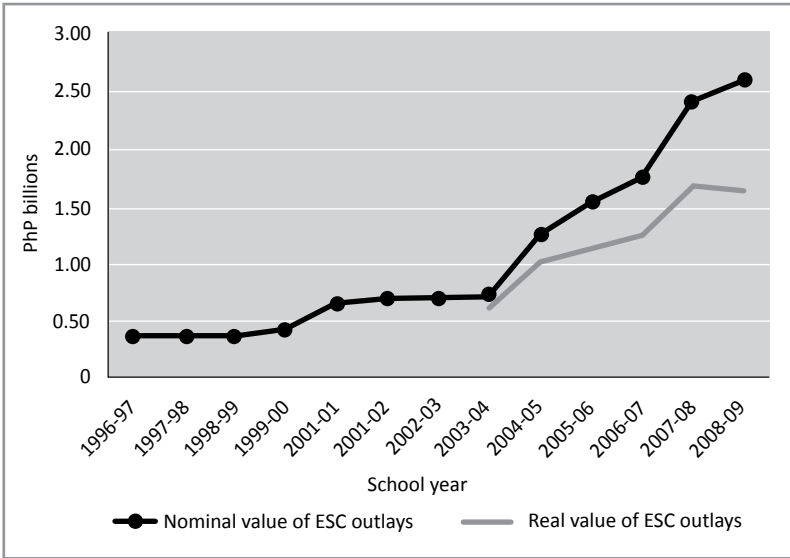
Over the years, the total annual outlays for Education Service Contracting, as reflected in the General Appropriations Act (GAA) appropriations for GASTPE, have increased because both the number of grantees and level of benefits have increased. Moreover, total appropriations for DepED as a whole have increased. Given that many public schools are overcrowded while nearby private schools that have been certified to be of high quality have some spare capacity, there is need to estimate and compare the cost of expanding public schools (building new classrooms and hiring additional teachers) with that of increasing the number of ESC slots.

Trends in the Total Value of ESC Grants

Total outlays on ESC grants (that is, the amount paid to participating schools) have been increasing both in nominal and real terms since at least SY 2003-04. This is due to increases in both the number of slots and the amount of the ESC grant, which rose to PhP 4,000 (from PhP 2,500) in SY 2004-05 and to PhP 5,000 in SY 2007-08 (Figure 10). Moreover, in SY 2008-09, the amount of the ESC grant for new grantees in the NCR was increased to PhP 10,000.

A recurring problem for the ESC (and the EVS) is the deficit between the amount of funding available for the programs and the total amount awarded to grantees. These annual deficits occur for the following reasons:

Figure 10: ESC Outlays (in PhP billions)



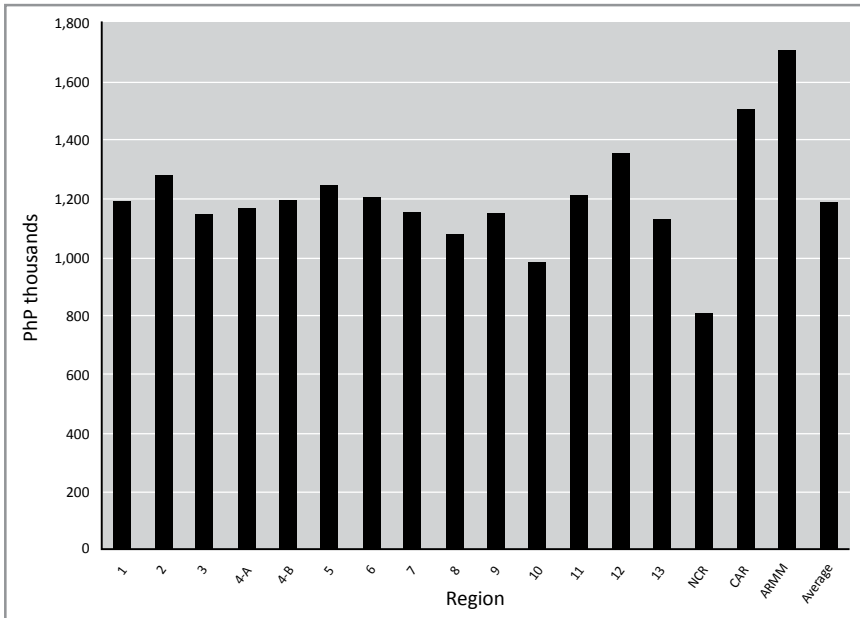
Source: DepED and DBM

- The GAA appropriations for GASTPE are not released in full by the Department of Budget and Management and the amounts released are sometimes late.
- The allocation of ESC slots has only been based on the number of grantees per school when it should have also kept track of grantee-years. (Fifty grantees in the 1st year imply 200 grantee-years of financial support until graduation, but 50 grantees in the 3rd year imply only 100 grantee-years of support).
- Some participating schools are late in submitting their bills for payments to FAPE.

The Financial Dependence of Some Schools on the ESC

In the average ESC-participating private school, there are about 235 grantees who bring in PhP 1.18M of ESC revenue per year, not an insignificant amount for any private school. Thus, the financial viability of many private secondary schools may depend to a significant extent on their participation in the ESC program. Figure 11 shows the average ESC revenue per private school in the various regions.

**Figure 11: ESC Revenue per Private School, SY 2008-09
(in PhP thousands per year)**



Source: FAPE

Estimated Cost per Secondary School Student in Government Schools

Direct appropriations to public secondary schools in the 2009 GAA added up to PhP 47.4 billion (DepED 2008). Given the projected 5.2 million public secondary students in SY 2009-10, the resulting cost per student is PhP 9,048 (Table 5).

Table 5: Estimated Direct GAA Cost per Public Secondary School Student, SY 2009-10

	Appropriations, 2009 GAA (in PhP)
Personnel services (PS)	36,086,046,000
Direct maintenance and other operating expenditures (MOOE)	5,785,446,000
Capital outlays (CO)	5,557,350,000
Total	47,428,842,000
Projected enrollment SY 2009-10	5,241,806
Estimated direct GAA cost per public secondary school student per year, or direct per student cost of public secondary schools	9,048

Source: ESC Study Team computations using DepED and FAPE data

The PhP 9,048 figure is an underestimate because it does not include any *indirect* GAA appropriations intended for secondary education but that are included in the budgets of other DepED offices such as the division, regional, and central offices, including the Bureau of Secondary Education. Nor does it include any GAA funds destined for public secondary schools but channeled through the Department of Public Works and Highways (DPWH) or any lump sums controlled by the President, congressmen, and senators. Nor does it include any non-GAA funds that are spent on public secondary schools by the Special Education Fund (SEF), by Local Government Units (LGU), or by private contributors such as Parent-Teacher-Community Associations (PTCAs), NGOs, or national and international donors. On the other hand, the PhP 9,048 figure is an overestimate because it includes the entire capital outlays budget in just one budget year.

Cost per ESC and EVS Grantee (under FAPE Implementation)

From the point of view of DepED and the government, how much do the ESC and EVS programs cost per grantee? In SY 2008-09, there were about 477,000 ESC grantees and 91,000 EVS grantees. At PhP 5,000 per grantee, the combined cost of these grants was PhP 2.8 billion. As the implementer of both the ESC and the EVS, FAPE was paid by DepED a total of PhP 132 million. Thus, on a per capita basis, the effective cost to DepED is about PhP 5,233 per ESC or EVS grantee (Table 6).

Table 6: Effective Cost (to DepED) per ESC and EVS Grantee

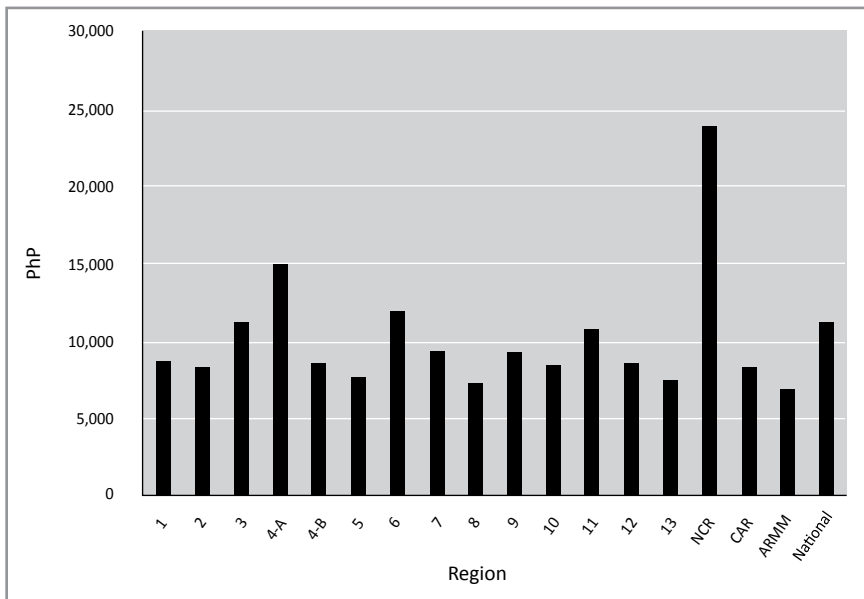
	2007-08 Grantees	Total Cost (in PhP)	Cost per Grantee (in PhP)
ESC Grantees	477,102	2,385,510,000	5,000
EVS Grantees	90,060	450,300,000	5,000
Total	567,162	2,835,810,000	5,000
<i>Fees paid to FAPE (2007-08)</i>			
Administrative (ESC & EVS)		62,000,000	
Training		30,000,000	
Research		40,000,000	
Total	567,162	2,967,810,000	5,233

Source: ESC Study Team computations using DepED and FAPE data

From the point of view of the private schools that participate in the ESC, there are two indicators of per-grantee costs – a normative cost per student and the level of tuition and other fees charged by ESC-participating schools. A study commissioned by FAPE in 2007 (Felipe 2007) estimated that to meet the “above standards” rating in the FAPE school certification process, a private “city school” would have to spend PhP 12,700 per student, while a “non-city school” would need PhP 12,000. Although private schools, as corporations, are required by law to submit annual financial statements, we are not aware of any study that has estimated their cost per student.

Tuition and other fees charged by the school provide a proxy measure of the per capita costs of private schools. For the country as a whole in SY 2007-08, average tuition and all other fees in private high schools participating in either ESC, EVS or both was PhP 11,221 per year. Figure 12 shows the average for such schools by region. The graph shows that NCR schools charged the highest fees at an average of PhP 23,856 per year.

Figure 12: Average Tuition and Other Fees for ESC- and EVS-Participating Private High Schools, by Region, SY 2007-08

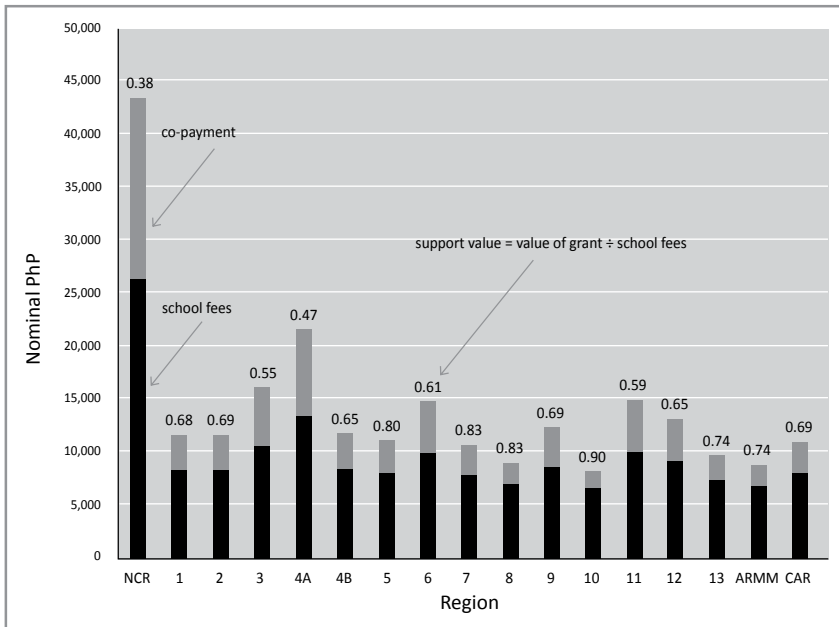


Source: FAPE

The admission to a private school of an ESC or EVS grantee does not mean any financial loss for the school because, except in a very few instances, the grantee is required by the school to cover the difference between the level of the grant and the cost of tuition and all other fees. We estimated that, as a group, the 476,776 ESC grantees had to pay a total of more than PhP 2 billion out of pocket to pay the difference between the amount of their grants and the actual tuition and other fees of the private school in which they were enrolled. This is the total amount of “co-payment” by ESC grantees but does not include other costs incurred by private school students such as the costs of, for example, school uniforms, textbooks, class projects, meals, and commuting costs.

Figure 13 shows the average amount of school fees paid by ESC grantees (over and above the value of the ESC grant) and the average amount of total fees charged by ESC-participating schools. In addition, indicated on top of each bar is the weighted average support value, defined as $1 - (\text{school fees paid by ESC grantee} / \text{total school fees})$, where the weights are the numbers of ESC grantees in all participating schools in a given area (such as a region or the entire country). The figure shows that, on average, ESC grantees pay PhP 4,298, ESC-participating schools charge PhP 9,316, and the ESC grant has a support value of two-thirds. However, there are wide regional variations in grantee copayments, in school fees, and in support values. Grantees in the NCR pay out the most – PhP 17,218 on average – even though first and second year students in the NCR receive an ESC grant of PhP 10,000. Grantees in the ARMM pay the least – PhP 1,937. ESC-participating schools in the NCR have the highest mean school fees – at PhP 26,236 – while ESC-participating schools in Region 10 have the lowest – PhP 6,514. As may be expected, the mean support value of the ESC grant is lowest in the NCR – at 0.38 – and highest in Region 10 – at 0.90.

If the ESC-participating schools have to make any financial sacrifice, this comes in the form of the delay between the start of classes and the day when DepED finally pays the school its ESC grant allocation. During this time, the school has to continue to fund its operations, which it does either by using its own funds or, in many cases, by requiring the grantee students to pay for the entire tuition fee and any other fees upfront while promising to reimburse them later. Typically, ESC-participating private schools are paid in full by DepED in October or November, about four or five months after the start of classes in early June. The actual length of the delay depends on several factors, including the promptness with which the school files its invoice and complies with the associated requirements, how long it takes first FAPE and then DepED to process the invoices, and the timing and magnitude of releases of GASTPE allotments and cash

Figure 13: Co-payment in Proportion to School Fees

Source: ESC Study Team computations using SY 2007-08 DepED and FAPE data

allocations by the Department of Budget and Management (DBM) to DepED. There have been cases when some private schools have not been paid until near the end of the school year or even after it was over.

The Cost of Accommodating all Excess/Aisle Students in Public Schools

How much would it cost to accommodate all the aisle students in public secondary schools within national service standards of school-related inputs per student? In exploring the answer to this question, we used the following unit cost assumptions: (i) PhP 175,000 per new national teacher, including both salary and non-salary benefits; (ii) PhP 600,000 per new ready-to-use classroom, including the cost of the structure plus the necessary classroom seats and furniture; (iii) PhP 6,000 maintenance and other operating expenditures (MOOE) per classroom per year, as recommended under the recently-completed formula-driven school MOOE study; and (iv) PhP 8,000 MOOE per teacher per year, also as recommended by the same project.

The cost figures in the top 5 rows of Table 7 require some adjustment because the cost of building new classrooms is a capital outlay and should

not be attributed to just one year. If the construction cost of new classrooms is estimated over 15 years, then the resulting per capita cost is between PhP 7,486 (assuming high public school capacity) and PhP 10,825 (assuming low public school capacity) per aisle student per year. These annual per capita figures are shown in the last row. Figure 14 shows the estimated per capita cost in the regions of meeting all teacher and classroom shortages with a high capacity assumption and a low capacity assumption. Note that Region 4-B (a region that is spread over various islands) and CAR (a region that is scattered over mountainous terrain) have high per capita costs. The cost per student per year with different assumptions is presented in Figure 15.

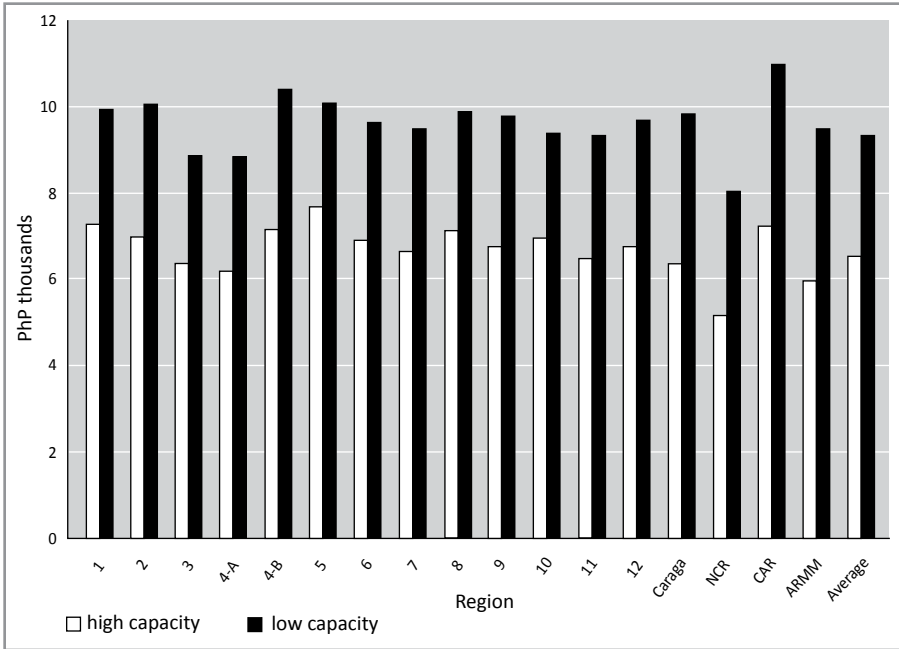
Table 7: Cost of Accommodating all Aisle Students within Standards in Public Schools
(in PhP millions)

Cost	High Capacity	Low Capacity
New Teachers	10,003	29,238
New Classrooms (Capital outlays)	12,508	17,290
MOOE for new teachers	457	1,381
MOOE for new classrooms	125	173
Total	23,093	48,142
Adjusted unit cost per aisle student	7,486	10,825

Source: ESC Study Team computations using DepED and FAPE data

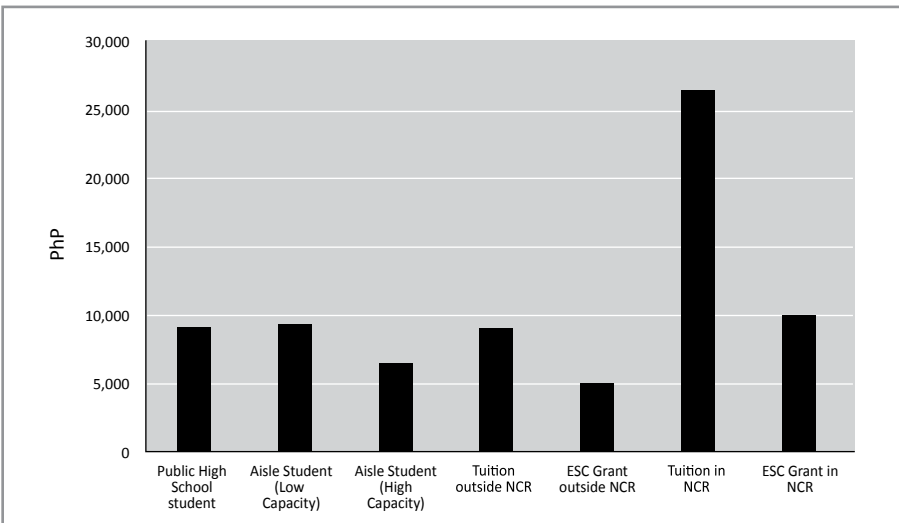
So which is more expensive – to accommodate all aisle students within national standards in public schools or offer them ESC grants? Assuming high public school capacity, the expansion of public secondary schools would cost PhP 10,963 million, but the ESC solution would cost only PhP 7,761 million per year. These are upper bound estimates. A more realistic estimate would require knowledge of private high school capacity to accommodate students in public schools and the proportion of public high school students willing to move to private schools and who are financially able to pay school fees in excess of the ESC tuition subsidies. Assuming low public school capacity, the expansion of public secondary schools would cost PhP 34,856 million but the ESC option would cost only PhP 15,014 million per year.

**Figure 14: Cost per Aisle Student in the Regions
(in Php thousands per aisle student per year)**



Source: ESC Study Team computations using DepED and FAPE data

Figure 15: Cost per Student per Year (in Php)



Source: ESC Study Team computations using DepED and FAPE data

The Cost to DepED of Taking Over ESC Implementation from FAPE

How much would it cost DepED to take over from FAPE the day-to-day administration of the ESC/EVS programs? Our calculations showed that it could cost DepED about PhP 117 million per year to administer the two programs (Table 8). By contrast, at the old rate of PhP 100 per grantee, it would only cost about PhP 62 million to continue contracting with FAPE to administer the programs. Unfortunately, this straightforward comparison is about to become more complicated as several new and potentially costly major activities have been proposed for both DepED and FAPE. What is certain is that, if DepED were to take over, it would have to hire more personnel, and it would not be easy to obtain the authority or the funds to do this from the DBM or Congress. Some lessons would have to be learned from the 1991-96 period when DepED, not FAPE, directly administered the ESC. The ESC-participating schools expressed their preference that the administration of the program be returned to FAPE.

It is not easy to determine the direct and indirect costs attributable to secondary education from the GAA and the financial reports submitted by division, regional, and central offices of DepED. Large amounts of funds intended eventually for the schools are actually appropriated as lump sums controlled by division, regional, or central offices. There are at least three steps

Table 8: DepED’s Additional Costs for Implementing the ESC Program
(in PhP thousands)

	No. of new personnel needed per office	Additional PS needed	Additional MOOE needed	Capital outlay needed	Total amount needed
Division office (190)	2	57,000	22,800	19,000	98,800
Regional office (17)	5	12,750	2,040	1,700	16,490
Central office	10	1,500	120	500	2,120
Total	475	71,250	24,960	21,200	117,410

Source: ESC Study Team computations using DepED and FAPE data

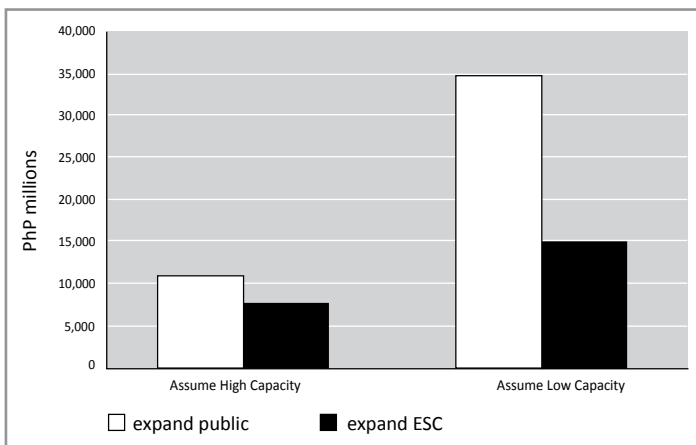
DepED could take to improve cost attributions and increase its accountability: (i) validate and/or correct the BEIS data and add more variables; (ii) develop a school database in which to record more details

about each school; (iii) implement formula funding, that is, direct MOOE allocations (if not Personal Services allocations to schools; (iv) improve the financial reporting process within DepED; (v) review the computation parameters; and (vi) double-check the computations in the spreadsheets.

Summary

How much will it cost to accommodate all aisle/excess students within the public school system? Figure 16 compares the costs of two options – expanding the public secondary schools to accommodate all aisle students or expanding the ESC/EVS program. Expanding public schools would require the construction of new classrooms, the hiring of new teachers, and the provision of more MOOE. Assuming high capacity, expanding public schools would cost PhP 10.96 billion per year (or PhP 7,486 per aisle student) while expanding the ESC/EVS programs would cost PhP 7.76 billion (or PhP 5,300 per aisle student). Assuming low capacity, expanding public schools would cost PhP 34.9 billion per year (or PhP 10,825 per aisle student) while expanding the ESC/EVS would cost PhP 15.0 billion (or PhP 5,300 per aisle student). Therefore, expanding the ESC program would be a cost-effective way to extend secondary schooling in the Philippines.

Figure 16: Expand Public Schools or Expand ESC?



Source: ESC Study Team computations using DepED and FAPE data

Thus, we find that it is cheaper to accommodate aisle students as ESC (or EVS) grantees than it is to build new classrooms and hire more national teachers in public secondary schools. The remaining issue is whether the additional grantees will continue to receive the same or better quality of education as ESC/EVS grantees do at present. Will the students who remain in public secondary schools be better off because the public schools are less congested? One other point to consider is that all of our cost estimates regarding aisle students in public schools are based on data obtained from the BEIS 2007-08. In the BEIS, 300 secondary schools (5 percent of the total of 6,523) reported having no classrooms. Anecdotal evidence indicates that these schools survive by using undersized, makeshift, rented, or borrowed classrooms. Furthermore, 1,131 secondary schools (17 percent of the total of 6,523) reported having no nationally-funded teachers and these schools supposedly survive by using locally paid teachers and/or national teachers borrowed from other public secondary schools. Whatever the reasons may be, more detailed information is needed about these schools.

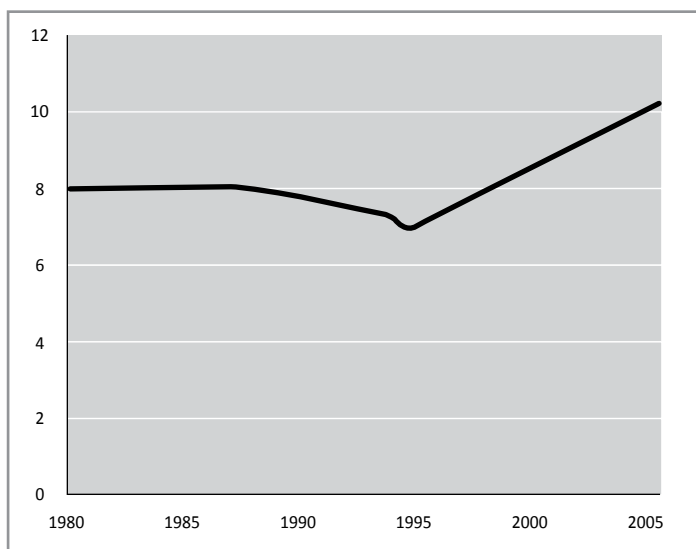
CHAPTER 5

How Private Schools Affect Academic Outcomes

Education remains a profitable investment in the Philippines. Several studies have confirmed the high rate of return to schooling (see, for example, Hossain and Psacharopoulos 1994; Maluccio 1998). Interestingly, returns to schooling have actually increased over time in the Philippines and remain remarkably high given the country's high rates of enrollment (Figure 17).

The original objectives of the ESC were two-fold – to relieve congestion and to improve quality in public schools. Congestion has clearly been relieved although the extent of this relief has still not been measured very precisely. However, there is still concern over the quality of schooling in the Philippines. Some experts believe that standards have been falling over time and point to low scores on national achievement tests as evidence. In international assessments such as Trends in International Mathematics and Science Study (TIMSS), Filipino eighth-graders have performed dismally, having ranked 36th out of 38 countries in math and science in 1999, and 41st and 42nd out of 45 in math and science in 2003.

Previous research has shown a significant gap in scores between students in private and public schools. Jimenez et al. (1988), using a 1983 survey of 5,190 secondary school students nationwide, found a private school advantage in both English and Pilipino of more than half a year, or roughly 15 percent of the sample mean achievement scores. In mathematics, they found a relatively small difference favoring the public schools – roughly 4 percent of the sample mean score in mathematics. The authors' comparison of costs per student revealed that on average public schools spent roughly

Figure 17: Returns to Schooling in the Philippines

Source: Psacharopoulos and Patrinos 2004

twice as much as private schools, yet, academic performance in English and Pilipino was better in private schools. Moreover, even in mathematics where public school students did better, their advantage was slight and was unlikely to outweigh the substantial public/private cost differential.

International Achievement Tests

The Philippines participated in TIMSS 2003 in the Grade 8 tests of student achievement in math and science. The Philippines scored significantly below the international mean of 500 (and standard deviation of 100). They were over 1 full standard deviation below the international mean, equivalent to almost four full years of schooling. Overall, the Philippines ranked 41st out of 45 participating countries in math, with an average score of 388, and ranked 42nd out of 45 in science with a score of 377 (Figure 18). This was a tremendous improvement over 1999 TIMSS, where the Philippines ranked 36th out of 38 countries in both math and science. The improvement over 1999 was 38 and 32 points in math and science, which represented more than 0.3 of a standard deviation increase, a significant and noteworthy increase.

In most countries, urban schools outperformed rural schools in the TIMSS 2003 and in the case of the Philippines, they did so by a

considerable margin. On average, urban schools scored over 380 in math, while rural schools scored just over 360 (Figure 19). The rural score is very low and contributes to the wide gap between rural and urban schools.

Figure 18: Male and Female Test Scores, TIMSS 2003

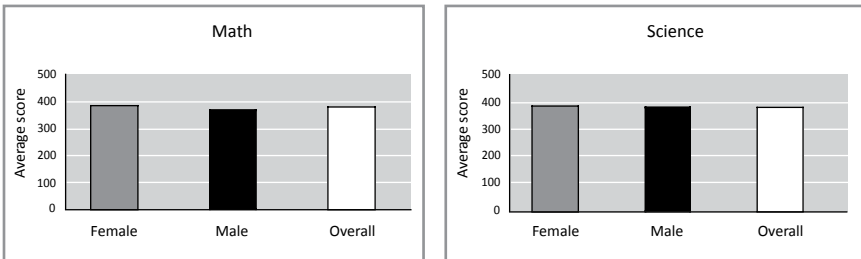
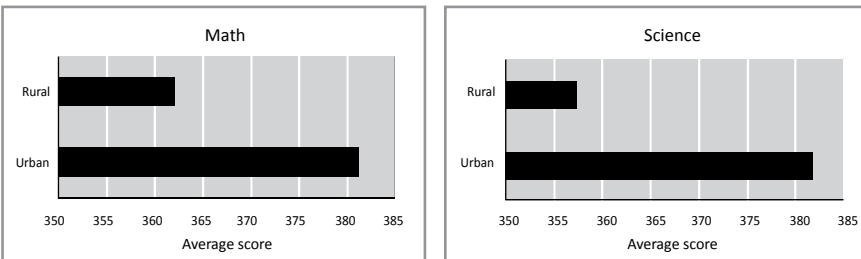


Figure 19: Rural and Urban Test Scores, TIMSS 2003



Private Schooling

Public education in the Philippines has a fairly recent history, dating back only to the early part of the 20th century. Before then, students attended both religious and nonsectarian private schools. The tradition of the private sector providing the majority of schooling continued even after the establishment of the public school system and still persists today. There are large differences between quantity, quality, and unit costs between private and public institutions at various levels, and even among the institutions themselves.

The Philippines education system is comprised of six years of elementary schooling, followed by four years of secondary or high school. At the eighth grade level (or second year of high school), private schools significantly outperform public schools as measured by the TIMSS 2003 tests that we

discussed above. The private school mean score was 426 points in math, while the public schools score 365 (Figure 20). This is a difference of over 60 points, or more than 0.5 of a standard deviation – or two years of schooling.

Figure 20: Private and Public Test Scores, TIMSS 2003

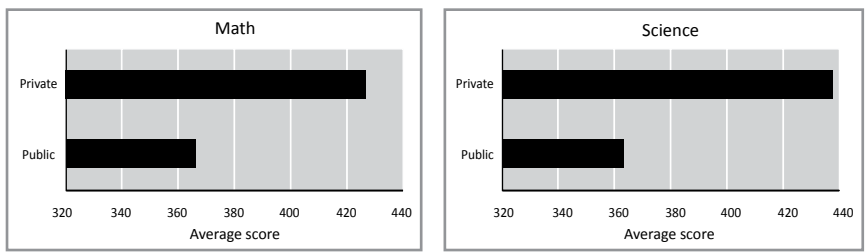
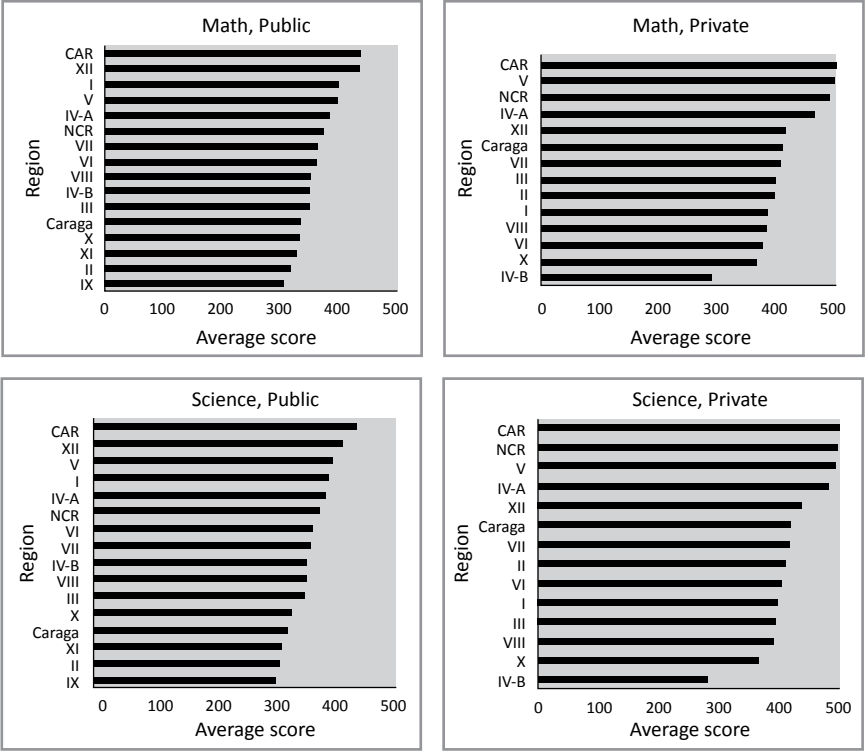


Figure 21: Test Scores by Region, TIMSS 2003



There were also differences by region in the TIMSS scores. CAR performed very well in both math and science and in both the public and private sectors (Figure 21). In math and science, public schools in regions IV-A, V, I, XII, and CAR scored above the national average, while all private schools except those in regions IV-B, X, and VI scored above the average in math, and only private schools in regions IV-B and X did not score above the average in science.

Estimating Private-public School Test Score Gaps for the Eighth Grade

The model specification for the estimation of the production function for cognitive achievement is as follows:

$$T_{ij} = \beta_0 + \beta_1 \text{PRIVATE}_i + \beta_2 X_i$$

where T_{ij} is the observed TIMSS score of student i in school j , PRIVATE represents attendance at a private school as a 0,1 dummy variable, and X is a vector of student, family, school, institutional, and regional characteristics. Table 9 presents a series of estimates of the private school test score gap for TIMSS 2003 in math and science.

Even after controlling for a series of characteristics, there is still a sizable private school advantage. Overall, the absolute gap in math scores is large, over 60 points or two-thirds of a standard deviation. One of the original intentions behind the ESC was to reduce congestion in public schools. Using the student-teacher ratio, we can see that the inclusion of that variable is associated with a negative but insignificant effect on test scores, but its inclusion does serve to reduce the correlation with private school attendance. The private school advantage is further reduced when we include student characteristics such as age and sex as well as self-reported prior ability in math to less than 50 points, or half a standard deviation. The inclusion of family background characteristics as controls further reduces the association between math scores and private school attendance to 33 points or one-third of a standard deviation. Finally controlling for regional location does not reduce the private school association with test scores. Thus, there is a very significant association between private school attendance and the TIMSS 2003 math scores. The private school advantage is slightly higher in science – 40 points or 0.4 of a standard deviation.

These results show the effect of individual and household characteristics on the average student and thus compare the effectiveness of private school attendance compared with public schools for the average student. However, the standard methodology may not capture whether the positive effect of private school attendance is different at different points of the conditional

Table 9: Improvement in Students' Academic Performance Associated with Private School Attendance

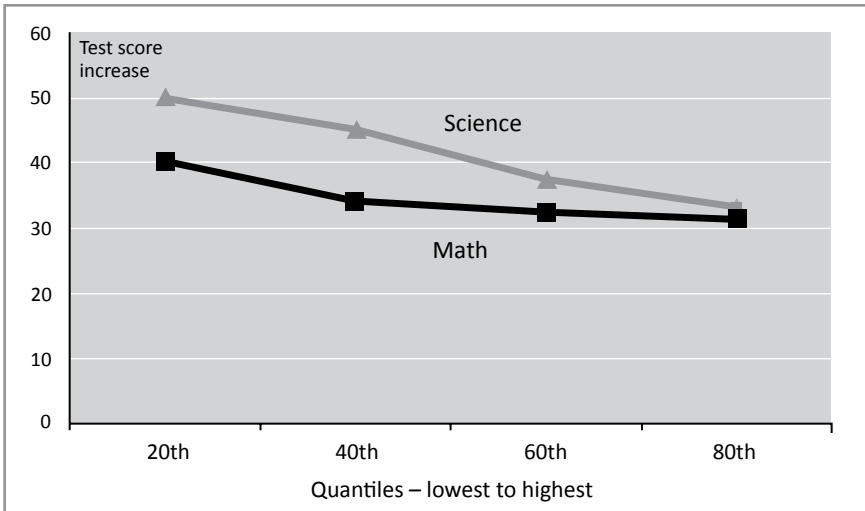
	(1)	(2)	(3)	(4)	(5)
Math	60.7	55.2	49.1	33.2*	34.6
	(13.1)	(15.4)	(14.8)	(14.2)	(12.6)
Science	76.7	72.0	65.3	41.0	40.9
	(13.8)	(15.9)	(15.4)	(14.0)	(12.6)
Controlling for:					
Student-teacher ratio		✓	✓	✓	✓
Female			✓	✓	✓
Age			✓	✓	✓
Previous math performance			✓	✓	✓
Mother's education				✓	✓
Books at home				✓	✓
Rural residence				✓	✓
Household size				✓	✓
Region					✓
Constant	365.3	391.8	643.4	574.1	561.2
Observations for math	6,917	6,827	6,649	5,336	5,336
Observations for science	6,917	6,827	6,658	5,349	5,349
R-squared for math	0.08	0.08	0.13	0.20	0.30
R-squared for science	0.09	0.10	0.15	0.22	0.30

Note: Coefficients significant at the 1% level or better, except * which is at 5% level

Source: ESC Study Team Computations using TIMSS 2003 data

test score distribution. This is an especially relevant consideration for policymakers. Therefore, we needed to find a way to weigh the best equilibrium outcome (providing a poor student with an opportunity to study at a private school) against the likely relative achievement outcome. With quantile regression analysis, we were not only able to address the question of whether private schools affect achievement but also the question of which students private schooling affects the most. If private school effects are homogenous across the conditional distribution, we would expect the slope coefficients estimated at the quantiles to be equal. Ordinary least squares methods estimate effects at the mean. By calculating regressions for different quantiles, we were able to explore the entire shape of the conditional distribution. As will be shown, our quantile regression results suggested some important differences across different points in the conditional distribution of scores. The partial derivative of the conditional quantile of y with respect to one of the regressors should be interpreted as the marginal change in the θ th conditional quantile due to a marginal change in x .

Figure 22: Private School Attendance Improves the Performance of Disadvantaged Students



Source: ESC Study Team Computations using TIMSS 2003 data

The quantile regression (QR) coefficients clearly showed a decreasing trend – slight for math, more pronounced for science – over the distribution, suggesting that private school attendance is more important for low achievers than for high achievers (Figure 22). This suggests that adopting a policy that enables low achieving students to attend private school would be beneficial for maximizing average student performance.

Causality

Thus far, we have shown only correlations, albeit strong ones. Private school attendance is associated with significantly higher academic scores than is public school attendance. This large effect remains even after controlling for student-teacher ratio, sex, age, prior ability, mother's schooling, books at home, rural residence, household size, and region. Nevertheless, it was not possible at this stage for us to conclude that the association between private school scores and achievement is causal.

The fundamental problem in estimating the impact of private school attendance is selection bias because students and schools self-select. Thus, any differences in the initial characteristics of those students who participate in the program and those who do not might bias our estimates of the effects of the program. For example, one might expect that children

from better informed households are more likely than others to apply to private schools, which means that they may perform better academically than those students who did not apply. Therefore, any observed final educational outcomes will be the result not only of their private school attendance or non-attendance but also of any inherent differences in the characteristics of the students or their families. Schools also self-select, which reinforces the problem of identifying causality. It is feasible that some private schools might not want to accept students whom they believed might underperform. This would mean that making a simple comparison between students in private and public schools would pick up not only the differences in students' educational outcomes due to their private school attendance but also any differences in the characteristics of the two groups of schools.

If private school attendance is not assigned according to a random mechanism and if individuals and/or schools self-select, then it is very likely that the unobservable characteristics of both students and schools are correlated with the dummy that indicates whether or not the individual attends a private school. In this case, the ordinary least squares (OLS) estimators would be biased. This can be described as a problem of causality. Moreover, the causality direction is unclear. Another perspective of the problem is to see bias as a consequence of omitted variables. In this case, the error term captures all of the unobservable variables at the school and individual level that affect schooling outcomes. The direction of the bias in simple comparisons is not clear. The problem of bias in the estimation of our equation has multiple solutions. Ideally, private school attendance can be allocated using a lottery or a randomization mechanism, but if randomization is not used, then other techniques can be applied. We decided to use propensity score matching.

The propensity score employs a predicted probability of group membership – of, for example, a treatment or a control group – based on observed predictors, usually obtained from a logistic regression to create a counterfactual group. The propensity score is the predicted probability of (participation in) a treatment group given observed characteristics (Dehejia and Wahba 2002). In the current context, the propensity score is the probability that an individual attends a private school. It is usually a function of observable school characteristics such as socioeconomic status, residence, or wealth.

Each treated individual is then paired with his or her selected set of non-participant individuals using weights: equal weights to all, unity weight to the nearest observation and zero to others, and kernel weights

to account for the relative proximity of non-treated schools. Note that this is a nonparametric approach as it does not need to assume any specific relation (linear or other) among treatment, covariates, and outcomes. There are two main challenges with the use of matching methods. The first is related to the heavy requirements that they impose on the data. Exhaustive information on the characteristics of participant and non-participant schools is needed to model the participation decision. However, the more detailed this information is, the harder it is to find a similar comparison group, as treatment and comparison schools have to be matched on a larger number of similar characteristics. In other words, there is a trade-off between the quantity of information used and the size of the comparison group.

Our estimates of the effect of private schooling using two matching methods were very significant and consistent (Table 10). We found that the impact of private schooling remained significant. The differences in scores were equivalent to at least 0.3 and 0.4 of a standard deviation in math and science. These causal estimates were consistent with the correlations that we produced using less rigorous techniques. The results of our propensity matching suggest that attendance at a private school in the Philippines raises math and science scores significantly, generating potentially very large educational benefits for their students, as compared to public school students.

Table 10: The Causal Effect of Private Schooling on Math and Science Score (using Propensity Score Matching)

	Math		Science	
	1-1 matching	Kernel matching	1-1 matching	Kernel matching
Difference in test score between private and public school students	39.6***	33.8***	45.5***	45.9***
	(14.2)	(3.7)	(14.1)	(3.7)
Number of treated	1964	982	1964	982
Number in control group	1964	4558	1964	4558

Notes: Bootstrap standard errors (in parentheses) are calculated for the kernel matching estimators.

*** significant at 0.001

Source: ESC Study Team Computations using TIMSS 2003 data

Summary

Overall, student test scores in the Philippines are very low, although they have been increasing over time. However, the test scores presented here suggest that private schools have the potential to improve learning outcomes significantly. The raw differential between private and public schools is huge. Yet, even after controlling for students' backgrounds and other observable differences, we still found a large benefit in favor of private schools. More rigorous methods of controlling for the fact that attending a private school depends on selection did not diminish the private school advantage very much. While these results are limited to 8th grade TIMSS scores from 2003 and are not an explicit analysis of the impact of the ESC, they do show the potential of private schooling for improving academic outcomes. Given that ESC students are likely to be less wealthy students than their peers, the results across the distribution suggest that less able students who are likely to attend private schools because of the extra funding they receive through the ESC are also likely to benefit academically. Therefore, enrollment in private schools by students who would otherwise have to attend public schools is likely to improve their scores and, thereby, the academic test scores of the Philippines as a whole.

CHAPTER 6

Recommendations

For several years, the public education system in the Philippines has been suffering from shortages of classroom places and low investments (for example, education accounted for only 2.6 percent of GDP in 2008). By leveraging private school capacity, the ESC program has the potential to alleviate public school overcrowding in the Philippines without the need to incur the costs of constructing new school buildings and hiring new teachers.

This study has revealed that the ESC program has evolved over its years of operation into a useful mechanism that enables students to enroll in private schools. The number of beneficiaries has grown from 210,000 in SY 1996-97 to 477,000 in SY 2008-09 and at an average annual rate of increase of 12 percent between SY 2003-04 and 2008-09. The program covers 9 percent of total high school public enrollment and 36 percent of private secondary enrollment. Indeed, the ESC and EVS programs combined cover 11 percent of total high school public enrollment and almost 43 percent of private secondary enrollment.

This study has demonstrated that the ESC program is a cost-effective way to increase secondary school enrollment. The ESC's per-pupil cost of \$105 to \$205 (depending on the region) compares with an average cost per pupil in the public system of approximately \$185. By creating opportunities for able students to attend private schools, the ESC creates incentives for families to increase their investments in their children's education and enables the government to increase coverage while saving resources. Moreover, our analysis of international student assessment data suggests that private schools in the Philippines have an academic advantage over public schools and that attending a private school may provide more opportunities to low-achieving students than to high achievers.

The study also exposed areas in which the ESC could be improved to better fulfill its original objectives and to meet the current challenges at the secondary level of education. These areas relate mainly to the administration and implementation of ESC and can be addressed by: (i) streamlining its regulatory framework; (ii) clarifying the roles and responsibilities of the managing agency (DepED) and the implementing agency (FAPE); and (iii) introducing a results-oriented approach in the contractual agreement (MOA). We also recommend that DepED monitor and evaluate the ESC and collect empirical data on schools, students, family background, and learning outcomes to enable policymakers, researchers, and stakeholders to assess the ESC's effectiveness.²

Our recommendations for the reform of Education Service Contracting resulting from our findings are as follows:

1. *Expand the ESC to cover more students and schools instead of establishing new schools or building more classrooms as long as there are enough places in nearby private schools.* We determined that it would be more expensive to accommodate all aisle students within standards in public schools than to offer them ESC grants. Under our highest assumption of the capacity of public schools, expanding coverage to include all aisle students would cost \$224,083,710 (PhP 10,963M) annually, but the ESC solution will cost only \$158,634,833 (PhP 7,761M) per year. Under our lowest assumption of the capacity of public schools, expanding coverage to all these students would cost \$712,456,611 (PhP 34,856M) per year, whereas the ESC option will cost only \$306,886,147 (PhP 15,014M) per year. Thus, the ESC enables the government to increase enrollment in secondary schools without having to pay for the construction of so many new classrooms or the hiring of so many additional teachers in public schools.
2. *Enhance the agreement between the implementing agency (FAPE) and the managing agency (DepED) to define their current responsibilities and to establish performance benchmarks for FAPE to foster accountability in the use of public funds.* The MOA between DepED and FAPE is a fixed-price contract, which is an extremely high-powered payment scheme that allows FAPE to retain any cost savings it may make, thus giving

² We recently learned from FAPE that starting with the first year high school grantees for SY 2010-11, all grantees shall be required to submit information on the monthly income and occupational class of at least one parent.

it a powerful incentives to keep its ESC-related costs low. Given that DepED does not systematically monitor or evaluate FAPE's activities, it is both a credit to FAPE and an indication of its commitment to upholding the quality of private education that it even conducts a school certification process, which must be costly and is not mandated in the MOA. The MOA should specify the major activities that FAPE is committed to undertaking for DepED, such as:

- Administering the ESC and the EVS
 - Certifying/recertifying participating schools
 - Conducting an assessment of a cohort of grantees and a comparative cohort of non-grantees in private and public schools
 - Refining and enhancing the ESC/EVS database
 - Research (and on what aspects)
 - Training (and on what subject, and for whom)
3. *Introduce performance measures in the agreement between the managing agency (DepED) and the implementing agency (FAPE).* This can be done by gradually shifting to a performance-based agreement that divides FAPE's funding into a *fixed payment* for low-risk activities such as administration, school certification, and training costs and *performance bonuses* paid when FAPE meets the performance targets for its high-risk activities. It would also make sense to design the payment scheme to give FAPE an incentive not only to be efficient, but also to meet other ESC program objectives alleviating congestion in public schools, targeting the benefits of ESC to poor students and improving outcomes, not only for ESC grantees but also for the school system as a whole, such as aligning the allocation of ESC slots with the estimated number of aisle students in a community and targeting the benefits of ESC to poor students (whether they avail themselves of ESC grants in private schools or remain in a decongested public school). Moreover, the contractual agreement could:
- Specify the contents of quarterly reports, listings, and guidelines for training programs for teachers and school administrators.
 - Outline a research program to be completed on an annual basis.
 - Adopt activity-based costing for FAPE's ESC-related activities to get a sense of the costs of ESC administration, school certification/re-certification, ESC database maintenance and enhancement (for improved monitoring and evaluation), and training and research activities.

- If the data allow, estimate FAPE's cost function to obtain its cost structure, particularly its average variable and marginal costs. Cost function estimates may also provide information that will minimize restrict moral hazard and adverse selection in FAPE's activities.
4. *Estimate the capacity of and demand for the ESC.* So far, no systematic study has been done to estimate demand (the number of aisle students in congested public schools) and supply (the number of empty seats in nearby private schools). DepED and FAPE could cooperate to collect more data on the spare capacity available in nearby private schools. DepED could also use the BEIS data and the methods that we advocate in this report to estimate the full capacity of public schools and thereby infer the number of aisle students.
 5. *Create a high-level GASTPE Board to oversee the implementation of the program to establish DepED ownership of the ESC.* The Board should be composed of the Undersecretary for Regional Operations of DepED as the Chairperson, the Undersecretary for Finance from the Department of Finance as Vice-Chairperson, the Directors of the Bureau of Secondary Education (BSE), and representatives of the Financial and Management Service (FMS), the National Educational Testing and Research Center (NETRC), and the Office of Planning Service (OPS) with the OPS Director also as head of the GASTPE Secretariat. The Board would be responsible for: (i) setting the program's directions, policies, performance targets, and incentives in consultation with FAPE; (ii) evaluating FAPE's ESC-related research and training programs; (iii) evaluating the achievements of the ESC program relative to its objectives and targets; (iv) determining the budgetary allocations of the following year based on the GASTPE appropriation for the current year; (v) persuade the DBM to ensure the full and timely release of GASTPE appropriations; (vi) specifying the contents of and receiving and evaluating the FAPE mid-year report, annual report, and other reports; and (vii) hosting an annual meeting of all ESC stakeholders. A reorganized GASTPE Secretariat would provide staff support to the GASTPE Board. The Secretariat would: (i) disseminate DepED memos and orders in support of ESC activities; (ii) process ESC school billing statements for payment by DepED and ensure that they are paid no later than 180 days after the beginning of the school year; (iii) help FAPE to access relevant DepED data in the BEIS, NETRC, and other sources; (iv) coordinate between FAPE and DepED field offices; and (v) keep the official records of the ESC.

6. *Establish performance measures for private schools receiving public funds to encourage quality improvements.* Similar contracting programs between the public and the private sectors in other countries have taken a performance-based approach and require the private schools to reach minimum targets of student achievement (such as scoring above national average in national achievement tests and ensuring minimum pass rates) to ensure the continuation of their public funding. For example, this is the case of the Concession Schools Program in Colombia and the Foundation Assisted Schools Program in Pakistan.
7. *Strengthen the methodologies used to evaluate the impact of the ESC program.* The first step in evaluating the performance of the ESC program would be to allocate the resources necessary to fund a full monitoring operation within DepED. Thereafter, DepED would be in a position to initiate a rigorous evaluation framework, which would require:
 - Establishing a baseline group of students who are participating in the program and a counterfactual group of students who would have qualified for the program if it had existed earlier.
 - Designing a three-year research agenda. This would involve collecting achievement test scores and other variables for students in public high schools, students in private high schools that do not participate in the ESC program, regular students and ESC grantees in ESC-participating schools, and students who applied for but were not awarded an ESC grant. To ensure objectivity, transparency, and fairness, it might be necessary to contract with an independent body to evaluate the ESC program on the basis of the analytical framework devised by the research activities.

Introducing a randomized longitudinal study to determine with accuracy how effective the ESC is at increasing enrollment, school completion rates, and college entry and at improving learning and labor market outcomes and at what cost, comparatively speaking, it achieves these goals. Because schools select students and receive financing based on enrollment and attendance, it is likely that beneficiaries and non-beneficiaries of the ESC program are inherently different. This means that simple comparisons between beneficiaries and non-beneficiaries do not reveal the true effect of the program. Random assignment design is the best evaluation strategy because it ensures that the treatment and control groups have identical observed and unobserved characteristics

and, given appropriate data collection, makes it possible to control for observable and unobservable characteristics. It will also be necessary to establish what policymakers and researchers want to learn from the program based on what it is expected to accomplish. Using randomized assignment to assess any future experiments with preferential subsidies, performance-based subsidies, or the private management of public schools. If, in the future, policymakers in the Philippines were ever to decide to try any of these options, we recommend that they should randomly assign students to one of four groups: (i) students who participate in the preferential subsidy mechanism; (ii) students who participate in the private management of public schools program; (iii) students who participate in a performance-based ESC; (iv) students who participate in the existing ESC program; and (v) students who applied for the ESC subsidy and were denied and who, in consequence, attend public schools.

8. *Improve the budgeting and slot-allocation process to stay within budgetary constraints.* A first step would be to keep track of grantee-years, not just the total headcount of grantees in each school. This is useful information because, while every new ESC grant represents a four-year commitment by the government, grantees in the upper years represent shorter funding commitments. Another necessary step would be for DepED to persuade the DBM to release the entire GAA appropriations for GASTPE promptly and in full as opposed to the late and usually inadequate releases experienced by the participating private schools.
9. *Improve the allocation and distribution of ESC resources among regions and across the whole socioeconomic distribution of students to fulfill the program's goal of helping poor students to access better-quality education.* The ESC currently meets this goal, mainly, by moving non-poor students out of public high schools, thus freeing up space and resources to improve the quality of education for the remaining students. However, given that most ESC beneficiaries have to pay the differential between the public subsidy and the actual private school tuition fee required by the receiving school, we concluded that most current beneficiaries of the ESC are not necessarily poor since average private school tuition and other fees amount to PhP 26,430 (\$540) in the NCR region and about PhP 9,080 (\$185) annually outside of the NCR. An alternative way to target poor students would be through a preferential subsidy based on means testing so that students from poor families would not have

to pay the full costs of tuition fees and other costs (such as uniforms and books) associated with attending a private school. At the national level, policymakers might consider matching resources to the regional distribution of poverty, while also taking into account the supply of private education in each region, to level opportunities across regions.

Other countries have used various targeting mechanisms to reach their poorest students. Concession schools in Bogota, Colombia promote private schooling in very poor areas of the city (Villa and Duarte 2005; Barrera-Osorio 2007). The Foundation Assisted Schools (FAS) program in Punjab, Pakistan, enables socioeconomically disadvantaged households to access private education and raises the quality of education in the low-cost private educational sector (Barrera-Osorio and Raju 2009). Charter schools in the United States give parents choice over which school to send their children and are accountable for the academic results of their students on state and federal tests (see, for example, Bettinger 2005; Hoxby and Rockoff 2004). Charter schools are required to have open enrollment policies and to offer free education; moreover, the schools are allowed to adopt tailored curricula that target specific populations, such as likely dropouts or students with a particular interest. The private contractors who run these charter schools usually receive payments from public authorities equivalent to the per student cost of providing education. Also, in some states, charter schools are allowed to own school infrastructure as long as they do not purchase it with state funds and may also lease property from school boards or nonprofit organizations.

10. *Share best practices.* The ESC and EVS programs have no “constituency” that is concerned about their accomplishments and developments. Thus, it would be useful to build this constituency by holding an annual convention of ESC stakeholders. This would also provide a forum where FAPE could present the ESC annual report and DepED could present the results of the ESC evaluation and of any ESC-funded research activities to stakeholders. In addition, the convention could be a venue for the systematic dissemination of best practices by participating schools, which are currently disseminated and discussed on a limited and informal basis in the school certification process and in training programs.

Next Steps

11. *The second phase of this study of the ESC.* We recommend that the second phase of this study should include the following elements:

- An assessment of the types and overall quality of the private schools participating in the ESC program in terms of staffing, facilities, quality assurance (teachers and curriculum), and location.
- An assessment of the impact on the quality of education received by students who remain in public secondary schools as they become less congested.
- A description and assessment of how participating schools monitor and evaluate the progress of ESC students within their schools.
- A discussion of proposals for making the selection of ESC students more pro-poor, which would first require a survey of the current ESC students.
- A review of FAPE's certification mechanisms and of proposals for improving the process, possibly linking it to student learning outcomes, which would first require a standardized testing instrument.
- The initiation of a follow-up study of ESC graduates or a retrospective survey.
- A review of possible designs for an enhanced contracting program that would be more far-reaching, based on current needs and international experience (see below).

12. *Learn from international experience.* We believe that there is a need for a thorough analysis of international experience as part of a future phase of this study. We make the following suggestions:

- Given that the ESC may not be pro-poor, policymakers might consider reforming the grant to make it vary in value according to the socioeconomic status of each student. This would mean that poorer students would get a bigger grant and vice versa. Since 1981, the Chilean government has provided a per-pupil public grant that allows students to select the school of their choice, public or private. Additional reforms implemented in the early 1990s mandated the public dissemination of information on school performance and increases in the subsidy amounts. Public primary schools cannot charge tuition and cannot reject students, but private schools can select students and charge fees. The government is currently

introducing preferential subsidies to increase options for students from poor families and the elimination of student selection by subsidized schools (McEwan et al. 2007).

- Given the low quality in some public schools in the Philippines, we recommend experimenting with private management. This has been in operation in many countries for a long period of time. The advantage of this concept for the Philippines would be the introduction of performance-based funding to subsidized schools. Moreover, private operators would have more flexibility to operate public schools as they could hire teachers on contract and implement financial management and pedagogical approaches that have been proven successful in private schools. Also, it would introduce competition and risk-sharing by requiring private operators to undergo a bidding process.
- Since it is more cost-effective to expand private provision than to build more public high schools, policymakers should consider more innovative methods of expanding access. A combination of Colombia's Concession School Model with the United Kingdom's Private Finance Initiative might be useful in the Philippine context. Given excess demand and the lack of public existing supply, one alternative to building new schools might be to attract private capital in infrastructure public-private partnerships and then contract out the operation of the schools to private school operators that have demonstrated a record of achievement.
- We also suggest that policymakers should study successful voucher and voucher-like programs in the Netherlands, the Czech Republic, and Sweden (Himmler 2007; Patrinos et al. 2009) to see if they might be applicable in the Philippines.

Summary of Findings and Recommendations

Findings	Recommendations
General Findings	
1. The ESC creates incentives for families to increase investments in education in order to have the opportunity to enroll in private schools and improve achievement. The ESC allows the government to increase coverage without the construction of new classrooms and hiring of additional teachers in public schools. It is thus more cost-effective to expand the ESC.	Expand the ESC to cover more students and schools and use it as first priority to expand access as opposed to establishing new schools or building more classrooms as long as there are enough places in nearby private schools.
Memorandum of Agreement	
2. The MOA does not comprehensively specify the major activities of FAPE. Specifically the certification of participating schools and maintenance of a private school database deserve consideration as very important activities.	<p>The MOA should specify the following major activities for FAPE:</p> <ol style="list-style-type: none"> 1. Administer the ESC and the EVS 2. Certify/recertify participating schools 3. Conduct an assessment of cohort of grantees relative to non-grantees in private and public schools 4. Refine and enhance the ESC/EVS database 5. Research 6. Training <p>Set forth the objectives in the ESC MOA in a revised ESC law.</p>
3. The MOA does not specify performance indicators in relation to the activities contracted out to FAPE.	DepED and FAPE should jointly formulate and agree on performance indicators for both DepED and FAPE. In regulating FAPE, DepED would do well to adopt a performance-based payment scheme that links FAPE's incentives to progress on ESC program objectives, as measured by the performance indicators.
4. There has been no systematic study to estimate demand (the number of aisle students in congested public schools) and supply (the number of empty seats in nearby private schools).	DepED could use the BEIS data and the team-proposed method for estimating the full capacity of public schools and thereby infer the number of aisle students. DepED and FAPE could cooperate to collect more data on the spare capacity available in nearby private schools.

Findings	Recommendations
Supervision and Accountability	
<p>5. No specific official group or office in DepED is in charge of ESC or monitoring achievement of objectives; DepED Secretary is head of both contracting parties.</p>	<p>Consider establishing a DepED GASTPE Board composed of high-level DepED officials to set policies, directions, oversee FAPE's implementation of ESC and EVS programs. Reconstitute the GASTPE Secretariat to provide staff support to the GASTPE Board. Assign substantive tasks of ESC management to high-level Board.</p>
<p>6. No demonstrated effect that the ESC grant is having a positive effect on student achievement and learning outcomes.</p>	<p>Consider establishing performance measures for private schools receiving public funds to encourage quality. Link the continuation of public funds to private institutions through minimum targets of student achievement such as scoring above national average in national achievement tests and minimum pass rates.</p>
Evaluation and Research	
<p>7. The MOA does not specify a research and training agenda that FAPE commits to undertake. No detailed studies of the performance of grantees and the performance of public school students in decongested public schools.</p>	<p>The GASTPE Board and FAPE should jointly agree on a rolling three-year research and training agenda and include this as part of the MOA. The MOA should specify the ways in which FAPE and DepED will cooperate to expand and refine the ESC/EVS database to capture socioeconomic and achievement data on a cohort of grantees and non-grantees in public and private schools:</p> <ul style="list-style-type: none"> • Implement a long-term assessment study using a cohort of treatment and control groups • Collect new data elements proposed by the study team and establish a baseline • Carry out a randomized longitudinal study on the effects of ESC on student and school outcomes

Findings	Recommendations
Management	
<p>8. Payments to ESC-participating private schools are delayed and some schools remain unpaid even at the end of the school year. Arrears total PHP 780 million. GASTPE appropriations in the GAA are not fully released. Allotment releases and NCAs are also late. RA 8545, the expanded GASTPE law, is outdated.</p>	<ul style="list-style-type: none"> • Improve ESC's budget procedures: track grantee-years, not just headcounts, and project funding requirements over a four-year horizon; review dropout rates annually but revise quotas every four years • Conduct advocacy with the DBM at highest levels to ensure full and timely release of GASTPE budget • Implement activity-based costing for FAPE and DepED • Allocate funds for GASTPE Board & Secretariat • Improve post-audit studies to increase confidence in processing of payments to schools • Amend RA 8545 to at least address ESC-related concerns, including program objectives, allocation of slots, etc.
Targeting and Allocation	
<p>9. No specific evidence that the ESC and EVS programs are helping the poor and data suggest that grantees are probably non-poor.</p> <p>There is no specific evidence that the ESC and EVS programs are relieving congestion in public secondary schools.</p>	<ul style="list-style-type: none"> • Improve the allocation and distribution of ESC resources across regions (horizontally) and socioeconomic levels (vertically) to fulfill the goal of providing opportunities for poor students to access better quality education. • Collect additional data elements to capture socio-economic information. • Consider implementing proposed method for estimating public school capacity and inferring the number of aisle/excess students (or unfilled enrollment slots as the case may be) • Target and monitor decongestion at the level of a municipality, city or at most a division. A region is too large for monitoring to be an effective catchment area. • Over a five-year period methodically align the number of ESC slots to the number of aisle/excess students in a catchment area.

Findings	Recommendations
Other Findings	
10. Although significant, the ESC and EVS programs have no “constituency” that is concerned about accomplishments and developments. There has not been a systematic sharing of experiences or of “best practices.”	<p>Build constituency by holding National Annual Conference on the ESC and EVS.</p> <ul style="list-style-type: none"> • Have a plenary session where both DepED and FAPE will report on their ESC- and EVS-related activities during the year relative to performance targets • Have presentations on “best practices” by participating schools • Have presentations on findings of ESC-funded research
Alternative PPP Models	
11. There is an opportunity to explore with new PPP mechanisms that leverage the expertise of private operators in order to link public subsidies to performance outcomes.	Experiment with contracts for private management of public schools for a 15-year period that allows private operators to take over some existing public schools.
12. If it is demonstrated that there is a need to build new schools	Consider the Concession Schools Model with Private Finance Initiative if it is determined that new school buildings are needed. Given excess demand and lack of private and public existing supply, an alternative to build new schools would involve attracting private capital for infrastructure PPPs (or Private Finance Initiatives) and then contract out the operation of the schools to top private school operators that are able to demonstrate a record of high achievement.

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ANNEX

**Partial Summary of the Evidence on
Contracting Forms of Partnerships**

Table 1: Studies of Vouchers

Research strategy	Country & study	Data type & year	Outcomes	Results
Randomization	Colombia (Angrist et al. 2006)	1999-01 exam grade 11	Math & reading scores	Scores improve by 0.2 standard deviations (SD)
	Colombia (Angrist et al. 2002)	1995 Cross-section	Math, reading, writing scores	Voucher recipients scored 0.2 SD higher
	Korea (Kang 2007)	1995 TIMSS	Math scores	1 SD increase in mean quality of peers enhances scores at 0.25, 0.50 quantiles by 0.47, 0.42 SD
Instrumental variable	Chile (Hsieh and Urquiola 2006)	Cross-sections	Math, reading, scores	Increase in 1 SD of private enrollment decreases change in sorting by 1.2-0.2 SD
	Chile (Gallegos 2004)	Cross-section, 1994-97, student level	Average of math and Spanish portions of test scores in 4 th and 8 th grades	1 SD in private enrollment generates about 0.20 SD in test scores and 0.24 in productivity
	Chile (Contreras et al. 2008)	Cross-section, 2005	Standardized test	No differences between public & private schools
	Sweden (Sandström and Bergström 2004)	1997-98	No failing grades	Greater competition improves standards of public schools
	Netherlands (Himmeler 2007)	2002-03	Secondary grades, spending, grade inflation	Positive link between competition & academic achievement
Heckman correction model	Chile (McEwan 2001)	Cross-section, 1997, student level	Standardized test scores	Private nonvoucher schools & public schools differences of -0.16, 0.35, -0.18, 0.002, and 0.62
	Chile (Sapelli and Vial 2004)	Cross-section, 1998, 1999	Standardized test scores, language	Large positive effects; 0.5 SD
	Chile (Elacqua et al. 2008)	Cross-section, 2002 student level	Standardized test scores	Franchise schools scores were between 0.20 and 0.50 SD higher than private independent schools

Table 2: Studies of Private Management

Research strategy	Country & study	Data type & year	Outcomes	Results
Randomization	US Charter schools, Chicago (Hoxby and Rockoff 2004)	Administrative data, cross-section, 2000-02, student level	Standardized test (math, reading), 1 st -8 th grades	Positive effects lower grades: reading 11 points; math 10 points. None or negative impact for higher grades (6-8)
	US Charter schools, New York (Hoxby and Murarka 2007)	Administrative data, cross-section, 2000-05, student level	Standardized test (math, reading), 1 st -12 th grades	Positive effects on math (0.09 SD), reading (0.04 SD)
Difference in difference	US Charter schools, Texas (Booker et al. 2008)	Administrative data, longitudinal 1995-2002, student level	Standardized test (math, reading), 3 rd -8 th and 10 th grades	Initially students perform worse in charters; after 3 years similar scores to those in public schools
	US Charter schools, Michigan (Bettinger 2005)	Administrative data, panel, school level	Test scores	No statistical differences between (nearby) public schools and charters
	US Charter schools, N.Carolina (Bifulco and Ladd 2006)	Longitudinal data, 1996-2002	Standardized test scores (math, reading), 4 th -8 th grades	Charter students score 0.1 (reading) and 0.16 (math) SD lower than public students
	US Charter schools, Texas (Hanushek et al. 2007)	Administrative data, longitudinal panel, 1996-2002, student level	Standardized test scores (math, reading), 4 th -7 th grades	Initially charters score lower; after 3 years no differences
Propensity and matching	Colombia, Concession schools (Barrera-Osorio 2007)	Panel at school level, two years, 1999-2003, student level	Dropout rates, standardized test scores (math, reading), 11 th grade	Positive effects on math (0.19 SD), reading (0.27 SD); positive effects on dropout rates (1.7 percentage points); some evidence of completion effects on nearby public schools
	Venezuela, Fe y Alegría (Allcott and Ortega 2007)	Cross-section, 2003, student and school level	Standardized test scores (math, reading), 11 th grade	Positive effect on math scores (0.08 SD), verbal (0.1 SD)

Table 3: Studies of Subsidies

Research strategy	Country & study	Data type & year	Outcomes	Results
Randomization	Balochistan, Pakistan (Kim, Alderman, and Orazem 1999)	Panel: baseline and follow-up data, 1994 and 1995, student level	Enrollment rate	Positive impact on girls' enrollment: 22 percentage points (baseline: 56 percent enrollment)
Difference in difference	Bogota, Colombia (Uribe et al. 2006)	School level panel data, 1999 and 2000, student, teacher, and school level	Standardized test, math, 5 th grade	Private and public schools yield the same achievements, after controlling for individual and school characteristics; private schools have wider dispersion; public schools have teachers with higher level of education; strong evidence of presence of peer effects; public schools have larger classes

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