The Education Service Contracting (ESC) Program of the Philippines

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Republic of the Philippines
Capital: Manila
Official Languages: Filipino and English
Government: Republic
Population: 98.0 million (July 2009)
12th most populous country in the world
GDP (PPP in 2009 US$):
  Total: 327.2 billion (2009 est)
  Per Capita: 3,300
HDI: 0.751 (2007), 105th of 182 countries
The Philippine Educational System

Source: UNESCO

Education Service Contracting (ESC) Program

Provides a fixed tuition subsidy to graduates of public elementary schools who opt to enroll in participating private high schools

Note: The ESC Program contracts private schools to provide secondary education to “would-have-been” public school students. It is an example of a moderate public-private partnership in the World Bank’s conceptual framework.
Program Features

• Beneficiaries
  – graduates of public elementary schools
    • who opt to enroll in participating private high schools
      – Grantees pay school fees and expenses in excess of the tuition subsidy.
    • who are accepted by the participating private high schools
      – A school committee processes applications and screens grant applicants.

Program Features

• Benefits
  – a fixed annual tuition subsidy through 4 years of high school
    • Value of the grant since SY 2008-2009: PhP10,000 per year in NCR and PhP5,000 elsewhere

• Requirements
  – Grantees must pass all academic requirements in each year level.
  – Grantees cannot take a leave from schooling except due to force majeure or illness.
Program Features

• Administration
  – Fund for Assistance to Private Education (FAPE)
    • a “private” organization
    • contracted by DepEd to implement the program
• Service Providers
  – Private high schools
    • who apply to DepEd to participate in the program
    • who pass the certification process of FAPE
      – FAPE undertakes the certification exercise on each participating school every year as a quality assurance measure.

National Coverage of the ESC Program

• In SY 2008-2009
  – 476,776 grantees
    • 9.3 percent of 5.1 million students in public high schools
    • 35.8 percent of 1.3 million students in private high schools
  – 2,033 participating private high schools
    • 39.8 percent of 5,110 public high schools
      – On average, 4 private high schools handle the enrollment spillovers or congestion problems of 10 public high schools
    • 46.3 percent of 4,392 private high schools
  – 234.5 grantees per school, on average
    • 58.6 grantees per year level per school, on average
Regulatory Set-up of the ESC Program

• DepEd: principal or regulator
• FAPE: implementing agency or regulated firm
• Memorandum of Agreement (MOA): contracting instrument
  – negotiated annually by the two parties
  – Private Education Assistance Committee (PEAC), the trustee of FAPE as a fund, signs for FAPE
    • DepEd Secretary is ex officio chair of PEAC

Regulatory Set-up of the ESC Program

• Program objectives (according to the MOA)
  – To make quality secondary education more accessible to poor Filipino students
  – To enhance the complementary roles of the public and private education sectors
  – To maximize the use of existing resources in the private education sector
  – To realize savings for the government
  – To ease the need for constructing new classrooms and hiring new teachers
Regulatory Set-up of the ESC Program

MOA terms (SY 2008-2009):
A fixed-price contract for undertaking the following:

<table>
<thead>
<tr>
<th>Program administration</th>
<th>PhP100 per grantee</th>
<th>PhP 51 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>(monitoring compliance of schools and processing school papers for payment of tuition subsidies)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training activities</td>
<td></td>
<td>40 m</td>
</tr>
<tr>
<td>Research activities</td>
<td>30 m</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>PhP 121 m</td>
</tr>
</tbody>
</table>

Regulatory Set-up of the ESC Program

- Department Order: contains guidelines and procedures for ESC-participating schools
  - issued annually by DepEd
  - FAPE implements the Department Order
- Informal arrangements
  - DepEd’s Office of Planning Service (OPS) sets national and regional quotas on the number of freshman slots every school year.
  - FAPE distributes the slots to the participating schools.
Problems with the Regulatory Set-up

- **Possibility of regulatory capture:** need for DepEd Secretary to recuse himself from ESC proceedings
- **As a rule, ESC grantees are not poor:** interpret liberally how ESC increases access of poor students to quality education
- **FAPE’s performance is not measured in terms of program objectives**
  - In fact, no performance criteria is specified for FAPE
- **FAPE works under a fixed-price contract with no performance criteria:** extremely favorable to FAPE

Problems with the Regulatory Set-up

- **FAPE has a fixed-price contract with no performance standards:** extremely favorable to FAPE
  - an extremely high-powered contract
    - As residual claimant of any savings, FAPE has a strong incentive to be cost efficient.
  - But ...
Problems with the Regulatory Set-up

• FAPE has a **fixed-price contract** with no performance standards: extremely favorable to FAPE

  BUT ...

  – DepEd’s informational constraints are not addressed.
    • hampers the ability of DepEd to determine if FAPE’s claims on cost increases during contract negotiations are valid
  – FAPE’s performance is not aligned with the objectives of the ESC program.
    • FAPE has no incentive to achieve objectives, e.g., maximize the use of private sector resources or lessen the need for new classroom construction or hiring new teachers

Problems with the Regulatory Set-up

• No unit, office, committee in DepEd is specified as regulator of the ESC program
  – No ownership of the ESC program in DeEd
• (Recall the danger of regulatory capture)
Proposed Solutions to Regulatory Problems

• Create a high-level Board within DepEd as regulator and a Secretariat for staff support
  – addresses ownership within DepEd and prevents regulatory capture
• Gradually move to a performance-based payment scheme for FAPE
  – align FAPE’s incentives with program objectives
• Design data gathering, monitoring, and evaluation systems to address DepEd’s informational constraints

DOES THE ESC PROGRAM PROVIDE COST SAVINGS TO THE GOVERNMENT?
### Cost to DepEd of a public high school student

<table>
<thead>
<tr>
<th></th>
<th>GAA 2009</th>
<th>per student cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in nominal PhP</td>
<td>in nominal PhP</td>
</tr>
<tr>
<td>Personnel Services</td>
<td>36,086,046,000</td>
<td></td>
</tr>
<tr>
<td>Direct MOOE</td>
<td>5,785,446,000</td>
<td></td>
</tr>
<tr>
<td>Capital Outlays</td>
<td>5,557,350,000</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>47,428,842,000</strong></td>
<td><strong>9,048</strong></td>
</tr>
<tr>
<td>Projected enrolment for SY2009-2010</td>
<td>5,241,806</td>
<td></td>
</tr>
</tbody>
</table>

*DepEd Q & A, September 2008*

### Cost to DepEd of an ESC grantee

<table>
<thead>
<tr>
<th></th>
<th>Number of grantees</th>
<th>Value per grantee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant subsidies</td>
<td></td>
<td></td>
<td>2,426,525,000</td>
</tr>
<tr>
<td>in NCR</td>
<td>8,529</td>
<td>10,000</td>
<td>85,290,000</td>
</tr>
<tr>
<td>elsewhere</td>
<td>468,247</td>
<td>5,000</td>
<td>2,341,235,000</td>
</tr>
<tr>
<td>Administrative costs</td>
<td>~100</td>
<td></td>
<td>51,000,000</td>
</tr>
<tr>
<td>Training grant to FAPE</td>
<td></td>
<td></td>
<td>40,000,000</td>
</tr>
<tr>
<td>Research grant to FAPE</td>
<td></td>
<td></td>
<td>30,000,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>476,776</td>
<td></td>
<td>2,547,525,000</td>
</tr>
<tr>
<td><strong>COST PER GRANTEE</strong></td>
<td></td>
<td></td>
<td><strong>5,343.23</strong></td>
</tr>
</tbody>
</table>

Based on DepED-FAPE ESC MOA for SY 2008-2009
Note: NCR grant is valued at P10,000, which begins only in SY 2009-2010.
The ESC Program is a *lower cost alternative* to direct provision of secondary education by the government:

PhP5,343 vs. PhP9,048.

**ESC Grant and School Fees**

- On average, tuition fees in private schools exceed the value of the ESC grant.
- In general, ESC grantees pay for school fees in excess of the tuition subsidy.
- The average support value of the ESC grant is 0.67
  - support value = value of grant / school fees
- On average, schools receive PhP1.18 million per year from DepEd due to the ESC program
ESC grants generate P4.43 billion in revenues for ESC schools.

ESC grantees shoulder P2.0 billion of the P4.43 billion.

ESC generates resources for private high schools *in excess of government transfers*, since grantees make significant co-payments. More resources are thus generated for basic education.
The ESC program and decongesting public high schools

CONGESTION ANALYSIS

Estimating the Student Capacity of Public High Schools

Assumptions leading to a high estimate of school capacity
- Class size of 50
- 2 shifts for urban schools with sufficient teacher complement; 1 for other schools
- Include both nationally- and locally-funded teachers (150,826 teachers)
- 7:4 subject-specialization ratio (7 teachers are required for every 4 sections of high school)

Assumptions leading to a low estimate of school capacity
- Class size of 45
- 2 shifts for urban schools with sufficient teacher complement; 1 for other schools
- Include only nationally-funded teachers (118,316 teachers)
- 9:4 subject-specialization ratio
Estimating the Student Capacity of Public High Schools

The Cost of Accommodating Excess Students
What is the impact on quality of schooling of moving public high school students to private schools?

THE QUALITY IMPACT OF PRIVATE HIGH SCHOOLS

Stylized Facts on Quality of Philippine Secondary Education

- Standards have been falling over time
  - TIMSS 1999: 36th of 38 countries in math and science
  - TIMSS 2003: 38th in math and 39th in science out of 42 countries
- Quality-adjusted cost per student favors private schools over public schools
  - Jimenez et al. (1988): 1983 survey of 5190 secondary students nationwide
    - Private school advantage in English and Pilipino: more than half a year of schooling or 15 percent of sample mean achievement scores
    - Public school advantage in math: 4 percent of the sample mean achievement score
  - Cost per student: public schools spend roughly twice as much as private schools
TIMSS 2003

• Relative to the international mean of 500 with a standard deviation of 100
• Filipino 2nd-year high school students had an average score of
  – 388 in math; rank: 39 out of 45 countries
  – 377 in science; rank: 42 out of 45 countries
• But these represented tremendous improvement over TIMSS 1999
  – 38 point improvement in math
  – 32 point improvement in science
  – Both improvements are increases of more than 0.3 of a standard deviation

TIMSS 2003

• Private schools outperform their peers in public schools by more than 60 points

– But this result does not control for student, family, school, and locational characteristics.
## The Quality Effect of Private School Attendance

### Table: Quality Effect of Private School Attendance

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
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<tbody>
<tr>
<td><strong>Math</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>60.7</td>
<td>55.2</td>
<td>49.1</td>
<td>33.2</td>
<td>34.6</td>
</tr>
<tr>
<td></td>
<td>13.1***</td>
<td>15.4***</td>
<td>14.8***</td>
<td>14.2***</td>
<td>12.6***</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>76.7</td>
<td>72.0</td>
<td>65.3</td>
<td>41.0</td>
<td>40.9</td>
</tr>
<tr>
<td></td>
<td>13.8***</td>
<td>15.9***</td>
<td>15.4***</td>
<td>14.0***</td>
<td>12.6***</td>
</tr>
</tbody>
</table>

1 – no controls  
2 – with student-teacher ratio  
3 – with student-teacher ratio + student characteristics  
4 – with student-teacher ratio + student & family characteristics + locale  
5 – with student-teacher ratio + student & family characteristics + locale + region

### The Quality Effect of Private School Attendance

- Controlling for school, student, family background, locational characteristics does not erase the quality effect of private school attendance
  - Math: at least a 33 point advantage or 1/3 of a standard deviation
  - Science: at least a 40 point advantage or 2/5 of a standard deviation
The Quality Effect of Private School Attendance

- Average effect vs. elsewhere
- Quantile regressions
  - How are achievement test scores affected by the regressors at different points in the conditional test score distribution?
  - Policy question: For whom does private school attendance matter?

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The Quality Effect of Private School Attendance

- The qr coefficients of private school attendance show a decreasing trend over the distribution
  - Private school attendance is more important for low-than high-achievers
The Quality Effect of Private School Attendance

- The estimation problems
  - Selection bias (non-random sampling)
    - Students can choose which type of school to attend
    - Private schools can choose which applicants to accept
  - Unobserved characteristics of schools and students may confound estimated effect of private school attendance
  - Handle by propensity score matching

The Quality Effect of Private School Attendance

- Propensity score matching
  - Employs a predicted probability of group membership—e.g., treatment vs. control group—based on observed predictors, usually obtained from logistic regression to create a counterfactual group
  - Propensity score predictors
    - Rural residence
    - Mother’s education
    - Books at home
The Quality Effect of Private School Attendance

Estimated Effect of Private Schooling on Math and Science Score using Matching

<table>
<thead>
<tr>
<th></th>
<th>Math</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference in test score between private and public school students</td>
<td>39.6</td>
<td>33.8</td>
</tr>
<tr>
<td></td>
<td>45.5</td>
<td>45.9</td>
</tr>
<tr>
<td></td>
<td>14.2***</td>
<td>3.7***</td>
</tr>
<tr>
<td></td>
<td>14.1***</td>
<td>3.7***</td>
</tr>
<tr>
<td>Number in treated group</td>
<td>1964</td>
<td>982</td>
</tr>
<tr>
<td></td>
<td>1964</td>
<td>982</td>
</tr>
<tr>
<td>Number in control group</td>
<td>1964</td>
<td>4558</td>
</tr>
<tr>
<td></td>
<td>1964</td>
<td>4558</td>
</tr>
</tbody>
</table>

• Estimates of the effect of private school attendance using two matching methods are very significant and consistent.
• Differences in scores are equivalent to at least 0.3 and 0.4 of a standard deviation in math and science, respectively.
• Private schools raise math and science scores significantly, generating very large educational benefits for their students vs. public high school students.
The Quality Effect of Private School Attendance

• Summary
  – Student test scores are low but increasing over time
  – Private schools can improve learning outcomes significantly
    • Controls for characteristics and use of rigorous estimation methods (to account for sampling selectivity) do not erase the private school advantage by much
  – Although TIMSS scores are for 2nd year high school students only and are not an explicit analysis of the ESC program, they show the potential effect of private school attendance

• Summary
  – ESC students are likely to be less wealthy and less able (than private school students in general)
    • QR results indicate that they are likely to benefit more academically.
  – The ESC program, which facilitates the transfer of otherwise public school students to private schools, is therefore likely to improve the achievement scores of the grantees as well as overall test scores in the Philippines.