

PRIVATE TUTORING IN EGYPT: QUALITY EDUCATION IN A DEADLOCK BETWEEN LOW INCOME, STATUS, AND MOTIVATION

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Introduction

An adherent by-product of the low quality of education is the need for private tutoring after class. It seems that private tutoring is not only a consequence of the poor quality of education in public schools, but is a deliberate and immanent property of the Egyptian educational system. Our data reveals private tutoring to be a practice that is encouraged by the underlying administrative system, the lack of checks and balances, and the broad acceptance of parents of this practice coupled with their high level of illiteracy. The Egyptian system of PT has passed on the responsibility for education from state to parents, thus putting additional financial strain on parents who send their children to a public school and putting at a disadvantage the already underprivileged poor. PT has further severely deteriorated public education because of teachers' refraining from actively teaching in school. Instead, teachers focus their work effort during their hours of private tutoring.

In this context, this paper aims to shed light on PT by determining its fundamental drivers. Based on statistical data and an analytical study, the paper determines those variables that influence PT and teachers' shirking behavior during classes. The paper then elaborates on approaches that may help to minimize incentives for PT and augment teachers' willingness to perform well in class. It devises policies that help reducing corruption (and the black market) in the education sector and the financial strain on parents that are exposed to PT, as well as improving education quality.

Background

The Egyptian Center for Economic Studies, jointly with the Central Agency for Public Mobilization and Statistics (CAPMAS), conducted two surveys in order to gather cross-sectional data on 1504 Egyptian families and a similar number of teachers. Egyptian families have responded to a questionnaire on their experiences in public schools, and teachers have been asked questions regarding their teaching experience, income, and incentives.

Though the data show little direct enforcement of private tutoring, there are clear indications for an indirect enforcement. The dissatisfaction of parents with the educational system mainly results from teachers who in their view lack commitment and depend heavily on private lessons, in addition to crowded classrooms. The same data shows that the current curriculum in public schools further promotes the deficiencies of the educational system. The structure of the curriculum causes evaluation not to be based on the good grasp of the subject but on mere memorization. Parents are pressured both by peer effects and by the structural failure of the educational system to send their children to private classes after school; and teachers exploit this effect. In addition, except for the 3rd; 6th; 9th and 12th grades, teachers are in control of exams and promotions of students.

Yet, parents do little to mitigate the systemic inefficiencies and appear to have succumbed to the necessity to pay for private tutoring (Table 1). 70 percent of parents are dissatisfied with the quality of education that their children receive, yet they manifest very low participation rates in parents' council meetings and also a low interest to discuss topics like school fees, teachers' performance or curricula and teaching methods. Parents regard sending their children to private schools as the only solution to the issue. A vast majority of the parents (92.5 percent) would prefer to send their children to a private school if it were accessible at the same cost as a public school, but distance and above all credit constraints render private schools inaccessible (Tables 2 and 3).

Teachers, on the other hand, may generate considerable amounts from private tutoring (Table 4). Though teachers in Egyptian public schools are civil servants and as such cannot be terminated, this supplementary income is important as teachers' wages have barely increased since the 1980s. Regular salaries have stagnated at EGP 500 per month over the past years and have even seen drastic slumps in several years (as illustrated in Figure 1). Based on the average growth rates of real wages in the educational sector from 2000 until

2008, Egypt ranks 70 out of the 79 countries for which World Bank data is available (with an average of -3.38 percent compared to an average of 5.39 percent over all available countries). Teachers state amounts which they believe to be adequate wages that far exceeded their nominal wage as well as the new wages implemented by the government.

Table 1. Parents' Role in the Mitigation of Systemic Inefficiencies, (%)

Role	%
Parent's participation rates in parents' council meetings	8.2
interest to discuss topics like school fees	3.0
Parents' interest to discuss teachers' performance	4.7
Parents' interest to discuss curricula and teaching methods	2.8

Source: Parents questionnaire.

Table 2. Problems Children are Facing when Going to School – Parents' Response in Percent

School is in distant location?	Heavy bag due to carrying all books	No secure route to walk to school	No secure means of transportation	Other (mention):
18.8	14.0	13.2	11.8	0.6

Source: Parents questionnaire.

Table 3. Reasons for not Sending Children to a Private School – Parents' Response in Percent

Prohibitive prices	Indifferent from Public	Too far	Other
92.9	5.3	15.8	0.7

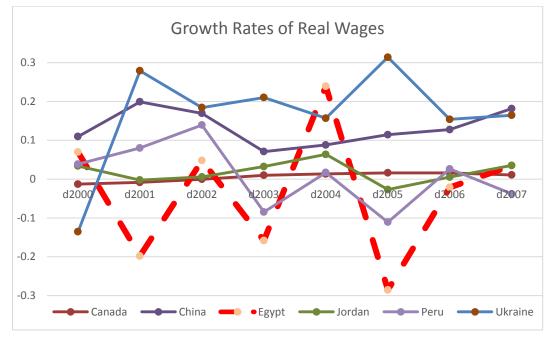
Source: Parents questionnaire.

Table 4. Monthly income in EGP of teachers from private tutoring on the basis of calculated average and median fees, as stated by parents (note: the basis for these numbers are derived from the individual statements of parents and teachers that include a number of unknown and distributional biases, and thus might deviate from real values)

	Income median	Income mean
Mean	1,069.706	1,480.228
Number of observations	844	844
Variance	11,105,142	21,076,287
Median	337.5	466.8343
Maximum	35,714.25	49,200.8
Minimum	12.5	17.40263

Source: Teachers questionnaire.

Figure 1. Growth Rates of Real Wages, Values Calculated from Available World Bank Data



Source: Author's calculations based on World Bank's data.

Results of the Model

The motivation of a teacher to shirk is a product of the position of the teacher as a public employee, where a potential termination of his contract is only an empty threat. Hence, the given problem is not one of the standard principal-agent literature. Instead, other means of extrinsic motivation are required.

On the basis of empirical data, the paper elaborates an analytical model that serves to formulate and evaluate a set of policies, which will help reduce private tutoring and improve the quality of primary education in Egypt (for more details on the model, see the main Working Paper 178 at <u>http://www.eces.org.eg/Publication.aspx?ld=586</u>).

The model has revealed two variables as being important for determining the transition probability: normative effort and social pressure. It also demonstrated that increasing the wage levels of public school teachers will have a very limited effect on their behavior.

Since both teachers using PT and those who do not, receive an identical increase of income, the former teachers will not forgo their additional income, given that the revenues from private tutoring remain a multiple of their regular income. As a consequence, effort levels will remain very low in the absence of additional social effect. The interplay between a wage closer to adequate wage as a financial incentive on the one hand, and social incentives on the other can lead to higher effort levels and less shirking by teachers in public schools.

These social incentives are status effects, social pressure, normative expectations, as well as control by parents and students (including the ability to denounce and avoid PT) and better traceability of a teacher's work. Table 5 shows the link between social variables and teachers' job satisfaction.

	Very weak	Weak	Moderate	Strong	Very strong
Income	6.7	15.2	27.1	16.7	34.3
Student love and respect	0.3	0.9	9.6	30.2	58.9
Adherence to professional ethics	0.6	0.7	3.7	27.0	68.0
Reputation	0.3	0.7	3.0	21.0	74.9

Table 5. To What Extent Do the Following Factors Affect your Satisfaction with your Job as a Teacher? Responses in Percent:

Opening the teaching market by creating a larger supply of teachers can help reduce the income from private tutoring and, hence, the incentive for low effort levels in class.

This is not only a consequence of stronger competition between teachers (i.e., decrease in market power), but also of the decrease in class size (i.e., better identification of a teacher's effort). Thus, stronger competition has both an effect on the expected income from private tutoring and also on the ability to supervise a teacher's effort. Only under the condition of smaller class sizes is it possible to trace high demand for private tutoring back to a low performance of teachers in class.

In order for this to work, the monopoly power of teachers in public schools has to be drastically reduced. It is based on two factors; a lack of substitute teachers who are sufficiently well-educated to train young students in public schools, and the exclusive control of examination by teachers in younger school years. As long as the elaboration of exams is either not completely separated from teachers or remains uncontrolled by third parties, a strong incentive exists to convey some of the questions to those students receiving private tutoring classes prior to the exam.

In addition, teachers control which students are / are not promoted to higher grades at the end of the academic year, and absence from private tutoring might severely impede chances.

Thus, in order to reduce market power of teachers and to ease the demand for larger supply, youth requiring first experience in education can be sent to school as semi-volunteer teachers. They can offer additional classes to children that are most exposed to high absence rate of teachers, large class sizes and thus to strong pressure to take private tutoring classes. For this to be feasible, it is necessary that these young teachers are protected against social pressure and shunning exercised by incumbent teachers. Strict guidelines for the administration and school have to ensure that these supply teachers are treated equally to permanent teachers.

Given a proper remuneration, a freer market can lead to canceling out the abuse of private tutoring by establishing additional private schools in rural areas, which offer schooling at competitive rates. If parents have to pay on average an additional amount of EGP 2300 (including remedial lessons, see Tables 5 and 6) for PT to teachers from public schools, parents are inclined to send their children instead to a private school at a similar amount in which PT is uncommon (92.5 percent of the respondents). This solution would require, however, that administrative hurdles for establishing new private schools are eased and the accreditation procedure is accelerated and simplified, and thus necessitates again a change at the systemic level.

Includes rees	2				
	Arabic studies	English	French	German	Math
Average	323.30	316.16	595.50	1401.11	306.50
Number of observations	1503.00	1549.00	44.00	9.00	1565.00
Variance	96098.26	101910.77	322377.51	6285811.11	103887.76
Median	245.00	240.00	400.00	480.00	225.00
Maximum	8000.00	8000.00	2800.00	8000.00	8000.00
Minimum	20.00	30.00	32.00	210.00	20.00
	Science	Social studies	Total cost per child	Total cost per family	
Average	309.18	291.88	881.45	1479.36	
Number of observations	908.00	873.00	2494.00	1486.00	
Variance	126806.89	121172.97	2004432.96	4495928.50	
Median	240.00	225.00	605.00	1000.50	
Maximum	8000.00	8000.00	48700.00	48700.00	
Minimum	20.00	16	35.00	35.00	

Table 6. Yearly Cost in EGP for Private Tuition and Schooling: Cost per ChildIncludes Fees

Source: Author's calculations based on Parents questionnaire.

Most parents are unaware of how much money is spent on PT over the year (according to the survey data, 77.37 percent of the parents asked did not calculate their expenses). Furthermore, parents are credit constrained, and thus prefer to pay small amounts distributed over a longer period.

Table 7. Yearly Cost in EGP for Remedial Lessons: Cost per Subject is per	Child,
Total Cost per Child Only Include Fees for Remedial Lessons	

	Arabic studies	English	French	German	Math
Average	146.46	140.70	199.23	36.00	147.75
Number of observations	472.00	400.00	13.00	1.00	434.00
Variance	8345.64	5210.64	11741.03		6946.64
Median	120.00	120.00	200.00	36.00	135.00
Maximum	10.80.00	480.00	480.00	36.00	675.00
Minimum	12.00	30.00	30.00	36.00	8.00
	Science	Child social	Total cost per child	Total cost per family	
Average	157.16	155.53	491.64	698.39	
Number of observations	263.00	250.00	554.00	390.00	
Variance	7694.07	7300.45	113746.47	273422.54	
Median	160.00	160.00	400.00	560.00	
Maximum	675.00	675.00	2700.00	4000.00	
Minimum	30.00	40.00	50.00	50.00	

Source: Author's calculations based on Parents questionnaire.

As mentioned above, it is imperative that teachers are unable to reveal information on exams prior to their taking place. Consequently, a higher institution, which is independent of the public teachers, should elaborate exams that are based on the current syllabus and are sent in a sealed envelope to the schools only shortly before the exam date. Examination (i.e., how points are distributed) should be rendered transparent for students and their parents.

Pressure on teachers who abuse their position can only be introduced and strengthened if awareness of the benefits of good education is raised. This requires policies that affect both the demand and the supply side of education. If firms in Egypt demonstrate a strong interest in well-educated students and offer these students attractive career and payment opportunities, the negative correlation between educational level and employment rates in Egypt can be eventually reversed. The increased demand for good education will encourage parents to invest more in education and to pressure teachers to provide a high quality of teaching during their classes (i.e., leading to an increase in the normative effort level).

On the supply side, stakeholders need to be made aware that proper education, especially of girls, does not only have a positive effect on employment but can also have a positive effect on child mortality and fertility. Thus, even without a high qualified job, good education can improve living conditions and exhibit positive influence at a social level, which again can have a positive effect on the demand side. Firms, on the other hand, are more inclined to invest in a certain social environment with a well-qualified labor force. Thus, the positive and reinforcing feedback of schooling exists both on the demand and supply side. In making these facts known, peers are more inclined to put social pressure on teachers to minimize absence rates and to offer a good teaching quality in school. These are most importantly students and their parents. It is thus vital that both parents and students understand the importance of proper schooling, as well as their right to receive such schooling in a public school without the additional requirement to pay additional fees disguised as PT. In addition, they should be made aware of the advantages of good education for their own family.

Yet, the willingness to enforce a better education and less shirking by teachers is only a first step. It further requires that the actual efforts of teachers can be retraced and that parents have the power to exert pressure on teachers. Students are best-positioned to observe a teacher's performance. Yet, not all students will communicate a high absence ratio, low quality teaching or issues regarding their teacher to parents. In a regular teacher conference, parents can bring up issues, which have been conveyed to them by their children, and thereby inform other parents of their existence. In order for parents to have a specific contact person, a class teacher should be assigned as the responsible person for this class to act as a mediator between teachers and parents. This class teacher has the duty to inform parents about new regulation, their rights and also problems. Parents, on the other hand, should assign a representative acting as their spokesperson. This representative can be called by the other parents and directly contact teachers in case of a problem. In addition, a parent's association consisting of a small number of parent representatives should be given a direct say in the administrative process of the school. In this way, parents are not only encouraged to bring problems forward but also realize that their opinion matters, and that a regular participation in a parents' council is in their children's interest.

A regular evaluation of teachers is a helpful tool to exercise pressure on teachers to provide proper teaching quality during their hours in class. In Europe and Northern America, several social networks exist, which allow students to evaluate the performance of their teachers. Such a solution has two advantages: (1) a decentralized Internet platform is not exposed to potential manipulation, and (2) the access to information on this network is universal. We have seen that PT is a systemic problem in which the administration of the school takes an interest (such as the headmaster). If evaluation only took place at the

school level, those who have an interest in manipulating the data, have direct access to it. This will not be the case for an Internet platform under the government's control.

In addition, schools in which PT is common should be exposed to a large public. Such a tool can represent a strong incentive to teachers, but requires regular access to Internet by parents and students. According to our data, roughly half of the families possess a computer, but Internet access is limited for most families (Table 7). Under these conditions, public schools should offer access to the platform but exclude any possibility of manipulation by teachers or members of the school. In addition, the Internet platform, on which students can evaluate their teachers could also have a direct effect on how a teacher is perceived by his environment. In order to strengthen the reputation effect, outstanding teachers can be awarded prizes and public recognition on the basis of their evaluation. A number of school administration software applications exist, which allow for the supervision of students and teachers by parents and the school administration. These applications should offer a basis for a country-wide platform that is publicly accessible by any stakeholder.

Very weak	Weak	Moderate	Strong	Very strong
35.0	25.6	25.3	11.9	2.3
Access to:	Computer	45.0	Internet:	18.7

Table 8. Computer Literacy	of Children – Parents'	Response in percent
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Source: Parents questionnaire.

Furthermore, incentives can be created that induce teachers and the school administration to mutually control compliance to a standard of education via peermonitoring.

Instead of setting a fixed and stable budget for each public school, parents should be allowed to determine the amount of money that they are willing to contribute to their school. Parents are willing to pay more to schools which receive a high evaluation by their students on the Internet platform. The headmaster of a school and its teachers will thus exercise peer pressure on those teachers that decrease the school's evaluation levels.

However, credit constrained parents are unable to pay schools out of their own pockets. Such an approach would contradict the idea of public schools and clearly disadvantage lowincome families, who are unable to finance the education of their children. Under a decentralized free-market solution, the quality of education and income are closely related.

Consequently, this solution would magnify the poverty trap for the poorest and would aggravate one of the main social issues of Egypt. In order to circumvent these issues and to ensure that funds reach schools in the way intended by students and the government, vouchers can be issued by the government to each family. These vouchers can only be used to pay for the schooling of their child, but not to buy other commodities. By giving these vouchers to parents and allowing them some freedom of choice regarding the public or private school to which they would send their child, parents create a financial incentive to offer a better quality of education to pupils. A similar approach has been proven to be successful in Chile, Hong Kong, Sweden, and the US.

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