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Sieverding, Maia; Krafft, Caroline; Elbadawy, Asmaa

Working Paper "The Teacher Does Not Explain in Class": An Exploration of the Drivers of Private Tutoring in Egypt

GLO Discussion Paper, No. 135

Provided in Cooperation with: Global Labor Organization (GLO)

Suggested Citation: Sieverding, Maia; Krafft, Caroline; Elbadawy, Asmaa (2017) : "The Teacher Does Not Explain in Class": An Exploration of the Drivers of Private Tutoring in Egypt, GLO Discussion Paper, No. 135, Global Labor Organization (GLO), Maastricht, https://doi.org/10.1086/705383

This Version is available at: https://hdl.handle.net/10419/170573

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"The Teacher Does Not Explain in Class": An Exploration of the Drivers of Private Tutoring in Egypt¹

Maia Sieverding², Caroline Krafft,³ and Asmaa Elbadawy⁴

October 25, 2017

Abstract

Widespread reliance on private tutoring has raised concerns over the hidden costs of Egypt's "free" education system. This paper examines the drivers of tutoring at different levels of education, using nationally representative survey data as well as qualitative data on youth experiences in public, private, and religious schools. Our findings indicate that the drivers of tutoring are multiple and vary by schooling level. Structured around high-stakes exams, the Egyptian education system has fostered the growth of a diverse tutoring market. In general secondary school, tutoring has become a social expectation that leads teachers and students to shirk in school to devote more attention to tutoring. In basic education, teacher pressure is a major motivation for public school students to take tutoring. In order to reduce the prevalence of tutoring and ensure greater equality in education, there is an urgent need to test mechanisms for ensuring accountability in schools.

Keywords: Private tutoring; educational supplements; school quality; Egypt **JEL codes:** I21, I22, I24, N35

¹ The research for this paper was supported by the Open Society Foundations Education Support Program.

² Maia Sieverding, American University of Beirut, Riad El-Solh, Beirut 1107 2020 Lebanon. Email: maia.sieverding@aub.edu.lb

³ Caroline Krafft, Department of Economics, St. Catherine University, 2004 Randolph Ave, St. Paul, MN 55105. Email: cgkrafft@stkate.edu

⁴ Asmaa Elbadawy, independent consultant. Email: <u>asmaa.elbadawy@gmail.com</u>

1 Introduction

Private tutoring has come to be known as a "shadow education system" in countries where the widespread existence of this form of paid academic supplementation parallels public education systems that are ostensibly free (Bray & Kwo, 2013; Bray, 2006). When tutoring becomes so widespread that paying for private lessons is essential, or perceived to be essential, to succeeding in the mainstream school system, it becomes an effective form of privatization that undermines the recognized global principle of free basic education (Bray & Kwo, 2013). Egypt is one country where, while public education is technically free, private tutoring has become an undeniable fact of educational life for students and their families. Tutoring is prevalent across education levels, types of schools, socioeconomic levels, and geographic regions, with almost three-quarters of final-year preparatory (basic education) students taking tutoring as of 2012 (Assaad & Krafft, 2015a).

The prevalence of tutoring in Egypt (Bray & Kwo, 2013; Lee & Shouse, 2011; Silova, 2010) has serious implications for equity and social mobility, as it exacerbates inequalities of opportunity that are already present in the education system (Assaad & Krafft, 2015a; Krafft, Elbadawy, & Assaad, 2013). While many poor households do resort to tutoring, wealthier households are still substantially more likely to invest in tutoring, spend more money on tutoring, and are more likely to take individual private lessons (Assaad & Krafft, 2015a, 2015b). Although a number of studies have addressed patterns and determinants of tutoring (Assaad & Krafft, 2015a; Elbadawy, Ahlburg, Assaad, & Levison, 2009), in order to design sound policies to reduce the prevalence of private tutoring and promote equitable access to quality public education that is in fact free, it is also critical to understand the reasons Egyptian households invest so heavily in this form of shadow education.

In this paper, we investigate the drivers of students' enrollment in private tutoring in Egypt across different levels of the education system. We begin by developing a framework of the main drivers of tutoring identified in the international literature: (1) the desire to gain a competitive advantage in the school system, (2) school quality, and (3) teacher incentives. We then assess evidence for each of these drivers in the Egyptian context, employing a mixed-methods approach that integrates data from the nationally-representative Survey of Young People in Egypt 2009/2014 panel with qualitative analysis of young people's tutoring decisions based on in-depth interviews. In our conclusions, we discuss the implications of our findings for policies that aim to reduce the prevalence of tutoring and promote greater equality in the education system.

2 Background

2.1 Drivers of private tutoring in Egypt and beyond

A number of factors have been linked to the growth of private tutoring across low- and middle-income countries. Much of this literature focuses on East and Southeast Asia (Chan & Bray, 2014; Dang, 2007; Dawson, 2010; Kim & Lee, 2010; Kwo & Bray, 2014; Lee & Shouse, 2011; Zhang, 2014), but the increasing prevalence and importance of private tutoring has also been documented in educational systems across Eastern Europe and Central Asia (Silova, Budiene, & Bray, 2006; Silova, 2010) as well as the Mediterranean countries (Assaad & Krafft, 2015a; Ille, 2015; Silova, 2014; Tansel & Bircan, 2006). Although reasons for the growth in private tutoring vary across institutional, economic, and social contexts, the underlying factors that drive the demand for tutoring can be grouped into three inter-related categories: (1) families' desire to give their children a competitive advantage in the education system, (2) poor school

quality, and (3) teachers' incentives to teach private lessons as opposed to in-class. As shown in Figure 1, these broad drivers encompass several specific, sometimes overlapping, motivations for utilizing tutoring. For example, the desire to gain a competitive advantage may be due to the exam orientation of the educational system, the symbolic function of tutoring, or the inadequacy of the mainstream schooling system. The latter factor, along with teacher shirking, also links to school quality as a driver of private tutoring.

Although the traditional assumption is that tutoring is primarily used by students who are performing badly in school or need extra support, this is often not the case in contexts where private tutoring has been expanding rapidly (Bray & Kwo, 2013). Although tutoring is certainly used by some students as a means of remedial help, tutoring may also be used by already advantaged families to give their children a competitive edge within mass public education systems (Bray & Kwo, 2013; Hartmann, 2013; Kim & Lee, 2010). In many countries, children of wealthier or more educated families, who already have advantages in the school system, invest more in private tutoring (Assaad & Krafft, 2015a; Jayachandran, 2014; Kim & Lee, 2010; Tansel & Bircan, 2006), suggesting that they are receiving more or higher-quality lessons. In some contexts, higher-performing students (Kim & Lee, 2010) and students in elite public schools (Lee & Shouse, 2011; Zhang, 2014) have been found to invest more in private tutoring than their peers in mainstream public schools or those with lower academic achievement.

One motivation for investing in tutoring as a means to gain a competitive advantage in some education systems may be the exam-driven nature of school progression and placement (Dawson, 2010; Silova, 2010; Tansel & Bircan, 2006; Zhang, 2014). In countries where demand for higher levels of education has increased dramatically, competition for limited seats that are allocated through exams or grades can drive demand for supplemental tutoring to boost student

performance (Dawson, 2010; Kim & Lee, 2010). As in these other contexts, the Egyptian education system is driven by high-stakes exams, particularly at the transition points between schooling levels. Together with an extensive secondary school curriculum and an emphasis on rote learning, the importance of exams has been cited as one of the primary drivers of tutoring in the country (Assaad & Krafft, 2015a; World Bank, 2007, 2008).

A number of characteristics of tutoring markets have been cited as evidence that exams drive tutoring demand, including increasing prevalence of tutoring during exam or transition years (Dang, 2007; Zhan, Bray, Wang, Lykins, & Kwo, 2013), higher demand for tutoring in examination as opposed to non-examination subjects (Sobhy, 2012; Zhan, Bray, Wang, Lykins, & Kwo, 2013), and the fact that tutoring curricula in some contexts, including Egypt, often follow official syllabi (Brehm, Silova, & Mono, 2012; Hartmann, 2008, 2013). Tutoring may also be perceived to be more directly related to exam preparation than regular classroom activities, for example because tutors focused more directly on test-taking techniques and exam content than in-school teachers (Kwo & Bray, 2014), a factor that has also been noted in Egypt (Hartmann, 2008, 2013). The comparative value of tutoring, as opposed to class attendance, for exam preparation is also suggested by the fact that students in Egypt and elsewhere have been found to skip school in order to attend private lessons (Hartmann, 2013; Silova, 2010; Tansel & Bircan, 2006).

The association between tutoring and competitive school environments may be so strong in some contexts that tutoring takes on a symbolic as well as functional purpose in families' efforts to give their children a competitive advantage within the school system, in that tutoring becomes a means through which families demonstrate their ability and willingness to invest in their children's education (Lee & Shouse, 2011). In several East Asian countries, use of tutoring

has been argued to be a measure that families and students resort to in order to ease anxieties about outcomes in a competitive schooling environment (Dawson, 2010; Kwo & Bray, 2014; Lee & Shouse, 2011; Zhan, Bray, Wang, Lykins, & Kwo, 2013; Zhang, 2014). Ethnographic research from Egypt also suggests that, at least among students from higher socioeconomic backgrounds, participation in tutoring has also become something of a social expectation (Hartmann, 2008, 2013).

In some contexts, however, gaining a competitive advantage in the school system may be more related to the shortcomings of mainstream schooling than investments in social positioning. The growth of tutoring has been attributed to the poor quality of education in many countries that have expanded access to education rapidly (Bray & Kwo, 2013; Brehm, Silova, & Mono, 2012; Dawson, 2010). Egypt is one such example. Since the introduction of free public education in the 1950s (World Bank, 2007), the Egyptian school system has expanded dramatically, from 1.9 million students in 1953 (Faksh, 1980) to around 22.7 million by 2013 (CAPMAS, 2015). In combination with this population pressure, budget constraints led to increasing class sizes and deteriorating public school quality over the years, making teaching at school insufficient for exam preparation, future employability, or both (Elbadawy, 2015; World Bank, 2008).

In addition to such system-wide structural factors, poor school quality as a driver of tutoring may be related to teachers' (dis)incentives to provide quality instruction in class. Private school tutoring can be an essential mechanism for poorly paid public school teachers to supplement their incomes in low- and middle-income countries (Biswal, 1999; Ille, 2015; Silova, 2010; Sobhy, 2012; Zhang, 2014). The income provided by private tutoring may be such a motivation that in contexts where public school teachers give private lessons to their own students, they have an incentive to underperform in the classroom in order to increase students'

demand for paid lessons (Biswal, 1999; Dawson, 2010; Jayachandran, 2014). Thus, poor quality of instruction in schools may be – at least in part – a consequence, as well as a cause, of the spread of private tutoring.

In its more perverse forms, teachers' incentives to encourage private lessons may reach the level of outright corruption. Teachers may directly pressure their students into taking "required" private tutoring (Silova, Budiene, & Bray, 2006; Silova, 2010), or give preferential treatment in class to students who take paid private lessons outside of school (Brehm, Silova, & Mono, 2012; Zhang, 2014). In Egypt, teacher pay is low (Ille, 2015), and is determined by qualifications and seniority, with little consideration of performance (World Bank, 2007). The small qualitative literature on tutoring has found that teachers use both direct and indirect forms of pressure, ranging from withholding curriculum content in school to threats of expulsion, in order to ensure a market for private lessons (Hartmann, 2013; Sobhy, 2012).

Although the prevalence of private tutoring in Egypt has made it a common example of the growth of this form of educational privatization, much of the existing literature focuses on quantities and determinants of tutoring (Assaad & Krafft, 2015a; Elbadawy, Ahlburg, Assaad, & Levison, 2009), with relatively less attention paid to decision-making around using tutoring. The few qualitative studies on tutoring in Egypt have come to different conclusions about the main drivers of this phenomenon. Sobhy (2012), based on a comparative ethnographic account of two boys' secondary schools in Greater Cairo, argues that teacher corruption is the main driver behind private tutoring. Hartmann (2008, 2013), in contrast, based on ethnographic study of tutoring among both middle and lower-class students, attributes the prevalence of tutoring to a mix of poor school quality, exam orientation, symbolic value, and teacher pressure, with lower-class students more subject to the latter. To the best of our knowledge, this is the first study to

employ a mix of quantitative and qualitative data to assess the drivers of private tutoring in the Egyptian context. In doing so, we pay particular attention to potential differences in students' reasons for enrolling in tutoring across different school levels and school types (public, private, religious), as well as different forms of tutoring.

2.2 The school system in Egypt and forms of private tutoring

Private tutoring has an important relationship with the structure of the school system in Egypt (Figure 2), which is characterized by parallel academic and vocational tracks, as well as transitions determined by high-stakes exams. Exams at the end of the preparatory stage determine whether young people are tracked into vocational secondary or general (academic) secondary education. Around 57 percent of students who continue for secondary education do so in vocational secondary, which requires lower scores and is usually a terminal degree. The other 43 percent of students continuing on for secondary education attend general secondary school, which requires higher scores and is essentially a guarantee of access to higher education (Elbadawy, 2015). The type of higher education that young people can access and their specializations within higher education are determined by their test scores at the end of the general secondary stage, which is known as the *thanawiyyah 'ammah*. Throughout the school system, not only do exams determine transitions between stages and thus the future education options of young people, but exams also play an important role in passing each individual year of schooling.

Tutoring in Egypt currently takes multiple forms. The most common form of tutoring is private lessons (*durus khosouseya*, or *durus* for short), where one student or a small group of students gather for tutoring sessions in one of the students' or the teacher's home. Private lessons

are generally perceived to be of higher quality and are more expensive than other tutoring types due to customized attention and frequent follow-up by the tutor. Private lessons were officially banned by the Ministry of Education in 1998, but the ban has proven difficult to enforce (Hartmann, 2013). In this paper, we distinguish between "private tutoring," which consists of one-on-one lessons between the student and a tutor, and "private group tutoring," in which two or more students meet with a tutor outside of school hours and off school grounds.

Another form of tutoring in Egypt is group "fortification" lessons offered on school grounds but after hours, for a fee. In 1986, all schools were mandated to offer these *magmu'at-al-taqweiyya*, which in this paper we refer to as "in-school group tutoring," by the Ministry of Education in an effort to counteract the expansion of private lessons (Sobhy, 2012). In-school group lessons are usually attended by a larger number of students and perceived to be an inferior substitute for private lessons (Hartmann, 2013). In addition, defeating the rationale for creation of the mandate, a recent ethnographic study found that in-school tutoring is sometimes imposed on students by teachers and school administrators in order to supplement their income (Sobhy, 2012).

3 Data and Methods

This paper is based on mixed-methods analysis of quantitative data from the Survey of Young People in Egypt 2009/2014 panel and qualitative, in-depth interviews with students in the Greater Cairo Metropolitan Area. We integrate our results from these two data sources in order to examine evidence in the Egyptian context for each of the drivers presented in Figure 1.

3.1 Quantitative methods

The primary data source for our quantitative analysis is the Survey of Young People in Egypt (SYPE) panel. The survey was first fielded in 2009, gathering data from a nationally representative sample of 15,029 youth aged 10–29 (Population Council, 2011). A follow-up survey was fielded in 2013/2014, which collected data on 10,916 of these youth, or about 72 percent of the original sample (Roushdy & Sieverding, 2015). Sample weights were used in the original survey to reflect the sampling strategy and weights were updated in 2013/2014 to account for attrition in the panel (Roushdy & Sieverding, 2015). In both the survey rounds, data were collected on youth and household characteristics. Of particular relevance to this paper is the detailed education section, which included questions on school conditions for current students and retrospective information on educational experiences for all youth. All youth were asked about attendance of private tutoring, private group tutoring, and in-school group tutoring at each level of school they had attended. For the current school year, current students were also asked about how many subjects they attended tutoring in, the cost of those lessons, whether the tutor was their regular classroom teacher, and, if so, why they attended lessons with their teacher.

We analyze this series of questions on educational supplements from the SYPE using descriptive methods. The different characteristics considered in this descriptive analysis include those that have previously been linked with demand for education, education outcomes, tutoring and other supplements, and inequality in education in Egypt (Assaad & Krafft, 2015b; El-Baradei, 2013; Elbadawy, 2015; Krafft, Elbadawy, & Assaad, 2013). Differences in outcomes by sex are considered in case there are differential investments in male and female youth. Place of residence, categorized as urban, informal urban housing (slums), or rural, is examined together with Egypt's main geographic regions. Mother's and father's education are examined

categorically, as well as father's work status when the respondent was 15, as a proxy for family socioeconomic status. In addition to the descriptive methods, to examine the net effects of background characteristics in predicting tutoring attendance, we use multivariate probit models for the probability of receiving different education supplements. Covariates included in the model are sex, residence, fathers' and mothers' education, father's work status, and cohort of birth.

3.2 Qualitative methods

The qualitative data consist of individual in-depth interviews, which are particularly suited to understanding individual experiences and decision-making processes. Our population of interest was youth aged 19–32, paralleling the older cohorts captured in SYPE who were of an age to be enrolled in tertiary education or to have completed their schooling in 2014. Our sampling strategy was designed to achieve variation in students' educational experiences in order to examine the use of educational supplements across students from the three most common types of schools (public, private and Islamic religious (Azhari)) in Egypt, as well as across different levels of the school system. Interviews were conducted in the Greater Cairo Metropolitan Area due to the greater diversity of the types of schooling available in Cairo as compared to other areas of the country (Krafft, Elbadawy, & Sieverding, 2017).

Due to the low prevalence of attendance at school types other than public (Assaad & Krafft, 2015a), particularly among youth from poorer households, we adopted a purposive sampling strategy for the qualitative data collection. Sampling for students was based on the highest level of education they had attended (secondary or tertiary), as well as the type of that education. Individual respondents were identified using a snowball sampling strategy with

several entry points of young people with different socioeconomic backgrounds. Finding willing respondents who met the desired criteria, particularly for less common school types, proved difficult given the uncertain political and security situation in Egypt at the time of the data collection. For this reason, the final distribution of the sample did not exactly match the frame set out at the beginning of the data collection; there were more women respondents and fewer private Arabic language school respondents. In total, 24 students were interviewed, of whom 7 were young men and 17 young women. Fifteen were current students, mostly enrolled at the university level, 3 (all young men) had dropped out of the highest level in which they had enrolled, and the remaining 6 had completed their education. The average age of respondents was 21. Table 1 presents the distribution of students by school type and level.

Interviews were conducted between April and July 2014 by an Egyptian interviewer trained by the authors. The interviews took between 60 and 100 minutes, covering students' educational experiences and reasons for school choices at each school level. Students were also asked about their experiences with tutoring at each level, including whether they took any form of tutoring, in what subjects and why, whom they took tutoring with and why, their perceptions of the prevalence of tutoring among their fellow students, and how their school administrations reacted to tutoring. Interviews were digitally recorded and transcribed into the original language, Egyptian Colloquial Arabic, by the local researcher.

The interviews were analyzed in Atlas.ti in the original language by the authors using an open coding approach, in which codes and sub-codes were derived from the data. The coding families focused on in this paper include those related to why students did or did not attend tutoring, whom they took lessons with and why they chose that tutor, and the attitudes and policies of their classroom teachers and school administrators with regards to tutoring. The

coding process indicated that saturation was reached for public school students, however, due to the small sample size of private and Azhari students and the greater degree of variation in their schools, saturation was not reached on all topics for these sub-populations. In particular, there was greater diversity in whether and why these students attended tutoring at the pre-secondary levels.

4 **Results**

We integrate the quantitative and qualitative findings in presenting our results, organizing each section by one of the main hypothesized drivers of private tutoring. Since factors shaping the use of tutoring may vary through a student's trajectory through the school system, we disaggregate our results by level and school type whenever possible. However, we focus on basic and secondary education because, as shown below, the use of tutoring is less prevalent in higher education.

4.1 Patterns of tutoring across school levels and non/exam years

The SYPE data support the argument that the prevalence of tutoring in Egypt is motivated at least in part by the exam-driven nature of school progression. The use of private tutoring rises as young people progress through the education system, and peaks during pretransition exam years at the end of the preparatory and general secondary stages. Figure 3 shows the percentage of young people who attended different levels of education (currently or in the past) who took private lessons, private group tutoring, in-school group tutoring, or none of these forms of help. Students can potentially take multiple forms of help, sequentially or simultaneously. Additionally, students may take help in multiple subjects; students currently taking tutoring averaged four to five subjects in preparatory and secondary.

Private lessons are the predominant form of educational supplement, with 20 percent of primary students, 36 percent of preparatory students, and 66 percent of general secondary students taking private lessons. Furthermore, students tend to join tutoring as they progress through the education system; 29 percent of those who did not take private lessons in primary started in preparatory and 50 percent of those who did not take private lessons in preparatory used tutoring in general secondary. As well as a progressive increase in tutoring across levels, students are more likely to take private lessons in exam years. Figure 4 shows the increase in the percentage of current students in the preparatory and general secondary levels who were taking different forms of tutoring, by year within each level. For example, the percentage of current students taking private lessons increased from 25 to 26 percent in the first years of preparatory to 37 percent in the third (exam) year. In-school group tutoring is relatively uncommon and decreases as students progress through the education system (Figure 3). Only 8 percent of primary students and 5 percent of preparatory students take in-school group tutoring, and this falls to 3 percent or less of students thereafter. Private group tutoring, in contrast, rises in prevalence as students progress through preparatory and when they join general secondary (Figure 4).

In contrast, the use of educational supplements becomes much less common when students have either been relegated to the vocational secondary track or have succeeded in accessing higher education. Among vocational secondary students, only 15 percent took private lessons (Figure 3); levels were even lower among post-secondary institute students (8 percent) and university students (10 percent) (not shown). Correspondingly, the transition from preparatory to vocational secondary education was the only transition at the pre-tertiary level in which a large percentage of students (53 percent) stopped taking private lessons. Unlike

preparatory and general secondary, there is no increase in private lessons while progressing through vocational secondary (Figure 4), as the final exam in that terminal level is not high-stakes.

The experiences of the qualitative respondents conformed to these overall patterns of tutoring attendance. Whereas both private and public school students had mixed experiences in terms of whether and how much tutoring they attended during the primary level, among those who did take tutoring many of the public school students only attended in-school group tutoring. Students who took tutoring in primary school also tended to do so mainly in the later years of the level (4th and 5th grade). By the preparatory level, every single public school respondent, and the majority of respondents who had attended private or Azhari school, was taking private tutoring (which they referred to as "lessons" [durus] in the Egyptian dialect of Arabic) although some only did so in the final (3rd) year of that level. As one 24-year-old student who had attended private preparatory school but then switched to public general secondary explained, "In first and second preparatory I didn't take anything but English, but in the third year, because it's a diploma [year], I took all the subjects." She continued to explain her reasons for taking tutoring in many subjects, saying, "It was all [because of] worry on the part of my mom and dad, that this is a diploma year, and that I have to do well in this stage because I was entering general secondary. It was all just worry." Public school students also explained that in-school group tutoring was less common at the preparatory level than in primary, which they accepted as a fact of the tutoring market. As one young woman said, "That level [preparatory] is a level of private lessons. There weren't groups anymore like when we were little" (female, age 21, on public preparatory school). In-school group tutoring was not a common aspect of private or Azhari school respondents' experiences at any schooling level.

By the secondary level, in-school group tutoring appeared to be unheard of even in public schools and all of the respondents who attended public or private general secondary or Azhari secondary took private tutoring at least in the later years of that level. Many of these students also said that they took lessons in every single school subject, particularly during their final year. In contrast, but consistent with the SYPE data, the majority of the vocational secondary students did not take any tutoring at the secondary level, saying that "*there weren't any lessons to begin with*" (male, age 24) in their schools. Some attributed this to the ease of the subjects, and others to the nature of vocational education, which has practical as well as theoretical subjects.

4.1.1 Tutoring and social advantage

Patterns of tutoring prevalence and spending by socioeconomic background in Egypt broadly support the argument that tutoring is a means through which already privileged families reinforce their advantages in the education system. Table 2 presents the results of the probit models estimating the predictors of taking different forms of tutoring at different educational levels. We present the marginal effects, representing changes in the probability of taking tutoring for different characteristics while taking multiple characteristics into account. Compared to male youth, female youth were more likely (usually to a statistically significant extent) to receive all three types of tutoring, although differences by sex were relatively small.

A number of dimensions of social advantage were related to tutoring. For instance, having a mother with a secondary or higher education (which is likely to be a marker of high socioeconomic status) predicted a significantly higher chance of private lessons, and significantly lower probabilities of no help. Compared to those with illiterate fathers, having a father with more education significantly increased the chances of private lessons, particularly in primary and preparatory, where significant differences were observed even for fathers with a primary level education. There were also important differences by father's work status, with children of private irregular workers (the most vulnerable form of employment, linked with poverty (Assaad & Krafft, 2015c)) significantly less likely to receive private lessons in primary or preparatory than the children of public wage workers. Those with fathers who were employers, who are likely to be wealthy, were significantly more likely to have private lessons in preparatory (9.4 percentage points) and general secondary (7.7 percentage points). Because many of the individual characteristics that provide an advantage in terms of taking educational supplements are related (e.g. children with an educated mother tend to also have an educated father who works in the public sector and live in an urban area), the differences by individual characteristics tend to compound each other.

One of the main reasons for the large socioeconomic differences in the use of private tutoring and group lessons is that these educational supplements represent a substantial cost to households. Using the measure of household wealth in SYPE, which is based on an asset index, we can examine how spending relates to family resources for current students. Table 3 presents the percentage of average per capita income spent on private lessons, group lessons, other school costs not directly related to tutoring, and total costs by wealth quintile for current preparatory and general secondary students. Total costs rise with increases in wealth quintile, as we might expect, and much of this increase is driven by differential investments in private tutoring. For example, in preparatory, the poorest quintile spend about one-fifth (6 percent of mean per capita income) of the amount spent by the richest (22 percent) on tutoring. Notably, there is a large increase in tutoring expenditure even from the fourth to richest quintile in both levels, from 16 percent to 28 percent in preparatory and 33 percent to 51 percent in general secondary.

While these patterns in tutoring prevalence and spending do suggest that investment in tutoring is a means through which families of higher socioeconomic status reinforce their advantage in the education system, a more direct indication of the "symbolic function" of tutoring would be if high performing students or students in elite schools invest more in tutoring than their peers. Unfortunately, estimates of the prevalence of tutoring by performance or school type (public, private, Azhari) are confounded by unobservable factors such as the value families place on education. However, using a combination of the quantitative and qualitative data, we can examine increases in the prevalence of tutoring over time, particularly at the general secondary level, and surrounding social expectations regarding investment in tutoring.

The SYPE data indicate that the prevalence of tutoring has been increasing over time throughout the primary, preparatory, and general secondary levels (Figure 5). While youth born in the mid-1980s had chances below 20 percent of attending private tutoring during primary school, this rose to nearly 25 percent for youth born in the late 1990s. In-school group tutoring has remained relatively constant, but there has been a slight increase in the prevalence of primary school students taking private group tutoring. Trends are similar for preparatory students, although with higher levels of tutoring. Finally, over the period observed, private tutoring in general secondary rose from 60 to 70 percent, while both private and in-school group tutoring remained relatively constant.

In accordance with the trends shown in SYPE, the qualitative respondents were unanimously of the perspective that private tutoring was, in fact, a requirement of general secondary school. As one young man who attended public general secondary school said, "*from the time I was born until now, it hasn't been possible that someone enters general secondary school and doesn't take lessons. It's not possible*" (male, age 19). The expectation of tutoring

was equally prevalent among private general secondary school students, and students in both types of schools also related the necessity of tutoring to the importance of the exams at the end of general secondary. As one graduate of private secondary school said, "*The reason [for taking lessons] is known. In the second and third years of* thanawiyyah 'ammah *you have to take lessons so that you get a good* magmua *[final grade] and get into a good [university] faculty*" (female, age 23, private school).

Although less common, some students also described an expectation of tutoring at lower levels of schooling, particularly at the end of preparatory. In a few cases, respondents described the very prevalence of tutoring as one of their reasons for taking tutoring at various levels – whether because of their families' expectations, the desire to be with friends, or the sense that this was simply what was done. This was particularly true among private school students.

I feel like it's a fashion. They see their friends at other schools taking lessons, and say "let's go take with them." And there are only a few French schools in Cairo, so all the students ... know each other... so it was like a fashion. – female, age 21, on private French language school

That students in private schools, which are typically seen to be higher quality than public schools, also perceive tutoring to be a requirement of general secondary, and sometimes other levels, suggests that the drivers of tutoring are not entirely related to school quality. The pressure of high-stakes exams appears to affect at least general secondary schools across school type, such that tutoring is in fact perceived to be a requirement of the level and a social expectation for students of this type of education.

4.2 School quality and the prevalence of tutoring

A key explanation for why students might engage in tutoring is to compensate for the poor quality of education they receive during the regular school day. The concept of education

quality is complex and difficult to quantify. Using the measures available in SYPE, we therefore examine instructional quality to see if teacher behaviors and pedagogy drive tutoring. Overall, the measures we have in SYPE suggest that the quality of teaching that individual students experience in class is not directly related to their use of tutoring. Current students were asked whether their teachers always, sometimes, or never engaged in certain behaviors. Table 4 shows how students' reports of a teacher "always" engaging in a behavior were related to private tutoring, demonstrating that there were no strong relationships with teaching quality or pedagogy. For instance, emphasis on rote memorization is not connected to taking tutoring, nor does the evidence suggest that students whose teachers do not respond well to questions take more tutoring. The absence of a relationship between tutoring and specific teacher pedagogy and quality is evident across levels. Although these results suggest that teaching quality is unrelated to tutoring prevalence, as discussed in the next section, the measures in SYPE may fail to capture the key factor of teacher shirking as it affects pedagogical quality. Additionally, young people from higher socioeconomic backgrounds, who are more likely to take tutoring in the first place, may have higher quality schools and teachers. Such students might have less need for tutoring due to school quality but be more likely to take tutoring for other reasons, leading to no net difference in private tutoring by school or teacher quality.

Although school environment and pedagogical approach were not major reasons for taking tutoring among students in the qualitative sample either, several respondents from lower socioeconomic backgrounds who attended public schools did note that the conditions for learning were better in private individual or group tutoring than in school. They attributed this primarily to class size and distractions in the classroom.

Don't forget that the number of students in the classroom was a lot sometimes ... it could be 60 students, and it's hot, and the conditions don't help one to

understand and absorb. There are also 60 voices; that one is sitting talking to his friend.... – female, age 21, public school

None of the respondents who had attended private schools mentioned conditions in the classroom in relation to taking tutoring. However, although less common, some students in both types of school mentioned the length of the curriculum relative to the time available in class as a reason they needed to take tutoring.

We didn't have enough time to cover it [material] during the school day, so of course if you didn't attend the group lessons then you wouldn't understand the subject and you wouldn't be clever in it. – female, age 24, private school

Another indirect indication of poor school quality is if students skip school to attend private lessons, evidence that they find the latter more productive. As noted in the literature, students in some contexts may see tutoring to be more directly relevant for exam preparation or the job market than formal schooling. Data from SYPE indicate that, during the preparatory stage, 64 percent of students were absent from school for at least one day, and 16 percent of students had an absence in order to study. In the general secondary level, 66 percent of students had an absence; 37 percent were absent to study and 12 percent for tutoring, a strong signal that school attendance is insufficient (indeed, potentially counter-productive!) to ensure success.

Supporting the argument that attending class may not be the most effective means of studying, qualitative respondents who attended general secondary school said that lessons were more important during that level than attending class. Some respondents said that they therefore stopped attending class, whereas others said they attended class but recognized that tutoring was more important to their exam preparation and covered more material.

Class wasn't really necessary ... because I was already taught everything that was said in class. And what was said in class didn't add [to material learned in tutoring], it was less. So I already learned everything covered in class, and I learned it better. – female, age 20, on public general secondary school

Although fewer, some private school students also expressed the opinion that tutoring was more important than class. In combination with the expectation of tutoring in private secondary schools discussed previously, this suggests that even students whose families invested in private education did not think schooling provided everything needed to prepare for the all-important *thanawiyyah 'ammah*.

4.3 "The teacher does not explain in class": Poor quality by design?

The qualitative respondents' discussions of an additional aspect of school quality – the degree to which teachers do or do not attempt to teach material effectively in class – adds an important dimension to the question of whether students take tutoring to compensate for poor quality schools. Teachers' failure to teach, or as respondents put it, "explain" (*yeshrah*) well in class was the single most commonly mentioned reason for taking tutoring among students in the qualitative sample. Respondents who attended general secondary school, in particular, described a situation in which teachers deliberately failed to teach during class time in order to pressure their students to take lessons.

When we entered secondary school the real pressure on lessons began. The teachers didn't teach to begin with, so it started that you had to take lessons. There was no other solution in front of you except lessons because there was no teaching in school. – female, age 20, public general secondary school

Although more commonly mentioned among respondents who attended public secondary school, a few private secondary school students also said that some of their teachers neglected classroom learning because of lessons.

The lack of actual instruction in class also helps to explain why students might skip school altogether to attend tutoring, in that tutoring was understood to be so widespread that both students and teachers placed greater importance on private lessons. I didn't go to school because the teachers understood that this is a diploma, so they consider that 2nd and 3rd year everyone is taking lessons outside so "why should I come explain in class? I know you're taking lessons outside, so I'll save you the effort and save myself the effort." – female, age 19, public general secondary school

In this sense, lack of explanation in class and the prevalence of private tutoring constituted a

vicious circle, in which students attended tutoring because of the lack of instruction in class, and

both students' and teachers' attention to in-school classes was further reduced because of the

time and energy spent on tutoring.

Although lack of teaching in school was most commonly reported at the general

secondary level, there were some respondents who reported facing similar indirect pressure to

take tutoring in public preparatory and even primary schools.

As I told you, there wasn't any teaching. So the group lessons were good...the groups were cheap. – male, age 23, on why he started taking in-school group tutoring in the fourth year of public primary school

The school controlled everything, that the teacher didn't try very hard in class, he tried harder in the group lessons and in private lessons. – male, age 23, public primary school

As suggested by these two quotes about primary school, in lower levels of schooling teacher shirking in class was directed as much towards pushing students into in-school group tutoring as towards private lessons.

4.4 Direct teacher pressure to take tutoring

As indicated by the interviewees, shirking in class was a means by which teachers "encouraged" their students to take private lessons specifically with them. This follows the argument that teachers shirk in class in order to create demand for tutoring that supplements their own incomes. The SYPE data indicate that, on a nationally representative level, students do often take lessons or tutoring with their own teacher, which would further support this argument. Taking lessons with one's own teacher is particularly common at the preparatory level, when 71 percent of those taking tutoring do so with their teacher. When students take tutoring in vocational secondary, it is often with their teacher as well (63 percent), whereas in general secondary around half (47 percent) of students taking tutoring do so with their teacher.

According to the reasons students reported in SYPE, the primary driver for taking tutoring with one's teacher is that s/he is a good teacher. In preparatory, 74 percent of students give this as the reason for taking tutoring with their teacher. Most of the remaining students said their teacher is simply who they know (15 percent), while 5 percent said the teacher imposed tutoring and 7 percent explained that it is their teacher who sets the exam. The teacher setting the exam is a greater incentive in vocational secondary (18 percent), but otherwise the main reason for using one's own teacher for tutoring in both vocational (64 percent) and general secondary (83 percent) was that s/he was a good teacher. It is unclear whether the SYPE respondents found their teachers to be good teachers in school, in lessons, or both, but should be noted that the qualitative respondents reported very different levels of teaching quality in the classroom and in tutoring.

Differing from their SYPE counterparts, the qualitative respondents also suggested that the primary reason for taking lessons with one's own teacher was to gain preferential treatment, or, conversely, to avoid punitive measures that teachers imposed on students who did not take tutoring. These findings suggest that perhaps the SYPE respondents were reluctant to report facing pressure to take tutoring with their classroom teachers. Not teaching in class was, in fact, one of the least coercive methods that the qualitative respondents reported their teachers using to encourage them to take lessons. Respondents commonly described teachers treating students they

tutored preferentially, whether by giving those particular students more opportunities to participate in class and paying more attention to them, or by distributing exam questions during tutoring.

The child that was in the group lessons was special to the teacher, there was more attention paid to him [the child] during class. He [the child] knew the lesson before it was taught in class because of the group lesson ... So I liked the group lessons more because of that. – female, age 24, public school

Disturbingly, many of these tactics of giving preference to students who enrolled in tutoring actively detracted from the learning and class participation opportunities of other students.

Some respondents also reported teachers refusing to pass students who did not attend tutoring on the end of year exams (*'amal es sina*), which classroom teachers grade during non-terminal school years. As one young woman, age 20, said on her public preparatory school, "*You had to take lessons with the teacher who taught you in class because of the end of the year grades*." Teachers' control over year-end grades was a very direct reason for students to take tutoring with their own classroom teacher, and was commonly cited for preparatory school and early secondary school – when in-class grades held substantial weight for students. Indeed, a number of public school students said their main reason for taking tutoring in some subjects and at some levels was simply so that their teacher would pass them.

In other cases, teachers' tactics for coercing students into taking tutoring were less about test results and more about how teachers treated them during class. There were reports of teachers constantly reminding students (and sometimes parents) that they should enroll in lessons, or singling students out in class. In more extreme cases, respondents reported that their teachers yelled at or hit students who did not take lessons.

I: How did he [teacher] treat you to make you take lessons? *R:* There was hitting and yelling, and we would sit in the back in the last row and not talk. You didn't have the right to answer anything or read – they used to have us read the lesson first out loud and then begin to explain it bit by bit – so we didn't have the right to talk. – female, age 24, public school

In other cases, respondents said that teachers refrained from punishing students who took lessons with them when those students made mistakes in class or did not do their schoolwork, whereas other students were routinely punished.

Such coercive tactics by teachers appeared to be most common at the primary and preparatory level, whereas by general secondary, as discussed above, there was a general assumption that students would take tutoring regardless. Furthermore, a number of respondents who had attended public schools described their school administrators taking an active part in the economy of tutoring at the primary and preparatory levels. These experiences demonstrated the extent to which in-school group tutoring, originally intended to counter the spread of tutoring, in fact did the exact opposite, as respondents reported that *magmu'at* had been organized by their schools and were presented as obligatory for students by both teachers and administrators.

The director of the school used to go around to all the class and say "everyone, there are supplementary (taqweiya) classes in the school so you should really join them." – male, age 24, on public primary school

The magmu'at were required, that was something for sure ... the money we would have paid for lessons we paid for the magmu'at, so that we would pass really ... the school organized them. – female, age 20, on public primary school

This "required" in-school group tutoring was reported to consist, in most cases, of the entire class of students who attended the regular school day together, taught by the same teacher, on school grounds. In other words, in-school group tutoring was a paid extension of students' regular school day.

The degree to which teachers placed direct pressure on students to take tutoring appeared to vary quite a bit by school, even within the same level and area. Some students who said they were directly pressured to take lessons at one school level said they were not in another, even if both were public schools in the same neighborhood. Many also mentioned certain teachers in their schools who did not pressure students into taking tutoring, or who refused to give lessons altogether. The qualitative respondents reported very few instances of tutoring-based preferential treatment by teachers in private or Azhari schools, and no instances of mistreatment or more direct coercion, suggesting that these tactics primarily occur in public schools.

5 Discussion and Conclusions

Private tutoring in Egypt has become so widespread as to constitute a shadow education system that is effectively privatizing the theoretically free public education system. Using a combination of nationally representative survey data and qualitative interviews from Cairo, we examine the drivers of tutoring across basic and secondary education in public, private, and Azhari schools. Our findings suggest that the tutoring phenomenon is too complex to be attributed to a single main factor. Rather, there are multiple drivers of tutoring in Egypt that vary by school level, student background, and school type.

Our results support the argument that, as found elsewhere (Assaad & Krafft, 2015a; Elbadawy, Ahlburg, Assaad, & Levison, 2009; World Bank, 2007, 2008), the orientation of Egypt's educational system around high-stakes exams is an important driver of tutoring. However, there appears to be an important distinction between the primary and preparatory levels, on one hand, and general secondary on the other, in terms of the other factors that drive tutoring within this exam-driven context. At the general secondary level, there appears to be a social expectation of tutoring that leads to very high levels of tutoring attendance, in multiple subjects, including among students who are also investing in private schools. An exploration of the degree to which tutoring has come to serve a symbolic function – demonstrating investments

in education among anxious students and parents during the *thanawiyyah 'ammah* – is one area in which our evidence is supportive but weaker, although Hartmann (2008, 2013) also suggests that tutoring plays some symbolic function among Egyptian students of higher socioeconomic background.

What is strongly suggested by our data is that the expectation of tutoring in general secondary school, combined with a strong incentive for teachers to fill demand for tutoring at this level, contributes to classroom environments in which teacher (as well as student) shirking has become the norm. The extent to which tutoring appears to have replaced in-school instruction as the dominant form of learning in public general secondary schools also complicates an analysis of how school quality may drive tutoring at this level. As the measures of school quality in SYPE are limited, and we have qualitative evidence only from Cairo, a more targeted and representative analysis is needed to determine whether specific aspects of school quality that go beyond teachers (e.g. curriculum structure, the prevalence of school shifts) could alleviate the demand for tutoring at the general secondary level. In order to address the problems of instructional quality and shirking, teacher incentives need to be addressed, so we return to this topic in the recommendations below.

At the primary and preparatory levels, in contrast, there does not appear to be a strong general expectation that students will rely on tutoring as a quasi-requirement of the level. Tutoring at these levels is more concentrated on end-of-level exam years and does not appear to be a major factor for private or Azhari students; furthermore, students did not describe tutoring in primary or preparatory as a substitute for school. Rather, teacher and administrator corruption appears to be an important driver of tutoring at these lower educational levels in public schools. The reports of students in our sample echo findings from other studies in Cairo (Hartmann, 2013;

Sobhy, 2012) and suggest that teacher pressure to take tutoring is a serious problem that affects classroom dynamics in a manner that curbs the learning opportunities of students whether or not they take tutoring.

Another disturbing element of the qualitative respondents' reports of teacher and administrator coercion was that these reports came primarily from young people who had attended public schools in low-income areas of Cairo, who were also most likely to report problems with school conditions. Thus, school quality concerns and problematic teacher incentives may place the most pressure on the very students who can least afford private lessons. These aspects of classroom dynamics may serve to further reinforce educational inequality of opportunity. We found large socioeconomic differentials in the likelihood of students receiving tutoring, which is unsurprising because tutoring represents a substantial cost that is burdensome to many families. The necessity – and expectation – of spending large sums on private tutoring in order to access higher education constitutes an important barrier to equal opportunity in education (Assaad & Krafft, 2015a; El-Baradei, 2013; Krafft & Alawode, 2016; World Bank, 2007).

With demographic pressures on the education system already underway as a result of the "echo" of the youth bulge (Elbadawy, 2015) the Egyptian education system's challenge with private tutoring will likely become more pronounced and thus requires prompt action by policymakers. A policy banning tutoring is already in place, but is not enforceable and clearly has not curbed the practice. Providing in-school group tutoring, intended to reduce demand for expensive private lessons and provide affordable remedial supplements to the poor, is ineffective and may actually have exacerbated the pressures students face to take other forms of tutoring. Offering alternatives to private lessons cannot be the solution in a system where teachers and

administrators have a strong incentive to benefit from private lessons, and students and parents are very unlikely to opt out of or oppose a practice that often ensures – directly or indirectly – progression through the school system. The most important area for policy intervention is thus teacher incentives and accountability. Raising teacher salaries is one potential intervention. Evidence on the relationship between teacher salaries and the choice to tutor in Egypt suggests that a higher salary is associated with a lower chance that a teacher offers private lessons. However, regardless of their salary level teachers will still face the incentive to earn extra income from tutoring (Ille, 2015). Closer oversight, for instance by parent-teacher associations, has been shown to be associated with reduced tutoring in other contexts (Dang & King, 2013).

One challenge linked to both the drivers of teacher incentives and high-stakes exams is coming up with an impartial measure of student performance that is not affected by tutoring activity. It is not possible, for example, to identify whether students achieve good scores because of quality in-class teaching or because they have taken tutoring. Given the apparent prevalence of coercive teacher behavior around tutoring, relying on teacher grades rather than high-stakes exams for progression through the schooling system is likely to generate further incentives for corruption. Reliance on evaluation by school administrators is problematic as well since, as demonstrated by this study, school administrators sometimes have a vested interest in maintaining tutoring activity. A change in student assessment methods, whereby classroom teachers' control over grades in non-diploma years is reduced, could alleviate incentives for teachers to pressure students into tutoring. Unannounced random rotation of teachers who set the exams and mark them across schools at a particular administration level (e.g. at the district level) could reduce teacher power over students, reducing their ability to coerce students into taking tutoring.

Despite the fact that private tutoring is a major challenge in numerous countries, little is known about how to tackle key concerns such as coercive behavior and negative effects on inclass teaching. Given the complexity of the drivers of tutoring at different levels and among different subpopulations, multi-faceted approaches will likely be needed to reduce this form of educational privatization. There is a strong tradition of randomized controlled trials investigating what works to improve education globally that could potentially be drawn upon (Glewwe, Hanushek, Humpage, & Ravina, 2013; Kremer, Brannen, & Glennerster, 2013; Orazem, Glewwe, & Patrinos, 2009). A concerted and innovative effort to develop and test approaches to reduce tutoring is critical to fostering greater equality of opportunity within a truly free universal education system in Egypt.

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Figure 1. Potential drivers of private tutoring prevalence and examples of empirical indicators that provide evidence for these drivers

Driver			Direct motivation	Indications		
e			Even erientetion	Increasing prevalence through progressive levels of schooling, particularly general secondary		
Itag			Exam orientation	Peaks in prevalence during exam years		
lvan				Drop-off in prevalence in vocational secondary		
e ad				Expectation of tutoring in certain levels		
Competitive			Symbolic function	View of tutoring as an investment in children		
				Higher prevalence among better performing students		
	School quality		Inadequacy of	Association between school quality (e.g. class size) and prevalence of tutoring		
			manistream schooling	Absenteeism to attend tutoring		
		ncentives	Teacher shirking	Differences in quality of instruction in-class and in tutoring Association between indications of instructional quality and prevalence of tutoring		
	L	Teacher i	Direct teacher pressure/corruption	Percentage of students taking tutoring with their own teacher Direct reports of teacher pressure or coercion		

Source: Authors' creation

Figure 2. Structure of the Egyptian school system

		Vocational secondary Grades 10-12	Post-secondary institutes Two-year
Basic education		Usually terminal	
<u>Primary</u> ⇒	<u>Preparatory</u> ⇒		Higher institutes
Grades 1-6	Grades 7-9 End of compulsory		Four-year
	schooling	<u>General secondary</u> \Rightarrow	<u>University</u>
		Grades 10-12	Four-year
(Ages 6-11)	(Ages 12-14)	(Ages 15-17)	(Ages 18 and up)

Note: Ages in parentheses are ideal, assuming on-time entry and no repetition. *Source*: Authors' creation



Figure 3. Prevalence of tutoring and lessons by level for youth who currently or previously attend/ed that level (percentages)

Source: Authors' calculations based on SYPE 2014





Source: Authors' calculations based on SYPE 2014



Figure 5. Tutoring trends by year of birth and school level, youth who currently or previously attend/ed that level, five-year moving averages (percentage)

Source: Authors' calculations based on SYPE 2014

Note: Years restricted to 1997 and below for secondary, as younger respondents would not have reached these levels.

		Number of
	School type	students
	Public	12
Primary	Private	9
	Azhari	3
	Public	13
Preparatory	Private	8
	Azhari	3
	Public vocational	7
Saaandamy	Public general	9
Secondary	Private	5
	Azhari	3
Total		24

 Table 1. Distribution of the qualitative sample by school type and level

 Number of

	Private lessons		Group tutoring in school		Private group tutori		itoring		
	Primary	Prep.	Gen. Sec.	Primary	Prep.	Gen. Sec.	Primary	Prep.	Gen. Sec.
Sex (male omit.)									
Female	0.017*	0.044***	0.011	0.017**	0.012*	0.010	0.003	0.026**	0.028
	(0.009)	(0.011)	(0.019)	(0.006)	(0.005)	(0.008)	(0.007)	(0.008)	(0.017)
Mother's educ. (illit. omit)									
Read and write	-0.014	0.000	-0.048	0.001	0.004	-0.027	0.045*	0.053*	0.063
	(0.020)	(0.026)	(0.051)	(0.014)	(0.013)	(0.023)	(0.019)	(0.022)	(0.047)
Primary	0.003	0.025	0.015	0.018	0.014	-0.029	0.029*	0.028	0.028
-	(0.015)	(0.020)	(0.040)	(0.012)	(0.011)	(0.015)	(0.013)	(0.016)	(0.035)
Preparatory	0.003	-0.035	0.032	-0.012	-0.002	-0.025	0.021	0.025	0.009
	(0.019)	(0.024)	(0.047)	(0.013)	(0.012)	(0.017)	(0.017)	(0.020)	(0.043)
Gen. sec.	0.086	0.067	0.110	0.002	0.017	-0.022	0.072	0.067	-0.042
	(0.046)	(0.053)	(0.070)	(0.028)	(0.025)	(0.028)	(0.044)	(0.049)	(0.054)
Voc. sec. and post-sec.	0.079***	0.099***	0.064	-0.019	-0.006	-0.036*	0.043**	0.030	0.018
1	(0.018)	(0.021)	(0.033)	(0.010)	(0.009)	(0.015)	(0.014)	(0.016)	(0.030)
Higher ed.	0.113***	0.154***	0.109**	-0.029*	-0.018	-0.030	0.010	-0.021	-0.032
0	(0.028)	(0.033)	(0.041)	(0.013)	(0.011)	(0.017)	(0.019)	(0.021)	(0.037)
Father's educ. (illit. omit)	()	()	()	()	()	(()	()	()
Read and write	0.033*	0.038*	0.082	0.037**	0.019	-0.016	-0.001	0.012	-0.022
	(0.016)	(0.019)	(0.042)	(0.012)	(0.011)	(0.017)	(0.012)	(0.015)	(0.038)
Primary	0.064***	0.108***	0.096*	0.027**	0.000	0.013	0.009	0.009	-0.027
	(0.015)	(0, 020)	(0.040)	(0,010)	(0,009)	(0.019)	(0.012)	(0.015)	(0.035)
Preparatory	0.095***	0 112***	0.067	0.022	-0.015	-0.026	0.023	0.035*	-0.032
Treparatory	(0.019)	(0.023)	(0.046)	(0.012)	(0,009)	(0.014)	(0.015)	(0.018)	(0.040)
Gen sec	0.049	-0.013	0 136*	0.024	0.038	-0.021	0.027	0.018	-0.025
	(0.037)	(0.042)	(0.069)	(0.027)	(0.027)	(0.025)	(0.036)	(0.042)	(0.084)
Voc sec and post-sec	0.066***	0 120***	0.083*	0.025*	-0.008	-0.010	-0.005	0.009	-0.061
,	(0.016)	(0.020)	(0.039)	(0.011)	(0,009)	(0.015)	(0.011)	(0.014)	(0.034)
Higher ed	0.081***	0 133***	0.076	0.009	-0.014	-0.004	0.030	0.043*	-0.003
	(0.021)	(0.027)	(0.044)	(0.014)	(0.011)	(0.018)	(0.018)	(0.021)	(0.041)
Father's work status (public wa	ge omit)	(0.027)	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)	(0.021)	(0.011)
Private reg	-0.003	-0.007	0.031	0.007	0.023*	0.011	0.011	0.021	-0.013
Tittate Teg.	(0.015)	(0,020)	(0.035)	(0.010)	(0.010)	(0.015)	(0.013)	(0.021)	(0.030)
Private irreg	-0.041**	-0.080***	0.004	0.001	-0.003	-0.022*	-0.008	-0.022	-0.036
Thrute meg.	(0.013)	(0.016)	(0.034)	(0,009)	(0.003)	(0.011)	(0.010)	(0.012)	(0.029)
Fmplover	0.029	0.094***	0.077*	-0.001	0.005	-0.027**	-0.015	-0.030*	-0.057*
Employer	(0.018)	(0.022)	(0.034)	(0.011)	(0.000)	(0.010)	(0.012)	(0.015)	(0.027)
Self-emp_or UFW	-0.019	-0.023	0.026	-0.003	0.006	0.011	-0.002	0.009	0.039
Sen emp. or er w	(0.017)	(0.023)	(0.020)	(0.011)	(0.010)	(0.020)	(0.013)	(0.016)	(0.035)
No job/DK/Miss	0.006	-0.006	0.040	-0.008	0.010	0.007	-0.017	-0.016	-0.011
100 100/ 1012/ 101155.	(0.015)	(0.019)	(0.029)	(0,009)	(0.010)	(0.013)	(0.011)	(0.014)	(0.027)
Birth cohort (1978-1982 omit)	(0.015)	(0.017)	(0.02)	(0.00)	(0.000)	(0.015)	(0.011)	(0.014)	(0.027)
1083-1087	0.007	0.021	-0.052	0.013	-0.002	-0.015	0.002	0.033*	0.047
1765-1787	(0.016)	(0.021)	(0.041)	(0.013)	(0.002)	(0.017)	(0.002)	(0.055)	(0.047)
1088-1002	0.014	(0.021)	(0.0+1)	0.005	-0.006	(0.017)	0.010	0.014	0.048
1700-1772	(0.014)	(0.000)	(0.030)	(0.000)	(0.010)	(0.017)	(0.012)	(0.014)	(0.032)
1003-1000	0.043**	0.020)	0.039	0.010	-0.015	-0.008	(0.012)	0.014)	0.034
1//0-1///	(0.043)	(0.0+0)	(0.030)	(0.013)	(0,000)	(0.017)	(0.007)	(0.030)	(0.034)
Area of residence included	(0.014) Vac	(0.020) Vac	<u>(0.050)</u> Vec	(0.010) Vac	(0.007) Vas	(0.017) Vac	(0.012) Vas	(0.014) Vac	(0.031) Ves
N (Oba)	0501	9715	2000	0501	0542	2672	0070	0715	2661
IN (UUS.)	9391	0/13	2909	9391	0343	20/3	07/0	0/10	2001

Table 2. Models (probit marginal effects) for ever taking private tutoring by level, youth who currently or previously attend/ed that level

Source: Authors' calculations based on SYPE 2014

		Preparate	ory			General Secondary			
	Private	Group	Other	Total	Private	Group	Other	Total	
	lessons	lessons	costs	costs	lessons	lessons	costs	costs	
Poorest	4	2	4	9	29	1	8	37	
Second	6	4	4	14	20	5	19	43	
Middle	8	3	8	19	31	10	19	59	
Fourth	12	4	7	23	33	9	10	51	
Richest	22	6	15	43	51	7	22	79	
Total	10	4	7	21	38	7	18	62	
Ν	537	537	537	537	734	734	734	734	

Table 3. Mean annual school costs (as a percentage of average per capita expenditure) by school level and wealth, current students in preparatory or general secondary

Source: Authors' calculations based on SYPE 2014. Per capita expenditure from 2012/2013 HIECS (CAPMAS, 2014).

Note: Those who did not have a cost (i.e. those who did not take tutoring or buy books) are incorporated with a value of zero for that cost. Other costs include tuition, uniforms, books and stationary, transportation to school and tutoring, and other school-related costs.

Level:	Prep.	Voc. Sec.	Gen. Sec.	Total	Total			
					% of			
	% taking	% taking	% taking	% taking	students			
	private	private	private	private	with			
	lessons	lessons	lessons	lessons	opinion			
Teachers alwa								
No	34	12	69	30	86			
Yes	44	12	61	33	14			
Total	35	12	68	30	100			
Students are a	lways encoura	ged to form the	eir own opinion	S				
No	35	12	70	30	85			
Yes	37	14	58	32	15			
Total	35	12	68	30	100			
Students alway	ys do not unde	rstand teacher'	s answer to que	stions				
No	35	12	70	31	82			
Yes	35	11	60	29	18			
Total	35	12	68	30	100			
Teachers alwa	ys want studer	nts to memoriz	e					
No	35	12	69	30	61			
Yes	36	11	65	31	39			
Total	35	12	68	30	100			
Teachers alwa	ys care about t	he students' pe	ersonal problem	S				
No	34	12	68	30	85			
Yes	41	12	68	34	15			
Total	35	12	68	30	100			
Some teachers always beat students and use corporal punishment								
No	35	12	68	30	87			
Yes	34	11	69	30	13			
Total	35	12	68	30	100			
N	536	799	734	2,802	2,802			

Table 4. Percentage of current students taking private lessons by measures of teaching quality and school level

Source: Authors' calculations based on SYPE 2014