Diverse schools and uneven principal leadership in Saudi Arabia

Saeed Aburizaizah, Yoonjeon Kim, Bruce Fuller

1. Diverse schools and principal leadership in Saudi Arabia

Societies around the globe host a widening diversity of school organizations – spurred by discontent over standardized forms and bureaucratic management, along with the press for market-friendly policies. Where governments struggle to keep pace with rising family demand, the count of private or international schools continues to grow. Many central governments also attempt to decentralize school management, hoping to spur innovation and greater effectiveness locally. This may involve vesting principals with greater authority over budgets and teacher hiring, aiming to improve pedagogical practices or flexibility in responding to family preferences (Akkari, 2004; Fuller, 2015; Lockheed & Verspoor, 1991; Zajda & Gamage, 2009).

Saudi Arabia offers one case in point, where demand for schooling continues to climb, including for middle schools, expressed by native-born Saudi and foreign-born parents, often seeking English-medium instruction. As government struggles to meet the rising cost of secondary education, it has allowed a variety of private and international schools to expand, typically charging fees, while following the government curriculum (Prokop, 2003).
We first examine how students and families differ among three education subsectors – government, international, and private schools – drawing from a survey of 135 middle-school principals across the city of Jeddah conducted in 2014. We then focus on three domains of educational quality that help to predict student achievement: **instructional time, principal leadership** that focuses on instructional rigor and pedagogical gains, and **social cohesion** among teachers.

We find sharp differences in the language and social-class background of pupils served across the three types of middle schools. Private schools – but not international schools – display stronger educational quality than government schools, even after taking into account the types of families served and the adequacy of instructional materials. We place these findings in the context of how governments respond to rising family demand and widening inequalities that may result from diversifying forms of schooling.

### 1.1. Differing family preferences, diverse school organizations

The confluence of two forces prompt concern over how educational quality may vary among differing types of schools, be they run by government or private agencies. First, as many governments in the Middle East and North Africa achieved universal access to primary schooling, they soon faced rising demand for secondary education (Hamdan, 2015; Srivastava & Walford, 2016).

Second, the appeal of diverse forms of schooling has grown over the past generation in the eyes of many parents and policy makers. Diversifying forms of schooling, including a liberalized private sector, have become attractive to parents seeking higher quality schools or types that match their educational philosophy or religious convictions (Hanushek, Kain, Rivkin, & Branch, 2006). Many government leaders, at times prompted by international donors, also have come to view private or international schools as hosting higher quality and efficiency, allegedly offering inventive pedagogies or matching parents’ differing preferences (Essid, Ouellette, & Vigeant, 2014; Jimenez & Lockheed, 1995).

We first turn to how this tandem press to expand secondary schooling and shift toward a public–private mix of diverse organizations plays out in Saudi Arabia. We then advance an empirical strategy for assessing variation in school quality among government, international, and private schools – estimating the extent to which school auspice helps to account for differences in quality. We also distinguish between material inputs and social dimensions of quality, especially elements of principal leadership that may nurture more cohesive, achievement oriented schools.

### 1.2. The growth of secondary schooling, public and private

Wealthier families are growing in numbers, especially with the rapid economic development of the past decade, and families’ emphasis on Arabic as the primary language of instruction. The quality of basic facilities and teachers remains worrisome. The education ministry increasingly rents space in private homes and office buildings to host government schools, including 320 rented facilities in Riyadh alone (Ministry of Education, 2006). Teachers have historically delivered a centrally set curriculum in didactic fashion (Bouhilla, 2011).

This crucible of multiple pressures – aiming to expand and improve differing forms of secondary schools – has certainly intensified in other developing nations over the past generation (Bouhilla, 2015; Fuller & Heyneman, 1989). Yet Saudi Arabia offers an intriguing case: while rapidly expanding access, government has struggled to lift the quality of middle-school teachers and principals; foreign and globally minded parents seek pedagogical innovations, often in English; and its
widening diversity of schools has moved government to decentralize management, even to charter additional schools owned or operated by expatriates.

1.3. Case of Saudi Arabia—the appeal and quality of private secondary schools

The Saudi government is not alone in liberalizing the presence of non-government secondary schools, be they private schools that serve native-born students or the offspring of foreign-born parents. The share of secondary pupils enrolled in private schools has grown over the past generation in several Arab societies, as shown in Fig. 2. UAE, Bahrain, Kuwait, and Qatar each display rising proportions of private school enrollments, when combining middle and senior secondary institutions. Saudi Arabia, in contrast, has traditionally enrolled lower shares of students in the private sector, estimated by the education ministry at 11% in 2007.

Saudi private schools can be split into three subgroups: (1) privates serving native-born Saudi parents and children, offering the government curriculum in Arabic, (2) religious schools that provide a combination of secular subjects and

![Fig. 1. Rising secondary school enrollment and share of pupils, female, Saudi Arabia, 1979–2011 (including breaks in reported time-series).](image1)

![Fig. 2. Percentage of secondary students attending private schools in the Middle East and North Africa, 1999–2013 (including breaks in reported time-series).](image2)
Islamic instruction, and (3) schools that primarily enroll children of expatriates, campuses typically owned by foreign firms, providing instruction in English.

Little is known about the comparative quality of schools or achievement among students across these subsectors in the Saudi context. Government lightly monitors private and international schools; many do not participate in national examinations. Non-government schools do not necessarily follow the official curriculum, at least those components delivered in Arabic. On the other hand, parents report being attracted to private or international schools due to English-medium instruction and pedagogical techniques that are less didactic than those found in government schools.1

Overall, more than 90% of age-eligible Saudi youths attend some form of middle school, but achievement levels remain quite low, according to international standards, based on the Third International Mathematics and Science Study (Salehi-Isfahani, Hassine, & Assaad, 2012).2 Children from higher-income families often enroll in private or international schools, report more positive health behaviors, and perform at higher levels on tests (Farsi, Farghaly, & Farsi, 2004).

1.4. Theoretical accounts—diverse schools that reinforce unequal quality?

Scholars in the West have long studied the sorting of children into differentiated schools – at times marked by variable quality and unequal achievement levels. Our study of middle school quality across government and private sectors in the Saudi context is informed by three theoretical accounts.

Technical-functionalist accounts have long emphasized how diverse organizations sprout to advance varying social or production goals – serving distinct functions or roles within an industry or field (Parsons, Shils & Smelser, 1965; Weber 1946). From this explanatory account, private or international schools offer variable quality, language of instruction, or pedagogies that fit diverse preferences expressed by parents.

But this functionalist account of what drives organizational differentiation has long been attacked by class-conflict theorists, along with kindred scholars working in the sociology of markets. First, early periods of school expansion and the uniform organization of schooling do not necessarily correspond to technical or skillling demands pressed by capital (Meyer, Tyack, Nagel, & Gordon, 1979). Instead, the spread of schooling has been powered by the family’s pursuit of status or class position, along with the state’s desire to signal membership in the modern world system (Fuller & Rubinson, 1992).

Sociologists and education scholars have long shown how channels of expressed demand for private or alternative schools reflect the stratified character of families. More economically advantaged families or pupils with better educated parents tend to exercise school choice more frequently than others in the Middle East (Salehi-Isfahani et al., 2012). The class-conflict account of differentiation also highlights how school resources – be they family attributes, teacher quality, or levels of instructional materials – often covary with the social-class status of families, including within Saudi Arabia (Aljabri & Alahmadi, 2012; Henig & Hula, 2001; House, 2012).

Finally, neoclassical economic accounts allege that market competition will spur new organizational forms, as discerning parents express differing educational preferences or migrate to higher quality schools. This, in turn, will benefit schools that attract desired students and more effective teachers (Hanushek et al., 2006). A robust private sector, along with government-funded schools sensitive to differentiated family demand, may spur the growth of diverse institutions.

1.5. Organizational differentiation in the Saudi context

With the rise of diverse secondary schools in Saudi Arabia, worries grow that families from differing social-class, ethnic, or language groups may sort into institutions of unequal quality. This has long concerned observers of the Saudi system, going back to 1938 when the newly unified kingdom issued regulations clarifying that the Directorate of Education held jurisdiction over all privately financed schools, not only government funded institutions (Rugh, 2002). More recently scholars have detailed contemporary disparities in school quality and achievement among government schools in middle eastern societies (Bouhlila, 2011; Chapman & Miric, 2009; Trenwith, 2013). Less is known about the comparative quality of the private and international subsectors.

The Saudi government has pushed to raise and make more uniform the quality of secondary schools in recent years (Al Sadaawi, 2010). But little evidence exists to judge the efficacy of these policy efforts. Data remain especially scarce when it comes to gauging variation in academic climate, the capacity of principals to exercise instructional leadership, and social cohesion among teachers. The qualification of teachers and discrete indicators of instructional resources (e.g., quality of facilities, class size, availability of computers) also remain important as material signs of quality.

The school-effects literature urges closer examination of key features of the school’s social organization – principal instructional leadership, academic press to achieve, teacher collaboration and cohesion – that predict growth in student learning (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004).

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1 Two Saudi scholars have tracked pupil performance in the area of civics or social studies, comparing government and religious schools, the latter known as Holy Quran Schools. Among the nation’s 73 religious high schools, Al-Housain, (2012) found that 37 displayed very competitive achievement results, compared with the top government high schools between 2008 and 2010. Similarly, Qiyas (2015) found that religious middle schools, on average, outperformed government schools, although this study included no statistical controls for possible differences in the family background of students.

2 We also know that middle-school girls tend to outperform boys, at least in math and science (enrollment shares have become almost equal).
But little is know about how these organizational factors operate in the Saudi context, or how these elements of quality may vary among or within the government, private, and international subsectors.

2. Research questions and analytic strategy

Despite these competing theoretical claims, we know little about how the robust growth of diverse forms of secondary schools in the Middle East result in differing levels of quality. In the Saudi context, one might argue that competition from the spread of private schools would spur quality gains among government-run schools. On the other hand, if disparities in school quality stem from the economic capacity of private and international schools to attract stronger teachers and richer instructional materials – perhaps financed by more affluent parents – then institutional differentiation may reinforce social-class differences, both among native Saudi and expatriate families.

This paper examines whether quality differences operate among and within the three subsectors: government, private, and international middle schools operating in Jeddah during the 2014–15 school year. We also gauge the social-organizational features of school quality, moving beyond conventional material inputs. And we focus on the role of principal leadership in nurturing more cohesive school organizations. We address these empirical questions:

RQ1. Do mean levels of middle school quality vary significantly among Saudi Arabia’s three education subsectors: government, private, and international schools?

RQ2. To what extent does the social organization of schooling – principal instructional leadership, academic press to raise pupil achievement, and teacher engagement – vary among schools within each subsector?

RQ3. Does variation in students’ social-class (SES) attributes largely explain differences in school quality, not school type?

RQ4. To what extent can we explain differences in school quality based on enrollment size, facilities quality, and adequacy of instructional materials (in addition to student characteristics)?

Our analytic strategy begins by distilling key social-organizational components of school quality that have been measured and determined to have validity in predicting student achievement. We then drew a sufficient sample of Jeddah middle schools to ensure adequate statistical power to estimate educational quality differences among government, private, and international schools from interviews conducted with principals. Our estimation procedure, married to our research questions, then examines the extent to which variation in school quality can be attributed to student attributes, basic organizational structure (e.g., enrollment size, facilities), facets of principal leadership, and levels of instructional resources after taking into account subsector membership.

3. Method

3.1. Data-sampling schools and principals

We first created an inventory of all known middle schools operating in the city of Jeddah, based largely on Ministry of Education data, excluding religious madrasas. This yielded 209 schools of which 147 were operated by government in 2013–14. The remaining 62 middle schools were classified as private if they were owned by a private individual or agency but followed the government curriculum, typically offering instruction in Arabic. Of these 62 schools, 15 were classified as international, given that the government curriculum was not utilized and a large share of students came from expatriate families. These institutions were operated by foreign individuals or firms.

We then attempted to contact and interview each principal. Among government schools, 53% agreed to participate; interviews were completed with 89% of the (non-international) private school principals, and all 15 directors of international schools agreed to be interviewed. No clear explanation arose as to why the response rate was lower for government-run schools; it may bias our results toward greater participation of higher quality government schools.

The principal interviews were conducted in Arabic or English, based on their preferred language. Each lasted between 45 and 90 minutes. The interview protocol asked principals about (1) the social-class and nativity of students enrolled, and the economic status of their immediate neighborhoods, (2) scarcities of teachers or basic instructional materials, including computing and science equipment, (3) how the principal allocated his or her management time, asking most extensively about time spent on observing classrooms and attempting to raise pedagogical skills via development activities, (4) perceived levels of teacher competence and knowledge of the curriculum, along with the extent to which teachers collaborated and observed one another in classrooms, and (5) the degree to which the school suffered from problems with absentee or tardy pupils or teachers, as well as misbehavior or disrespectful behavior among students.

3.2. Measures

3.2.1. Dependent variables—variation in the social organization of middle schools

Given our focus on social-process dimensions of educational quality, we posed many questions to principals that fell into five domains related to the organizational features of the school. These constructs generally predict steeper growth in student achievement, at least when studied in Western contexts, as reviewed above.

We measured instructional time, for example, by obtaining the number of hours in a typical school day and multiplying by the number of instructional days in the year. Five items pertained to time spent by the principal on instructional leadership
activities, including visiting classrooms, organizing developmental courses for their teachers, talking through classroom problems, and communicating pedagogical goals to staff members. These five interview items displayed moderately strong inter-item reliability ($\alpha = 0.70$).

Ten four-point scales were used to derive two variables related to social cohesion and climate. A principal-components analysis was conducted with oblique rotation that resulted in a two-factor solution. The items for each factor were examined to determine their conceptual commonalities. Six items loaded on the first factor that pertained to the extent of collaborative work and trust among teachers. These items asked principals: “To what extent are teachers expected to work together to identify students that need extra help, to what extent do teachers in this school support each other, and to what extent are teachers open with each other.” Response options ranged from strongly disagree (1) to strongly agree (4). Inter-item reliability for this index was high ($\alpha = 0.87$).

Four items loaded on a second factor, academic expectations, reflecting teacher knowledge of the curriculum and students’ desire to do well in school. These items asked principals how they would characterize teachers’ understanding of the school’s curriculum, the degree to which teachers succeed in implementing the school’s curriculum, students’ desire to do well in school, and closeness of relationships between teachers and students. Response options ranged from low or very low, to high or very high. These four items displayed strong inter-item reliability ($\alpha = 0.76$).

A composite index was created to gauge problems with teacher or student engagement, drawing on seven inter-correlated items, including questions on the gravity of problems with teachers arriving late, more severe absenteeism, or students arriving late or disrupting classrooms, cheating, or verbal abuse ($\alpha = 0.91$).

3.2.2. Predictors of social-organizational quality

Our research questions focus first on whether mean differences in quality vary among the three subsectors: government, private, and international schools. Yet any discovered associations may be due to he kinds of students and families served, not attributable to school type (subsector) per se. So, we enter into an ordinary least-squares regression a composite measure of pupil socio-economic status (SES). This includes two items: the principal’s estimate of the share of students enrolled from poor or disadvantaged families, and whether the surrounding neighborhood is populated mostly by low-income families. We also include the share of students enrolled who are not native-born Saudis.

Our estimation procedure then proceeds to enter other material features of the school that might further explain variation in school quality. These predictors include facilities quality, the scarcity or adequacy of instructional resources, and availability of computer equipment (which varied independently of teacher scarcity and other instructional resources). The index of instructional material adequacy was derived from nine four-point scales that captured the extent to which the principal reports shortages of instructional materials, supplies, classroom space, teachers in math or English, staff to repair facilities, and textbooks or instructional materials ($\alpha = 0.89$). The response options ranged from a lot (1) to not at all (4). Facilities quality is simply a dichotomous variable indicating that the school operates in a rented facility, not owned by government or a private operator. Computer availability is expressed as the number of computers operating in the school for students divided by the enrollment count.

4. Findings

We present our findings in three steps. First, we report mean differences in the social-organization and quality of Jeddah middle schools among Saudi Arabia’s three education subsectors (RQ1). Second, we detail the degree of variation within each subsector (school type), revealing wide-between-school differences, especially among government and international schools (RQ2). Third, we estimate variation in school quality based on subsector, pupil socio-economic status (SES), structural features of the school, and adequacy of instructional materials. That is, variation in social organization or quality – beyond subsector membership – could be influenced by the character of students enrolled (RQ3) or the material inputs available to teachers and students (RQ4).

4.1. Between-subsector differences in school quality

Table 1 reports differences in student attributes and school qualities for each of the three types of schools: government, private, and international auspice. We see that schools situated in each subsector serve differing mixes of students and families on average. Not one principal of a private school reported that more than half the students enrolled were from disadvantaged homes, compared with one-fourth and one-fifth of government and international school principals reporting this level of disadvantage, respectively. The standardized SES index reveals that students attending government schools are a full standard deviation (SD) below their peers in private schools, with international school students resting at the full sample mean ($z$ score $= 0.02$) on average. One-third of private school students are non-Saudi natives, compared with one-fourth in government and fully 87% in international schools.

Turning to teacher and school qualities, we see that teachers are fully credentialed less consistently in international schools (78%), as well as being less experienced, relative to teachers in government and private schools: two-thirds of Arabic language teachers held less than five years experience, and one-third of math teachers had less than five years experience within the international subsector.
The character of social relations among teachers varies by subsector as well. The index of reported collaboration and trust among teachers ranges one-third of a standard deviation (SD) higher for private school teachers, relative to international school peers. This level of collaboration and trust falls in between for teachers in government schools.

Principals at private schools more frequently reported spending “a lot of time” visiting classrooms and arranging professional development activities for their teachers, compared with principals in government or international schools. The overall instructional leadership index ranged almost one-half SD higher for principals in private, compared with peers situated in international, schools.

Regarding the organizational structure of participating schools, enrollment levels in the government subsector were much greater (417 students on average), compared with international (193) and private counterparts (154). Average tuition...
costs ranged considerably higher in private, relative to international schools. Yearly hours of instruction ranged much higher in international schools on average.

The social-organizational cohesion of private schools appears to be much stronger, relative to the other two subsectors. The principal’s reported severity of problems with tardiness or absenteeism among teachers and students equals over one-half SD lower within private, compared with government, schools. The index of academic commitment among teachers and students is highest among international schools, rising about two-thirds SD above the mean commitment reported in government schools.

The ratio of pupils per classroom was much higher in government schools (28:1 on average), compared with international (20:1) and private schools (18:1). Computers were most scarce in international schools and more abundant in private schools.

We also examined the interrelationship of social-organizational and material indicators of school quality. Table 2 displays simple correlations among subsector membership and all quality indicators, including the social-organizational indicators and material features of quality that may affect these social relations inside schools.

Beyond confirming between-subsector differences seen in Table 1, we also see that enrollment size (higher in government schools) tends to be associated with weaker material resources. Principals at larger schools reported lower availability of computer technology ($r = -0.56$). Larger schools – mostly under government auspice – tended not to locate in rented facilities, compared with smaller private or international schools.

We also observe relationships among the social-organizational indicators of quality. For instance, stronger instructional leadership of principals is positively associated with greater teacher collaboration ($r = 0.25$) and greater expectations among teachers and students to perform well in school ($r = 0.22$). Teacher collaboration and higher expectations are correlated at $r = 0.49$ as well.

These correlations overall suggest weak relationships between material indicators of quality and social-organizational features – with the exception of resource shortages. We test below in a regression environment whether material facets of quality are related to social-organizational dimensions when including all covariates in the estimation models.

4.2. Variation in quality among schools within subsectors

Let’s turn next to variation within subsectors, displayed for key indicators. Panel A in Fig. 3 for example, shows the distribution of the pupil-SES index for each subsector. The vertical axis reports the percentage of cases that hold the index scores displayed on the horizontal axis (standardized z-scores).

We see that pupil-SES levels vary quite evenly across the 78 participating government schools. Private schools served higher SES students, and the distribution is skewed toward those with high index scores, compared with peers attending government or international schools. The latter set of schools tends to host slightly higher SES pupils, relative to government schools, while this distribution is spread fairly evenly. This is an important discovery: international middle schools serve a wide variety of students in terms of their social-class background, unlike private schools, which consistently serve better-off families.

Panel B show wide variability in annual fees or tuition charged to parents, although the modal level equals about 10,000 Saudi riyals (about US$ 2700). International schools, in contrast, have a slightly lower modal fee level, but a much narrower distribution across the 15 schools in our sample. These fees may be paid by parents or by employers as a benefit of expatriate employment.

Fig. 4 displays variation within each subsector for the two social-organizational features (dependent variables). Panel A show differing distributions of the level of problems with teacher and student engagement. The modal level for government schools falls just below the standardized mean (zero), yet schools are widely distributed on this variable. Private schools

| Table 2 |
| Correlations between school subsector, dependent variables, and possible predictors of social-organizational features (n = 135 schools). |

<table>
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<th>Subsector</th>
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<td>2 Private school</td>
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<td>1.00</td>
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<tr>
<td>3 International school</td>
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<td>-0.24</td>
<td>1.00</td>
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<td>4 Length instructional time</td>
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<td>0.10</td>
<td>0.20</td>
<td>1.00</td>
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<tr>
<td>5 Principal leadership</td>
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<td>0.18</td>
<td>-0.07</td>
<td>0.00</td>
<td>1.00</td>
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<td>6 Teacher collaboration, trust</td>
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<td>-0.06</td>
<td>0.29</td>
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<td>7 Academic commitment</td>
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<tr>
<td>8 Teacher/pupil discipline</td>
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<td>0.13</td>
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<td>9 Student SES index</td>
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<tr>
<td>10 Non-Saudi students, share</td>
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<td>-0.03</td>
<td>0.55</td>
<td>0.11</td>
<td>0.04</td>
<td>0.07</td>
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<td>0.07</td>
<td>-0.18</td>
<td>1.00</td>
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<td>-0.18</td>
<td>-0.04</td>
<td>-0.12</td>
<td>-0.04</td>
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<td>-0.19</td>
<td>-0.08</td>
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<td>0.07</td>
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<td>-0.19</td>
<td>-0.27</td>
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<tr>
<td>13 Computer availability</td>
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<td>0.00</td>
<td>0.07</td>
<td>0.17</td>
<td>0.19</td>
<td>0.14</td>
<td>-0.15</td>
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<td>0.01</td>
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<tr>
<td>14 School in rented building</td>
<td>-0.33</td>
<td>0.18</td>
<td>0.25</td>
<td>0.06</td>
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<td>0.07</td>
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display a lower mean on engagement problems, along with a narrower distribution. International schools show a wide distribution, more closely approximating that observed for government schools.

Panel B shows internal heterogeneity within each subsector on the principal leadership index, which shifts to the right (higher on average) among private school principals. Still, significant internal heterogeneity among principals can be observed within each subsector.

4.3. Do student attributes or material inputs shape the social organization?

School type may correspond to particular enrollment patterns or material resources that, in turn, drive the relative vitality of the school organization. So, we next included relevant covariates in our estimation models, after taking into account the subsector effects anticipated from the mean differences reported above (Table 3). We test whether the coefficients tied to
subsector membership decline as we enter measures of student attributes and material features of schools. These possible substitution effects help to reveal what factors may operate beneath subsector membership to account for variation in instructional time, principal leadership, and remaining facets of social organization.

The first three columns of Table 3, for instance, regress the length of instructional time on subsector membership, student attributes, school structure and availability of material resources. We see that instructional time is significantly longer in private and international schools, compared with government schools (the reference group). But as we enter student and school attributes the coefficient for private schools falls from 0.34 to 0.21 and becomes insignificant. The coefficient tied to international school status, in contrast, remains constant in magnitude and marginally significant (declining from $p < 0.05$ to $p < 0.10$). It appears that the student SES index is substituting for subsector membership (Table 3 reports standardized coefficients).

Results for levels of teacher trust and collaboration show no significant association with a school’s subsector. But schools with a greater scarcity of instructional resources host teachers that collaborate less, as reported by principals. Student and teacher commitments to learning are considerably higher in private and international schools, relative to government schools. Yet these differences are largely explained by pupil attributes, including the SES index and the share of students of non-Saudi origin. Inclusion of these pupil characteristics reduces the magnitude of the coefficient tied to subsector membership by at least half. On the other hand, problems with student or teacher engagement are not explained by pupil attributes. Private schools steadily experience fewer problems in this domain.

Overall, school type is significantly related to length of instructional time, principal leadership, commitment to achievement, and social engagement among pupils and teachers. Both private and international schools manifest these facets of social organization with greater strength, compared with government schools. Yet it appears that differences in students attracted by private and international schools help to account for their school’s more cohesive social fabric. Levels of instructional resources only display an association with stronger teacher collaboration and trust, suggesting that pupil attributes offer more enabling social conditions than material inputs per se.

5. Discussion and policy implications

These findings reveal sharp disparities among the three subsectors along several indicators of quality, as Saudi Arabia permits a widening diversity of middle schools to serve a pluralistic range of families. This includes variability in instructional time, whether principals focus on instructional gains, and the trust, social cohesion, and learning expectations held by teachers and students.

We uncovered systematic (mean) differences among government, private, and international schools, along with variability among schools within each subsector. Private schools, perhaps not surprisingly, stand out as displaying high levels
of quality and social cohesion, relative to government schools. More notable, international schools do not look so different from government schools on most quality indicators.

Private schools attract students from higher social classes on average, and a greater proportion of non-Saudi children, relative to government schools, which serve predominantly native-born Saudi students from lower-income or middle-class families. International schools are more difficult to characterize, serving a diverse spectrum of children from native and expatriate families. This emergent stratification of students and families may be hurried by the desire of parents for higher quality schools and instruction in English. Whether and how this sharp differentiation among types of schools serves to reproduce economic and social disparities in Saudi Arabia deserves greater attention by researchers and policy makers.

Another intriguing finding is that the level of material inputs and instructional tools available in schools failed to consistently predict beneficial facets of social organization or instructional leadership exercised by the principal. Teachers expressed less trust and collaboration with peers in schools with more scarce instructional materials. But overall, material inputs were unrelated to the social-organizational dimensions of quality: instructional time, leadership focused on teaching, staff collaboration, and student or teacher commitment to learning. This points to the need for additional research in the Middle East on the relative independence between material inputs and social organization – distinct domains requiring tailored policy strategies.

We know that instructional leadership by principals can help build cohesion among teachers and a normative commitment to learning and human development. It appears that private schools offer such favorable conditions for pursuing effective leadership by principals. Yet the range of internal variation within each subsector also suggests that principal leadership and cohesive social organizations can be built in government schools, even when concrete inputs and instructional materials remain in short supply. This calls for more careful thinking among policy makers on how to best intervene to lift school quality, along with additional work on how some principals nurture robust social worlds inside their schools.

These findings hold two policy implications. First, governments in the Middle East should distinguish between purchasing material inputs and long-term efforts to raise the quality of school leadership, perhaps decentralizing specific authority to principals. The Saudi nation invests much in the government school system, while yielding low levels of achievement on average. This suggests that how schools are organized locally, along with how teachers and principals are prepared to engage students, play a stronger role than simply raising school budgets.

Second, these three education sectors could more openly share knowledge of local practices regarding principal leadership and how to best build social cohesion among teachers. The private school sector in the Saudi context enjoys serving children from better-off families. But we also observe strong teamwork and cohesion within many government schools. Each sector can likely articulate key lessons for principals, teachers, and policy makers – a conversation that government and civic groups might open-up and amplify. Greater support for careful research on the social organization of schooling by international donors and government would empirically enrich this important conversation.

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