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Non-state actors in education

Low-fee private schooling: A framework to define the scope of these non-state actors in education

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ABSTRACT

This paper applies fieldwork, third-party data and existing literature to clarify the diversity of non-state education providers in developing countries that are often grouped together under a single category called low-cost, budget, affordable or low-fee private schools (LFPS). The author proposes a multi-level conceptual framework to better understand the differences between LFPS that often have little in common beyond a price point. The first layer describes four types of ownership: (1) emerging single-proprietor schools, (2) established single-proprietor schools, (3) cooperative/partnership schools, and (4) corporate chain schools. The other features of LFPS are represented by a second layer with five dimensions: (1) operational scale, (2) management and administration, (3) financial activity, (4) fee affordability and (5) accountability mechanisms. A country case study section illustrates how this multi-level framework explains and compares LFPS provision in context of the wider educational systems in Rwanda, Ghana and Côte d'Ivoire. The paper concludes by discussing the limitations and advantages of this framework in practice. The four types of schools exhibit different dynamics along the five dimensions, so applying this framework wholly or in part may have implications on the role and impact of LFPS in educational policy, research, financing, advocacy and program implementation.

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INTRODUCTION

Low-fee private school (LFPS) research was once a burgeoning niche, but these non-state actors are now widely discussed across education, economics, international development, public policy and other sectors. They are also called affordable, budget, or low-cost private schools, but regardless of the terminology, the choice and provision of LFPS are often compared against elite, high-cost private academies on one end and free public schools on the other. Expensive private schools are too costly and too exclusive for poor families, but free public schools are often inadequately provisioned in poor and rural neighbourhoods or otherwise undesired by these families.

Studies have explored the quality, access, and affordability of LFPS but inconsistently define the breadth and limits of 'low-fee.' Schools under the 'low-fee' umbrella include for-profit, non-profit or hybrid operators yet those designations can obscure significant variations in the capacity and structure of LFPS operations. For example, well-funded multinational corporate chains with hundreds of schools are sometimes placed in the same category as a single school ran by a local community member with meagre resources and either, both or neither may be a for-profit entity—or even formally registered at all. Research and commentary about LFPS that narrowly define the category rarely explain the implications of separating chains, single-proprietor or for- and non-profit schools from each other (c.f. Archer, 2016; Espindola, 2019). Despite this variation between definitions, they each represent different types of LFPS accurately.

However, as noted in Prachi Srivastava's think piece for the 2021 GEM Report, inconsistent definitions have become increasingly problematic towards evaluating the accessibility of LFPS to marginalized children (2020). In consideration of Srivastava's earlier suggestion, that 'characterising the low-fee private sector along a continuum of management, financing, ownership and regulatory arrangements may be more suitable,' this paper proposes a multi-level conceptual framework of LFPS to explain variability among these non-state providers (2013, p. 15).

First, a brief section explains the data and methodology used for the paper, followed by a comparison of LFPS definitions selected from relevant literature. The scope and variety of definitions establish irregular categorizations over time but they also help ground the conceptualization of four ownership types and five dimensions of a multi-level framework to distil the core features and dynamics of LFPS. The main level describes schools owned by: (a) emerging single-proprietors, (b) established single-proprietors, (c) cooperative/partnerships and (d) corporate chains. These schools have varying capacity that can be understood at a deeper level, using five dimensions: (a) operational scale, (b) management and administration, (c) financial activity, (d) fee affordability and (e) accountability mechanisms. The paper then presents a comparative country case study of Ghana, Côte d'Ivoire, and Rwanda to illustrate how this framework can help describe and place LFPS in context of local education systems. The discussion section explores the benefits and limitations of using this framework towards considerations of LFPS in policy, research, advocacy, program implementation and education financing. Although quality is an important considerations of education provision, it is outside of the scope of this paper to explore teaching and learning at LFPS. However, there are several studies (albeit with mixed findings and different definitions of the schools) that analyse learning outcomes of LFPS.[1] As such, the paper concludes with a recommendation to apply this framework to help contextualize studies on teaching and learning quality at LFPS.

DATA AND METHODOLOGY

The data used for this paper spans a variety of qualitative and quantitative sources from desk-based research, first-hand qualitative fieldwork and secondary quantitative data provided by third-party researchers and organizations.

A literature review generated widely cited and unique definitions of LFPS from peer-reviewed papers, institutional reports and program documents about non-state education provision in developing countries. A linear thematic analysis revealed patterns and inconsistencies in definitions over time. Much of that literature is used to justify components of the framework and the country case study section.

The author's first-hand qualitative data was collected between 2016 and 2019 from focus groups, classroom observations, school visits and key informant interviews with proprietors and government officials for research and program evaluations. This data spans hundreds of schools in Côte d'Ivoire, Ghana and Rwanda. Fieldwork included classroom observations, interviews, surveys and focus groups with school proprietors, teachers and parents. The conceptual framework has been further informed by frequent validation and contradictions between direct experiences[2] and literature on private schools.

Secondary data on more than 3,000 LFPS in 15 countries was provided to the author with permission to empirically ground this paper. The data was collected between 2016 and 2020 for market research and program evaluation purposes by two independent private education researchers and three organizations: Opportunity International, CapitalPlus Exchange (CapPlus) and the Center for Indonesian Policy Studies (CIPS). All five entities specialize in capacity building and research on LFPS across Africa, South America and Asia. The datasets described in Table 1 below contain purposive samples of LFPS that describe school fees, ownership, legal status and other characteristics. Further details about the sample schools can be found in Annex 1: Source distribution for third-party datasets.

[1] See: Talancé (2020), Unterhalter, Robinson, and Ibrahim (2018), Härmä (2019) and Menashy (2015)
[2] Before working in Côte d'Ivoire, Ghana and Rwanda, the author also worked at an established single-proprietor school in Burundi from 2010 to 2012.

Table 1: country distribution of third-party sample datasets of LFPS

Country	Locations	Date Collected	Sample Schools
Ghana	nationwide	2017-2020	676
Uganda	nationwide	2016- 2020	619
Nigeria	Abuja, Benin, Kaduna, Lagos, Nasarawa	2016 & 2019	457
Zambia	nationwide	2016 & 2020	419
Tanzania	Dar es Salaam	2016	205
Kenya	nationwide	2016, 2019-2020	201
Zimbabwe	Bulawayo, Harare, Mashonaland East	2019	149
Côte d'Ivoire	Abidjan	2018	134
Mozambique	Beira, Maputo, Matola, Nampula,	2020	125
Madagascar	nationwide	2020	97
Pakistan	Lahore, Gujranwala	2018	80
Rwanda	Kigali, Eastern, Western, Northern, Southern	2017 & 2019	71
Peru	Arequipa, Lima	2018-2020	46
Indonesia	Jakarta	2017	46
Democratic Republic of Congo	Gemena	2020	43
15 countries		**2016-2020**	**3,368**

The distribution of school datasets by country and source can be found in Annex 1. Fee distribution by source origin is not available for proprietary reasons but fee distribution by country can be found in Table 5.

A secondary analysis by the author normalized the datasets by identifying common variables of the sample schools, such as school fees and registration status. Where available, sample school fees were adjusted for inflation over the four-year data span to 2020 currency and converted to international dollars (int-$) as a reflection of purchasing power parity between the 15 countries. The comparative country case study uses data from Ghana, Côte d'Ivoire and Rwanda in Table 1 above as well as the most recent national household surveys and peer-reviewed literature.

These samples are not statistically representative of the LFPS sector in each respective country, but descriptive statistics of sample school fees are detailed the subsection on Fee Affordability and in Annex 3: Average annual fees of sample schools. The next section explains the challenges of extracting a standard level of 'low-fee' in defining these schools.

DEFINING 'LOW-FEE'

Characteristics about schools or the communities they serve are the general qualifiers that define LFPS in research studies and the literature. Cost thresholds for affordability are often set by household income, national poverty lines and/or minimum wage requirements, but many definitions do not propose a specific price point and instead describe LFPS qualitatively. Although 'low-cost' can refer to the comparative price paid by students, it can also describe the school's inexpensive operating cost per student. However, 'low-fee' and 'low-cost' are often used interchangeably with other terms for LFPS. A select chronology of definitions from the literature further illustrates the inconsistencies in categorizing these schools over time.

Definitions in the Literature

Some of the earliest characterizations of LFPS in research appear over twenty years ago. A study of 878 unregistered private schools in four Indian districts found minimal infrastructure, few teaching-learning materials and monthly fees ranging from INR 30 to INR 60 (int-$3.10 to int-$6.21) with a few charging up to INR 2,500 (int-$258.69) (Aggarwal, 2000). De, Noronha, and Samson (2002) described similar private schools as serving low-income families in India, with the most expensive fees costing no more than 25% of government schools. In Pakistan, Andrabi and Das (2002) defined LFPS more concretely as private schools used by urban and rural families in the bottom two socioeconomic quintiles. However, the United States Agency for International Development's (USAID) (2002) rigorous review of community school research in Africa defined the scope as schools with shared operational responsibilities between several members, a relationship with government, but specifies that these schools also charge fees. Although this definition is for a 'community school,' it aligns with other LFPS definitions because the characteristics of a government relationship range from public funding to specialized licenses, or a school that simply 'supports government provision of education' via the enrolment of low-income children (Miller-Grandvaux & Yoder, 2002, p. 3).

In researching LFPS in India, Srivastava benchmarked the threshold of low-fee costs to household income by defining LFPS as charging a 'monthly tuition fee not exceeding about one day's earnings of a daily wage labourer at the primary and junior (elementary) levels, and about two days' earnings at the high school and intermediate (secondary) levels' (2007b, p. 4). Around the same time, Lewin found that 'educational expenditures are below 10% of total household income, and often below 5% amongst the poorest' in Africa (2007, p. 10). It will be shown how Lewin's conclusion grounds more recent definitions, but these figures are not always representative of household education expenditures. A 2015 study in peri-urban Ghana found that the poorest families spent 42% of their income on education and the wealthiest spent 35% (R4D, 2015).

Later, two incongruent definitions were developed by Phillipson (2008) and Walford (2011). Phillipson included schools 'owned by an individual or individuals for the purposes of making profit' but excluded charitable, religious, community, or high-cost schools (2008, p. 1). Alternatively, Walford created a broader category to recognize providers that operate at a financial loss in favour of providing fair teacher wages, scholarships and 'the whole range of non-government sector schools with low fees that are designed to serve some of the poorest families' (2011, p. 403). Neither definition specifies a cost level to categorize LFPS, yet profits are important but contrary aspects of both definitions.

Then, Stern and Heyneman build on Srivastava's work to classify LFPS as charging 'less than 50% of the minimum wage' (2013, p. 115). An adaption of this definition is currently used by the Center for Indonesian Policy Studies, which determines the low-fee threshold for schools in programming and research by calculating 10% of provincial monthly minimum wage regulations for Jakarta. In the same year, Tooley applied the conclusions from Lewin (2007) and proposed two thresholds, where school fees charging less than 10% household income of families at the poverty line defined 'low-cost' and 'medium-cost' schools were 10% household income of families at twice the national poverty line (2013, p. 17). Tooley's definition has been widely used since then, such as the World Bank's Systems Approach for Better Education Results-Engaging the Private Sector (SABER-EPS) and two large scale Nigerian projects by the former UK Department for International Development (DFID) between 2008 and 2019. (Abdul-Hamid, Baum, Lusk-Stover, & Wesley, 2015; Härmä, 2011).

Many of the above references are included within the most widely cited report on LFPS, a 2014 DFID rigorous review of 59 studies on 'non-elite private schools' in developing countries. The report defines LFPS as a non-state entity dependent on user fees for operational expenses, but largely independent of state management—excluding private schools 'run by charities, NGOs or religious organizations' (Ashley et al., 2014, pp. 5–6). Another DFID review of 44 articles defined LFPS based on less than 4% of poor families' income, but the actual share of education costs were found to be up to 15% (Barakat, Hardman, Rohwerder, & Rzeszut, 2014, p. 18).

Expounding on Tooley (2013) and Lewin (2007), Tooley and Longfield (2016) updated previous quantitative thresholds by including national average household size and global poverty lines for calculating a maximum affordability ratio of 10% or 5% of annual household expenditures. They suggested that affordability levels can be generated by using the global poverty lines of USD$1.25 and USD$2.00 per day for 'very low-cost' and 'low-cost' respectively (Tooley & Longfield, 2016, pp. 449–450). This same year, Archer (2016) qualitatively defined LFPS as only commercial for-profit chains, which are described as unaffordable to poor families, and single-proprietor private schools are separately classified as more affordable community initiatives.

Soon after, the USAID adopted the term 'affordable non-state school' (ANSS) for LFPS and to this day, defines them 'as formal and non-formal education institutions that are owned or operated by non-state entities such as private citizens, faith-based organizations, or NGOs, and that target lower-income or marginalized populations' (USAID, 2018, p. 6). USAID includes include a wide swath of providers in programs and research on ANSS, including formal faith-based schools like Catholic missionaries and madrasas as well as single-proprietor schools, corporate chains and charitable initiatives. Conversely, a definition by Espindola specifically restricts LFPS to 'for-profit institutions that charge low tuition fees and whose customer base comes exclusively from the poor. […] Technology… and economies of scale are a critical part of the business model' (2019, 55, 57). Much like Archer (2016) earlier, this definition only pertains to an analysis of corporate school chains.

Finally, a recent study by the National Institute of Public Finance and Policy (NIPFP) in India measured the density of students in the two lowest income quintiles who were enrolled in a random sample of private schools and identified the average fees at two cluster points to create two threshold levels: 'basic' schools cost less than INR 8,400 (int-$ 455.19) and 'standard' schools cost less than INR 15,600 (int-$ 845.35) per year (Bose, Ghosh, & Sardana, 2020, p. 13). The authors validated their study against Srivastava's (2013) affordability definition, which can be further confirmed by other research findings in India finding that 45% of private school students paid less than INR 500 (int-$26.48) per month and 75% paid less than INR 1,000 (int-$52.97) per month (Central Square Foundation, 2020, p. 3)

This chronology reflects the similarities and inconsistencies between many other definitions in the literature, ranging from wide and inclusive descriptions to narrow categories with precise cost limits. However, the for-profit qualifier and the affordability thresholds in some definitions can be problematic.

Challenges with Existing Definitions

LFPS are often defined solely as for-profit enterprises, but some of the definitions above indicate that non-profit entities share many features with other LFPS. Like commercial chain schools, there are non-profit operators with a large international presence and substantive revenues. One example is the chain of 32 low-fee private secondary schools owned by Promoting Equality in African Schools (PEAS). PEAS is a registered charity in the United Kingdom that promotes affordable, quality education provision in Uganda and Zambia, which is subsidized by donors and other funding sources in addition to school fee income. PEAS received GBP 3.6 million (int-$ 5.4 million) from grants in 2019, which is comparable revenue to global for-profit school chains with some of the same public and private investors (PEAS, 2019).

The for- and non-profit binary also does not address non-state operators in certain countries that do not have a choice in school designation. For example, all private schools in Indonesia must be registered as a not-for-profit entity, irrespective of their fee level. In other countries, such as Ghana, Pakistan, India, Kenya, and Nigeria, wholly unregistered non-state providers are ubiquitous in low-income, urban and informal settlements (otherwise known as slums) nationwide. Countless schools also do not earn any profits and operate at a financial loss. Many of these LFPS do not have any official registration but both for- and non-profit enterprises can face budgetary challenges due to a proprietor's limited financial acumen, excessive overhead or as a result of accepting students who cannot pay fees.

Some definitions are problematic because they can create an affordability threshold that does not reflect actual costs to poor families. Those who are at, above and below the poverty line would need to forego essential household expenses to pay *any* amount for education costs. Affordability calculations from official minimum wage levels and average reported household expenditures also do not effectively account for seasonal and intermittent income or the frequency with which the informal labour force earns far less than the minimum wage. Affordability thresholds can also obscure the prevalence of discounts, fee negotiations, and remittances[3] to manage school costs.

Definitions from the literature demonstrate there are wider qualifying criteria of LFPS than official profit status or price. The following section distils these variable characteristics into a multi-layered conceptual framework for LFPS.

LOW-FEE PRIVATE SCHOOL FRAMEWORK

Ownership is a helpful starting point to condense the diversity of LFPS into a multi-level conceptual framework. To avoid the challenges with for- and non-profit designations, they are both included within the first level of four LFPS ownership types: (1) emerging single-proprietor schools, (2) established single-proprietor schools, (3) cooperative/partnership schools and (4) corporate chain schools. The four LFPS ownership types have different dynamics of operating capacity, which are framed by another level of five dimensions: (1) operational scale, (2) management and administration, (3) financial activity, (4) fee affordability, and (5) accountability mechanisms. The levels of ownership types and operating capacity dimensions are validated by the cited definitions in the previous section, additional findings from the literature, and analysis of third-party data and the author's primary data of fieldwork observations.

Four Types of Low-Fee Private Schools

Corporate chain schools are easily identifiable as a distinct type of LFPS, especially due to attention over their recent growth, policy influence, and share of public and private financing. As described above by Archer (2016) and Espindola (2019), as well as Verger (2016), Srivastava (2016) and many others, networks of LFPS chains pursue rapid growth through economies of scale and expanding across national, regional and global markets. Large chain schools include for-profit companies like Spark Schools in South Africa as well as non-profit organizations like The Citizens Foundation in Pakistan or PEAS in East Africa. However, Srivastava (2007a) and Ohara (2013) describe chain schools in India that are also small family-run operations, sometimes held over generations. These schools have limited financial capital, are frequently unrecognized by the government and

[3] In Nigeria, up to 9.1% of domestic and international remittances are apportioned to school fees NBS (2019)

grew slowly over time to reach a few nearby neighbourhoods that can be easily visited by the local proprietor. These types of small-scale chain schools lack the operating capacity of their larger counterparts so this conceptual framework considers multi-sited, single-proprietor operations to be established single-proprietor schools, as will be explained later.

Community schools are frequently referenced in the literature but are often minimally defined and inconsistently included in the LFPS category.[4] However, the framework here considers them to be cooperative/partnership schools. This term reflects the range of joint ownership structures between unrelated individuals within and outside a particular community that have been by observed by the author and referenced in the literature. Like the definitions above by Walford (2011), Ashley et al. (2014) and USAID (2018), the category of cooperative/partnership schools in this framework excludes those run by large, official religious bodies such as the Catholic church. In some cases, it may be appropriate to consider school networks owned by global religious bodies as corporate chain schools but these institutions are frequently high-cost private schools or retain long-standing government arrangements to provide education in developing countries (Watson, 2010). In the latter case, they are considered functionally public institutions—officially or colloquially. However, faith-based single-proprietor and cooperative/partnership schools are often owned by individuals with strongly held religious values or are affiliated with a small, nondenominational church or mosque. This will be discussed later in the Management and Administration subsection.

Although non-profit organizations that operate chain schools may appear like cooperative/partnership schools, the two differ primarily by their capacity and their scale. For example, the non-profit Forum for African Women Educationalists (FAWE) can be considered a chain school with their network of several well-resourced LFPS across Africa. Although this paper will reference corporate chains and cooperative/partnership types accordingly within the framework, the remainder of this paper focuses particularly on the features and differences between single-proprietor operations because they comprise up to 80% of LFPS and there are only two corporate chains with more than 1,000 schools (Bidwell & Watine, 2014; Crawfurd & Hares, 2019).

The framework separates single-proprietor operations into two categories of emerging and established schools to highlight operative capacity as their most salient difference. In a Delhi case study, Ohara (2013) found that the background of school managers[5] ranged from public and private sector educators, small-business owners, tailors, homemakers and more. This parallels the author's fieldwork in Rwanda and Ghana, where proprietors reported divergent previous experiences in education or entrepreneurship—frequently with neither but sometimes with both. Individual proprietors (including married couples and immediate family members) have been observed during fieldwork and program evaluations to have varying levels of business acumen,

[4] See Steiner-Khamsi (2018) for an example where community schools are considered low-fee private schools and Baum, Lewis, Lusk-Stover, and Patrinos (2014) where they are not.
[5] School managers were either the proprietor or the administrator hired by the proprietor to oversee operations.

administrative skills and pedagogical knowledge, which are essential skills for effective private school operations at any price point.

Operative capacity levels are also reflected by business and education quality programs that serve LFPS, which are further described in the Management and Administration subsection later. One such program, Sustainable Education and Enterprise Development (SEED), presents a useful example of divergent capacity in single-proprietor schools. SEED evaluates proprietors at three levels of aspiring, emerging, or thriving in order to provide an appropriate school transformation program of training, coaching, finance and partnerships for their capacity level (2020). Thriving proprietors may need specialized school management software or ICT programs for students, while aspiring proprietors may require support to set up email or bank accounts.

As such, emerging single-proprietor schools have limited technical capacity to manage the educational or business aspects of their operations. Established schools are likely to be run by a proprietor with more proficient skills in business and school administration. These and cooperative/partnership and corporate chain schools are summarized in Table 2 below.

Table 2: four types and capacities of LFPS ownership

LFPS Type	LFPS Capacity
Emerging single-proprietor	• Local proprietor or family members with limited skills in education and/or business management • Rudimentary to moderate school development
Established single-proprietor	• Local proprietor or family members with proficient skills in education and business management • Moderate to advanced school development
Cooperative/ partnership	• Two or more unrelated local proprietors with proficient skills in education or business management • Moderate to advanced school development
Corporate chain	• School ownership held by shareholders, equity investors, or a separate managing entity with advanced expertise in education and business management • Advanced school development

The different capacities of the four types of schools are reflected along the framework's second level of five dimensions.

Five Dimensions of Low-Fee Private Schools

The four types of schools reveal differences in their operational scale, management and administration, financial activity, fee affordability and accountability mechanisms. These dimensions shape a holistic set of categories to understand the conditions and other dynamics that affect LFPS.

Operational Scale

Some of the qualitative definitions described earlier highlight the size and physical features of LFPS, which differ between the four types of schools. This relates to the proprietor's capacity to scale their operations, which easily distinguishes corporate chain schools from single-sited LFPS or schools with limited expansion capabilities.

Chain schools are most different from the other types of LFPS by operational scale. Non-profits like PEAS and companies such as Rising Academies operate several dozen schools across Africa. The operators Affordable Private Education Center (APEC) in the Philippines and Silverleaf Academies in Tanzania, among others contain their operations and growth strategy to a single country (Caerus Capital, 2017). Corporate chains invest heavily in assets and maintenance to standardize their expansion plans for simultaneous, multi-site launches as well as student enrichment, marketing, research and other expenditures on innovating and promoting their efforts.

Like chain schools, cooperative/partnership schools may have organizational and fundraising partners to support school development. This author has observed schools in Ghana and Rwanda that received assistance from their affiliated mosques and churches to make repairs or open additional school locations. However, those cooperative/partnership schools experienced minimal expansion that accommodated increasing enrolment over successive years and are most like single-proprietor schools in terms of insular scale. Nevertheless, these schools can benefit from aggregated peer networks through national school associations. The Country Case Studies section provides more details on these membership groups, but in Nigeria for example, there are nearly 20 private school associations offering several specialized memberships and affinity groups for LFPS (tailored for faith preferences, price ranges, female proprietors and other affinity groups).

The differences in capacity to scale LFPS operations are further visible in their physical operations. Single-proprietor schools are frequently reported to have rented, dilapidated, poorly constructed and not-for-purpose buildings with limited availability of teaching and learning resources. The author's observations at schools in Côte d'Ivoire, Ghana, Kenya and Senegal validate these and other reports of insufficient or wholly unavailable toilets, running water and electricity at LFPS. However, many other single-proprietor schools were observed to own their land and have sturdy building construction, adequate and sanitary toilets, as well as recreation and library spaces, computer facilities and other resources. These physical disparities are represented in the photographs below, where Image 1 provides examples of emerging single-proprietor schools and Image 2 provides examples of established single-proprietor schools.

Image 1: Physical characteristics of emerging single-proprietor schools in Ghana and Côte d'Ivoire, source: author (2018)

Image 2: Physical characteristics of established single-proprietor schools in Rwanda, Ghana and Côte d'Ivoire, source: author (2017, 2018)

Single-proprietor schools are de facto small-scale operations, but proprietor interviews in Ghana, Rwanda and Côte d'Ivoire revealed a common expansion strategy to start with unfinished classrooms for their inaugural launch and accommodate increasing demand over time by completing construction and adding more classrooms. However, various capacity restraints prevented some of these schools from achieving these objectives, such as being on rented property or limited access to capital. For example, the bottom left photo within Image 1 contains construction materials that are several years old. Other fieldwork observations of family-run, multi-sited schools align with findings by Srivastava (2007a) and Ohara (2013) but like other single-proprietor operations, buildings were developed slowly over time.

Although cooperative/partnership and the two single-proprietor schools are the most alike in terms of operational scale, the four models feature more variation in management and administrative capacity.

Management and Administration

Human resources, financial accounting, curriculum, staff development and other aspects of school operations are essential management and administrative capacities for school operators. Corporate chains have the most capacity in this dimension and can manage a large, specialized hierarchy of staff, systems and processes. The Rising Academies chain of West African schools boasts a culture that makes 'smart use of technology' to collect evaluative data at over 100 locations (Rising Academies, n.d). The ownership structure of cooperative/partnership schools also affords the accompanying capacity from a group of individuals to manage academics, finances and other processes, but with limited bureaucracy. The capacity to manage financial literacy and educational leadership differs greatly between emerging and established proprietors, subsequently resulting in different dynamics of management and administration.

During fieldwork in Côte D'Ivoire, Ghana and Rwanda, some single-proprietor schools were observed with formal teacher contracts, regular staff training, policies and handbooks, carefully managed documentation and other administrative systems, but others did not. These differences are also reflected in the variety of services offered by the three program implementers that supplied data for this paper, as well as other third-party intermediaries that work with single-proprietor schools across in the Global South. Table 3 highlights several examples of the academic and business development services that demonstrate proprietors' management and administrative capacity needs:

Table 3: support initiatives for LFPS intermediaries

Organization	LFPS criteria	Locations	Academic Support	Business Development Support
Edify	Qualitative characteristics	Burkina Faso, Guatemala Dominican Republic, Ethiopia, Ghana, India, Liberia, Peru, Rwanda, Sierra Leone and Uganda	Teacher training, school leadership development, Christian-centred curriculum, education technology	Loan capital, business training, coaching, financial literacy training,
Capital Plus Exchange	85% least expensive schools in a low-income community	Côte d'Ivoire, Ghana, Kenya, Nigeria, Tanzania, Uganda and Zambia	Financial products to incentivize improved learning outcomes	Technical assistance to financial institutions for tailored school loans, national research studies
Center for Indonesian Policy Studies	Fees are less than 10% of monthly minimum wage	Indonesia	Communities of practice, school leadership development	Regional research studies
Dignitas	Qualitative characteristics	Kenya	Teacher training, mentoring and coaching, communities of practice, school leadership development	Grants, alumni networks
Kashf Foundation	Fees are less than PKR 1000 per month	Pakistan	Teacher training, coaching, child protection training, education technology, quality monitoring	Loan capital, business training, financial literacy training
Opportunity International	Qualitative characteristics	Colombia, Ghana, India, Kenya, Pakistan, Rwanda, Tanzania and Uganda	Communities of practice, teacher training, mentoring, school leadership development, quality monitoring	Loan capital, business training, coaching, financial literacy training
Sustainable Education and Enterprise Development	Fees are less than NGN 50,000 per year	Nigeria	Teacher training, child protection training, education technology, communities of practice, school leadership development, quality monitoring	Access to financial institutions and donors, business training, financial literacy training, technical assistance to financial institutions for tailored school loans

Respondents from support intermediaries described owners with professional skills or the resources to hire accounting and education specialists. These proprietors tend to request communities of practice, more advanced training, student enrichment support, or access to capital for school improvements and expansion. Proprietors with the capacity to manage both the academic and business sides of LFPS can be considered established single-proprietor schools. A proprietor in Rwanda serves as one such example, having been a primary school teacher and entrepreneur before opening the school. She said,

> when I was starting, someone from [the support organization] came by but I wasn't interested… But I went back later and got a loan to add classrooms and … I started with teachers who weren't good and I tried to train them, but after I got the loan could hire qualified teachers.

Conversely, the CEO of SEED reports having to adapt even lesson delivery for some proprietors before being able to deliver curriculum about human resources, business principles or financial procedures. These individuals who need more foundational managerial and administrative support would be considered emerging single-proprietor schools.

Management and administrative differences of LFPS result from the relative capacity of school owners, where their financial literacy can have a significant effect on a school's overall financial activity.

Financial Activity

All LFPS share the common financial activities of fee revenue and expenditures on staff and school operations. Differences between scale, management and administration of LFPS are reflected accordingly in the level and sophistication of their financial activity.

The scale and administrative needs for staff, technology, asset management, legal compliance and other aspects of chain school operations result in extensive, complicated financial activity and the need for income beyond school fees. As explained earlier, other corporate chains have access to funds from bilateral agencies, private foundations and large donors to supplement school fee revenue (Ball, 2012). This is due to widespread investor mandates to support impact at scale well as qualifying requirements for beneficiaries to comply with reporting and internal policies (ILM Ideas & SEBCON, 2014). Commercial banks have similarly stringent requirements in addition to high minimum loan amounts, so debt financing from these institutions is only available to schools with the capacity to meet these conditions. There are also public-private partnerships for LFPS[6] in some countries, but minimum obligations for infrastructure, administrative documentation, registration status and other criteria render many emerging single-proprietor schools ineligible for these financing mechanisms (Patrinos, Barrera Osorio, & Guáqueta, 2009).

[6] See: Verger (2012) and Aslam, Rawal, and Saeed (2017) for further exploration of educational public-private partnerships and low-fee private schools

The operational expenditures of cooperative/partnership and single-proprietor schools are generally proportional to their revenue, which is primarily from mandatory or optional school fees and income-generating activities (CapPlus, 2017). Optional fees for additional cash flow may not be charged, as in the case of the sample schools from Indonesia, where only 17 out of 46 schools levy charges of uniforms, books and other costs as seen in Table 4 below.

Table 4: 2017 Indonesia sample school mandatory and optional fees

LFPS Fee Type	N	Avg. Tuition & Enrolment 2020 inflation (IDR)	Avg. Tuition & Enrolment 2020 inflation (int-$)
Optional fees	17	2,364,021	$542.64
No optional fees	29	2,261,671	$519.15
Total	46	**2,299,496**	**$527.83**

This school fee data from CIPS is not a representative sample of Indonesian LFPS fees and was collected for research purposes.

During fieldwork in Ghana and Rwanda, nearly all single-proprietor schools were observed to sell foodstuffs, school supplies and sundries on-site but students were not mandated to purchase these items. Many of these proprietors had additional revenue streams from school vehicle or property rentals, tailoring and uniform sales, or had built on-site kiosks. As described in Table 3 earlier, third-party intermediaries are an influence on this financial activity through the provision of business training and loan capital.

Some intermediaries facilitate the banking relationship between microfinance institutions and single-proprietor schools, but the ability to meet land ownership, collateral and cash flow requirements can separate emerging single-proprietor schools from the others. Low-interest loans can incentivize emerging single-proprietor schools to register their operations, but a DFID staff member on the DEEPEN project noted in an interview with the author during fieldwork in Rwanda,

> one of the requirements in Lagos is that schools own their own property. But what tends to happen is that a school is unapproved, so it can't get a loan from bank because a bank won't lend to it because the school is unapproved and could be shut down. So because [the school] can't access the finance, it can't buy the land and can't get registered with government

Registration difficulties are discussed later in the Accountability Mechanisms subsection, but proprietors disclosed during interviews in Ghana that being ineligible for microfinance loans led them to informal money lenders with usurious interest terms to pay salaries or rent. Even the debt terms from recognized financial institutions can have devastating consequences, as discussed at length by an official from the Rwanda Education Board during an interview:

> I have a big issue because some schools were not able to pay for the loan and since they're not able to pay, they're sold by the bank. Today we have a case with students - there is a school in Kigali that was sold by the bank through the courts - no warning to families - and then the bank sold the school! When [students] went to school this morning, they found the one who bought the school and he is planning to turn it into a pub. He said 'no, you cannot enter because this is no longer a school, go back home.' This is the beginning of the term, what I do for these students who need a new school and all the places are gone?

LFPS capacity to manage their school's revenue and expenses results in different levels of financial activity, of which school fees are an important component. The next subsection discusses fees in further detail to explore the dimension of affordability to poor families.

Fee Affordability

Research exploring LFPS costs often apply inconsistent thresholds for 'low-fee,' such as the definitions in the literature referenced earlier. There are equally inconsistent conclusions about the affordability of LFPS to poor families but some contradictions may be the result of homogenizing the subsector.

For single-proprietor and cooperative schools that rely on school fees for operational revenue, tuition price levels are strongly correlated to the amenities provided, where less expensive schools in a particular market have fewer education inputs, such as libraries, computers and recreational facilities (Andrabi & Das, 2002). Schools with more amenities also signal quality for many parents but affordability is one of the most important factors in the choice of schooling (Zuilkowski, Piper, Ong'ele, & Kiminza, 2018). Other parental preferences are less resource-intensive on schools, such as English language instruction, location and religious or moral values.[7] However, the per-student availability of education inputs must account for increasing enrolment numbers so proprietors often find themselves navigating parental preferences and household income constraints with the prospect of raising fees, limiting enrolment or reducing the inputs available as demand grows over time (Edwards Jr., Klees, & Wildish, 2015).

Although investments and donation income of chain schools subsidize the cost of attendance against the provision of education inputs, they have been shown to be more expensive than single-proprietor schools. In Lagos, the corporate chain Bridge International Academies was found to be three times more expensive than single-proprietor schools and registered schools were more than twice the cost of unregistered ones (Unterhalter et al., 2018, pp. 48–49). Chain schools frequently deploy mobile payment services for parents, which offers convenience at a cost (Smith, William C., Baker, Tony, 2017).

[7] A discussion of parental choice is largely outside the scope of this paper. However, see: Oketch, Mutisya, Ngware, and Ezeh (2010), Afridi (2018), Bonal and Zancajo (2018), Akaguri (2014), Nishimura and Yamano (2013), and Yoon and Lubienski (2017) regarding decision-making strategies for low-fee private schooling in developing countries.

Price differences between registered and unregistered schools are also seen among sample schools from the third-party datasets. As will be discussed in more detail later, school registration is a useful proxy to differentiate emerging from established single-proprietor schools. Comparing average annual fees of registered schools to those with in-progress registrations and unregistered schools indicates that established schools may cost more than double the fees of emerging single-proprietor schools as seen in Table 5:

Table 5: average fees of registered and unregistered sample schools

Status & Country	Average annual fees int-$	Number
Registered	**$662.12**	**623**
Pakistan	$120.93	51
Côte d'Ivoire	$185.70	101
Uganda	$481.55	94
Tanzania	$628.16	43
Kenya	$740.21	59
Nigeria	$987.74	275
Unregistered	**$318.89**	**507**
Pakistan	$124.21	29
Côte d'Ivoire	$142.00	20
(in progress)	$143.85	13
Kenya	$182.13	29
Nigeria	$258.55	180
Tanzania	$306.45	161
Uganda	$665.75	75
Total	**$506.11**	**1,130**

Schools were selected among the larger samples by CapPlus and Opportunity International, who collected the data for market research purposes. Table 5 reflects available data on registration status and mandatory fees charged by the reporting school. It is not representative of school costs in the countries listed.

The lower average costs of unregistered schools may be due to the willingness of parents to risk potential closure and other recognition challenges in exchange for more affordable fees. However, parents at both registered and unregistered schools employ various strategies to pay LFPS costs, including bargaining, bartering and may eventually resort to fee jumping, where parents habitually accrue arrears and then move their children to other schools upon demand for payment (Srivastava, 2007b). Some proprietors anticipate the latter, especially in neighbourhoods with a high density of LFPS and employ similar strategies in turn. They may set prices to account for an assumed proportion of non-payment or will employ sliding fee scales, discounts and flexible fee schedules to encourage on-time payments (Srivastava, 2007a; USAID, 2018). During fieldwork in Ghana, some schools were observed to offer daily fees, which were frequently all-inclusive payments for tuition, transportation and lunch. It has been found in peri-urban Ghana that 50% of LFPS charged some form of a mandatory daily fee, usually lunch (R4D, 2015, p. 32). Even though this arrangement may cost parents more than termly or monthly fee schedules, petty traders and other intermittent earners preferred the price point, convenience and flexibility of all-inclusive or other daily fees.

These nuances in affordability dynamics can be hidden by typical 'low-fee' thresholds in the literature. In definitions by Andrabi and Das (2002), Abdul-Hamid et al. (2015) and Bose et al. (2020) described earlier, these and other studies analysed the fees of private schools attended by a sample of the poorest families to determine the threshold. Tooley, Srivastava and other researchers instead calculated fee affordability for poor families as a percentage of national poverty lines, official minimum wages, household income or education expenditures. There are implications for using affordability levels determined by what poor families actually pay versus an estimation of what they *should be* paying, yet the distinction is often unclear in the research.

Table 6 below illustrates the differences in these socioeconomic determinations of 'low-fee.' It compares the average annual school fees from sample schools in five selected countries to: annual household education expenditures of the two poorest economic quintiles as reported in national demographic surveys, to national minimum wages and to national poverty lines.

Table 6: sample school fee averages, household education expenditures & national minimum wages

Country	Average Annual Sample School Fees	Annual Household Education Expenditures (Q1 and Q2 Average)	National Annual Minimum Wage	National Poverty Line (Annual)
Pakistan	**$122.12**	$9.23	$6,091.92	$1,139.54
Côte d'Ivoire	**$175.12**	$102.02	$1,851.36	$1,073.56
Ghana	**$332.62**	$100.07	$1,852.56	$517.68
Rwanda	**$400.25**	$38.70	$432.60	$426.53
Nigeria	**$697.13**	$15.51	$2,516.40	$983.58
Total Averages	**$345.45**	$53.11	$2,548.97	$828.18

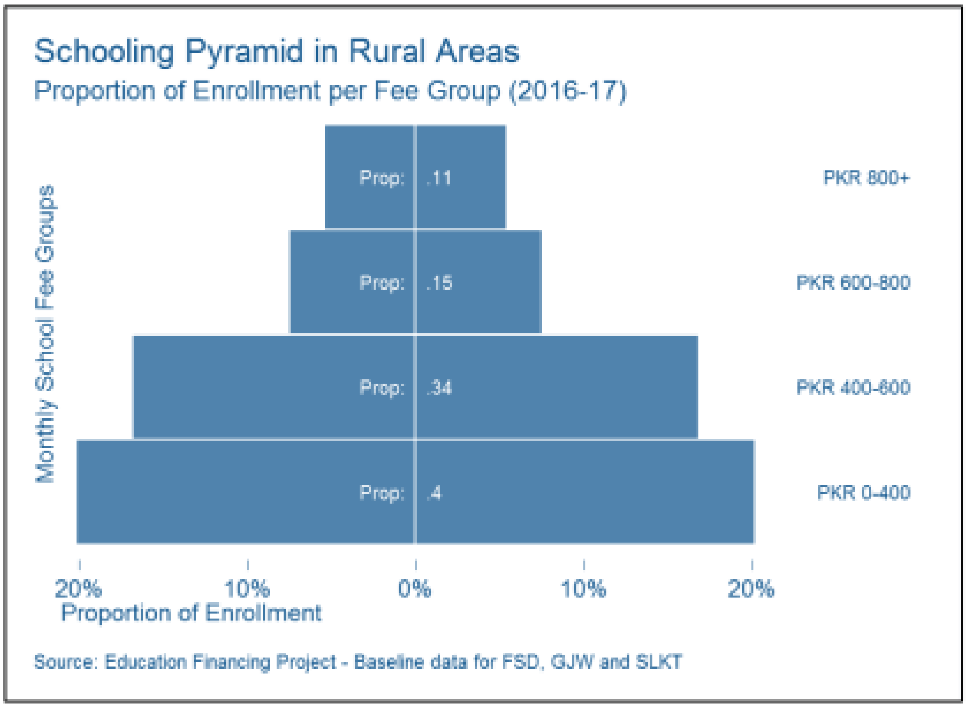
Source: NBS, 2019; NISR, 2015; Pakistan Bureau of Statistics, 2019; Republic of Ghana, 2019; République du Côte d'Ivoire, 2015

Average annual sample school fees were calculated from market research data provided by CapPlus, Opportunity International and independent researchers and are not representative of schools nationwide.

While average annual school fees of the sample do not reflect average LFPS in each country, they appear to be far higher than the average annual household education expenditures of the two lowest income quintiles, which would support several conclusions they are unaffordable to the poorest (Akyeampong & Rolleston, 2013; Härmä & Rose, 2012; Riep, 2014). Nevertheless, LFPS are widely used by poor families in rural areas, urban informal settlements and other poor communities and so may be affordable to some (Stern & Heyneman, 2013).

This is seen when comparing sample school fee data to independent research from the Learning and Educational Achievement in Pakistan Schools (LEAPS) initiative for LFPS in rural Punjab. Figure 1 below illustrates that 89% of LEAPS schools were less expensive than the study's low-fee threshold of PKR 800 (int-$ 24.58) monthly school fees.

Figure 1: LFPS in rural Punjab



Source: (LEAPS, 2020)

This validates the sample school fee data in Table 7, showing the distribution of sample schools along the LEAPS levels of PKR 400, 600 and 800. Here, 100% of the sample schools in both rural and urban Punjab fell under the PKR 800 monthly fee threshold of 'low-fee'.

Table 7: sample school fee distribution in rural Punjab

Max Monthly Fees	% of Schools	N	Average Monthly Fees (PKR)	Average Monthly Fees (int-$)
PKR 400	25%	10	PKR 342	$10.51
PKR 600	100%	40	PKR 431.35	$13.24
PKR 800	100%	40	PKR 431.35	$13.24
All rural Punjab schools	50%	40	PKR 431	$13.24
All Punjab Schools		80	PKR433	$13.29

The mandatory monthly fees of schools in rural Punjab were selected from the sample schools collected by Opportunity International in 2018 for market research purposes in Punjab.

There are clearly poor families for whom LFPS are inaccessible but with such an extensive presence in poor and low-income communities, ultimately 'the maximum fee level is determined by the limits of what *their* [emphasis added] parents can afford to pay' (Edwards Jr. et al., 2015, p. 27). Parents and proprietors make nuanced cost-benefit analyses of affordability, which are concealed by the rigidity of many 'low-fee' thresholds. The utility of using poverty lines, minimum wage ratios, sample cluster points or household expenditures[8] to determine the cost burden of LFPS must be weighed against the context of fee affordability to poor families.

LFPS proprietors need to navigate parental income constraints against their own capacity to provide cost-effective education inputs. These decisions are affected by a proprietor's business acumen, financial literacy as well as the mechanisms that hold LFPS accountable for their education provision.

Accountability Mechanisms

Most countries place non-state education providers under the same regulations that govern non-profit, commercial and/or educational institutions. These include rules for financial reporting and curriculum standards but many of the rules affecting LFPS private school focus on school inputs like infrastructure and land ownership (Baum, Cooper, & Lusk-Stover, 2018). Chain schools are better able to comply with complex regulations than single-proprietor schools and have gained more influence in creating them (Srivastava, 2016; Verger, 2016). Financial investments available to chain schools are also an accountability mechanism through contractual agreements to deliver financial returns and program outputs, so 'where public governance and regulation of private sector providers is weaker…their investors [can] take a particularly active role in monitoring impact' (CDC Group, 2019, p. 16). The state can play a similar role as an investor in cases of public

[8] See: Oseni et al. (2018) for additional recommendations on measuring and reporting education expenditures on household surveys

financing for LFPS and have financial oversight through public-private partnerships. States may also regulate tuition fees but these are usually capped for all private schools and do not specify a cost threshold for LFPS.

Some countries may confer special status to LFPS to address regulatory compliance of under-resourced schools. In Kenya, LFPS can register with the Ministry of Education as an Alternative Provision to Basic Education and Training (APBET) institution and do not have to meet the more stringent requirements of other private schools. These registration options are not always available, so unregistered schools are prevalent in many countries. The 2017/2018 UNESCO Global Education Monitoring Report discussed the implications of weak government oversight; namely that regulatory measures for teacher qualifications, building safety and other standards are difficult to meet by under-resourced schools and cannot be enforced against unregistered schools, i.e. emerging single-proprietor schools (2017). Furthermore, uncontracted teachers and short-term contracts are commonplace among LFPS due to lower cost of salaries, but many unregistered schools are unable to enter into formal agreements due to their legal status.

The SABER-EPS initiative developed a conceptual framework to mitigate accountability challenges, centring the role of empowered, informed parents in school oversight–especially among unregistered schools (Baum et al., 2014; Baum et al., 2018). USAID reports that parents hold close relationships with owners of single-proprietor and cooperative/partnership schools and are active in decision-making (2018). These relationships facilitate trust from parents, who bear risk by enrolling at unregistered schools, such as sudden school closures from rental evictions or by the authorities with little recourse for fee reimbursement. 'A high level of empathy among other parents and tolerance on the part of the school management is needed for children to stay in school in the face of low and unpredictable incomes' (Edwards Jr. et al., 2015, p. 27).

This has been observed extensively in the author's fieldwork, where parents leveraged social relationships and cultural norms to pressure proprietors to fulfil demands for repairs, curriculum and other inputs. Although some regulations may not be enforceable by the state, parents can support or contradict official standards. In Rwanda, one proprietor remarked on an instance where these two accountability mechanisms were in apparent conflict:

> You know here [common languages are] Kinyarwanda, it's English, or it's French or Kiswahili so parents aren't stable in what they want - some say they want French, then English, some say English. I followed the government standard - English. For us, we educate and I must make a good plan for children. Because I give a list of the children to [redacted] school, I use English. They can go to [redacted] and not get lost.

LFPS are held accountable for their provision by a variety of stakeholders, namely investors, governments and parents. Like the other dimensions of the framework, LFPS accountability mechanisms are a function of their relative capacity and ownership. Table 8 presents a synopsis of all five dimensions in the framework below:

Table 8: LFPS framework synopsis

School Type	Operational Scale	Management and Administration	Revenue and Expenditure	Fee Affordability	Accountability Mechanisms
Emerging single-proprietor	• one rented property • basic construction • minimal facilities • single location	• limited to no skills in education or business • minimal staff training	• negative to minimal cash flow • limited financing options from money lenders and non-banking financial institutions	• varied, but generally the least expensive	• limited to no government oversight • strong community ties • infrequent to no contractual agreements
Established single-proprietor	• one or more owned properties developed over time • basic to sophisticated construction • adequate facilities • limited multi-site expansion	• proficiency in education or business • adequate to advanced staff training	• minimal to moderate cash flow • limited to adequate financing options from microfinance institutions, commercial banks or public funds	• varied, but generally mid-range	• limited to significant government oversight • strong community ties • infrequent to regular contractual agreements
Cooperative/ partnership	• one or more owned properties developed over time • basic to sophisticated construction • adequate facilities • limited multi-site expansion	• proficiency in education, business or other skills • adequate to advanced staff training	• minimal to moderate cash flow • limited to adequate financing options from microfinance institutions, commercial banks and charitable donors	• varied • may be subsidized by donors	• limited to significant government and third-party oversight • strong community ties • regular contractual agreements
Corporate chain	• two or more owned properties developed concurrently • sophisticated construction • adequate facilities • wide multi-site expansion	• comprehensive expertise in education, business and other skills • advanced staff training	• extensive cash flow • extensive financing options from commercial banks, private investors, charitable donors or public funds	• varied, but generally the most expensive • may be subsidized by donors	• significant government and third-party oversight • minimal to no community ties • regular contractual agreements

The multi-level framework serves to outline the wide array of LFPS characteristics and dynamics within a holistic matrix. The framework accounts for inconsistent and contradictory definitions in the literature to demonstrate that fee levels alone cannot address the variety or even affordability of LFPS. Potential uses of the framework are detailed in the discussion and conclusion sections but the following country case studies illustrate how it can be applied to place LFPS in context of the wider education systems of Ghana, Côte d'Ivoire and Rwanda.

COUNTRY CASE STUDIES

This section applies aspects of the framework, fieldwork observations, household surveys and the literature to contextualize LFPS in Ghana, Côte d'Ivoire and Rwanda. Additional considerations are made to illustrate the prevalence of faith-affiliated single-proprietor and cooperative/partnership schools, which are separate to the functionally public and high-cost private religious schools described earlier.

Ghana

Basic education in Ghana consists of 11 years of schooling with two years of pre-primary (nursery and kindergarten), six years of primary and three years junior high school (JHS). The country has a large share of non-state schools in its education sector, especially in early childhood education as shown in Table 9.

Table 9: 2019 Ghana education provision and enrolment

Type	Schools		Enrolment	
	Total Public & Private	Share Private	Total Public & Private	Share Private
Nursery	9,543	96%	506,166	97%
Kindergarten	25,273	41%	1,832,693	30%
Primary	25,487	40%	4,511,268	29%
JHS	17,622	37%	1,678,132	22%
Total	**77,925**	**47%**	**8,528,259**	**32%**

Source: adapted from EMIS, 2019, p. 103

There is no recent or official data on the nationwide share of LFPS but a 2010 study[9] estimated that 40% of all private schools were low-fee, defined as any private school in a low-income area (CDC Consult Ltd, 2010). The predominant type of most LFPS in Ghana can be estimated as cooperative/partnership and single-proprietor schools because one of the most well-known corporate chain companies, Omega Schools (now Rising Academies Ghana), operates only 38 locations across Ghana.

[9] The representativeness of this study is limited by a small sample (136 schools) in two metropolitan areas

Christian-oriented schools are prevalent among LFPS in Ghana, where church leaders and faith-driven individuals own single-proprietor schools and small congregations operate cooperative/partnership schools (Brion, 2020). Islamic-oriented schools are present in Muslim communities but Christian proprietors have reported to the author that they operate in these neighbourhoods for conversion purposes. The two largest education support providers to single-proprietor LFPS in Ghana, Opportunity International and Edify Ghana offer training in Christian-centred curriculum alongside business development training and loan products. Regardless of religious orientation, private schools can pay membership dues to join the Ghana National Association of Private Schools (GNAPS) or the Ghana National Council of Private Schools. These private school associations lobby the Ministry of Education and make training, curriculum and other services available to their members. Interviews with a former GNAPS president indicated the need to support private schools for poor families but politics and dues requirements disincentivized LFPS from joining the association.

The Ghanaian government has established a popular free lunch program, serving 1.6 million children at 5,682 public schools in 2017 alone (Dunaev & Corona, 2019, p. 14). Its popularity has led to nearly universal lunch provision at LFPS to meet parental demands, promote good nutrition and generate valuable revenue. Of the Ghanaian sample schools from the third-party data sets with the available data, 93% offered lunch and 15% offered daily fee payment options costing between GHS 0.6 (int-$ 0.34) and GHS 3 (int-$ 1.96). In the case of one proprietor in Accra from the author's fieldwork, he consolidated his termly assortment of mandatory costs to one daily fee and marketed his school as 'tuition-free' whereby the single charge was a mandatory lunch fee.

As mentioned earlier, daily fees are more expensive than per-term or monthly fee schedules but the payment terms can be more reasonable for petty traders and informal workers. However, the implications of daily fees are the loss of school revenue from children who are intermittently absent and the loss of learning when parents do not have enough cash on hand that day for their child to attend school. Despite proprietors' various strategies to accommodate the income of local families, interviews during fieldwork in 2019 reveal fee collection rates as low as 60%, particularly in communities with a high number of LFPS and fee-jumping by parents. Some proprietors in rural and peri-urban areas accepted the fact that most students would not pay the full amount of fees due to poverty in the community, so they operated in constant salary arrears and indebted to vendors.

The affordability spectrum of education provision in Ghana spans free public schools on one end, which are prohibited from collecting hidden fees, and elite private academies that can cost up to US$15,000 (over GHS 85,000) per year[10] on the other. In the middle of these providers are a range of emerging and established

[10] See https://gis.edu.gh/wp-content/uploads/2018/07/GIS-Fee-Schedule-2018_2019.docx.pdf

single-proprietor schools. The regional average annual fees of 671 schools from the third-party sample school data are provided in Table 10.

Table 10: distribution of Ghana sample school average annual school fees

Region	N	Year Collected	Average annual fees (GHS)	Average annual fees (int-$)	Min	Max	StdDev
Accra	367	2017 - 2020	664	$381.30	$18.37	$2,555.37	$351.60
Ashanti	89	2017 - 2020	506	$287.13	$50.98	$1,601.36	$281.35
Brong Ahafo	76	2017 & 2019	460	$252.11	$12.50	$1,110.98	$205.43
Central	82	2017 - 2020	433	$242.90	$53.09	$790.14	$153.65
Eastern	61	2019-2020	553	$313.87	$119.25	$936.97	$180.75
Nationwide	**671**	**2017-2020**	**582**	**$331.21**	**$12.50**	**$2,555.37**	**$301.84**

Average annual sample school fees were calculated from market research data provided by CapPlus, Opportunity International and independent researchers but are not representative of schools nationwide. The regions in Ghana were changed in 2019 but the distribution of schools reflects previous regional designations.

Notably, government officials are seeking to increase their LFPS oversight because the Ministry of Education has set a strategic target for the government to decrease the number of unregistered private schools to zero. Formal registration requires multiple visits and approval by different government agencies and has been described by proprietors as very complicated and expensive. Of the more than 36,000 identified basic education private providers across Ghana, 18% are documented as unregistered but this number is likely higher (EMIS, 2019). The 2008 Education Act requires permission from the Ministry of Education before recognized private schools can adjust their fees but this oversight does not happen in practice. Interviews with proprietors in Ghana reveal that registered schools are not visited regularly for inspection and many unregistered schools are unknown entirely by officials, so parents and investors serve as an important accountability mechanism to oversee LFPS.

Côte d'Ivoire

Basic education in Côte d'Ivoire consists of nine years of schooling with three years of pre-primary and six years of primary school. Free basic education was recently mandated in the 2015 Compulsory Education Law but there is a significant proportion of non-state provision in early childhood education, per the most recent official data in Table 11.

Table 11: 2014 Côte d'Ivoire education sector provision and enrolment

Type	Schools		Enrolment	
	Total Public & Private	Share Private	Total Public & Private	Share Private
Pre-Primary	1,750	38%	131,218	32%
Primary	13,785	19%	3,176,874	15%
Total	15,535	20%	3,308,092	16%

Source: adapted from (République du Côte d'Ivoire, 2016)

The capital city of Abidjan reflects a much larger share of non-state provision, where up to 56% of primary schools are private. Nationwide, over 55% of students in secondary school and 95% of vocational educational students are enrolled in private institutions (République du Côte d'Ivoire, 2016). Non-state providers are registered as either faith-based or secular private schools under the Ministry of National Education and Technical Vocational Education and Training (MENETFP). Although MENETFP does not officially track the number of unregistered schools, government representatives acknowledge the presence of religious and non-state schools in informal settlements that are not provided public options (Koutou & Goi Bi, 2019).

There are many faith-based schools in Côte d'Ivoire to serve religious families, especially Islamic schools. Islamic LFPS are believed to comprise most of the unrecognized schools as MENETFP officials discussed in interviews. They reported efforts to formally recognize these schools in partnership with the Organization of Islamic Teaching Establishments of Côte d'Ivoire, one of the country's private school associations. Other associations for private primary schools include the National Federation of Private Education and Training Institutions of Côte d'Ivoire (FENEPLACI) and the National Association of Secular Private Schools of Côte d'Ivoire (ANESPLACI). Along with the National Secular Private Union of Teachers and Staff (SYNEPPLACI), these bodies organize and place pressure on the government for timely subsidy payments and appropriate enforcement of existing regulations.

MENETFP provides some primary private schools with subsidies, but these reimbursement amounts have been unchanged for over thirty years (Education Partnerships Group, 2019). Funding ranges from XOF 40,000 (int-$ 163.88) to XOF 50,000 (int-$ 204.85) per student per year (Education Partnerships Group, 2019). Among other eligibility requirements to receive a subsidy, schools must maintain a passing national exam average for three consecutive years and charge fees less than XOF 40,000 (int-$ 163.88) or XOF 30,000 (int-$ 122.911) per year, depending on location (Sakellariou & Patrinos, 2004, p. 5). Although most private schools do not receive public funds, proprietors who received subsidies revealed during fieldwork interviews that if they received subsidies, disbursements were consistently late. Proprietors reported additional sources of school revenue from lunch and transportation fees, community donations as well as books and uniform sales.

LFPS in Côte d'Ivoire can register as single-proprietor operations but individuals, churches, mosques and NGOs can formally register as cooperative/partnership schools. A potential marker that differentiates emerging and established single-proprietor schools in Côte d'Ivoire can be seen in land ownership and registration status. Most proprietors in the sample data are in secure property arrangements, where half of the Abidjan sample schools owned their land and 35% were in long-term leases. Similarly, 86% of sample schools are registered but remarkably, 29% of proprietors of the sample school data operated at least two school sites: one Islamic cooperative/partnership school was part of a network of 11 schools.

Nevertheless, there are unique dynamics to fee affordability of LFPS in Côte d'Ivoire, where elite academies can charge up to US$20,000 (over XOF 11 million) per year[11] and 78% of students receive bursaries for secondary school (Education Partnerships Group, 2019). The sample schools from Abidjan indicate that single-proprietor schools are more expensive than cooperative/partnership schools but registered schools of both types are more expensive than unregistered ones per Table 12 below:

Table 12: 2018 Abidjan sample school fee data

LFPS Type	N	Average annual fees (XOF)	Average annual fees (int-$)	Min (int-$)	Max (int-$)
unregistered	**33**	**33,866.44**	**$142.73**	**$41.83**	**$292.79**
cooperative/partnership	6	30,352.74	$127.92	$41.83	$187.18
single-proprietor	27	34,647.27	$146.02	$46.01	$292.79
Registered	**100**	**44,156.20**	**$186.10**	**$15.34**	**$421.41**
cooperative/partnership	15	42,576.53	$179.44	$140.82	$245.74
single-proprietor	85	44,434.96	$187.27	$15.34	$421.41
Total	133	41,603.10	$175.34	$15.34	$421.41

Registration status and average annual sample school fees were calculated from market research data provided by CapPlus but are not representative of schools nationwide.

Registered schools in the Côte d'Ivoire sample data were 22% more expensive than unregistered ones, which may be due in part to the dynamics of government accountability mechanisms. Interviews with owners and headteachers of registered single-proprietor and cooperative/partnership schools in Abidjan revealed extensive quarterly financial reporting requirements on LFPS. Ivorian schools reported frequent and unannounced visits by district inspectors, one of which was witnessed during an interview while conducting fieldwork. Of the 100 registered schools in the sample, 44% were inspected the prior year and 49% reported undergoing an inspection within the previous three months. Parents could easily confirm which schools were recognized because registration numbers were prominently painted on entrance walls.

[11] See https://jinaschool-ci.com/enrollment/fees/ and https://www.icsabidjan.org/about-admissions/school-fees/

Rwanda

Basic education in Rwanda consists of 12 years of schooling with two years of pre-primary (*crèche* and *maternelle*), six years of primary, three years of lower secondary and three years of upper secondary. In 2012, the Ministry of Education (MINEDUC) extended fee-free public schooling from nine to all 12 years of basic education but government schools are allowed and encouraged to charge ancillary fees for exams, lunch, school supplies and other costs (Russell, 2015).

Most education providers are government-aided schools[12] managed by official religious bodies and thus considered functionally public. However, Table 13 shows there is still a significant share of pre-primary non-state provision.

Table 13: 2019 Rwanda education sector provision and enrolment

Type	Schools		Enrolment	
	Total Public & Private	Share Private	Total Public & Private	Share Private
Crèche	87	30%	6,690	15%
Maternelle	3,401	39%	282,428	41%
Primary	2,961	14%	2,512,465	4%
Total	6,449	28%	2,503,705	8%

Source (Republic of Rwanda Ministry of Education, 2019)

The Catholic church operates 39% of all primary schools and although private schools represent a large share of education providers per Table 13 above, the non-state sector is experiencing stagnant growth. Between 2016 and 2019, the sector grew by only 34 private primary schools. This increased the number of private providers by 2%, yet private enrolments decreased by 1%. Secondary and public schools are largely outside the scope of this paper, but notably the expansion of fee-free public education in Rwanda led to the addition of 161 public secondary schools and 64 fewer private secondary schools between 2018 and 2017 alone (Republic of Rwanda Ministry of Education, 2019, pp. 23–24).

Of the 2,961 recognized primary schools across the country, 64% are affiliated with Catholic, Protestant, Adventist and Islamic bodies. At least 10% are single-proprietor and cooperative/partnership schools but the others are functionally public religious schools (Republic of Rwanda Ministry of Education, 2019).

Schools in Rwanda receive a provisional license before they can legally accept students and MINEDUC officials reported during interviews turning down many initial applications for school registration. Government

[12] Government-aided schools in Rwanda are categorized separately to private schools and not considered private. In Table 13, government-aided schools are included in the share of public schools.

oversight over public and private school quality was similarly high but reflected differently, as indicated in 2016 interviews with officials. Remarking on a then-recent request from LFPS for government support after a spate of closures upon the extension of fee-free public schooling to 12 years, an official at MINEDUC responded:

> if you don't provide the quality of education parents need, they will go somewhere else that does but it's not up to us to help them… We have to build schools and I'm struggling to build classrooms and get more and more teachers so those are inputs that I'm worried about.

Elite private schools in Rwanda can charge more than US$4,600 (over RWF 4 million) per year[13] and while public schools do not charge tuition, parents face significant costs. A 2017 study found that parents of public school students reported paying an average of RWF 37,700 (int-$127.55) on uniforms, school materials, transportation and lunch per year (Mugiraneza, 2018). In comparison, private school costs are significantly higher than public schools because of tuition payments but Table 14 reflects the average costs of sample LFPS below:

Table 14: 2017 – 2020 Rwanda sample school fee data

Region	N	Average of Annual Tuition (RWF)	Average (int-$)	StdDev (int-$)
Eastern	27	90,426	$284.70	$149.35
Kigali	36	149,250	$477.06	$248.29
Northern	2	99,000	$310.33	$93.09
Southern	3	202,000	$633.20	$189.85
Western	3	110,250	$345.60	$211.94
Total	**71**	**126,046**	**$400.25**	**$228.94**

Registration status and average annual sample school fees were calculated from market research and study data provided by Opportunity International and collected by the author but are not nationally representative.

Every school in the Rwandan dataset possessed a government license and while a limited sample, this prevalence reflects the country's stringent regulatory environment. Thus, school recognition may not a suitable indicator to differentiate capacity levels between single-proprietor schools. MINEDUC is swift to sanction any unapproved operation through its implementing agency, the Rwanda Education Board (REB) and decentralized local authorities. Despite the lack of official data, the phenomenon of unregistered schools is virtually non-existent due to the strict observance of regulations and the allocation of public resources to governmental oversight. Non-state school must first seek authorization from local village chiefs who provide the initial permission and networking support to start operations and the process to obtain recognition from district officials (Walker-Keleher, 2006). Given the onerous requirements and strict oversight of non-state schools, the

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[13] See https://aisrwanda.com/fees/ and https://www.iskr.org/admission/tuitionfees

educational ecosystem is inhospitable to emerging single-proprietors schools. Operating capacity can be indicated by the general business acumen and educational knowledge of proprietors but those who lack the requisite skills to meet standards for private schools must quickly accelerate their capacity development or face denied permits and imminent closure.

Using the LFPS framework to describe these non-state actors in Ghana, Côte d'Ivoire and Rwanda illustrates significant differences between LFPS, specifically single-proprietor schools and describe their internal and external dynamics in relation to state and non-state providers in their contexts. Whereas unregistered schools are more prevalent in Ghana and Côte d'Ivoire than Rwanda, different types of LFPS in all three countries operate under unique conditions that affect their dynamics of scale, management and administration, financial activity, fee affordability and accountability mechanisms.

The next section discusses the implications of using this framework for both narrower and broader applications in policy, practice, research or financing that concern LFPS.

DISCUSSION

This framework may benefit researchers, civil society members, investors, education practitioners and policymakers with shared interests in LFPS, despite innumerable and likely contrary objectives. Parameters to understand the types of LFPS and the dimensions of their capacity can help discern the heterogeneity of LFPS for relevant studies, advocacy campaigns, program implementation, education financing and policymaking. The multi-level nature of the framework provides options for stakeholders to apply its components wholly or in part to understand and explore formative, comparable characteristics of LFPS in developing countries.

Private education researchers can apply the framework to analyse the necessary conditions that influence outcomes at LFPS. The type of school ownership may correlate to teacher satisfaction, student retention, child protection policies, or other outcomes that are affected by leadership capacity. The framework can help strengthen additional explorations of fee affordability and parental choice for LFPS. Education funders can similarly operationalize the framework to assess the potential impact and suitability of related LFPS investments. Certain schools may not have requisite capacity to comply with rigorous reporting and due diligence processes and others may not even have a bank account to manage grant funding or concessionary loans, despite facing pressing support needs. The dimensions can help set expectations and develop effective indicators that reflect the conditions affecting a provider's ability to manage, improve or expand their operations and educational quality.

Active business and educational development service providers are currently operationalizing the capacity differences between LFPS to tailor their services accordingly. Other program implementers can benefit from applying the framework towards gated levels of capacity support to target specific needs. For example, program implementers that specialize in education technology, teacher training or entrepreneurship and other academic development can use several components of the framework to narrow down a swath of potential program beneficiaries farther than simply 'low-fee.' Emerging proprietors have the largest capacity deficits of all LFPS but may not have electricity on-site to use technological resources, nor the pedagogical knowledge to oversee cascade training and other teacher development initiatives. Chain schools have the fewest capacity deficits that enable them to experiment and swiftly deploy new initiatives across several locations, but these schools already may be well-resourced.

This framework should not be considered as an argument against or in favour of LFPS because it is also relevant to civil society actors that object to commercial non-state actors. Strong accountability mechanisms and cultural ties between proprietors, teachers, parents and the wider community may have a converse relationship to profit-maximizing and extractive behaviour. Similar LFPS dynamics along the other dimensions can help strengthen arguments for public education campaigns. This applies to the recent Abidjan Principles proposed by civil society organizations to inform state regulation of private education. LFPS are not explicitly mentioned but acknowledges that non-state actors are diverse and have 'different impacts on the right to education' so public funds should be prohibited to any non-state provider that is 'commercial and excessively pursues its own self-interest' (2019, 12, 29). The Abidjan Principles also urge governments to guarantee access to education by mitigating exorbitant private school fees yet there are no provided guidelines to determine affordability or the determinants of excessive self-interest.

Government officials may be able to apply the framework towards incorporating the Abidjan Principles and developing other policies that affect LFPS. Officials can identify and address the types of LFPS that fall within the 'commercial education provider' category of the Abidjan Principles beyond a for-profit or non-profit status. Guidelines can be developed to effectively regulate LFPS within the broader scope of non-state actors. To this end, the framework can also support the development of appropriate oversight mechanisms for certain types of LFPS under mutually beneficial terms, much like Kenya's APBET legislation sought to formalize thousands of unregistered schools. On the public financing side, this framework can support a holistic analysis on the needs and impact of subsidizing all, none or certain types of LFPS to improve equitable access to quality schooling. The dimensions can also contextualize other types of evidence-based policymaking and public or private resource mobilization for different types LFPS.

Despite these advantages, the framework's applicability to categorize and understand LFPS faces limitations. There may less heterogeneity between school capacities to differentiate between emerging and established single-proprietor schools in contexts with strictly enforced regulations. Some countries require every state and non-state school to be managed by a qualified director or there may be strong oversight measures on school registration, fee levels and infrastructure that otherwise limit the diversity of LFPS providers. Another limitation relates to the omission of education quality as a dimension of the framework, as mentioned earlier. Although delineating LFPS by capacity levels may influence assumptions about respective quality, future research can apply this framework towards studies that analyse the correlation between education quality, cost effectiveness and type of provider.

Doing so could generate new and valuable insight on LFPS, especially to identify further nuance between single-proprietor, cooperative/partnership and corporate chain schools. Comparisons along the five dimensions may show greater similarity between emerging single-proprietor and public schools than with corporate chains or vice versa. This may have important implications for evaluating the LFPS sector's equitable access to marginalized children and generalizations about the education quality of private providers. For instance, analysing the relationship between school type and their education inputs, cost and quality could affect claims that the most affordable LFPS produce the worst learning outcomes (Malouf Bous & Farr, 2019). Emerging single-proprietor schools may be able to achieve greater learning gains at a lower cost than chain schools yet would require more technical assistance to do so.

CONCLUSION

The spread of LFPS across developing countries is reflected in the breadth and depth of empirical evidence and inconsistent LFPS definitions. This paper presented several examples from the literature to demonstrate the range of conflicting definitions and equally disparate school characteristics. A multi-level framework distils the subsector's heterogeneity into four types and five dimensions of LFPS to capture the spectrum of schools that are usually placed together under the 'low-fee' designation. Emerging and established single-proprietor schools, cooperative/partnership schools, and corporate chain each have different capacity levels and dynamics that can be understood through the dimensions of operational scale, management and administration, financial activity, fee affordability, and accountability mechanisms.

It is incumbent on stakeholders to recognize the diversity and relevant dynamics within the LFPS subsector because they affect a school's capacity for expansion, administrative proficiency, access to financing and cash flow, as well as any oversight for their provision of education. Most importantly, LFPS around the world face different contexts that shape these dynamics, such as parental preferences or government regulation. Using this multi-dimensional framework for LFPS may help to shed light on the conditions that affect equitable, cost-effective access to quality education in the Global South.

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ANNEX 1: SOURCE DISTRIBUTION FOR THIRD-PARTY DATASETS

The complete datasets were collected between 2016 and 2020 in 15 countries by two organizations and three independent researchers.

Country	Opportunity International	CapPlus	Independent researchers	CIPS	Total
Ghana	322	228	155		705
Uganda	463	169			632
Nigeria	204	258			462
Zambia	169	253			422
Tanzania		205			205
Kenya	121	88			209
Zimbabwe	149				149
Côte d'Ivoire		135			135
Mozambique	125				125
Madagascar	98				98
Pakistan	80				80
Rwanda	61		10		71
Peru	35		11		46
Indonesia				46	46
Total	**1,827**	**1,336**	**187**	**46**	**3,385**

ANNEX 2: THIRD-PARTY DATASET DEFINITIONS OF LFPS

Each dataset identified a sample of schools determined to be 'low-fee,' but they were defined in different ways.

Opportunity International	Affordable single-proprietor schools with a wide range of fees, but on average around US$8 per month
CapPlus	85% least expensive schools in a low-income community
Center for Indonesian Policy Studies	Fees are less than 10% of monthly minimum wage
Independent researchers	Single-proprietor schools in low-income communities

ANNEX 3: AVERAGE ANNUAL FEES OF SAMPLE SCHOOLS

Of the 3,385 schools, there were anomalies in the fee data for 17 schools. The fees for the remaining 3,368 schools were adjusted for inflation to 2020 currency and are converted to 2020 international dollars (int-$) in order to reflect the diversity and purchasing power parity of different countries. This data reflects descriptive statistics of the samples provided and is not representative of school fees or LFPS in the respective countries.

Country	Sample N	Sample Dates	Avg. Annual Fees: int-$	Std. Dev: int-$	Min: int-$	Max: int-$
Ghana	676	2017-2020	$331.21	$301.62	$12.50	$2,555.37
Uganda	619	2016- 2020	$615.43	$410.99	$0.41	$2,987.40
Nigeria	457	2016 & 2019	$488.22	$630.85	$16.82	$6,730.48
Zambia	419	2016 & 2020	$722.83	$562.37	$136.03	$5,577.50
Tanzania	205	2016	$372.44	$347.60	$30.66	$2,255.61
Kenya	201	2016, 2019-2020	$433.77	$343.59	$61.28	$3,949.00
Zimbabwe	149	2019	$380.92	$322.06	$43.09	$1,588.87
Côte d'Ivoire	134	2018	$175.12	$59.46	$15.34	$421.41
Mozambique	125	2020	$1,037.84	$956.64	$18.55	$5,935.70
Madagascar	97	2020	$316.05	$319.59	$141.80	$2,617.86
Pakistan	80	2018	$122.12	$21.74	$44.45	$163.00
Rwanda	71	2017 & 2019	$400.25	$227.32	$101.50	$987.41
Peru	46	2018-2020	$954.64	$392.15	$216.22	$1,891.89
Indonesia	46	2017	$527.83	$308.53	$50.67	$1,543.61
Democratic Republic of Congo	43	2020	$62.26	$51.46	$18.00	$315.00
Total	**3,368**	**2016-2020**	**$462.73**	**$350.40**	**$60.49**	**$2,634.67**

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