

# Evaluation of the Data Must Speak Community-Friendly School Profiles in Zambia

Baseline Report

NOVEMBER 2018

*American Institutes for Research:*

Andrew Brudevold-Newman | Kelsey Hunt | Eddie Kashinka | Jamie McPike Mulenga Mukanu | Kelsye Turner | Elizabeth Spier | Esther Zulu

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## Abbreviations and Acronyms

AIR	American Institutes for Research
CFSP	Community-Friendly School Profile
DEBS	District Education Board Secretary
DMS	Data Must Speak
EMIS	Education Management Information System
FGDs	Focus Group Discussions
KIIs	Key Informant Interviews
LCMS	Living Conditions Monitoring Survey
MoGE	Ministry of General Education
PTA	Parent-Teacher Association
PTC	Parent-Teacher Committee
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
UNICEF	United Nations Children’s Fund

## Acknowledgements

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## Executive Summary

Zambia has made significant improvements in schooling access and persistence in recent years, but the education system still faces widespread challenges with education quality. Existing cross-country evidence suggests that the quality of Zambia's education system lags behind that of many other countries in the region: Zambia ranked last in reading and second to last in math on the 15-country Southern and Eastern Africa Consortium for Monitoring Educational Quality assessment (SACMEQ, 2011). According to the literature, a wide range of global efforts to improve learning outcomes have largely yielded only modest results, and there is still little evidence about what works to improve children's educational outcomes in Zambia (Glewwe, Hanushek, Humpage, & Ravina, 2011; Kremer, Brannen, & Glennerster, 2013; Murnane & Ganimian, 2014; McEwan, 2015; Snilstveit et al., 2016). Additional evidence on what works to improve education quality in Zambia is crucial given the low pupil performance and the dearth of evidence for what works in the country.<sup>1</sup>

To improve accountability for school-management decisions and education outcomes in Zambia, the Ministry of General Education (MoGE), with technical support from UNICEF's Data Must Speak (DMS) initiative, began distributing provincial, district, and school profiles that detailed exam results and information on educational resources from the national education management system (EMIS) in 2016. The original school profiles were disseminated to all primary schools and although accessible for school administrators, the content was deemed too complicated to inform advocacy efforts by other school stakeholders such as the parent-teacher associations (PTAs), village headman, or learners. Recognizing the need for simplified school profiles that were accessible to illiterate or semiliterate populations, the MoGE and DMS developed community-friendly school profiles (CFSPs), which simplified the reports by replacing text and graphs with simple icons. The profiles include information on the current standing of the school relative to others in the district and indicators of whether the school was improving in these categories. However, there is little information on the understanding, uptake, or application of the CFSP data by community members.

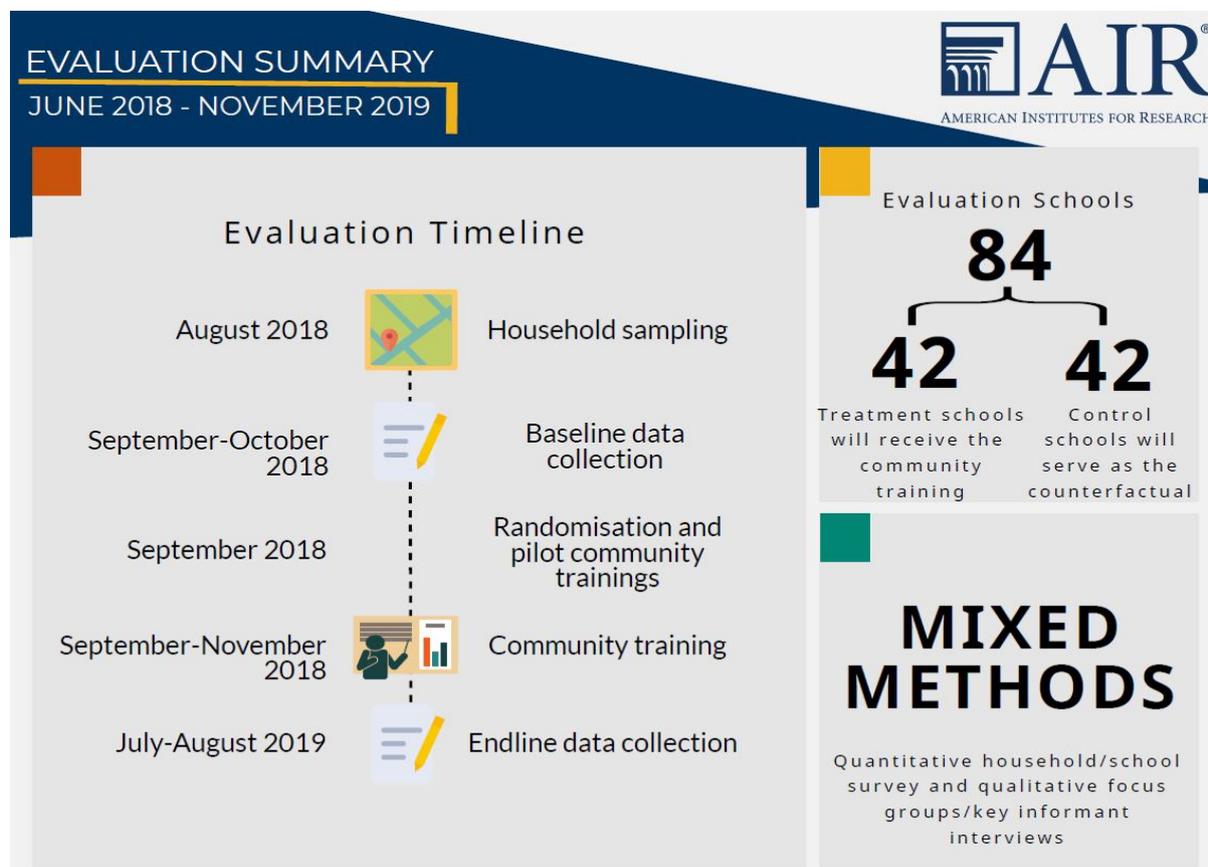
American Institutes for Research (AIR) designed a 2-year evaluation to measure the effect of community trainings on the content and use of the CFSPs on CFSP profile awareness and understanding, community engagement, and school decision-making (*see Exhibit 1*). AIR will implement and evaluate these community-level trainings, which will include representatives from school management, PTA members, non-PTA parents/caregivers, and learners. The evaluation is a mixed-method cluster randomized controlled trial (cluster RCT) that includes 1,680 households with primary school-aged children randomly selected from the catchment

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<sup>1</sup> AIR is conducting an evaluation of the Impact Network program implemented in selected community schools in Eastern Province. The evaluation is described in De Hoop, Brudevold-Newman, & Davis (2018).

areas of 84 schools in Chibombo and Chongwe districts in Zambia. We randomly assigned half of the 84 school catchment areas to receive the community trainings on the CFSP and half to a control group which will not receive the programme and which will act as a counterfactual.

### Exhibit 1. Evaluation Timeline and Design Overview



This report details the findings from our baseline data collection. Our household and school surveys collected information about household demographics, school characteristics, caregiver interest and engagement in education, caregiver perceptions of school quality, and caregiver perceptions of agency.<sup>2</sup> The report uses these data to examine the differences between the treatment and control households as well as assess the initial context of parental/caregiver engagement, agency, and interest in school decision-making processes. We complemented the household surveys with focus group discussions and key informant interviews, focusing on school profile awareness and understanding; community engagement in school management and school decision-making processes; perceptions of power/control in the school management; and perceptions of the school, the learners, and the teachers.

<sup>2</sup> Here we define *agency* as the capacity to exert power or influence.

Our baseline data indicate high interest and engagement among parents in their child's education, demonstrated by high enrolment rates, high educational aspirations, and an emphasis on engaging with teachers, Parents but mixed satisfaction with schools and teachers. Almost all parents support the idea that they should be informed about the functioning of their child's school, and over 80 per cent report feeling informed. Furthermore,

almost two thirds of parents get most of their information from their children. Of note is that 5 per cent of parents report getting most of their information from school profiles. Parents are fairly involved, with over 70 per cent reporting that they attended a PTA meeting within the past year. Parents broadly express that they have agency over their child's education: More than 80 per cent say that they can do things to improve the quality of their child's school, and almost 70 per cent report that the head teacher is interested in their input. Parents report less confidence with the learning environment, with 10 per cent being very dissatisfied and 30 per cent being either dissatisfied or very dissatisfied.

The baseline findings in this report suggest that the cluster RCT design successfully created treatment and control groups with comparable observable characteristics; we do not find evidence for systematic, statistically significant differences between households around schools assigned to the treatment and control groups. This finding indicates that the randomization successfully created similar treatment and control groups. This will enable AIR to make causal claims about the impacts of community-level trainings on the content and use of CFSPs after endline data collection and analysis (approximately one year after the introduction of the programme).

### ***By the Numbers***

**80%** of families report that they are informed about what is happening at school

**5%** of parents already use the school profiles to get information about their child's school

**66%** of caregivers report that they are satisfied with the school (75% for parents who get most of their information about the school from the school profiles)

## 1. Introduction

This report provides the baseline results of the evaluation of the community-level trainings on community-friendly school profiles (CFSPs) in Zambia. The CFSPs use icons to present school-level information in a highly visual format to convey information concerning the levels and trends in school resources (teachers, textbooks, classrooms, desks, and toilets) and school performance (national examinations results), making the data available to and actionable for families and community members with low literacy (*see Exhibit 2*). The Ministry of General Education (MoGE) and UNICEF currently distribute CFSPs to schools, but there is little information detailing if and how community members use these profiles. This evaluation aims to address this gap by implementing and evaluating community-level trainings on the content and use of CFSPs to community members, including school management (i.e. head teacher, deputy head teacher, and teachers), members of the parent-teacher committee (PTC), and non-PTC parents/caregivers.<sup>3</sup>

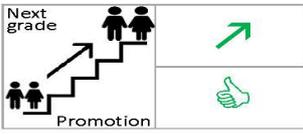
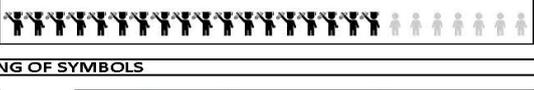
The CFSP initiative builds on a global shift in focus from increasing access to schooling to increasing quality of education (World Bank, 2018). The initiative aims to improve learning outcomes by providing communities with information about academic achievement and the availability and quality of educational resources at their local school to engage and empower community members to affect change. Evaluations of other education accountability interventions have generally yielded mixed results: A recent synthesis of 11 projects identified positive impacts on enrolment and inconsistent impacts across student attendance, dropout rates, school completion, and test scores (Snilstveit et al., 2015). This has created the need for a rigorous evaluation to assess whether this approach produces desired results in Zambia.

UNICEF contracted the American Institutes for Research (AIR) to implement community-level trainings and conduct an impact evaluation of the trainings on parents' or caregivers' awareness about CFSPs, their understanding of profile contents, parental/caregiver/community engagement in school decision-making processes, and, if available, administrative learning outcomes as measured by national examination results. This baseline evaluation report discusses (1) evaluation overview and context, (2) methodology, (3) baseline results, and (4) conclusions.

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<sup>3</sup> Parent-teacher associations are equivalent to parent-teacher committees, which is the official name in Zambia; many respondents used the two interchangeably. We use *parent-teacher association* to maintain consistency with the project Inception Report.

## Exhibit 2. Sample Community-Friendly School Profile

 REPUBLIC OF ZAMBIA - MINISTRY OF GENERAL EDUCATION 2016 School Community Profile			
Name of school <b>GONDAR</b> Province <b>EASTERN</b>		District <b>CHIPATA</b>	
 <b>1411</b>	 <b>684</b>	 <b>727</b>	
<b>RESOURCES</b>			
 Teachers			 Books
 Toilets			 Classrooms
			 Desks
			
			
<b>EXAM RESULTS</b>			
 Grade 7 Exam (Div. 1, 2, 3)			
<b>English</b>			
<b>123</b> Mathematics			
<b>Zambian language</b>			
 Science			
<b>MEANING OF SYMBOLS</b>			
 Things are <b>improving!</b>	 Things are staying the <b>same.</b>	 Things are getting <b>worse!</b>	 Your school is doing <b>better</b> than others in the district.
			 Your school is doing the <b>same</b> as others in the district.
			 Your school is doing <b>worse</b> than others in the district.

### 1.1 Evaluation Context

**Education in Zambia.** Between 2008 and 2015, the proportion of youth completing ninth grade in Zambia increased by almost 20 per cent (MoGE, 2015). However, the quality of Zambia’s education system lags behind that of other countries in the region. According to the Southern and Eastern Africa Consortium for Monitoring Educational Quality, Zambia ranked last out of the 15 countries assessed in the reading category and second to last in math (SACMEQ, 2011). Despite over 15 per cent of government expenditures going towards education and a formalized MoGE resource allocation formula intended to promote equity, the pupil–teacher ratios, pupil–book ratios, and pupil–classroom ratios vary widely across schools and regions (Ministry of Finance, 2017). For example, schools in Zambia’s Eastern Province have half as many textbooks per learner and 70 per cent more learners per teacher

as schools in Copperbelt Province (MoGE, 2015). Research shows that global efforts to improve learning outcomes have generally yielded modest results (Glewwe et al., 2011; Kremer et al., 2013; Murnane & Ganimian, 2014; McEwan, 2014; Snilstveit et al., 2016). The lack of evidence for what can improve children’s educational outcomes in Zambia is a motivating factor for this evaluation.

**Data Must Speak and the CFSPs.** The MoGE, with technical support from UNICEF’s Data Must Speak (DMS) initiative, aims to improve education quality by informing decision-making processes through profiles that summarize education resources at the national, provincial, district, and school levels. The profiles are based on education management information system (EMIS) data, collected by the MoGE via the annual school census, and incorporating examination and learning outcome measures provided by the Examinations Council of Zambia.

The school-level profiles contain data that school administrators can use to guide decision-making and community members can use to track changes and hold administrators accountable. MoGE distributes these data in text- and information-heavy two-page detailed school profiles (we present a sample detailed profile in Annex A). The detailed profiles are dense with education indicators and may be difficult for some intended users, such as PTAs and local communities, to interpret or act upon because they were not designed for a population that includes many illiterate and semiliterate people. Further, communities that receive the profiles do not receive any formalized training or instruction on how to interpret or use the profiles.

To address the shortcomings of the detailed school profiles, the MoGE and DMS devised the CFSPs, which are simplified profiles that use icons (pictures) rather than text and graphs. As shown in the example in Section 1.3, the profiles include indicators for quantities of school resources (textbooks, desks, etc.) relative to other schools in the same district and indicators for whether the school is improving in these categories (*see Exhibit 2*). Currently, schools receive both the detailed school-level profiles and the CFSPs.

Two reviews on what works to improve education outcomes in developing countries highlighted that interventions which change learners’ daily learning experiences—such as through desks or other basic learner-level infrastructure—yield some of the most consistently positive impacts (Glewwe et al., 2011; Murnane & Ganimian, 2014). A systematic review from the Education Commission and 3ie noted that community-based monitoring is one of the few education interventions which has yielded improvements in both school participation and learning outcomes, although they note that results are mixed and more evidence is needed (Snilstveit et al., 2016). Therefore, informing parents/caregivers on the status of resources through the CFSPs and promoting accountability on these indicators represents a potentially promising intervention to improve learner outcomes.

**Motivation for the CFSPs.** The CFSPs build on a broad array of community-level interventions that have been employed to engage and empower local communities to improve education and learning outcomes. These interventions can generally be categorized into (a) programmes transferring more decision-making power to local school management committees, (b) programmes providing school scores/report cards, and (c) programmes combining either a transfer of decision-making power or report cards with community-level training. Within each type of programme there are further differences in whether the interventions actively seek community participation or draw on externally developed tools/resources. In line with the broad array of programmes implemented, the literature has found a wide variety of impacts (Snilstveit et al., 2015). Programmes with a greater emphasis on participatory training components generally have larger impacts on community engagement and learning outcomes (Read & Atinc, 2017).

**Existing evidence.** Research suggests that school report cards such as CFSPs can be effective under the right circumstances. In Uganda, Barr and colleagues randomly assigned primary schools and their respective school management committees to one of two treatment arms (Barr, Mugisha, Serneels, & Zeitlin, 2012). In the first arm, committee members received training using a predeveloped scorecard; in the second arm, they actively engaged in a participatory dialogue to design their own scorecards. Of the two, only the participatory approach yielded significant positive effects on test scores and teacher absenteeism. Andrabi, Das, and Khwaja (2017) studied the effects of introducing school report cards in Pakistan. They found that the information increased learner learning outcomes by 0.11 standard deviations, a gain equivalent to approximately 42 per cent of the average yearly gain in their sample. They attributed this success mainly to competition between schools, arguing that the introduction of the information on the report cards allowed parents/caregivers to make better choices about where to send their children to school. Additionally, Galab, Latham, and Churches (2013) tested the effectiveness of providing simple scorecards to illiterate and semiliterate women in Andhra Pradesh, India, as a way of encouraging collective action for primary school improvement. They found that the provision of scorecards increased the frequency and usefulness of school management committee meetings and improved several school quality outcomes, such as teacher and learner attendance. The researchers attributed the success of the scorecards to the specific targeting of community members who were illiterate and collaboration with an existing network of microfinance-focused self-help groups comprised of these same community members.<sup>4</sup> These results suggest that existing social structures from which communities can exert pressure may be important. In contrast to these encouraging results, Banerjee and colleagues (2010) tested a suite of participatory education interventions in India, including

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<sup>4</sup> Self-help groups are defined as groups in which female participants physically come together and receive a collective finance and enterprise and/or livelihoods group intervention (Brody et al. 2015)

the use of scorecards, but found that none of the interventions had any impact on learning outcomes or community engagement.

In a more general examination of the conditions under which scorecards can be effective, Wild and Harris (2011) studied the political economy of scorecard provision for service delivery improvement in Malawi. They found that scorecards could be effective at facilitating collaborative spaces and increasing communities' capacity to improve service delivery but noted that existing patronage networks could hamper improvements.

**Potential mechanisms.** Community trainings on the CFSPs may improve school quality through two main mechanisms. The first is that the information provided to the community may reveal constraints in the provision of education that were previously unknown to school administrators. Incorporating this information could enable school management to better target school weaknesses. The second is that the provision of information to the general community may improve school quality by increasing accountability of school management to community members who, because of the information, are better informed on the status and performance of the local school. Informed parents/caregivers/community members may become more involved in the management of the school and may also be able to engender change through pressure on the school management. Earlier research on health facilities in Uganda demonstrated the potential for community-based monitoring projects to improve service delivery (Björkman & Svensson, 2009).

**Underlying assumptions.** Our evaluation model rests on several assumptions, and it will be important for us to test the validity of those assumptions:

- **Parental/caregiver perceptions of power and control:** Parents/caregivers feel like they have control over what happens at their child's school and are willing to use that power. They just need more information about the school's strengths and weaknesses (through the CFSPs) to encourage and direct their efforts.
- **Actual parental/caregiver power and control:** Schools are receptive to parental/caregiver opinions and recommendations and are willing to act based on what parents/caregivers want.
- **Knowledge of how to promote school improvement:** Both parents/caregivers and school staff understand what to do about perceived weaknesses or areas for improvement; simply knowing that there is an issue does not help people know how to address it.
- **School power and control:** Schools can make reasonable changes recommended by parents/caregivers (for example, they are able to access more material resources, hire different teachers, offer additional staff training, etc.).

## 1.2 Purpose, Uses, and Objectives of the Evaluation

The purpose of this research is to implement and evaluate community-level trainings on the CFSPs. The primary objective of the evaluation is to analyse the impacts of community-level CFSP trainings on (1) profile awareness and understanding, (2) community engagement, (3) school management and change, and (4) learner outcomes (if administrative data are available) through a robust impact evaluation design. A secondary, but related, objective of the evaluation is to assess the preprogramme accuracy of community members' knowledge concerning school resources and performance. The evaluation also includes an approach for analysing the effect of the trainings for different subgroups, such as community members whose initial perceptions of quality differ substantially from the information we provide or parents/caregivers of older children relative to younger children as relevant to the selected contexts.

### 1.2.1 Research Uses

This research will assist MoGE and UNICEF in determining the extent to which community trainings on the CFSPs represent a viable tool to improve accountability and parent/caregiver engagement in schools in Zambia. The research will also provide stakeholders with information on community members' interest in school management and the accuracy of beliefs about the performance of their local primary school and perceptions of the adequacy of school resources and performance.

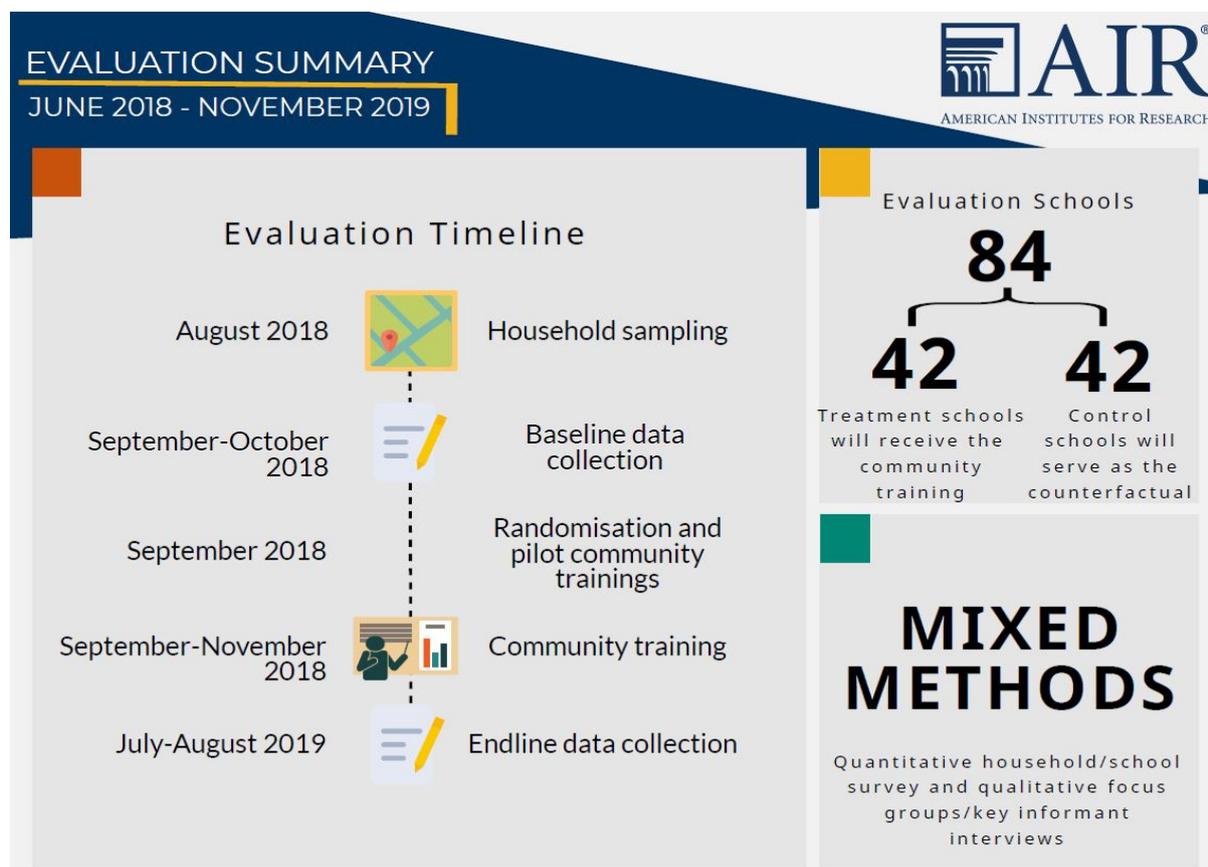
## 1.3 Evaluation Scope and Approach

The CFSP evaluation will estimate the impact of community-level trainings on the CFSPs on a variety of household-level and school-level outcomes. This report presents the baseline results of a mixed-methods evaluation that combines experimental and qualitative approaches to rigorously examine the effect of the interactive DMS community training programme. The evaluation covers 84 communities in Chongwe and Chibombo districts, all of which should have received the school profiles as part of the standard profile distribution processes. The implementation team conducted community-level training in 42 randomly selected communities ("treated communities"); the other 42 communities serve as a control group against which we will make comparisons and assess the impact of the trainings. In each community, we surveyed 20 households with primary school-age children. We included both households with in-school and out-of-school children to measure whether the programme changes whether parents/caregivers enrol their children in school as well as potential shifts across school types.

It is important to note that UNICEF contracted AIR to both implement and evaluate the community-level trainings on the CFSPs: This means that we will evaluate an implementation approach that is distinct from a possible scaling model. We designed the evaluation to serve as a proof of concept showing that disseminating information on school

resources and performance to community members can affect change at the school level and increase learner outcomes. Proof-of-concept evaluations can sometimes yield impacts that are not achievable at scale when programme implementation at the proof-of-concept stage is not representative of the implementation that will occur in real-world conditions (Bold, Kimenyi, Mwabu, Ng'ang'a, & Sandefur, 2018). Although it is not possible for us to eliminate these concerns, AIR mitigated this challenge by working with the MoGE through the District Education Board Secretary's (DEBS) offices in Chongwe and Chibombo districts to implement the programme in a manner that is as consistent as possible with their approaches and capacities. A key point in our discussions with the DEBS was making sure that the community training programmes were designed to be easy to replicate for people who were not involved in the pilot and/or are not education or subject-matter specialists. This approach should increase the likelihood that any observed programme effects could be replicated at scale.

### Exhibit 3. Evaluation Timeline and Design Overview



#### 1.4 Object of the Evaluation

The implementation and evaluation of the community-level CFSP trainings build on the collaborative work between the Zambian MoGE and UNICEF's DMS initiative. The DMS initiative has been collaborating with education ministries in five countries (Madagascar, Nepal, the Philippines, Togo, and Zambia) to make existing administrative data accessible to

ministry officials, school principals and teachers, and other stakeholders. Within Zambia, the MoGE and DMS initiative have focused on integrating these data into dashboards and user-friendly profiles at the national, provincial, district, and school levels. The UNICEF-MoGE team supplemented these profiles with school profiles intended to better convey basic school information to low-literacy communities. However, little is known about how the information contained in the profiles is used after they arrive in the communities, because the centralized dissemination ends with delivery to schools.

**Community trainings.** AIR conducted community trainings immediately following baseline data collection in October and November of 2018. These were interactive community trainings to engage learners, parents/caregivers of primary school-age children, teachers, and other community members with the CFSPs. Facilitators of interactive training sessions acted as guides for the discussion, steering activities rather than moving between components without attendee participation. This collaborative learning approach helped ensure that the information in the profiles reached community members.

**Training structure.** The community trainings started with a presentation of a generic school profile. The trainings introduced each component of the profile by combining participant input with facilitator knowledge of the meaning behind each metric. After describing the different components, attendees filled out a blank report card, individually and in groups, for their local school based on their perceptions of school resources and academic outcomes. We then asked roughly three randomly selected attendees to present their group's completed school profiles and explain how and why they assigned the various ratings. We concluded by presenting the real report card and asked for participant input on how their perceptions differed from the actual ratings assigned and potential strategies of how attendees could use their new information to guide school decision-making or advocate for change within the school.

This structure ensured that participants engaged with the structure of the school profiles as well as the ratings for their local school. Our approach built on recent research that found that interactive training sessions are a more effective pedagogical approach than traditional seminar-style training sessions for mothers of young children in Zambia (Chipili, 2017). The activity also served as a data collection opportunity, providing information on how closely individual perceptions of school resource quality aligned with the objective ratings in the school profiles. We finalized the design of the community trainings in consultation with the MoGE to ensure that we designed and implemented the trainings in a manner consistent with how it would be implemented and scaled by the districts.

## 1.5 Theory of Change

We designed this evaluation around UNICEF's working theory of change for the DMS community training programme (*see Exhibit 4*). The DMS community training programme

addresses the fact that providing community profiles to schools does not guarantee that the schools will disseminate information to the surrounding community or that the community will understand and use this information. The programme supports the integration of community-friendly profiles into school management and community dialogues using a short community-level training. The community trainings target PTAs, school staff, and the community at large, and encourage participants to use the data and make evidence-based decisions to create more learner-friendly learning environments. The MoGE expects the provision of profiles and training to support communities to improve the school environment, making it more conducive to learning through the rectification of missing school inputs and facilities. The MoGE also expects that the profiles will improve the advocacy abilities of communities by helping them better understand how their school's performance and resources compare with others in their district.

The theory of change identifies key initial and intermediate outcomes—or mediators—that the community level training will affect which will ultimately lead to the program impacts. Specifically, the theory of change suggests that the community trainings will increase community awareness of the profiles and increased comprehension of the content, which in turn, will empower community members to affect change within the school.

The final stage of UNICEF's theory of change involves multiple intermediate and final outcomes combining to improve learning outcomes and healthier behaviours. We note that improving academic outcomes and inducing behaviour change are typically long-term processes and are unlikely to manifest within the time frame of the project, even if the intervention is highly successful.

This theory of change relies on several important assumptions that will determine whether the profiles can ultimately produce the intended outcomes. First, differences in learning outcomes, levels of community ownership, and resources between schools should be, at least partially, attributable to levels of community access to and utilization of information about schools. Second, the theory of change assumes that providing community profiles will improve parents' or caregivers' and teachers' awareness of the quality of their school's resources and help these groups identify the needs of the school. However, the accuracy of this assumption depends on parent/caregiver expectations and the extent to which the community understands the indicators included in the community profiles. The profiles will only improve awareness of school resources and needs if the data MoGE officials and headmasters deem relevant and useful is also relevant and useful to parents/caregivers or teachers. For example, the profiles may lack impact if teacher absences are a primary constraint holding back learning, since the profiles do not have explicit information targeting teacher absence. Third, the programme may have no effect or even a negative effect depending on what decisions parents/caregivers make based on the information. The profiles may also have negative consequences if schools reallocate resources depending on what appears in the profiles. If the quality is particularly low, parents/caregivers may

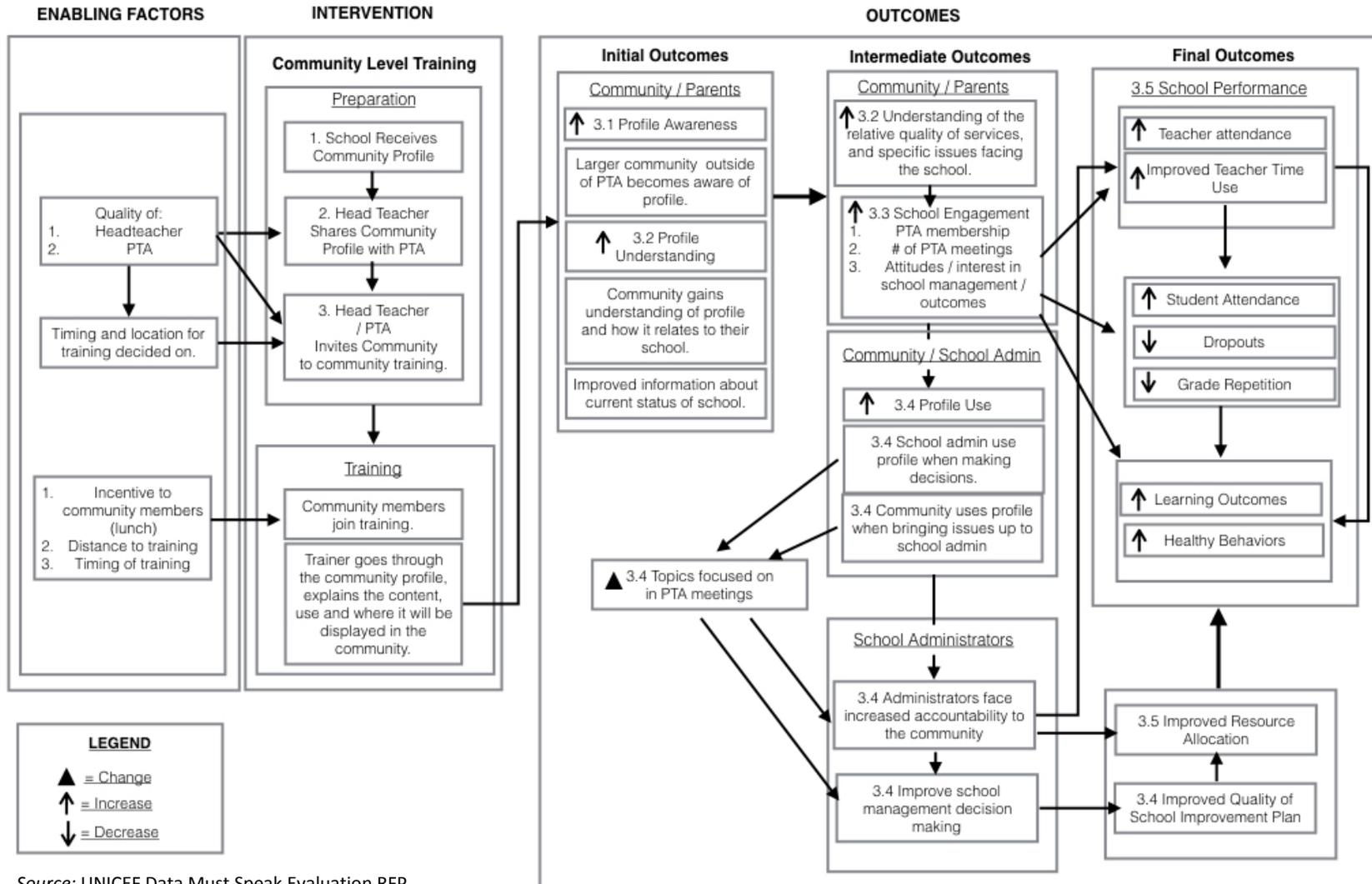
respond by pulling their children out of school. The theory of change also suggests that community members will gain awareness of the existence and use of the profiles through trainings dispensed to PTAs, school staff, and community members. This assumes that the attendees are the ones making the education decisions for the children, that these groups are sufficiently engaged and interested in attending meetings, and that the community profiles contain information that the groups lack.

Most importantly, as discussed earlier, the theory of changes assumes that if parents/caregivers are given information about their school's performance, and if they believe that they have the power to act on the information, then they *do* have the power to influence what happens at their school. Further, we assume that the parents/caregivers and the school then know how to make effective improvements to address issues and that schools have the power and resources to implement the change.

There are several contextual factors—or moderators—that could affect whether, and to what extent, the community trainings yield an impact. One example is the initial quality of the school, which may determine how parents react to the information provided during the training: For example, informing parents that their child's school is high performing may lead parents to become less engaged if they believe that everything is operating well. Similarly, in poor performing schools, parents may lose hope and pull their child out of school if they do not believe they are learning anything. Another example is the distance to the next closest school. Earlier research has demonstrated that accountability interventions may work by encouraging competition between schools. In our context, parents generally have few options outside their local school. Programme impacts may only occur in areas where parents have another school nearby where they could conceivably enrol their child.

We explore and test these assumptions through a mixed-methods research design. More specifically, the quantitative portion of the study focuses primarily on the intermediate outcomes such as profile awareness and profile understanding as well as final outcomes such as parent/caregiver/community engagement, improved learner attendance, and learner academic achievement. The qualitative portion of the study explores the assumptions shaping programme processes and outcomes: In other words, it will allow researchers to uncover why the programme yields anticipated outcomes, as identified in the theory of change, and unanticipated by-products.

Exhibit 4. Theory of Change



Source: UNICEF Data Must Speak Evaluation RFP

## 1.6 Evaluation Questions

The evaluation questions fall into four primary categories: (1) initial context, (2) profile awareness and understanding, (3) community engagement, and (4) school management and change. Structuring the evaluation questions in this way highlights the theory of change and the iterative path from programming to impact: Exposure to and understanding of the school profiles spurs increased interest in school management and quality, and drives improved decision-making and school-level outcomes. This report focuses on Evaluation Questions (EQs) 1 and 3.

### 1. Initial context

- a. How do parents/caregivers perceive the quality of the resources (e.g. facilities, textbooks) and teaching of their local school?
- b. To what extent do parents/caregivers feel like they have power and control over what happens at their child's school?
- c. To what extent does the training change how parents/caregivers perceive their power?
- d. To what extent do parents/caregivers believe that district officials, school management, PTA members have power to affect change?
- e. To what extent are parents/caregivers interested or invested in their children's education?
- f. To what extent do school administrators and management feel capable/empowered to make reasonable changes recommended by parents/caregivers?

### 2. Profile awareness and understanding

- a. To what extent does the training impact the degree of awareness of community-friendly and standard school profiles in the community?
  - i. To what extent are training recipients more aware of the community-friendly and standard school profiles?
  - ii. How does the impact of the training vary by group (school management, PTA members, and non-PTA parents/caregivers)?
- b. How does training affect community members' understanding of the community profile and the issues facing their school?
  - i. To what extent does the training increase the recipients' understanding of the community profile content?
  - ii. To what extent does the training change recipients' attitudes on school quality and school management and what the priorities of the school should be?

3. Community engagement
  - a. To what extent does training affect the community engagement in the management of the school?
    - i. To what extent does the training cause parents/caregivers to join the PTA?
    - ii. Are PTAs in treated communities more active?
    - iii. To what extent does the training change recipients' attitudes on the role of communities in school management?
4. School management and change
  - a. How does the training affect the school level decision-making process?
    - i. To what extent are schools receptive to parental/caregiver opinions and recommendations?
    - ii. To what extent do school administrators change their decision-making processes?
    - iii. To what extent do PTAs change their focus and goals?
    - iv. To what extent do community members feel more empowered to seek information from the school?
  - b. To what extent does the training affect school-level indicators that are associated with learning?
    - i. Do schools that receive the training differentially invest in school resources?
    - ii. To what extent does the training change teacher and learner attendance?
    - iii. To what extent does the training change teachers' time in class?
    - iv. To what extent does the training change learner dropout rates?
    - v. To what extent does the training change learner grade repetition rates?

## 1.7 Evaluation Framework

Annex C provides a detailed evaluation framework to summarize how we will answer the evaluation questions using the evaluation criteria of relevance, appropriateness, effectiveness, and impact. Annex C also provides details on the measurement and analytical approach that we will use to make judgements about the effect of the CFSPs.

## 2. Evaluation Methodology

Our mixed-methods design combines quantitative and qualitative approaches to rigorously examine the impacts of the interactive DMS community training programme. The quantitative approach is a cluster RCT that will measure the impact of the DMS training

programme on parental/caregiver profile awareness and understanding as well as engagement with learner schooling decisions and school management. We can also leverage the random assignment of schools to the DMS training to test for impacts of the programme on academic achievement if schools or the DEBS are able to provide the examination results. The qualitative portion of the study will allow researchers to uncover why and how the programme yields the outcomes that result.

## **2.1 Quantitative Design**

The evaluation is designed as a cluster RCT in which the programme is assigned at the school level. We randomized at the school catchment area (a 2.5-kilometre circle around each school) level, with catchment areas assigned to one of two groups: those that subsequently received the DMS community training programme and a control group. The evaluation enrolled 20 randomly selected households with primary school-age children in the catchment area around each of 84 schools for a total of 1,680 households. We randomly assigned half of the 84 school catchment areas to receive the DMS community training and half to the control group. We will use the school catchment area as the unit of randomization to measure the impact of the programme on both parents/caregivers of children already enrolled in school as well as parents/caregivers of children not currently enrolled in school. We explain how we determined the number of households and school catchment areas in the power calculations in the Sample Size section below.

### **2.1.1 Sampling**

We used a two-stage sampling approach for this project. We first sampled school communities into the evaluation, and then, within the sample communities, we sampled households into the household survey. This sampling approach is summarized in this section, with more details presented in the table (*see Exhibit 5*).

### Exhibit 5. Sampling Approach

Communities	Households
<ul style="list-style-type: none"> <li>Identified all government-run primary schools with CFSPs in Chibombo and Chongwe districts that also operate as examination centres</li> <li>Formed sampling frame comprising all schools that were more than 5 kilometres from other schools, together with one randomly selected school from each group of schools that are close to each other</li> <li>Randomly sampled 84 schools from the sample frame</li> <li>Stratified schools based on district and preprogramme exam results as listed in the CFSPs</li> <li>Randomized sample schools into treatment and control groups</li> </ul>	<ul style="list-style-type: none"> <li>Identified all households within 2.5 kilometres of schools in the catchment area using satellite data</li> <li>Randomly numbered households and sequentially visited households</li> <li>Checked eligibility of each house and skipped if it did not have a primary school-aged child</li> <li>Enrolled household if it had a primary school-aged child until 20 households were enrolled</li> </ul>

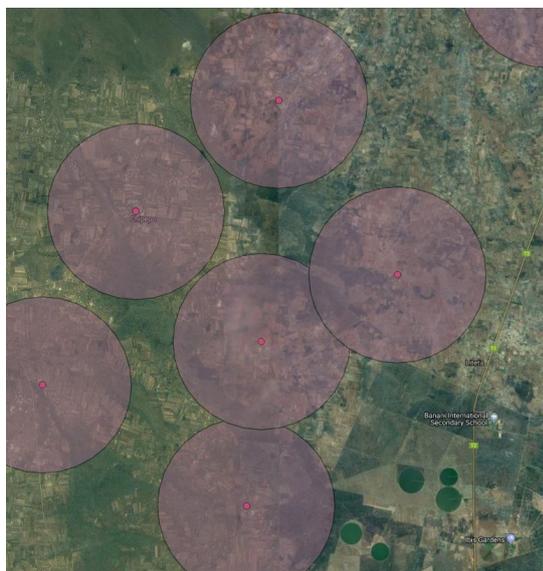
**Sampling schools.** We imposed two main criteria to determine which schools to include in the sample frame for the evaluation. First, we combined the database of school profiles with MoGE school census data to identify all government primary schools in Chibombo and Chongwe districts that have full CFSPs, including national examination performance.<sup>5</sup> This process identified 113 schools out of the 135 government schools in both Chongwe and Chibombo districts. Apart from the 135 government schools, Chibombo and Chongwe have 76 schools that are either community, private, or grant-aided schools. For this study, we drew our sample from government schools because almost all the schools that conduct examinations are government schools: only 13 of the 127 examination schools are not government schools comprising 7 private schools, 5 community schools, and 1 grant funded. The second step excluded schools that were in close geographic proximity to each other, to reduce bias from spillovers (where treated parents/caregivers describe the scorecards and training to control parents) and contamination (where parents/caregivers living in the catchment area of control schools attend the community training). The MoGE data included global positioning system (GPS) coordinates for 95 of the 113 schools. We worked with UNICEF, MoGE, and school head teachers to identify the GPS coordinates for the remaining 18 schools to form a sampling frame of 113 schools. From this sample frame, we restricted attention to all schools that are more than 5 kilometres from other schools as well as to one randomly selected school from each group of schools that are close to each other. We illustrate this process as applied to sample schools near Liteta, in Chibombo (*see Exhibit 6*).

<sup>5</sup> CFSPs are produced for all schools but the reports only include examination performance information for schools that also operate as examination centers.

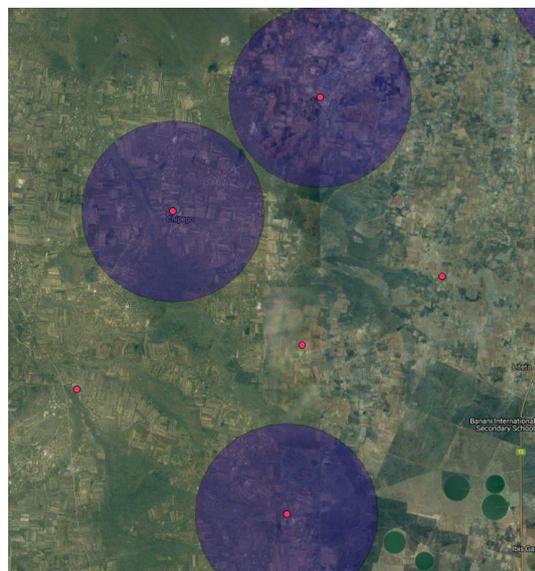
We randomly selected 84 communities from this sample frame to form the evaluation communities.

### Exhibit 6. Sampling Schools to Minimize Spillovers and Contamination

A. In some areas, school catchment areas (2.5km from school) overlap



B. Randomly sample one of the overlapping schools for inclusion in the sample frame



**Sample stratification.** We anticipate that a prominent moderator of the programme could be the initial school quality. The provision of information through the DMS programme may improve school management accountability and school management decisions only among schools at which the disbursement of information reveals school management shortcomings; parents/caregivers may not be motivated to take a proactive role in school management—and may decrease participation—and may decrease participation—if the information being disbursed suggests that the school is well run. While school quality is inherently a multifaceted concept, we selected our sample of schools to have sufficient variation in initial quality as measured by the EMIS data and/or CFSPs: We randomized the 84 schools between the treatment and control groups, stratifying by district and low or high school examination performance as reported on the CFSPs.<sup>6</sup>

**Sampling households.** Within each of the evaluation communities, we enrolled a random sample of households with primary school–age children into the household survey using satellite maps. It was important to include households with children who are not attending school, as the DMS training may change the schooling decisions of parents/caregivers. That

<sup>6</sup> We note that examination performance, while only a proxy for school quality, is likely a particularly salient proxy for many parents and community members who may not be able to gauge other measures of school quality such as the quality of instruction or whether pedagogical approaches target comprehensive or skill-based learning.

is, parents/caregivers might start sending their children to school if their expectations of school quality are lower than what is revealed by the scorecard. We would underestimate the impacts of the programme if we were to exclusively focus on households with children already in school. The sampling procedure proceeded as follows: For each school in the sample, we used satellite imagery of the school catchment area to identify household compounds and number each compound sequentially. After numbering all households, we randomly rank-ordered the households. We attempted to enrol the first 20 randomly ordered households. Not all these households met the eligibility criteria of having a primary school-age child in the household. We then continued down the randomly ordered list, proceeding to households 21, 22, and so on until we had enrolled 20 eligible households. This is equivalent to conducting a household census and randomly enrolling eligible households, because the household order is random. Zambian Demographic and Health Survey data indicate that 62 per cent of households in Central Province have a child between the ages of 7 and 13, suggesting that we should anticipate visiting approximately 33 households to enrol 20 eligible households. Within each household, we sought a parent/caregiver who was involved in making decisions associated with the primary school-aged children in the household. An example satellite map from Chibombo district is shown below (*see Exhibit 7*).

#### **Exhibit 7. Identifying Compounds Around Schools From Satellite Data**



#### **2.1.2 Sample Size and Power Calculations**

It is vital to have a sample size that is sufficiently large to detect small but meaningful effects of the intervention. For this reason, AIR conducted power calculations to determine the sample size necessary for the intervention. Our power calculations indicate that surveying

20 households in the catchment area of 84 schools is sufficient to detect small but meaningful effects. Based on our sample of 1,680 parents/caregivers across 84 schools, we have an 80 per cent chance of detecting an odds ratio of 1.35 for whether a parent/caregiver has met their child's teacher in the past month when we assume an intraclass correlation of 0.15, an autocorrelation of 0.52, and attrition of 10 per cent. To contextualize this effect size, 31.7 per cent of parents/caregivers met with their child's teacher in the past month, and the sample size is powered to detect a change from 31.7 per cent to 42.9 per cent. The AIR study team calculated the values for the intraclass correlation and autocorrelation from the data for districts within 3 hours of Lusaka (not including urban Lusaka) included in the 2002 Zambia Education Expenditure and Service Delivery Survey (Das, 2002).

Additionally, we have an 80 per cent chance of detecting an odds ratio of 0.625 for enrolment—equivalent to a drop from 16 per cent to 10 per cent when we use the lower 0.04 intracluster correlation of enrolment calculated from the 2013–14 Zambian Demographic and Health Survey data for Central Province. We believe that parent/caregiver meetings with teachers and learner enrolment are a good proxy for parental/caregiver engagement and expect other measures of engagement such as attendance at PTA meetings to have similar intraclass correlation and potentially higher autocorrelation because they are less likely to be affected by temporary shocks.

Our conservative assumption of 10 per cent attrition for the 2-year follow-up comes from recent research that highlighted how certain practices, such as collecting extensive contact information and maintaining contact with respondents, can keep attrition below 10 per cent (Duflo, Dupas, & Kremer, 2017). Additionally, AIR has extensive experience tracking respondents in Zambia, and we kept attrition below 5 per cent for a recent 3-year follow-up (AIR, 2016). As part of the parent/caregiver surveys, AIR collected compound GPS coordinates as well as detailed contact information for other family members, friends, and neighbours.

Our research design has sufficient power to test for heterogeneous effects suggested by the moderators in our preliminary theory of change. Specifically, if we were interested in examining whether the programme is particularly effective for higher educated parents/caregivers, under the same assumptions as listed earlier, we would have an 80 per cent chance of detecting a treatment effect of 0.32 (standardized mean differences) among more educated parents/caregivers. Similar power calculations hold for other heterogeneous effects where the sample can be approximately split by the moderating variable, such as the gender of the children. To address the potential inflation of statistical significance owing to multiple comparisons, we will apply corrections for multiple comparisons to our heterogeneity analysis using the Benjamini-Hochberg method, as recommended by the What Works Clearinghouse and employed by Banerjee et al. (2015).

We used three main quantitative tools: a household survey, a school quality beliefs survey, and a school administrator survey. We designed the school quality beliefs survey to test one of the programme assumptions by examining whether community members have accurate beliefs about school quality for schools in their communities. If community members have accurate beliefs about school quality, then we may expect the CFSP community trainings to have only a small effect, since the trainings may only provide information about how the school compares to other schools in the district. We designed the household survey and the school administrator survey to measure aspects of the CFSP community training at different stages in the theory of change: The household survey measures programme assumptions (beliefs about school quality, perceived power in the school decision-making process), programme outputs (profile awareness and profile understanding), and programme outcomes (community engagement); the school administrator survey measures additional programme outcomes (school management decisions).

We administered the school quality beliefs survey to attendees during the community training sessions. We conducted both the household survey and the school administrator survey at baseline, and we will conduct both again at follow-up to understand how the programmes affect outcome measures and how these measures change over time. The table that follows maps the survey instrument components to the theory of change and the evaluation questions presented in section 1.6 (*see Exhibit 8*).

In developing the survey tools, we drew on context-appropriate validated questions and protocols that were previously tested and used in Zambia. This will facilitate comparisons of our sample with other regions of the country on the same outcomes.

**Exhibit 8. Relationship Between Survey Instruments, Theory of Change, and Evaluation Questions**

Survey Instrument	Survey Component	Theory of Change	Evaluation Questions (EQ)
<b>School Quality Beliefs Survey</b>	Initial beliefs/accuracy of school quality	Programme Assumptions	EQ1 (initial context): parent/caregiver beliefs about school quality
<b>Household Survey</b>	Beliefs/perception of school quality	Programme Assumptions	EQ1 (initial context): parent/caregiver beliefs about school quality, parent/caregiver perceptions of power/control over school decisions
	Profile Awareness Profile Understanding	Programme Outputs	EQ2 (profile awareness and understanding): familiarity with school profiles as a source of information

Survey Instrument	Survey Component	Theory of Change	Evaluation Questions (EQ)
	Community Engagement	Programme Outcomes	EQ3 (community engagement): parent/caregiver involvement in PTA or other school management committees
	School Decision-Making	Programme Outcomes	EQ4 (school management and change): parent/caregiver perceptions of school decision-making processes
<b>School Administrator Survey</b>	School Decision-Making	Programme Outcomes	EQ4 (school management and change): school administrators' perceptions of power to affect change, school decision-making practices, accessibility of school profiles
	Administrative Data	Programme Impacts	EQ4: changes in learner/teacher attendance, repetition rates, dropout rates, learner academic achievement, school resources

## 2.2 Qualitative Design

AIR will conduct two rounds of qualitative data collection. We administered the first round of data collection in conjunction with the baseline quantitative data collection and will conduct the second round in conjunction with endline quantitative data collection. We perform qualitative and quantitative data collection together to better understand individual and community experiences of the DMS programme (both the profile and the community-level training) and the causal mechanisms through which changes occur because of the programme. In the sampling methods section that follows, we present a full description of methods and sampling for each phase of qualitative data collection.

**Baseline and endline qualitative data collection.** We collected baseline qualitative data through two methods—key informant interviews (KIIs) and focus group discussions (FGDs)—which we will use for endline data collection as well. These methods allowed us to capture local perceptions and practices related to community engagement in school management and the key determinants of school administrator priorities and policies. Investigating current administrator, parents/caregivers, and learners' beliefs about school management provides baseline knowledge of administrators' decision-making processes and the current role of PTAs and broader community engagement in holding decision makers accountable.

Interviews and focus groups focused on several key research themes, including parent/caregiver and learner perceptions about school quality, parent/caregiver and school administrator perceptions of power/control in the school decision-making process,

parents'/caregivers' involvement in PTA and non-PTA activities, knowledge about school quality and resources, current head teacher beliefs and practices of allocating resources and school management, and norms and attitudes towards parental/caregiver engagement in school management and schooling decisions. Qualitative methods are well suited for understanding the broader context of particular activities and practices, and the beliefs, perceptions, and concerns of individuals and communities. When paired with quantitative data, qualitative data can help clarify unexpected outcomes and uncover the rationale behind particular behaviours. In this study, qualitative data collected on these themes complement data on parental/caregiver engagement in school management collected from the household and school administrator surveys. This mixed-methods approach is ideal for baseline impact assessments given that each approach serves to “strengthen the reliability of data, [the] validity of the findings ... [and] our understanding of the processes through which programme outcomes and impacts are achieved” (Bamberger, 2012).

### **2.2.1 Key Informant Interviews**

A key informant is a person who possesses expert knowledge about a topic related to the programme. AIR conducted four KIIs with school administrators at baseline; the KIIs focused on profile awareness and understanding, community engagement in school management and decision-making, and perceptions of parental/caregiver/community engagement. AIR will conduct 10 KIIs at endline with two types of informants: programme implementers (UNICEF and MoGE) and community leaders such as headmen and church leaders, among others. KIIs with programme implementers will investigate implementation challenges and successes, the process of profile integration, and the long-term viability and sustainability of the programme. The KIIs with community leaders will examine the perceived community effects of the programme, perceptions of the community training programme, profile awareness and understanding, perceptions of parental/caregiver/community engagement with schools, and leaders' involvement in school decision-making.

### **2.2.2 Focus Group Discussions**

Focus group research involves guiding a diverse group of participants through discussions on particular topics. This qualitative method is well suited for obtaining diverse perspectives on particular issues and also offers the possibility of observing intragroup dynamics and norms during the discussion (Morgan, 1996). Generally, FGDs include five to eight participants who are guided through various discussion topics by a trained facilitator. For this study, we conducted 16 FGDs at baseline, and we will conduct 24 FGDs at endline. The focus groups will be convened with members of school PTAs, non-PTA parents/caregivers, teachers, and learners. Lusaka-based AIR researchers trained on the study's aims and effective facilitation practices will carry out the FGDs.

### 2.2.3 Sampling

We purposefully sampled four treatment schools, from the quantitative study, for qualitative data collection. The primary selection criterion was preprogramming school resource quality as measured by the school profiles. We used the school profiles and EMIS data to identify two schools with good ratings across their school profiles and two schools with poor ratings in their school profiles; we finalized the rating scale once we finalized the sample. The table that follows presents our qualitative sampling approach for each phase of data collection (see Exhibits 9–10).

**Exhibit 9. Baseline Qualitative Data Collection**

Timing	Method	Respondent(s)	#	Research Topics Covered
Baseline	FGDs	PTA/school management	4 (1 per school)	Detailed profile awareness and understanding, community engagement in school management and decision-making, perceptions of power/control in the school decision-making process, school decision-making processes, perceptions of capacity to hold decision makers accountable, learning environment, perceptions of learner and teacher attendance, perceptions of parental/caregiver/community engagement, perceptions of school/school performance
Baseline	FGDs	Non-PTA parents/caregivers/community members	8 (2 per school)	Profile awareness and understanding, perceptions of power/control in the school decision-making process, community engagement in school management and decision-making, perceptions of capacity to hold decision makers accountable, attitudes about education and children’s learning, perceptions of local school/school performance, perceptions of learner and teacher attendance
Baseline	FGDs	Teachers	4 (1 per school)	Profile awareness and understanding, perceptions of power/control in the school decision-making process, community engagement in school management and decision-making,

Timing	Method	Respondent(s)	#	Research Topics Covered
				school decision-making processes, perceptions of capacity to hold decision makers accountable, learning environment, perceptions of learner and teacher attendance, perceptions of parental/caregiver/community engagement, perceptions of school/school performance
<b>Baseline</b>	KIIs	School administrators	<b>4</b> (1 per school)	Profile awareness and understanding, perceptions of power/control in the school decision-making process, ability to get resources/support to make changes/improvements, community engagement in school management and decision-making, school decision-making processes, perceptions of ability to hold decision makers accountable, learning environment, perceptions of learner and teacher attendance, perceptions of parental/caregiver/community engagement, perceptions of school/school performance

**Exhibit 10. Endline Qualitative Data Collection**

Timing	Method	Respondent(s)	#	Research Topics Covered
<b>Endline</b>	FGDs	Learners (purposefully sampled to include a mix of grades and some student council representatives)	<b>8</b> (2 per school)	Profile awareness, learning environment, perceptions of parental/caregiver/community engagement, perceptions of who has power/control in the school decision-making process, perceptions of capacity to hold decision makers accountable, perceptions of school/school performance, perceptions of teacher and fellow learner attendance

Timing	Method	Respondent(s)	#	Research Topics Covered
Endline	FGDs	PTA/school management	4 (1 per school)	Profile understanding, perceptions of community training program, perceptions of power/control in the school decision-making process, community engagement in school management and decision-making, school decision-making processes, perceptions of capacity to hold decision makers accountable, learning environment, perceptions of parental/caregiver/community engagement, perceptions of school/school performance, perceptions of learner and teacher attendance
Endline	FGDs	Non-PTA parents/caregivers/ community members (purposefully sample some parents/caregivers/ community members who participated in the community training program and those who did not)	8 (2 per school)	Perceptions of community training program, perceptions of power/control in the school decision-making process, profile awareness and understanding, community interaction with school, community engagement in school management and decision-making, perceptions of capacity to hold decision makers accountable, attitudes about education and children's learning, perceptions of local school/school performance, perceptions of student and teacher attendance
Endline	FGDs	Teachers and school administrators	4 (1 per school)	Profile understanding, perceptions of community training program, perceptions of power/control in the school decision-making process, community engagement in school management and decision-making, school decision-making processes, perceptions of capacity to hold decision makers accountable, learning environment, perceptions of parental/caregiver/community engagement, perceptions of school/school performance, perceptions of student and teacher attendance

Timing	Method	Respondent(s)	#	Research Topics Covered
Endline	KIIs	Community leaders/local headmen/church leaders	8 (2 per school)	Perceptions of community training program, perceptions of power/control in the school decision-making process, perceptions of capacity to hold decision makers accountable, ability to get resources/support to make changes/improvements, profile awareness and understanding, perceptions of community interaction with school and community engagement in school management, perceptions of local school/school performance
Endline	KIIs	UNICEF, MoGE, other relevant stakeholders	2-4	Implementation challenges and successes, perceptions of power/control in the school decision-making process, profile integration and school improvement plan development, profile administration, sustainability

### 3. Data Collection Methods

#### 3.1 Quantitative Data Collection

AIR interviewed 1,683 households and 84 school administrators over 26 days between September 10 and October 15, 2018. The enumerators used mobile phones to conduct the baseline data collection using SurveyCTO, an electronic data collection platform. The SurveyCTO software runs on the Open Data Kit (ODK) platform, which enables users to collect data on a phone or tablet, send data to a server, aggregate the collected data, and export data to standard formats for analysis. Electronic data collection minimizes errors in the field because researchers can automate skipping patterns and built-in checks can help ensure the quality of data.

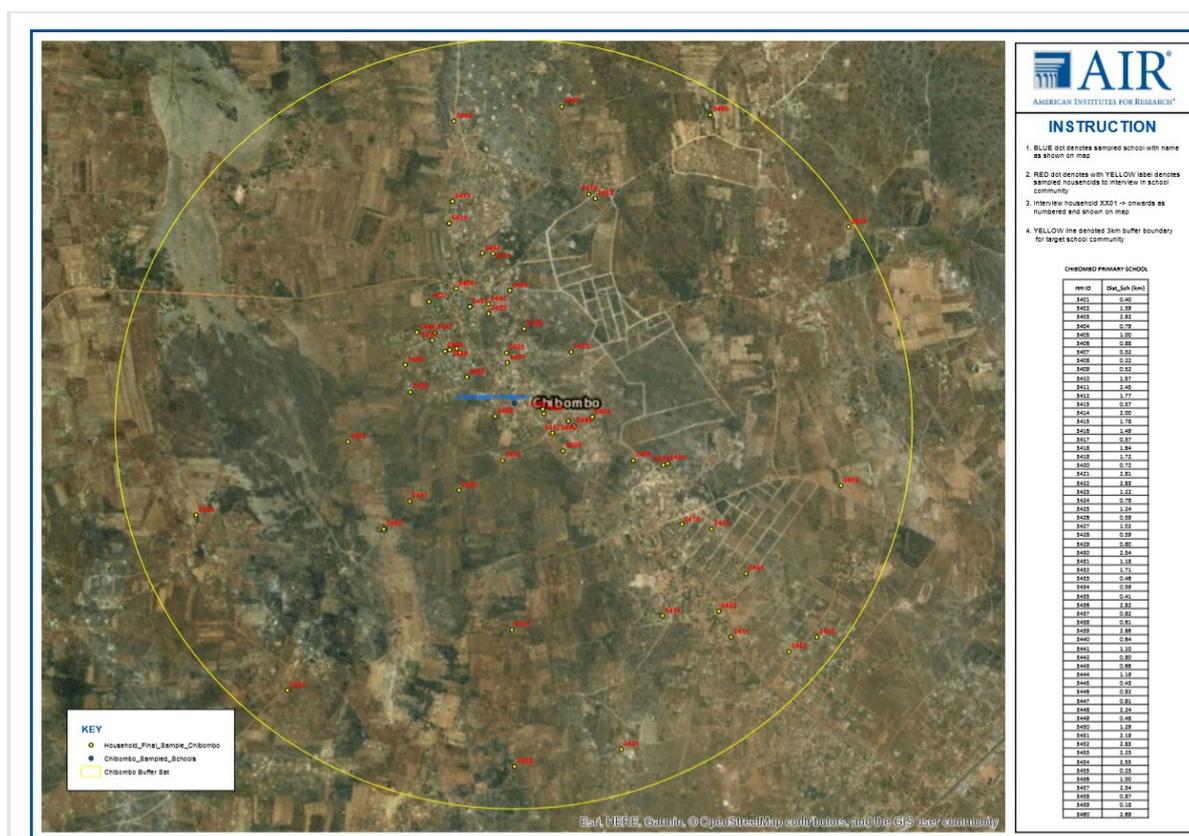
AIR recruited enumerators and introduced them to research ethics and the scope of the study prior to data collection for both household-level and school-level data collection. Following the training, enumerators piloted the data collection tools in two schools: one in Chibombo and one in Chongwe. A total of 24 enumerators, split into four teams comprising one supervisor and five enumerators conducted the data collection. We planned for each team to visit and conduct 20 household interviews in one school each day. We conducted data collection concurrently in both Chibombo and Chongwe districts.

AIR staff visited the DEBS in both Chongwe and Chibombo to explain the purpose of the study and obtain permission to collect necessary data from schools and catchment areas around the sampled schools. The team supervisor maintained close contact with DEBS staff throughout the data collection. After securing permission from DEBS, data collection teams visited schools and introduced themselves and the study to the administrators before proceeding to conduct household interviews. At the household, enumerators first determined the eligibility of the household for an interview by asking the respondent if there was a child in the household who would be in primary school in 2019. If such a child was present, the enumerator then explained the purpose of the study and proceeded with the interview after getting consent from the respondent.

Enumerators used the Avenza PDF Maps app, installed on the data collection smartphones, to locate sampled schools and households. As described in the previous sampling section, AIR created a satellite map with randomly sampled household-like structures around each of the 84 sampled schools (*see Exhibit 11*). The team supervisor shared the map for each school with the team members before beginning data collection. In each catchment area, the enumerators first visited the 20 priority map points representing a random sample of structures in the catchment area. If a priority map point was not a household, did not have an eligible child, or the respondent refused to consent, the team supervisor selected a replacement, which was the randomly sampled map point closest to the point being replaced. The supervisor recorded all replacements made and the reason for replacement.

In seven instances, the school's GPS coordinates—which AIR obtained either directly from school administrators or from MoGE—were incorrect and the Avenza map was subsequently inaccurate. In these cases, team supervisors collected the correct GPS coordinates at the school and relayed them to AIR staff to generate a corrected map. For five of these schools, the updated GPS coordinates fell outside the buffer zone for other schools. We replaced two originally sampled schools in Chibombo district because the updated GPS coordinates placed these two schools within the 3km radius of other sampled schools rather than the 5km radius we were using in our sampling criteria.

## Exhibit 11. Geocoded Map for Chibombo Primary School



AIR staff conducted daily data quality checks during data collection. Team supervisors also submitted a daily report highlighting the number of households visited, the number of interviews completed, and any challenges for each school. AIR staff maintained close communication with the team supervisors to troubleshoot any technical or logistical challenges encountered during fieldwork.

### 3.2 Qualitative Data Collection

AIR collected qualitative data through KIIs and FGDs. We purposefully sampled four treatment schools from the quantitative study for qualitative data collection. The primary selection criterion was school resource quality as measured by the school profiles. We used the school profiles and EMIS data to identify two schools with good ratings across their school profiles and two schools with poor ratings in their school profiles.

We used convenience sampling to identify parents, teachers, and school administrators to participate in KIIs and FGDs. Therefore, the parents interviewed for this study presumably live in relative proximity to the school and/or are somehow involved with the PTA or other school-related activities. As a result, our qualitative study did not collect first-hand experiences from parents who do not participate in their child’s formal education process, and, as a result, our qualitative data may be skewed towards the perceptions of engaged parents.

KIIs and FGDs allowed us to capture local perceptions and practices related to community engagement in school management and the key determinants of school administrator priorities and policies. Investigating current administrator and parents/ caregivers' beliefs about school management also provided baseline knowledge of administrators' decision-making processes and the current role of PTAs and broader community engagement in holding decision makers accountable.

### **3.2.1 Key Informant Interviews (KIIs)**

AIR conducted a total of six KIIs with school administrators and district education office staff at four schools in the two selected districts. Two KIIs were conducted with district education officers. Four KIIs were conducted with school administrators (i.e. the head teacher or the deputy head teacher) in each of the selected schools. The KIIs focused on the general profile awareness and understanding, perceptions of the school decision-making process, ability to get resources or support to make changes to a school, and community engagement in school management. Each interview lasted approximately two hours.

### **3.2.2 Focus Group Discussions (FGDs)**

AIR staff conducted a total of 16 FGDs for baseline. The focus groups were conducted with members of school PTAs, non-PTA parents/caregivers, and teachers. One FGD with teachers was conducted for each of the four schools that were sampled ( $N = 4$ ). We also conducted one FGDs with parents who are in the PTA executive committee in each of the four selected schools ( $N = 4$ ). Two FGDs were conducted with parents in the communities around the school for each of the four selected schools ( $N = 8$ ). The topics investigated in the FGDs included profile awareness and understanding, community engagement in school management and decision-making, perceptions of power in the school decision-making process, the learning environment, pupil and teacher attendance, perceptions of community engagement in school decisions, and perceptions about school performance.

## **4. Baseline Evaluation Results**

### **4.1 Baseline Balance**

To ensure the comparability of the treatment and control groups in terms of observable characteristics, we tested for balance between the two groups for demographic and baseline levels of our outcome variables. We grouped demographic measures into three categories: (1) household demographics, (2) child characteristics, and (3) school characteristics. We present balance tables for each of these categories in the sections that follows.

### 4.1.1 Household Demographics

Our sample consists of typical rural Zambian households with similar demographic characteristics. Over a third of caregivers are married and literate. An average household in the sample experienced a shock such as death within the past year. Zambia has high poverty levels, with 92 per cent of rural households considering themselves poor according to the 2015 Living Conditions Monitoring Survey (LCMS). Our data is consistent with LCMS data, as over 90 per cent of the households consider themselves poor and about half are severely food insecure. The LCMS reports that at least 69 per cent of typical rural households own a bed and 34.8 per cent own a bicycle, and again this is consistent with our sample (see *Exhibit 12*). The main source of water for most households is protected, so households in the sample have access to safe drinking water. About half of the households' main toilet facility is a pit latrine with no slab. In Zambia, about 70 per cent of rural households use torches for lighting and 84 per cent use firewood as the main energy source for cooking (LCMS, 2015). More than half of the sampled households report using a torch for lighting and firewood for cooking.

Overall, the evidence indicates that household demographic characteristics are similar across the two groups. We found only one statistically significant difference in the household demographic characteristics: Treatment group households are slightly larger (6.7 household members) than control group households (6.4).

#### Exhibit 12. Household Demographics

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
<b>Chibombo district</b>	0.73	843	0.75	836	0.01	0.10	0.91
<b>Household size</b>	6.38	843	6.71	836	0.33*	0.17	0.05
<b>Caregiver is married</b>	0.75	827	0.77	828	0.02	0.02	0.25
<b>Caregiver can read and add numbers</b>	0.62	843	0.59	836	-0.03	0.03	0.22
<b>Household has experienced shocks such as death or sickness in the past 12 months</b>	0.64	843	0.66	836	0.02	0.03	0.50
<b>Severely food insecure</b>	0.48	843	0.45	836	-0.03	0.03	0.34
<b>Household considers themselves poor</b>	0.92	843	0.94	836	0.02	0.02	0.29
<b>Household has a TV</b>	0.29	843	0.28	836	-0.01	0.05	0.79
<b>Household has a bed</b>	0.83	843	0.80	836	-0.03	0.03	0.19

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
Household has a bicycle	0.56	843	0.57	836	0.01	0.03	0.69
Household has a plough	0.34	843	0.41	836	0.07	0.05	0.15
Hectares of agriculture land owned by household	0.94	843	1.39	836	0.45	0.28	0.12
Main source of water is protected	0.81	843	0.76	836	-0.06	0.04	0.15
Main lighting source is a torch	0.57	843	0.57	836	0.00	0.05	0.96
Household uses firewood for cooking	0.75	843	0.80	836	0.06	0.06	0.36
Iron sheets are the main roofing material	0.65	843	0.65	836	-0.00	0.05	0.97
Main toilet facility is a pit latrine with no slab	0.54	843	0.56	836	0.02	0.04	0.61

Note. Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. "Diff" refers to treatment mean minus control mean. F-statistic 0.89 ( $p$ -value: 0.58) on the test of the null hypothesis signifies that all indicators in the table are jointly significant.

An average child in our sample is 10 years old, is enrolled in Grade 4, and walks about 30 minutes to get to school. About half of the children of interest in our sample are male, and over 80 per cent have a blanket, at least one pair of shoes, and two sets of clothes (see Exhibit 13). Treatment and control children show similar outcomes in early childhood development characteristics in terms of the percentage of caregivers reporting that their child can identify shapes and colours and count to 20 or higher.

### Exhibit 13. Child Characteristics

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
Grade of index child	4.18	843	4.14	836	-0.05	0.10	0.64
Child is male	0.49	842	0.51	835	0.02	0.02	0.41
Child's age in years	9.99	842	10.05	835	0.06	0.13	0.66
Minutes to get to school	28.24	793	30.52	792	2.29	1.68	0.18

	Control		Treatment		Balance Test		
<b>Child has a blanket</b>	0.92	842	0.91	835	-0.01	0.01	0.47
<b>Child has at least two pairs of shoes</b>	0.80	842	0.76	835	-0.04	0.03	0.17
<b>Child has at least two sets of clothes</b>	0.94	842	0.90	835	-0.04**	0.02	0.02
<b>Child can identify shapes and colours</b>	0.88	833	0.90	826	0.02	0.02	0.26
<b>Child can count to 20 or higher</b>	0.91	841	0.91	835	0.00	0.02	0.98

Note. Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. “Diff” refers to treatment mean minus control mean. F-statistic 1.27 ( $p$ -value: 0.27) on the test of the null hypothesis signifies that all the indicators in the table are jointly significant.

Ninety-five per cent of the respondents in our household survey reported that they were the caregivers of the child. When asked specific questions about household members, most respondents provided information about themselves first, but some caregivers forgot to include their own information and provided information about their children instead. Because of this discrepancy, we are missing demographic information for about 10 per cent of caregivers: We will resolve this issue during endline data collection, when we will collect demographic information for the caregivers. We will update the instructions in the survey so that the enumerators know to ask about caregivers first during endline data collection and we will perform daily data checks to ensure that the caregivers provide information about themselves. Because of the discrepancy, we have a slightly smaller sample size for some of the caregiver variables at baseline.

#### 4.1.2 School Characteristics

In line with our sampling procedure, our sample schools are government operated and primarily government funded. There is some variation in the highest grade at the schools: 19 per cent operate until Grade 7, 69 per cent operate until Grade 9, and the remainder run through Grade 12 (*see Exhibit 14*). A comparison of our data to the data in the 2016 school profiles compiled by MoGE for our selected districts, Chongwe and Chibombo, show that our sample schools report higher pass rates, higher pupil–teacher ratios, and lower pupil–textbook ratios than other districts in Zambia. One possible reason that we observe these differences could be that the data in the school profiles include data from all schools, not only government-operated and government-funded schools. On average, schools in the sample report a Grade 7 pass rate above 75 per cent compared with an average pass rate of

47 per cent reported for Chongwe and an average pass rate of 39 per cent reported for Chibombo in the school profiles. The reported pupil–teacher ratio for our sample is 70:1 compared with an average of 56:1 in Chongwe and 42:1 in Chibombo. Schools in the sample report a pupil–textbook ratio of 2:1 compared with an average of 4:1 for both Chongwe and Chibombo districts. We find that there are some notable differences in the total number of learners enrolled, total number of teachers working at the school, and the distance from the DEBS to the school. Control schools have 14 per cent more learners enrolled compared with treatment schools and 24 per cent more teachers working at the school. Control schools are also farther from the DEBS than are treatment schools by about 11km. However, we find no significant differences in the characteristics between schools randomly assigned to the treatment group and those randomly assigned to the control group.

**Exhibit 14. School Characteristics**

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
<b>Government school</b>	1.00	42	0.98	42	-0.02	0.02	0.32
<b>Grade 7 is the highest grade</b>	0.21	42	0.17	42	-0.05	0.09	0.58
<b>Grade 9 is the highest grade</b>	0.62	42	0.76	42	0.14	0.10	0.16
<b>Grade 12 is the highest grade</b>	0.17	42	0.07	42	-0.10	0.07	0.18
<b>Total number of pupils enrolled at the school in 2018</b>	801.29	42	683.83	42	-117.45	96.16	0.23
<b>Total number of teachers working at the school in 2018</b>	13.00	42	9.88	42	-3.12	2.05	0.13
<b>Distance from DEBS to school</b>	89.81	42	78.74	42	-11.07	12.06	0.36
<b>Government is the main source of funding</b>	0.93	42	0.98	42	0.05	0.05	0.31
<b>Grade 7 pass rate in 2017</b>	0.78	42	0.80	42	0.03	0.05	0.58
<b>School dropout rate in 2017</b>	0.07	42	0.09	42	0.02	0.02	0.31
<b>Pupil–teacher ratio</b>	71.64	42	70.23	42	-1.41	8.56	0.87
<b>Pupil–textbook ratio</b>	2.16	42	2.21	42	0.05	0.63	0.93

	Control		Treatment		Balance Test		
School teacher attendance is the same as other schools	0.43	42	0.48	42	0.05	0.11	0.67
Learner attendance is the same as other schools	0.50	42	0.55	42	0.05	0.11	0.67
Number of days missed by each teacher in past 20 days	2.22	42	1.47	39	-0.75	0.60	0.21
Number of pupils absent on at least one day in the past 20 days	38.66	36	48.50	35	9.84	17.28	0.57

Note. Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. “Diff” refers to treatment mean minus control mean.

## 4.2 Key Outcome Indices

From our baseline data, we tested whether related outcomes could be combined to form indices to measure key concepts related to the community trainings on the CFSPs. Our analysis identified appropriate indices for two concepts: parental satisfaction with their child’s education and a school quality measure (Cronbach’s alpha statistic greater than 0.7).<sup>7</sup> The indices and their component variables are included in the summary statistics tables provided below. We will use these indices to measure impacts of the program using the endline data; focusing on indices rather than an extensive list of individual outcomes reduces the risk of finding impacts due to statistical chance rather than due to the program itself—a problem known as the indicator soup problem (King, Samii, & Snilstveit, 2010). We will correct our analysis for multiple hypothesis testing for outcomes where we were not able to identify appropriate indices.

## 4.3 Initial Context

The theory of change postulates that differences in learning outcomes, levels of community ownership, and resources between schools should be, at least partially, attributable to levels of community access to and use of information about schools. We also assume that providing community profiles will improve parents’ or caregivers’ and teachers’ awareness of the quality of their school’s resources and help these groups identify the needs of the

<sup>7</sup> The standard error of the measurement for the parental satisfaction index and school environment index are 16.8% and 12.4%, respectively.

school. We also assume that if parents/caregivers are given information about their school's performance, and if they believe that they have the power to act on the information, then they *do* have the power to influence what happens at their school. These are important assumptions on which the model rests, and the sections that follow assess the validity of these assumptions using the baseline data.

#### **4.2.1 Parental Interest and Engagement**

A key assumption of the community trainings on the CFSPs is that parents are interested and engaged in their child's education, or that it is a lack of information or empowerment that drives the disengagement. If parents are not interested or engaged, then providing additional information on the resources and performance of the school may not lead to increased advocacy by the community. If, however, parents are not engaged because they feel uninformed and prefer to defer to the school or teachers, then giving parents more information may encourage them to become more engaged. This section uses baseline data to assess parental interest and engagement in the evaluation setting.

Parents' interest and engagement in their child's education varies widely. In one community, a parent recounted that parents and nonparents alike worked to ensure that every child was attending school: The fruits of this labour are evident among household survey respondents where 97 per cent of sampled children are enrolled in school (see *Exhibit 15*). Parents who perceive themselves as "involved" believe that their child's education is a stepping stone to greater opportunity. One parent stated, "*If we take the child to school, we want that child to do better than us.*" Another parent remarked that "*to be living well [is to have] a child who is educated.*" This feeling was not unique to higher educated respondents: Parents in our sample schools that self-reported lower levels of education and literacy also reported a deep desire for their children be educated.

Parents generally have high aspirations for their child's education: Fewer than 3 per cent of parents want their child to leave school before completing secondary school, almost 20 per cent want their child to reach Grade 12, and almost 80 per cent want their child to achieve at least a university-level education. However, for many, even secondary education is inaccessible due to the cost of further schooling and the dearth of secondary schooling opportunities in rural communities. As one parent attested:

*Here, school is up to grade nine. We feel pity [for] some of the children and we try to help them because that child is intelligent. You will find that [children's parents] fail to pay the k365 (approximately 30 USD). And, what about if that person passes? How will they go? So many just stay because they don't have sponsors, but they are intelligent. ... Grade nine and below, we know how to handle ourselves, but for nine and up, there is no help.*

Many parents reported during focus groups that support for their children beyond Grade 9 is nonexistent. Even if, as is indicated here, communities pool money together to support children, the pursuit of higher levels of education requires leaving the community. But a parent in another school without secondary school options is hopeful for the future: *“So in our lives we want to have grade twelve right here. ... Then when it comes for colleges at least the children can cross over in the future. ... What we [want] for our children is that they should reach secondary school just at this school instead of taking them elsewhere.”* This indicates that parents broadly have high aspirations for their children’s academic potential, but these desires are limited by the perceived lack of opportunity in their communities. This finding is not unique to the Zambian context: The World Development Report 2018 states that almost all parents, even those who did not attend school themselves, want their children to complete school. The report also notes, however, that parents can differentiate between high-quality and low-quality schools and that students in low-quality schools are more likely to drop out (World Bank, 2018).

In most of the communities that we studied, there was a strong ethos that parents must work with teachers to support their child’s education. One parent explained, *“A lot of children, their education can be good, if the parents are near to see how the children are learning, to see the problems that the teachers are facing together with parents.”* The perceived importance of parental involvement is evident from our household and school administrator surveys: All schools had a PTA, almost two thirds of parents report meeting teachers more than three times a year, over 70 per cent of parents report having attended a PTA meeting, and almost all PTA attendees have attended a meeting within the past year. Further, when asked to list the determinants of whether a child will graduate Grade 12, two thirds of respondents list parental involvement, falling behind only student ability and ahead of other determinants such as family wealth, school type, and teacher motivation. It is important to note that these respondents may be victim of the fundamental error of attribution by thinking that individual factors like parental involvement are more important than contextual factors in determining whether a child will graduate Grade 12 (McCombs School of Business, 2018).

Many parents or other family members are also directly involved in their child’s education, with over 80 per cent of respondents to the household survey reporting that their child receives assistance with their studies at home. Our qualitative data collection provides additional context, as some parents reported that they saw that their child was failing in school and took it upon themselves to give the child extra attention, whereas others asked educated family members and neighbours to provide additional tutoring to their child. Despite the emphasis on parental engagement, only around 60 per cent of caregivers reported that their child had dedicated time at home to work on their schoolwork, suggesting that schoolwork may receive less emphasis than daily household chores.

School administrators noted that caregiver support to the school should extend beyond efforts to improve their child's academic performance. More than 80 per cent of administrators believed that parents should provide additional materials to their child's school, with a similar number reporting asking parents to make or purchase materials for the school during the school year. Only 50 per cent of the school administrators report that parents contributed materials within the past year. Potentially related to the perceived lack of parental contributions, only two thirds of school administrators believe that caregivers care about their child's education.

One way to contribute to the school is through manual labour and finances to develop school resources and infrastructure. One example of these contributions that a parent noted was that during a cholera outbreak at the school, the entire community came to dig new pit latrines for the pupils and parents. The parent explains,

*Even if [community members] don't have a child, as long as you belong [to] this community, [you come to work at the school], because tomorrow you may [have a child], you may have no child today but tomorrow you will have. ... So long [as] you stay in the village, for the headman or head woman, even if you don't have a child, you have to come to work.*

As can be seen in this example, community engagement neither begins nor ends when one has a child in school: Even potential parents were expected to participate in bettering the school, because one day their own children might reap the benefits.

Respondents did not, for the most part, view less-involved parents negatively.<sup>8</sup> Rather, most parents, teachers, school administrators, and district officials believed that disengaged parents did not understand the benefits of education and that continuous sensitization would remedy parents' attitudes. One parent shared, "*[Disengaged parents] do not have a vision that their children will be living well in the future. So those that have a vision are the ones that participate to say let us take care of our school so that development goes forward so that our children can take care of us.*" These parents were often described as uneducated and therefore not attuned to the importance of education, but it important to note that these are only perceptions of what it means to be a "disengaged" parent.

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<sup>8</sup> Our qualitative study did not explicitly target first-hand experiences and perspectives from parents who do not participate in their child's formal education process. We used convenience sampling to identify parents, teachers, and school administrators to participate in focus group discussions. Therefore, the parents interviewed for this study presumably lived in relative proximity to the school and/or were actively involved with the PTA or other school-related activities. Therefore, this discussion reflects the perspectives of school administrators, teachers, and "involved" parents rather than the self-representation of "disengaged" parents.

Whereas some teachers and parents blamed uneducated parents for not sending their children to school, other parents stopped sending their children to school because of the inadequacy of the learning environment (or due to other factors mentioned earlier, like lack of income to pay for schooling). Some parents would rather that their child help with domestic tasks, work in the garden, or tend to the cattle and goats—skills that they know will be practical if their child maintains their agrarian lifestyle. As one parent attests, “[Other parents] actually feel happy and celebrate if it’s a boy who stops school, because the children help them with domestic work.”

**Exhibit 15. Caregivers’ Participation in Child’s Education**

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
Child receives assistance at home with studies	0.82	843	0.85	836	0.02	0.02	0.26
Caregiver wants child to achieve tertiary education	0.79	841	0.79	833	0.00	0.03	0.92
School quality determines whether index child will graduate Grade 12	0.34	843	0.36	836	0.02	0.04	0.65
Parent involvement determines whether index child will graduate Grade 12	0.65	843	0.69	836	0.04	0.03	0.21
Number of days child attended school in past week	3.53	793	3.50	793	-0.03	0.29	0.93
Child was absent at least one day in the week	0.17	549	0.14	532	-0.03	0.03	0.27
Caregiver meets teachers at least more than 3 times a year	0.66	843	0.64	836	-0.02	0.03	0.55
Child has specific time at home to do schoolwork	0.60	837	0.58	825	-0.02	0.03	0.59
It’s a parent’s job to provide additional materials after paying school fees	0.61	813	0.60	815	0.02	0.04	0.60

	Control		Treatment		Balance Test		
Total school expenditure	225.06	843	182.13	836	-42.93	25.88	0.10
SA: School has PTA	1.00	42	1.00	42	0.00		
SA: PTA meeting is held every month	0.40	42	0.40	42	0.00	0.11	1.00
SA: Caregivers care about their child's education	0.64	42	0.68	41	0.04	0.10	0.70
SA: It's parents' job to provide additional materials once they have paid school fees	0.83	42	0.88	41	-0.04	0.08	0.57
SA: During the school year, the school asked families to help with materials for the school	0.79	42	0.79	42	0.00	0.09	1.00
SA: During the school year, families made or purchased material for the school	0.57	42	0.50	42	-0.07	0.11	0.52

*Note.* SA denotes that the question was asked during the school administrator survey. Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. "Diff" refers to treatment mean minus control mean.

#### 4.2.2 Perceptions of Agency

A second key assumption of the community trainings on the CFSPs is that parents feel that they have agency to affect their child's education. This is important for the program, because it will help determine whether engaged parents are able to use the data in the CFSPs to advocate for changes within the school: If parents do not feel like they can affect change, then they may not be willing or able to do anything with their new information. This section assesses baseline levels of perceived agency.

Parents expressed a fairly high level of perceived agency in their interactions with their child's teachers and school. Over 80 per cent of respondents to the household survey said that they could talk to their child's teacher about what is best for their child, and a comparable proportion reported that they could do things to improve their child's school (*see Exhibit 16*). Qualitative interviews bolstered these findings, with most parents reporting that school administrators were receptive to their input on how to improve schools. One

parent referred to a meeting held between parents, teachers, and school administrators where each parent was given the opportunity to present his/her ideas to the school community. In this school, PTA parents and non-PTA parents alike were able to share their perspective and share the responsibility of implementing changes. In fact, PTA parents are working towards higher parent attendance during school meetings. One PTA parent shared, *“We need [to be] full throttle when we invite parents. They all [need to come] so that our concerns are done together. ... [If] only the PTA will do the governance of the school, it’s not good. The governance power must come from the parents.”* As reflected in this parent’s response, many of the parents felt that the strength of their school was the power and engagement of the broader community.

Other schools have a more hierarchical system for considering opinions, with parents deferring to the PTA to coordinate with the school administration. In one such school, a parent was asked if he/she could provide suggestions on implementing a new project to the PTA and the school administration. The parent replied, *“[The] shoulders can’t jump the head,”* implying that he/she would have to go through the PTA. Parents in schools with a more rigid hierarchical system, however, did not perceive their inability to directly advocate to school administration as a setback. Rather, they had elected representatives for the PTA and recognized that the PTA possessed more power and influence (although it is important to note that not all schools had elected PTA members).

Parents on the PTA committee felt that their voices were heard and that the PTA parents played an important accountability role for the school. As one PTA parent stated,

*When the community members are in the wrong, we stop them. If the teachers are in the wrong, we stop them. We are in the middle, we do not favour [the teachers] because they are educated. No, we just say [our opinions] openly so that they listen to us. If they stop listening to us, it means you are killing the school. They listen to us.*

This perception is echoed by the household survey respondents, over 70 per cent of whom reported that it is likely that someone would act if they reported a teacher and 68 per cent perceived the school head to be interested in knowing what families think is best. While parents believe schools to be open to their recommendations, fewer than 40 per cent of parents report that their school has asked for suggestions on how to improve school quality.

While most parents felt that their voices had been heard, many expressed concern that their suggestions would never be implemented. One parent shared,

*We try our best to talk to the administration, and they answer us that the school doesn't have money. When we say, "What about the money we have paid for grade eight and nine?" they could tell us that this money is the same money that we use for sports ... the money used to buy chalk, the money to pay the watchman, [but they don't]. They tell us the amount during the meetings, but they give a lot of excuses, and so there is no straight answer.*

This example demonstrates that parents perceived that pertinent information and decision-making processes are intentionally kept from them. A parent in another school corroborates this by saying, “[Parents] contributed k16,000, but up to date there has been no feedback to us as parents who contributed that money. We are not aware what happened and how they used the money.” Because parents are unsure of the decision-making process as well as when and how their suggestions will be implemented, they worry that their voice is ineffective.

Parents are frustrated by school administrations’ lack of transparency around key issues like budgeting, and as a result, some parents have become disengaged or lost trust in their school. But parents, as a collective, perceive themselves as effectual. As one parent states, “We have got manpower. We can mould bricks. We can ferry river sand. We can ferry the crushed stones.” Parents are able to recruit manual labour and are able to use local resources to effect change, but they fall short when outside funding is needed. The same parent went on to say, “But in terms of other material like roofing material and cement, that becomes a big problem. That’s why we need other people to come on board to assist.” As was demonstrated in the examples here, parents can generate funding for various projects at the school, but there are limits to what they are able to contribute without assistance from the government or other donors. This is consistent with a recent synthesis of community-driven development programs, which found that community-driven programs are often successful at improving infrastructure but generally have limited impacts on other outcome measures (White, Menon, & Waddington, 2018).

Another parent corroborated that limited funding constrains parents’ agency: “As the parents, [we] can try. Let us do this, let us dig, but there are other things that need financial help. We can contribute the money, [but] it is a little. It cannot suffice there. But if we have the government, other organizations also help, and we also help, there can be development.” There is a perception that the government either does not help or is incapable of providing help to rural schools, and parents often wanted to seek help from NGOs, which were perceived as being more effectual in bringing out change than the government.

Parents felt that they were not properly informed enough to advocate on behalf of the school. Parents in one focus group decided that if they were regularly invited to meetings by

the head teacher, they would be better able to advocate to the district for more resources. At present they do not have enough information, as one parent says: “What can [they] go and say? Nothing. Because everything starts from having a meeting. Then you pick something and reason what is needed through meeting discussions.” Another parent in the same focus group added that parents did not simply want to be informed of what changes were already under way, with no opportunity for input. Rather, the meeting should include an agenda for open dialogue and discussion so that the head teacher and parents in the community could develop solutions collaboratively. These parents felt that because their school did not provide adequate information, they were unable to engage with the school because they did not know what was happening. The next section explores where and how parents receive information about their child’s school.

**Exhibit 16. Caregivers’ Perceptions of Agency**

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
I can talk to my child’s teacher about what is best for my child	0.84	792	0.84	806	-0.00	0.02	0.86
I can do things to help improve the quality of my child’s school	0.82	800	0.81	784	-0.01	0.03	0.61
It is likely that caregivers can get someone to act if they report a teacher	0.72	733	0.76	726	0.04	0.03	0.23
School head is interested in knowing what families think is best	0.68	712	0.67	714	-0.01	0.04	0.77
The school has asked for suggestions on how to improve the quality of the school	0.36	818	0.39	808	0.03	0.03	0.28

Note. Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. “Diff” refers to treatment mean minus control mean.

### 4.2.3 Sources of Information

A third key assumption of the community trainings on the CFSPs is that parents lack access to the information contained in the school profiles. If parents have access to and already use the information contained in the profiles, then we may not expect a community training to

have any impact. This section assesses the baseline sources of information among community members.

We investigated the various sources of information that parents rely on to learn about the events and programs at the school. Most of the parents indicated that they receive most of their information about the school from their child, official school letters, or through the PTA (see Exhibit 17). Two thirds of household survey respondents reported getting a majority of their information from their child. One parent in an FGD described this process: *“They tell the children to tell us that we should go [to school] on a particular day.”* An example of information sent from the school to the parents through word of mouth is a meeting notice. A parent in the PTA expressed the following: *“They [pupils] are told that you should go and tell their parents at home on this day there is a meeting.”* We note that information received by the parents from the child through word of mouth was the most common source of information about the school.

Around 20 per cent of parents reported receiving a majority of their school information through official school letters. A parent in the PTA executive explained, *“The grade seven teacher [would tell] each [pupil] ... you will get the letter [and] you should give [it to] your father, ... especially the PTA, each of us receives a letter.”* Letters sent to parents from schools included information such as concerning a child’s behaviour. A teacher explained about when a letter was sent to a parent when his/her child was absconding classes: *“When we see that a learner stays away from school or classes for many days, we write letters to call the parents, so that we sit together and find a way forward.”* Letters are the official means of communication from the school to the parents.

During focus groups, parents also reported getting information about the school from their child’s school report form. Parents highlighted that the form provided information on their child’s school performance and that it served as a reference point on the quality of teaching. One parent indicated,

*I just want to say that the only platform we have is talking to the teacher when receiving the report forms or pupils’ results. That’s when we tell them [the teacher] if the child is not performing well. So, [I would say] I just wanted to tell you that this child [is] supposed to be performing well. The teacher is the one who should be able to encourage the pupils to perform well.*

However, there are concerns that sometimes this information sent through a child, either using word of mouth or official school letters, does not reach the parents. The parents explained that information shared through a letter was more reliable. One parent stated,

*I heard the head teacher yesterday saying, “We invite you [parents] to come here, but you don’t come.” They tell pupils that you should go and tell your parents to come and pupils don’t say it, so I was asking if they can be inviting us by sending letters through our children ..., because sometimes some children do not deliver messages from the head teacher to the parents.*

Other parents indicated that letters may still not be reliable, with one parent noting that “some do not receive letters to know that they are being called at school.” Letters may also be challenging when parents are either semiliterate or illiterate.

Whereas parents primarily reported receiving information from their child, school report forms, or school circulars, they also identified a range of other methods of receiving information: Six per cent of household survey respondents reported getting most of their information about the school from other parents, while some qualitative respondents reported receiving information through interactions from the PTA executive members. For example, one respondent reported, “That’s why the PTA sometimes would say, okay, at the end of the month, you report to them, you call a meeting and say this is what we had done and we are asking you parents maybe to contribute a certain amount of money to do this project.” Parents also explained that they received information about the school when attending PTA general meetings. Another parent in the PTA also noted that “when the PTC [Parent Teacher Committee] is given information, then they will give information to all the sections [villages].” Parents also received information about the school through interactions with the teachers and head teachers when they visited the school to collect their child’s school report or when summoned to the school. Other parents received information about the school from the headmen, who were primarily involved when the school required parental cooperation.

Most parents are not aware of the school profiles, with many indicating that they have never seen a school profile and only a few indicating that they have heard about some of the school profile information at a PTA general meeting. One parent said,

*I heard about it last year from the PTA meeting. ... Yes, the Deputy read about it [FGD, non-PTA parent]. Another parent in the PTA executive indicated that we can just say that they make in those, like teacher ratio, the pupil and all, books and all, all that, toilet and all, we see the graphs being done there by the head or the deputy. ... I don’t know if it is a similar one, I don’t know if it is traditional or it is the same like the one we see in the office.*

The parents’ lack of engagement with the profiles was confirmed by teachers and administrators, who indicated that they did not share any of the information in the profiles with the community. These findings align with data from the household survey, where only

5 per cent of respondents reported getting most of the information about their school from the school profiles.

Although parents were largely unaware of the profiles, when asked if they would use the information presented in the profiles, over 90 per cent of household survey respondents said they would want to receive the information, and qualitative respondents said they would use the profile for advocacy and as a tool for gauging the performance of the school. One parent indicated that *“it shows that the school is going forward or is not going forward. The way the pupils are passing ... like this one [profile] here, it is mentioning all those that passed well. So it gives a green light, even the number of classes. It is good.”* Other parents indicated that this information would enable them to query various issues affecting the school. One parent observed, *“This paper is very good; it shows what is needed at the school. If the school is going forward, ... it is showing us whether the teacher is doing well or not doing well. That is the green light, we can see that there is improvement. Now this one we will ask since I have seen it. Because this one is showing that the children are doing well, it is showing the number of pupils enrolled at the school and how they have passed.”* Broadly speaking, parents involved in FGDs expressed a strong desire to learn more about the school profiles and to receive more information about school performance.

#### Exhibit 17. Sources of Information About the School

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
All parents should be informed of what's happening at school	0.99	763	0.99	754	0.01	0.02	0.74
Caregivers get most information about school from child	0.65	843	0.69	836	0.04*	0.02	0.09
Caregivers get most information about school from official school letter	0.23	843	0.22	836	-0.01	0.02	0.79
Caregivers get most information about school from school profiles	0.07	843	0.03	836	-0.04**	0.02	0.05
Caregivers get most information about the school from other parents	0.06	843	0.06	836	-0.00	0.02	0.96

Note. Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. “Diff” refers to treatment mean minus control mean.

#### 4.2.4 Perceptions of Quality

Parental perceptions of school quality are an important component of the evaluation. In this section, we examine how parents describe their children’s schools, teachers, and the education they receive.

**School quality.** Generally, caregivers have positive perceptions about schools. Over two thirds of caregivers report that their school is generally welcoming and has a good environment and that teachers and the school head will give them feedback about their child’s performance and the school in general. More than 80 per cent of caregivers report that they could approach the school to talk about their child’s interests (*see Exhibit 18*).

Most of the parents that we spoke to during qualitative data collection believed that the teachers at their schools were well equipped to teach their children and were passionate about doing so but that the teachers’ ability to teach and the children’s capacity to learn was consistently hampered by high teacher-to-pupil ratios. As expressed by a parent, *“teachers have no time to attend to the individual needs of pupils or even observe them individually.”* Another parent theorized that if the same teacher and the same students were transported to a private or mission school with a more reasonable teacher-to-student ratio, pupils’ ability to speak English would drastically improve because pupils who struggle would be able to receive individual attention. Due to the sheer number of pupils in a given class, some parents were unsurprised to find that teachers were unable to mark pupils’ work.

Despite concerns about student–teacher ratios, caregivers report similar levels of satisfaction with the teachers, the schools, and learning. About two thirds of respondents to the household survey reported being satisfied with their child’s teachers, the school, and overall learning, although almost 10 per cent report being very dissatisfied with each of the three. Parents have more agreement on the usefulness of the education, with more than 80 per cent of caregivers stating that their child will benefit from the skills learned at school.

Our qualitative protocols asked parents to compare their local schools with schools in the area, and in several instances, parents remarked that other schools had separate classrooms for each grade and that teachers were not required to teach all day and for multiple grades.<sup>9</sup> In contrast, parents reported that their school’s teachers were tired and overworked and therefore unable to teach effectively. Parents are concerned that when multiple grades are in one classroom and the teacher must teach to each of those grades, the children’s ability to learn suffers. In addition, one parent noted that teachers’ teaching assignments were not allotted according to teachers’ expertise and experience. The parent

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<sup>9</sup> It is important to note, however, that many of the FGD participants were largely unable to compare their school to other schools due to lack of knowledge about other schools. This is particularly acute for people from more remote areas, as the likelihood of knowing about a school that is a far distance from one’s community school is drastically reduced.

shares the following: *“But you give him someone who [is] supposed to handle grade eight and nine, you give them grade one, so already they can lose even the motivation and it will be difficult to handle. It is like labour on how to handle a small child who is in grade one.”*

Most parents perceived teachers to be doing as good of a job as could be expected in difficult circumstances.

Parents generally lacked a clear consensus on whether their children had sufficient access to books. One parent had a positive take on the availability of textbooks, noting that *“the books are there, but I think it is just that the pupils are not concentrating on their studies,”* while others expressed concern that their children did not have access to enough books, with comments such as *“When there are no books, a parent can’t be happy.”* Concerned parents generally noted that only teachers had access to books and that their children would not be able to follow the lesson in class without them. These mixed responses demonstrate that more information about school resources would be helpful for parents—not only to understand the current situation, but also to potentially advocate for greater resources.

Although there was no clear consensus among parents on the availability of books, parents were consistently concerned about the availability of computers. Some of the schools had access to one or two computers that either belonged to the school or were brought in by teachers. Other schools had no computers at all. Parents were worried that their children would not be given adequate exposure to computers, because they understood using a computer as a prerequisite for employment nowadays, and Grade 9 pupils must use a computer to complete their exams.

**Facilities and infrastructure.** During focus groups, most parents stated that their children’s schools lacked sufficient classrooms, teacher accommodation, and sanitation and hygiene infrastructure. Parents believed that each of these deficiencies has significant impacts on the quality of their child’s education: Multiple classes in a common classroom decreases the motivation and student-level attention of teachers, insufficient or deficient teacher accommodation reduces teacher retention and increases commute times, and inadequate water and sanitation facilities decrease student’s time in classroom and school attendance.

In every school we studied, parents were not satisfied with the availability and quality of teacher accommodation. Parents see lack of teacher accommodation as a severe disadvantage to their children’s schooling, because without teacher accommodation, the school is unable to hire or retain teachers. One parent expressed it this way: *“We don’t have more teachers because we do not have the accommodation to cater. That has contributed to having a huge teacher–pupil ratio, and the teachers cannot reach out to every child.”*

Another parent explained that even when school administration reaches out to request that teachers are sent to the school, the teachers refuse to come because they have nowhere to stay. In other instances, teachers refuse to teach at the school because it is rural and far

from Lusaka. One parent reasoned that when some teachers are not comfortable with their housing because they do not have a toilet or cannot sleep well, they request transfers to other schools.

Parents noted that teachers without school-provided accommodations face several challenges. First, teachers typically find housing far away from the school, which negatively impacts their arrival time and attendance. One PTA committee hypothesized that if teachers lived close to the school, they would not be able to leave, nor would they face difficulty reaching the school during rainy season when roads and bridges become impossible to cross. Even in good conditions, many teachers have miles to travel every morning, without a consistent mode of transportation. When teachers are late to school or have inconsistent attendance, parents explain that their children will leave before teachers arrive or stop showing up altogether. Teachers who rely on vehicles for transportation sometimes leave school early to get home, or they rush off shortly after school ends, making it difficult for children to seek additional help.

Parents interviewed were keenly aware of the water, sanitation, and hygiene conditions at their children's school and noted that regular access to water and toilets enabled their children to attend school. In all of the qualitative sample schools except one, parents, teachers, and school administrators lamented that the pupils did not have enough toilets and that the toilets they did have were unusable. Many toilets were full, not functioning, or of poor quality and durability. One teacher explained, *"We are saying that we don't have toilets. If you can just go and check what is happening in the pupils' toilets. You can cry. It's a shame. Therefore, our children use the bush, they just go into the bush there and do the business, then they come back, which is not conducive."* Respondents noted that children are known to practice open defecation at school because the number and quality of toilets is inadequate.

Focus group respondents also noted that most schools lacked regularly accessible drinking water and that this has the potential to exacerbate the lack of functioning toilets: Children who are unable to wash their hands after using the toilet can become sick and subsequently miss school. Inaccessible water decreases children's time in the classroom in other ways as well. As one teacher explained,

*So, you find that when you are teaching, a grade one child asks to go outside to go and drink water. The child has to go 500 meters from here and by the time that she comes back, it's almost been a whole period since the child has gone to drink water. In the time that it takes them to go and come back, they will find that you have begun teaching other things.*

**Exhibit 18. Parent Satisfaction With School**

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
School is a welcoming place for our family	0.88	815	0.89	803	0.00	0.02	0.97
School provides good social environment	0.74	791	0.75	806	0.02	0.03	0.63
My family is informed on what is happening at school	0.80	805	0.83	802	0.03	0.02	0.16
Teacher provides feedback on my child's performance	0.78	786	0.78	790	0.00	0.03	0.94
Caregiver is satisfied with teachers	0.70	793	0.71	792	0.01	0.04	0.77
Caregiver is satisfied with learning	0.65	793	0.67	792	0.03	0.04	0.55
Caregiver is satisfied with school	0.66	793	0.70	792	0.04	0.04	0.29
Skills learnt at school will benefit child	0.90	743	0.87	743	-0.03	0.02	0.25
School environment index	5.74	613	5.74	626	-0.00	0.08	0.93
Satisfaction index	2.97	723	3.01	722	0.04	0.06	0.49

*Note.* Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. "Diff" refers to treatment mean minus control mean. Satisfaction index is the sum of caregiver satisfaction with teachers, learning, school, and whether the skills learnt will benefit the child. School environment index is the sum of indicator variables for whether the school is a welcoming place, whether it provides a good social environment, whether the family is informed of what is going on at the school, whether the teacher provides feedback on the child's performance, whether the school head is interested in knowing what parents think is best, whether parents can talk to the child's teacher about what is best for their child, and whether parents can do things to improve the quality of the school.

#### 4.2.5 School Decision-Making Processes

Educational decision-making in Zambia is a highly decentralized process that empowers district and school-level officials and actors to make decisions regarding school budgets and infrastructure, among other topics. According to one respondent from our qualitative interviews, this decentralized process means that *“decisions have to be made at the point of need, which is at school level,”* and school administrators in our sample schools report discretion over a number of critical school-level decisions (e.g., infrastructure, teacher hiring and performance, etc.). Administrators note, however, that they often lack full discretion over other processes that impact schools like budgetary allocations and that certain aspects of their work are structured by broader, national-level policies (e.g., policies about student progression or “repeat policies”). Almost all of the school administrators report having influence on school management, 80 per cent report having control over the funds spent at the school, and about half report having an influence on the number of teachers posted to the school (see Exhibit 19). Parents having some influence over these decisions is a key assumption of the CFSP community trainings, with the trainings aiming to provide parents with the tools and knowledge they need to better advocate for relevant change. This section examines the school decision-making process, our findings identifying clear distinctions between community involvement across different decision types.

**EMIS data and school profiles.** School administrators indicate that the most common decision-making tool they use is data from EMIS, and over 80 per cent report that they receive annual EMIS data from the DEBS. Teachers and administrators indicated that they use the school profile in their work. One school administrator noted,

*A school profile is something that is very good because it actually details the activities that are being undertaken in school. Are there success, failures, it will indicate to you at what level are you okay: in all sectors, vulnerability of the learners, the enrolment of the learners, progression of enrolment for the learners. The teachers also in terms of staffing levels it goes, it caters for a variety sector in the school. So, the profile indicates what actually is happening; it gives the true picture of that ... performance of that particular school.*

Teachers noted that the data in the profiles influenced decision-making: To address the low pass rate reported in the profile, the school put up measures such as having pupil prep (study) time and free tuitions,

*According to the school profile ... we had very poor results. So, this time around we are trying our best to improve on our results ... we sat down to say ... let's make sure the examination classes pass, let's try to help them ... [and so] during the holidays we had let them come for free tuitions. ... We have also put measures where we have intensified on their prep time. So, we have intensified prep time every time we are assigning a teacher who meets them [pupils] in the afternoon [FGD, teacher].*

Another teacher explained how teachers use the profile to evaluate their work, stating, “Yes, we do use [the profiles], ... it helps us to evaluate our work. For example, when we are looking at teacher learner ratios, pupils’ desk ratios. So, as we compile this [data], then we are also reminded whether we are in a good position or not. So, these [profiles] guide us in a number of ways [FGD, teacher].”

The school administrators confirmed the use of the school profiles to evaluate their performance as a school. One head teacher explained, “We have basically used it [profile] to make comparisons in terms of performance. It’s a reference point. When we look at grade seven results, we try to compare, okay, this time this is how we had performed, the overall performance was this and this, what about? It helps us in terms of decision-making, it helps us in terms of planning purposes [KII, head teacher].” Interviews with teachers and school administrators suggest that the school profiles were used mostly for administrative purposes. None of the school administrators indicated that they were obliged to share the school profiles with the parents or communities.

It is important to note that not all the teachers found the profile easy to understand. Some commented that the school profiles are too complicated, with one teacher noting, “I saw it last year and to me it’s bit complicated, it takes someone who has done statistics to understand ... it is very difficult unless somebody is to explain for that person to understand; it is not easy to understand.”

### Exhibit 19. School’s Influence

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
The school administrator has influence on school management	1.00	42	0.98	42	-0.02	0.02	0.32

	Control		Treatment		Balance Test		
The school has influence on the funds spent at the school	0.83	42	0.81	42	-0.02	0.08	0.78
The school has influence on the number of teachers posted there	0.71	42	0.38	42	-0.33***	0.10	0.00
EMIS data is used to make decisions at the school	0.71	42	0.74	42	0.02	0.10	0.81
School receives statistics from the DEBS at least annually	1.00	42	1.00	41	0		
School profiles are used to make decisions at the school	0.50	42	0.52	42	0.02	0.11	0.83
Requested and received additional materials from the DEBS	0.38	42	0.26	42	-0.12	0.10	0.25

Note. Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. “Diff” refers to treatment mean minus control mean.

**PTAs and parental influence.** PTAs play an important role in the school decision-making process. Over 90 per cent of school administrators report that PTAs make recommendations about school management, and a comparable number report that PTA recommendations are implemented (*see Exhibit 20*). We acknowledge that these results are likely subject to social desirability bias—that is, school administrators give socially desirable answers instead of answers that reflect the truth about school management (Grimm, 2010).

Broadly speaking, the preferences for parental involvement in school decision-making vary depending on the particular issue at hand. School administrators generally welcomed parental involvement in issues like school infrastructure but were more reluctant to include parents in areas that are generally considered the domain of educational “experts,” such as teacher evaluations, student progression, and school budgets. For those who desired more parental involvement, they wanted greater involvement in promoting education in a child’s

home as opposed to enhanced involvement in school-level decisions. One administrator explained this when he stated,

*We want them to ... get involved. Why we want them to get involved? If parents don't get involved, then you find that we are going to increase the rate of truancy, you know absenteeism. ... They are also helping our learners at home because learning starts from home—we reinforce it here.*

Another interviewee echoed this comment: “No, they have to be more involved. ... The teacher’s role is to provide the learning experience to this child to improve, but any other needs the teacher has to get out to reach out to the parent for them to make certain decisions.” Other respondents wished for greater parental involvement to improve parents’ understanding of school processes and the work and role of the teacher.

### Exhibit 20. Decision-Making Tools and Resources

	Control		Treatment		Balance Test		
	Mean	N1	Mean	N2	Diff	SE	p-value
PTA makes recommendations on management of the school	0.95	42	0.90	42	-0.05	0.06	0.40
PTA recommendations are implemented	0.97	40	1.00	38	0.02	0.03	0.32
PTA recommendations are used to make decisions at the school	0.55	42	0.64	42	0.10	0.11	0.38
School profiles are used to make decisions at the school	0.50	42	0.52	42	0.02	0.11	0.83
School receives statistics from the DEBS annually	0.86	42	0.81	42	-0.05	0.08	0.56

*Note.* Standard errors (SE) clustered at school level. \*, \*\*, and \*\*\* indicate significance at the 90, 95, and 99 per cent confidence levels, respectively. “Diff” refers to treatment mean minus control mean.

**Decision-making about school infrastructure.** Nearly all respondents noted that decisions about improvements to school infrastructure are typically initiated by school administrators—either the headmaster and/or teachers—and it is up to the PTA to evaluate

the proposals, suggest action, and gain broader support from community members for proposed projects. One respondent described the initial decision-making process: *“Firstly, the administration sits and comes up with the project proposal. The PTA executives, they sit also and go through, and then it is taken to the general public during either the annual general meeting or an extra general meeting.”* A second interviewee echoed this remark when he stated, *“When there is a problem, [administrators and PTA] sit together and look. For instance, we have said that there were no toilets. ... so we sat together, so we decided. The PTA decided ‘No, let us build toilets for the teachers.’”*

For certain kinds of initiatives (e.g. building a school clinic), community leaders may get involved, likely because these decisions may draw on broader community labour or funding. One interviewee described this in greater detail: *“There was an initiative for the entire community, starting from the village head woman and her subordinates. They had to dialogue on both the clinic and the school. ... We realized, as a community, the need to build another classroom block due to the increasing number of pupils at this school.”* In this case, discussions about how to allocate community resources more broadly influenced decisions about schools. If community resources are scarce, this potentially forces community members and leaders to prioritize how best to allocate funds toward either school-level projects or broader community-level initiatives.

These data indicate that the decision-making process for school infrastructure projects varies by the type of decision as well as the community-level context. In most of our sampled schools, all relevant parties (community members, leaders, PTA, and school administrators) must come to an agreement before a proposed school-level project can move ahead.

According to several respondents, the PTA’s involvement in decisions about school infrastructure is crucial for two main reasons: First, many interviewees described how the PTA is responsible for contributing to or raising funds for various initiatives, so their participation in decision-making is essential given their influence over funds necessary for the completion of a project. One respondent described this process in detail:

*Well [the] PTA is very cardinal; you cannot start a project without them approving. They must be there because they are the people that shall provide the resources: If it’s monetary, it is them that shall go lobby, raise [the] money for a particular project that you want to undertake in the school. Now if you do things without them getting involved ... making, you know, submissions on the project, then you will be failing in your duties. They shall help you.*

Second, the PTA serves as a bridge between communities and school administrators and is often tasked with garnering support for initiatives from community members. For this

reason, their involvement in decisions and their support of proposed changes is crucial for the overall success of these initiatives. A school administrator noted how, *“actually, they [the PTA] are the key. Without the PTA you can’t ... it’s very difficult to engage the parents. So, the PTA are highly involved because that’s the channel through which we are able to reach out to the communities easy.”* This sentiment was echoed by another respondent, who described how it is the PTA’s responsibility to relay the plan to parents and get their support:

*This program starts with the PTA. They first sit down alone and make the entire program. When they finish making the program, they give the program to the parents that at this school there is need for toilets, we should make the bricks. The PTA sits down and the teachers then they will say that now we want to build toilets and other houses. So when they do that, you talk. When you just finish talking, then that is all. They don’t come to tell us that number two, number three, number four, number five, go and make the bricks, there is no, then it ends there.*

From this data, we can glean that the PTA often plays a quite crucial role in filtering ideas for school-level projects before these ideas reach parents and the broader community. This quote also demonstrates, however, that there are varying levels of parental involvement in decision-making. Whereas some respondents (cited earlier) describe a process whereby community members are consulted during initial phases, others cite examples where decisions are presented to communities and parents as largely final.

**Decision-making about teacher performance.** Teacher performance is officially assessed through several internal and external mechanisms with *“the aim of uplifting the levels of lesson delivery in these classrooms as per performance of the teachers”* (according to a teacher in our sample). The internal monitoring system includes observations of teachers conducted by senior school administrators (typically the head teacher or the deputy head teacher). According to one interviewee, these observations evaluate a teacher’s *“punctuality, the dress code, their actual core business, lesson delivery in class, evaluations through their teaching files, and their actual performance in their classrooms.”* Another interviewee noted how observers use *“DEBS-verified instruments, observation instruments, which are done in a term at least two times because of the time factor, at least two times [during the school year].”*

Respondents largely agreed that the external monitoring of teachers is typically conducted by DEBS or education officials at the provincial level, though respondents provided a wide range of responses regarding how this process is implemented. The internal and external monitoring data are brought together to form a comprehensive evaluation of teacher

performance, and it is up to school administrators to recommend action based on a teacher's performance.

In contrast to decisions made about school infrastructure, parents and community members are less likely to be involved in decisions around teacher performance. Most interviewees from schools (including teachers, teaching assistants, and school administrators) and district-level officials believed that parents lacked knowledge on effective teaching practices. According to one respondent, *"This is a technical issue. Parents are not teachers [laughs] ... they won't understand exactly what it takes for a teacher to teach well. So the involvement at that level—it's not very much because they are not technical people. ... It takes a thief to catch a thief."* Another interviewee mentioned something similar: *"They are professional issues, which should not be handled by a villager—someone who is not in that area. What can a farmer advise a teacher [laughs] regarding teaching? It's not possible, we involve professionals. This is why we have standard officers."* From these respondents' perspective, teachers' expertise and knowledge of students should only be evaluated by educational experts because

*Teachers are qualified personnel. Teachers understand learners better than parents. They understand the psychology of a learner, they understand the weakness and their strengths, they understand the strategies to put in to make learners understand better than the parent who understand the child from home kind of environment.*

As demonstrated in this example, teachers refer to their training and knowledge of science to reinforce their intellectual authority over parents. This suggests that these teachers may be engaging in "boundary work," an ideological rhetorical style used to distinguish and reinforce one's professional or disciplinary boundaries (Gieryn, 1983). In this instance, teachers appear to use the boundary work to reinforce their professional expertise and autonomy from political interference and accountability to nonteachers. Teachers' rejections of parents' expertise is particularly interesting given Zambia's contemporary emphasis on parental involvement in children's education.

Other interviewees noted how it is not necessarily parents' lack of expertise that should prevent them from being involved in these decisions, but more so a need to adopt a more systematic, objective teacher evaluation process. A teacher described how *"I wouldn't love—about the mandatory observation—that parents have more of an upper hand than they have right now ... it should have a systematic way of approaching something, not just to give a parent more power to come and observe me and talk to me. No, no, no there must be a system."* If parents are involved in this process, this potentially creates a more subjective teacher evaluation process, leading to inconsistent evaluations of teacher performance.

Many parents interviewed for this study agreed that they lacked sufficient knowledge to effectively evaluate a teacher's performance, though many expressed a desire to learn more so that they *could* play a more active role. One parent described this when she stated,

*We have never gone there before, maybe our eyes were blind. ... Because we don't know how the teachers performs, if they teach our children and they pass, we think they are teaching well. Since we are a little bit illiterate, so we don't know if the teacher teaches well or not. That's why we said we need to be educated.*

Another community member provided a similar statement but added a caveat regarding parental ability to know about teacher performance. Although many parents would like to know more about teacher performance and potentially be more involved in this process, other, more systemic factors (e.g. the distance to the child's school, power dynamics between teachers and parents) may prevent parents from being able to effectively oversee a teacher's work. One parent described this challenge:

*We don't get involved, so we don't know. We treat them [teachers] as government officials, so we can't tell. There is not action that we can take as a community. Maybe the head teacher knows. Thinking I cannot do anything since that's the teacher, s/he is [more] educated than me. Even when they are doing something wrong—maybe the classes are far [from] us, can't know if s/he [is] supposed to be in class or if she is sat outside.*

Lack of education, perceived lack of expertise on how to evaluate teacher performance, and distance to schools were all barriers to parental involvement in decisions about teacher performance that parents mentioned. However, even if these barriers were eliminated, most parents expressed a reluctance to approach teachers when there was an issue due to norms of deference toward teachers and fears of retribution on children. According to one parent, *"If you go and talk to the teacher who is teaching your child, it will look awkward to tell the teacher that you are not performing well. And that will make a problem to the teacher to say the parents here are not well."* Another parent described a similar dynamic between parents and teachers when describing a case where a family approached a teacher about abuse of their child: *"The whole family came to attack the teacher. This doesn't show respect. You can't follow the teacher as the whole family. And also the teachers are supposed to teach the child. That's brings animosity among the teachers and children. Even if the teacher is teaching, there will be hatred between the two."*

Some parents may also be reluctant to engage with the teacher over performance issues, particularly in locations that struggle to recruit and retain teachers. One parent described

how “it becomes hard to tell her that ‘no, this one doesn’t teach.’ It becomes difficult unless you go to tell the head private and then she is called. Because that is what brings problems when you say that she doesn’t teach. When she hears [this], she will say that ‘I think this school is bad—the community is bad. I will go out, I will get a transfer, I will seek transfer.’ So it is very difficult.” In this case, teachers working in areas that struggle to retain staff have more power to negotiate the terms of their employment and to possibly push back against broader critiques of their performance. Fears of retribution and potentially losing teachers in areas that need them the most may prevent parents from reporting poor teacher performance.

Parents may not generally be actively involved in decisions about teacher performance, but a few parents in our study described their role in replacing poor-performing teachers in extreme cases (e.g. cases where teachers were harming children). In these cases, parents may believe that they have greater leverage to justify replacing a particular instructor. One interviewee described an instance where several community members saw three teachers drinking alcohol during school hours and parents fought to replacing the teachers:

*We have chased [out] about three teachers. We chased them because some of them would leave the class to go and drink beer, and some wouldn’t have even concrete reasons. ... They could drink beer, and we report[ed] that to the headmaster. The problems started arising at this school, and we started watching what was happening. The headmaster didn’t even sit with them [the teachers], and so we had to work together as parents and made sure the teachers are chased. And the head teacher would have told us that he sat with the teachers, but nothing. ... They were given a force leave, and then the transfer came. And then the councillor came and the MP.*

This example highlights how the decision-making about teacher performance lies primarily in the hands of school administrators, while also highlighting the important role that parents can play in teacher accountability and the potential for them to play a greater role. Any action to replace or punish poorly performing teachers must inevitably go through administrators, so if parents or community members face resistance in replacing teachers, they often seek the influence of other actors (e.g. the PTA, headmen, local councillors) in order to force administrators to act.

**Decision-making about student progression.** Respondents provided mixed responses regarding decision-making about student progression. Respondents unanimously agreed that both parents and teachers were involved in the decisions, but respondents provided mixed responses regarding who made the *final* decision about students moving from one grade to the next. According to one parent, “We are the ones who make decisions on that and sometimes the teachers. We would discuss to say that ‘this child is not doing well, so

*should he remain or not,' but sometimes when you want a child to remain, the teacher would say that the child is getting old and so the child goes through."* Another parent also noted the role of the parent and teacher in making the decision but said that the parent was the "final authority": *"Interviewer: Okay, so if those discussions come to a dead end, who makes the ultimate decision ...who between the parent and head is the final authority? Respondent: The final authority is usually the parent."* Still further, another respondent noted that *"teachers decide sometimes because they know the performance of every child, but they liaise with parents. Sometimes they repeat from grade five to grade four."*

Qualitative data show that the reason behind the mixed responses is likely due to several factors. First, there may be institutional factors that preclude parental involvement in decisions about student progression. For example, a student may not be able to repeat a grade even if a teacher or a parent wishes this to occur, given oversized classrooms and lack of resources to keep students in school longer. Second, parents may prefer their child to proceed in their school regardless of performance, due to lack of faith in the quality of instruction and the ability for the student to learn more if she repeats a grade. According to one parent in our sample,

*Other parents just allow their children to proceed regardless of the performance. The teacher has to be there all the time to help the pupil for her/him to pick up. But I don't see that happening. That's why some parents preferred their children just to be progressing to the next grade all the time, because even if she repeats, it won't change. They say my child will be old at this school—let her just continue progressing, she won't change.*

Finally, school "repeat policies" and assessment practices may incentivize teachers and school administrators to move students ahead even if they are not ready. One interviewee described this process as follows:

*There are some schools where they will say that "no, we have a repeat policy. When we see these children are not doing well, we shall repeat them," but there is a limit to that. Because at grade seven, once children get the—they write the exams—then we know that it should take them two years before they come to write grade nine exams. So if this child passes to grade eight, that examination number is only valid for a limited period of time. So even if the school is deciding to repeat this child, they should also be aware that they can't continuously repeat because they will reach a point where the examination number becomes—you know—expires. And when you present this child for exams at grade nine, you find they say, "No, this examination number is now expired, it can't be used."*

Decisions about student progression typically include parents and teachers, but these cases demonstrate that other factors are likely to structure the level of influence that any one actor can have on student progression.

## **5. Conclusions**

The baseline results for the evaluation of the community trainings on the community-friendly school profiles demonstrate that the cluster RCT was successful in creating equivalence in observable characteristics between households around treatment and control schools. We did not find evidence for systematic statistically significant differences. This finding indicates that the randomization will enable AIR to make causal claims about the short-term effects of the community trainings after the endline data collection and analysis (1 year after the introduction of the model).

Our baseline data indicate high interest and engagement among parents in their child's education but mixed satisfaction with schools and teachers. Almost all parents support the idea that they should be informed on the happenings at their child's school, and over 80 per cent report feeling informed, although almost two thirds of parents get most of their information from their children. Of note is that 5 per cent of parents report getting most of their information from school profiles. Parents are fairly involved, with over 70 per cent reporting that they attended a PTA meeting within the past year. Parents broadly feel that they have agency to affect change: Over 80 per cent say that they can do things to improve the quality of their child's school, and almost 70 per cent report that the head teacher is interested in their input. Parents report less confidence with the learning environment, with 10 per cent and 20 per cent reporting being very dissatisfied and dissatisfied, respectively.

We identified several potential barriers to the CFSP community training's theory of change: First, educator support for parental engagement was limited to certain content areas. Teachers and school administrators broadly support parents engaging in their child's schooling through funding and labour contributions for infrastructure investments, but this did not extend to parents being involved in topics with a greater focus on education, such as decision-making around teacher performance. Second, our qualitative data indicate that norms of deference to teachers and administrators often prevented parents from wanting to approach school administrators with challenges, which has the potential to decrease the use of the CFSP data.

We plan to collect endline data in July–October 2018. The household survey during endline data collection will focus on parental/caregiver characteristics, beliefs, and practices, including engagement with their child's education, engagement in PTA, perceptions of school quality, perceptions of control over school decisions, CFSP awareness, sources of information on school quality, perceived value of school-quality information, and student enrolment and attendance. The school survey will examine school administrator

perceptions of parental engagement, school decision-making, and teacher attendance. In addition, we will conduct an additional round of qualitative data collection in communities that received the community-level training, to assess perceptions of how the training impacted community engagement and school management.

## **5.1 Limitations**

Our qualitative analysis does not claim an objective perspective on parental, teacher, or school administrator engagement or agency. Rather, our findings represent the narratives and perspectives of interviewees—differently positioned in terms of socioeconomic status, education, ethnicity, and gender—as they respond to their social context. As a result, these narratives may reflect subjective biases, prejudices, and misgivings within and across social groups.

The quantitative analysis also includes reported perceptions of caregivers and school personnel. Whereas these measures are useful for understanding how people feel about their schools, the perceptions may not be reliable. Where possible, we have corroborated perceptions with administrative data, but this does not change the fact that reported perceptions may vary widely across individuals who participate in the PTA, who are familiar with the same teacher, or whose children attend the same school.

Further complicating the analysis, since many of our outcome measures come from self-reported survey data, they are subject to social desirability bias, because respondents want to give the “right” answer and not the answer that is most accurate for them (Grimm, 2010). When interpreting the results, we must be aware that some respondents, like school administrators, may feel more pressure to provide a socially desirable response. However, we cannot be sure that they are doing so and therefore must interpret our results with caution.

Lastly, on the quantitative side, our impact assessment may be biased if we find that the community training sessions influence enrolment. If the training sessions affect enrolment, the school population may change, and we will no longer have one clear causal link between trainings and outcomes of interest that depend on administrative data like repetition rates or dropout rates. Where appropriate, we will conduct bounds analysis to estimate the extent of bias on the impact assessments. Note that this does not apply to outcomes measured during the household survey.

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# Annex A. Sample School Profile

## Detailed Profile (page 1 of 2)



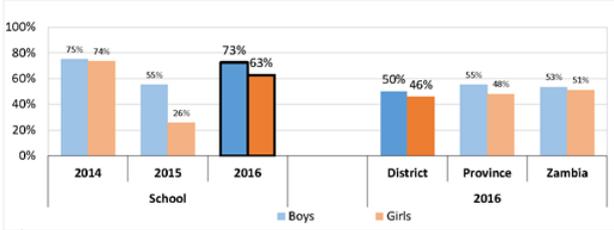
**REPUBLIC OF ZAMBIA**  
**MINISTRY OF GENERAL EDUCATION**  
**2016 School Profile**



Name of school	<b>GONDAR</b>	EMIS number	2954
Province	EASTERN	District	CHIPATA
Location	Rural Area	Phone Number	2221052
Address	BOX 510768, CHIPATA	Distance to DEBS	15 km
Name of Head Teacher	LUNGU OKEDI	Running agency	GRZ

**Learning outcomes: Grade 7 - Percentage of learners achieving Division 1, 2 or 3**

Results for exam center #040181 (GONDAR)



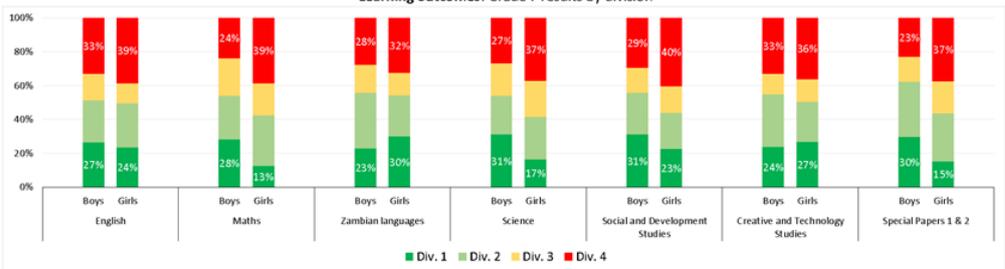
Year	Boys	Girls
2014	75%	74%
2015	55%	26%
2016	73%	63%

**Congratulations! Overall results have improved from 2015. But they are lower than in 2014.**

**Caution! Girls' results are much lower than those of boys.**

**Congratulations! Your school's results are significantly above the district average.**

**Learning outcomes: Grade 7 results by division**



ENGLISH: 27% of boys and 24% of girls achieved Division 1 and 33% of boys and 39% of girls failed.

MATHEMATICS: 28% of boys and 13% of girls achieved Division 1 and 24% of boys and 39% of girls failed.

ZAMBIAN LANGUAGES: 23% of boys and 30% of girls achieved Division 1 and 28% of boys and 32% of girls failed.

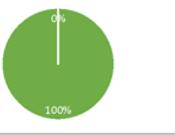
SCIENCE: 31% of boys and 17% of girls achieved Division 1 and 27% of boys and 37% of girls failed.

SDS: 31% of boys and 23% of girls achieved Division 1 and 29% of boys and 40% of girls failed.

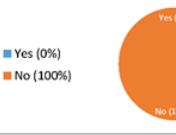
**Enrolment**

	Pre school	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	Gr 6	Gr 7	Total (2016)	2015
Enrolment	0	166	177	180	222	210	256	200	1411	1201
Boys	0	80	95	81	113	99	124	92	684	578
Girls	0	86	82	99	109	111	132	108	727	623
Readmitted after pregnancy									0	

**Age of Grade 1 entrants**



**Preschool Experience of Grade 1 entrants**



**Vulnerable Children**

	Boys	Girls
Orphans	39	29
(%)	6%	4%
Non-Zambian children	0	0
(%)	0%	0%
Refugee children	0	0
(%)	0%	0%
Children with Special Education Needs	0	0
(%)	0%	0%

100% of new entrants were 7 years old. 0% were 8 years old. 0% were older than 8.

No children had preschool experience before entering Grade 1.

Orphans are the largest group of vulnerable children and represent 6% of all boys and 4% of girls (5% of all pupils).

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	Gr 6	Gr 7	Total (2016)	Last year (2015)	District
Percentage of Repeaters	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
Number of Drop Outs reported	0	0	0	0	0	0	0	0	-	-
Promotion Rate	-	-	92%	107%	168%	96%	112%	128%	101%	103%
Boys	-	-	82%	106%	165%	100%	106%	127%	99%	104%
Girls	-	-	103%	108%	171%	92%	117%	129%	104%	102%

Promotion rates greater than 100% indicate that there were new pupils who entered that grade (transfers or children returning to school after dropping out).

**There are no repeaters**

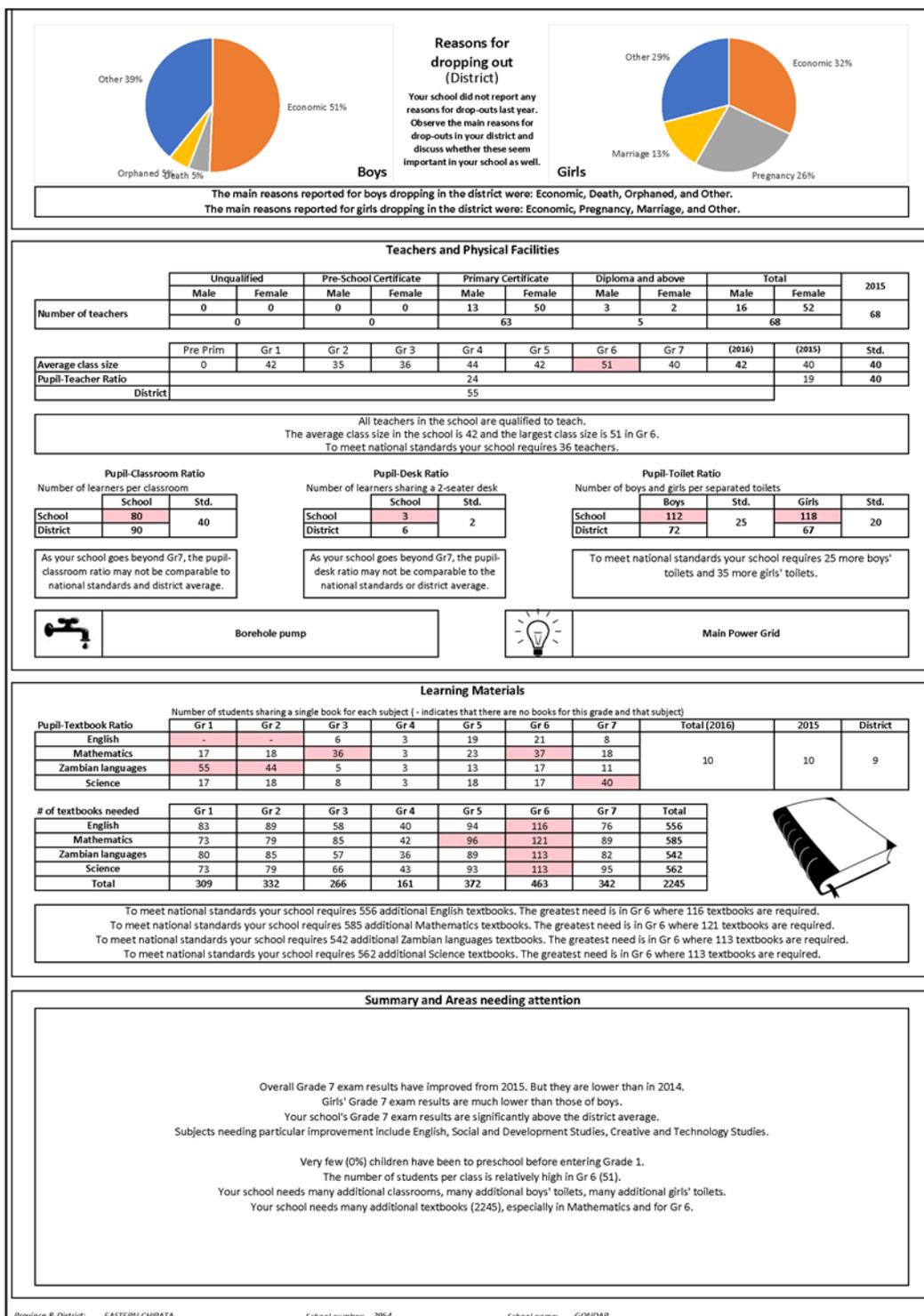
**No drop outs were reported.**

The lowest promotion rate is between Grade 2 and Grade 3 (92%).

The lowest promotion rate for boys is between Grade 2 and Grade 3 (82%).

The lowest promotion rate for girls is between Grade 5 and Grade 6 (92%).

## Detailed Profile (page 2 of 2)



## Annex B. Data Collection Instruments

### Baseline Household Survey (double click to access full document)

11/13/2018

DMS\_baseline\_2018-09-20\_printable (1).html

DMS\_baseline\_final\_180920

Field	Question	Answer
Location Details		
enumerator (required)	choose enumerator's name	[REDACTED]
todaydate (required)	enter today's date	[REDACTED]
district (required)	Select district	1 Chibombo 2 Chongwe
catchmentname (required)	Select school	[REDACTED]

file:///C:/Users/ezulu/Downloads/DMS\_baseline\_2018-09-20\_printable%20(1).html

1/30

## Qualitative Protocols (double click to access full document)

### Introductory Comments and Informed Consent

Thank you for taking time to speak with me today. I am [NAME] from the American Institutes for Research [AIR] and I will be conducting today's interview. I am part of a research team that is evaluating the United Nations Children's Fund's (UNICEF) Data Must Speak programme which aims to deepen community engagement with local primary schools by increasing access to information on school performance.

The purpose of this focus group discussion is to obtain in-depth information about your opinion on school performance profiles, improving community trainings on the profiles, and anticipated programme impact. We are looking forward to learning more about your opinions and experiences on several topics related to this programme, and we encourage you to be candid in your responses. There are no wrong answers, and everyone's input is equally valued. This information will be used to improve UNICEF's Data Must Speak programme. Everyone is encouraged to participate in the discussion. Focus group discussions work best if everyone actively participates.

You should feel free to speak freely and openly, as your name will be kept private and separate from the interview. Only AIR and the researchers working with AIR will have access to your name and the information you provide. Your name will only be used if we require additional follow-up with you, and this follow-up will only be for research-related purposes. All information that is collected in this study will be treated confidentially. What we mean by this is that, AIR will make the final results of this study available to others outside of the research team but, no individuals that participate in this study will be identifiable in reported results. There is minimal risk involved in your participation in this study. The ideas shared during this focus group discussion should not be shared with non-participants in the focus group discussion. Your participation in this focus group discussion is completely voluntary and you may choose to withdraw at any time.

Today's focus group discussion will take approximately 45 minutes to an hour. Again, your participation is completely voluntary. You may decide to stop participating at any time. You also do not have to answer any questions you do not wish to answer. Not answering the questions will not hinder your access to any service you are currently or may receive as part of your association with this programme. You may indicate at any time if you do not want to be recorded. Though I may interject with questions or to ask for clarification or detail during our conversation, this is your chance to speak freely about your experiences.

1. Do you have any questions?
2. Do you agree to participate in today's discussion?
3. Do you consent to be recorded?

If you have questions about the interview, please contact either:

**[CONTACT]** of UNICEF Data Must Speak

or

**Dr. Andrew Brudevold-Newman** of the American Institutes for Research (Tel. +1 202 403 6321),  
1000 Thomas Jefferson St. NW, Washington, DC 20007, USA

## Annex C. Evaluation Framework

Evaluation Questions (EQ)	Subquestion	Element in Theory of Change	Key Indicator	Analytical Approach
<b>EQ1 (Initial context): Parent/caregiver beliefs about school quality</b>	Relevance in terms of MoGE and UNICEF agenda	Programme Assumptions	Initial Beliefs/ Accuracy of School Quality	School Quality Beliefs Survey
<b>EQ1 (Initial context): Parent/caregiver beliefs about school quality, parent/caregiver perceptions of power/control over school decisions</b>	Relevance in terms of MoGE and UNICEF agenda	Programme Assumptions	Beliefs/Perception of School Quality	Household survey
<b>EQ2 (Profile awareness and understanding): Familiarity with school profiles as a source of information</b>	Effectiveness at intervention level	Programme Outputs	Profile Awareness Profile Understanding	Household survey, school administrator survey, and FGDs with parents
<b>EQ3 (Community engagement): Parent/caregiver involvement in PTA or other school management committees</b>	Effectiveness at intervention level	Programme Outcomes	Community Engagement	Household survey and FGDs with parents and teachers, KIIs with school administrators
<b>EQ4 (School management and change): Parent/caregiver perceptions of school decision-making processes</b>	Effectiveness at intervention level	Programme Outcomes	School Decision-Making	Household survey, FGDs with parents

Evaluation Questions (EQ)	Subquestion	Element in Theory of Change	Key Indicator	Analytical Approach
<b>EQ4 (School management and change): School administrators' perceptions of power to affect change, school decision-making practices, accessibility of school profiles</b>	Effectiveness at intervention level	Programme Outcomes	School Decision-Making	School administrator survey, KIIs with school administrators
<b>EQ4: Changes in learner/teacher attendance, repetition rates, dropout rates, learner academic achievement, school resources</b>	Impact of CFPS training (Overall and Differential Effects)	Programme Impacts	Administrative Data	School administrator survey, FGDs with parents and teachers, and KIIs with school administrators



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