



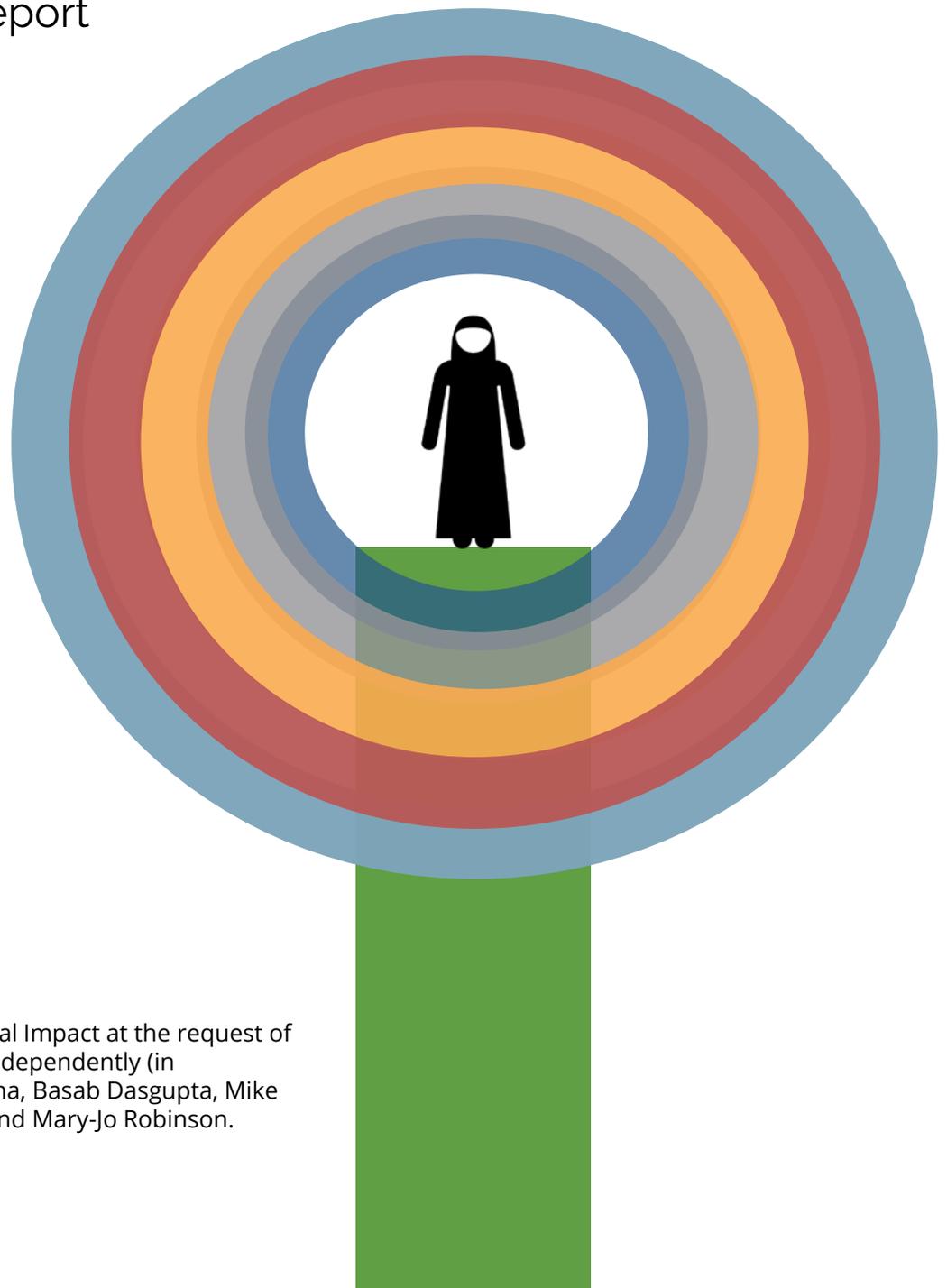
Girls'
Education
Challenge



Educate Girls, End Poverty Project

Benadir & Galmudug, Puntland, and Somaliland

Endline Evaluation Report



April 2017

This publication was produced by Social Impact at the request of Relief International. It was prepared independently (in alphabetical order) by Andrew Carmona, Basab Dasgupta, Mike Duthie, Emily Gonzales, Andrea Hur, and Mary-Jo Robinson.

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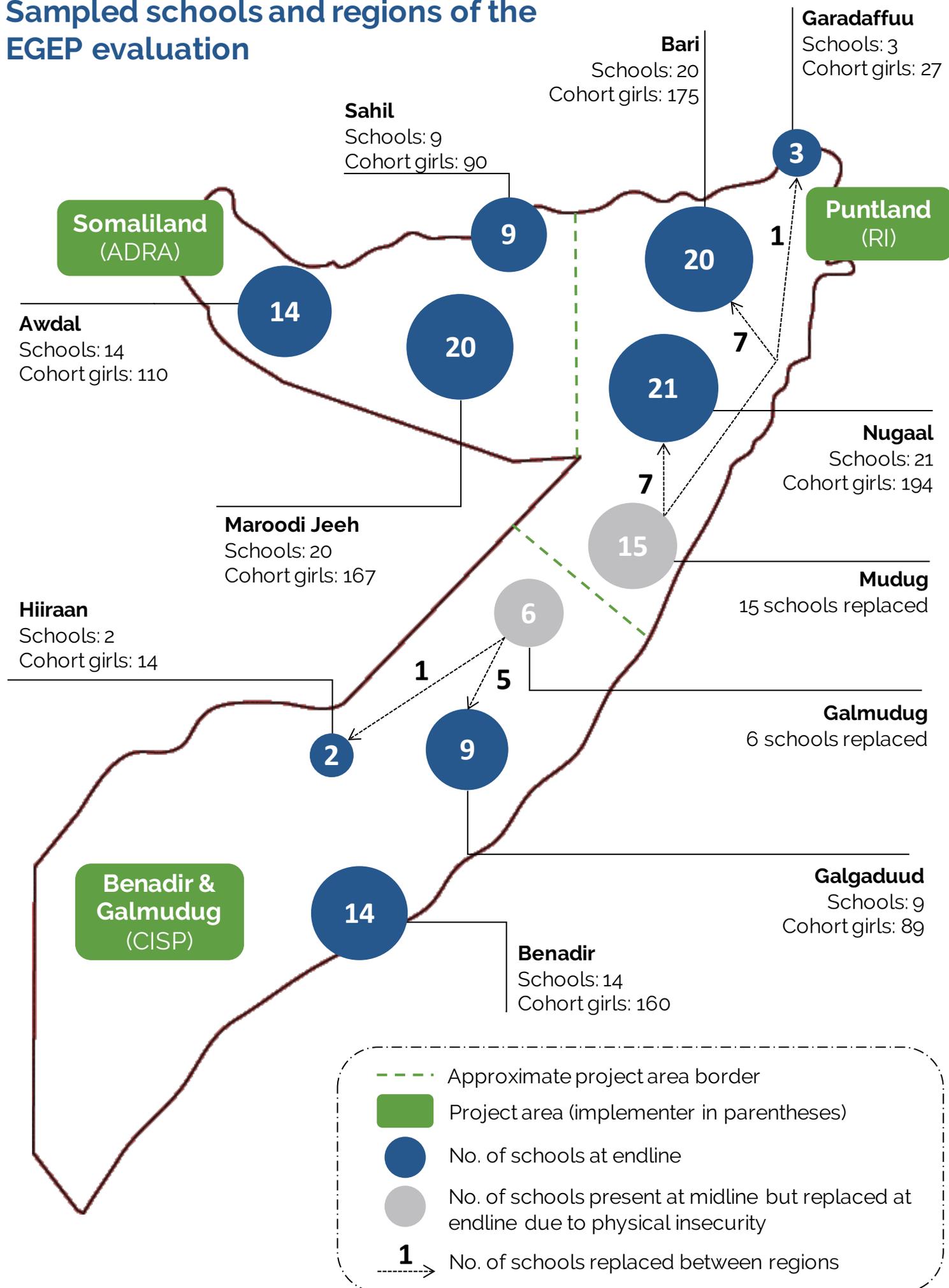
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Acronyms

ADRA	Adventist Development and Relief Agency
ALP	Accelerated Learning Programme
B&G	Benadir and Galmudug
BL	Baseline
CEC	Community education committee
CISP	Comitato Internazionale per lo Sviluppo dei Popoli
DFID	UK Department for International Development
EDC	Electronic data collection
EGEP	Educate Girls, End Poverty
EL	Endline
EM	Evaluation Manager
FGD	Focus group discussion
FGM	Female genital mutilation
FM	Fund Manager
GEC	Girls Education Challenge
GFP	MOE Gender Focal Point
HH	Household
HOH	Head of household
IDP	Internally displaced person
ISG	In-school girls
KII	Key informant interview
MDG	Millennium Development Goals
ML	Midline
M&E	Monitoring and evaluation
MHM	Menstrual hygiene management
MOE	Ministry of Education
NGO	Nongovernmental organization
ODK	Open data kit
OOS	Out of school
OOSG	Out of school girls
PL	Puntland
REO	Regional Education Office
RI	Relief International
SD	Standard deviation
SDP	School development plan
SE	Standard error
SI	Social Impact, Inc.
SL	Somaliland
SSF	Supplementary school feeding
UN	United Nations
WFP	United Nations World Food Programme

Sampled schools and regions of the EGEP evaluation



Endline

8.2/10
average literacy
test score



47,236 girls reached by EGEP
interventions



6.7/10
average numeracy
test score



18% increase in
girls' psychosocial
wellbeing



9% point
increase in
attendance rate



Midline

64% of
schools
establish
girls' clubs



190 female
mentors
trained



45%
increase in
community
support for
girls'
education



3,890
girls receive
bursaries



172 teachers
trained



47 schools
receive civil works



Baseline

77%
attendance
rate



5.0/10
avg. literacy test
score



28%
of girls receive
solar lamps



3.9/10
Avg. numeracy
test score



77% of girls in a
household enrolled



84% of schools
distribute
sanitary kits



"There is a wise word that says: [If a girl studies then she will eventually end up her life in the kitchen] If I will be alive, I will change that [saying]. ... You can see female ministers who are better than men, it is understood that education is important for girls ... If we complete our education, we will do a lot, Insha Allaah." **-B&G girl**

"if we could have a chance to lead the country, we would make it [a] peaceful country." **-Somaliland girl**

"It is said that " anyone who teaches a boy taught a person while the one who teaches a girl a taught a nation." Girls are leaving every house, and I hope if those girls complete education Somalia will leave the poverty." **-Puntland girl**



"The education of girls is very important. ... before people used to think different but now they understood and seen the value of an educated girl in the community." **-Somaliland teacher**

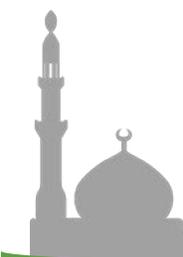
"...Girls got education access, they started to visit girl in their houses and registered them, then they joined the school. earlier they used to be ignorant who only used to be in the kitchen, **-Puntland mother**

"An educated girl ...will be benefit for her house, her community and religion as well." **-Somaliland mother**

"I will always support girls education because it is said "educated girl is like educated nation" girls should teach from beginning up to the end. Therefore, I want to benefit ... about the gender issue, to get trainings of gender issues.." **-Puntland MOE**

"I believe that girls' education should be promoted, I know the girls and value of education... educated girls help themselves and their families." **-B&G father**

"I believe that education for girls is important; it's something that is [a] must and it's their right to ... educate girls like the boys." **-Somaliland CEC**



Executive Summary

This endline (EL) report is the third and final part of a performance evaluation of the Educate Girls, End Poverty (EGEP) program in Somaliland (SL), Puntland (PL), and Benadir and Galmudug (B&G), led by Relief International (RI) and funded by the United Kingdom's Department for International Development's (DFID) Girls Education Challenge (GEC) Fund. The EGEP project constitutes a consortium approach, with RI implementing activities in Puntland, Adventist Development and Relief Agency (ADRA) in Somaliland, and Comitato Internazionale per lo Sviluppo dei Popoli in Benadir & Galmudug. This evaluation document reports on the changes in GEC's four key educational outcomes for girls, which include learning, attendance, retention, and enrollment, since the beginning of program activities at baseline (BL) in January 2014. Wherever possible, the report links observed changes in these educational outcomes to EGEP project interventions, utilizing supporting evidence gleaned through quantitative and qualitative surveys, interviews, and group discussions conducted in schools, households, and communities.

Social Impact, Inc., (SI) was contracted by RI in the fall of 2016 to conduct the endline evaluation of EGEP; SI also conducted the baseline evaluation in 2014 and the midline (ML) evaluation in early 2016. The endline evaluation followed a pre-post, panel design methodology to better understand the influence of evaluation subjects' personal characteristics or motivations on the outcomes of interest. At baseline, a cohort of 1,260 girls in 121 schools and their catchment areas was selected to include out-of-school girls (OOSG) as well as second and third graders. To counter maturation bias in the learning outcome, at baseline SI tested older girls, creating benchmarks to approximate the level at which participating girls would be performing in school without the intervention. SI then compared the cohort girls' scores at midline and endline to targets created from these benchmarks.

Project Theory of Change: The EGEP Theory of Change is developed on the premise that there is no single 'silver bullet' approach that can ensure challenges related to girls' education are overcome. The project is implemented through a multilevel holistic approach that suggests that both demand and supply side barriers faced by girls need to be tackled through community-led interventions in partnership with the respective Ministries of Education. This approach will then lead to improvements in outcomes related to enrollment, attendance, sustainability, and most critically learning.

Design: In accordance with the study design, at baseline SI randomly sampled a group of girls, households, and schools. At midline, SI followed up with the same panel of girls, households, and schools. At endline, SI followed up with the same girls and schools, however, instead of following up with the same households, we

followed up directly with households of cohort girls. As a benefit, this change in methodology allowed for household characteristics of cohort girls to be more easily linked to their educational outcomes. As a drawback, this departure from the original methodology at BL and ML (whereby households in the community were randomly selected) meant that household-based indicators were no longer comparable across the three time periods. Thus, where household-based indicators are measured, we display only the endline findings in this report.

Methodology: At endline SI focused heavily on qualitative data collection as a means of informing, supplementing, and triangulating quantitative results. SI carried out focus group discussions (FGDs) with mothers, fathers, and girls, as well as key informant interviews (KIIs) with community education committee (CEC) members, Ministry of Education (MOE) officials, and teachers. As at midline, SI utilized electronic data collection (EDC) to facilitate quantitative surveying and to ensure higher quality, more efficient, and faster data collection. Using the Open Data Kit (ODK) software, SI programmed six quantitative tools: a household survey, school survey, classroom headcount tool, classroom observation tool, and a primary and secondary learning assessment.

While most of the quantitative tools remained the same from baseline and midline, at endline SI administered a new literacy learning test. Expanded from 10 questions to 17, this test was created to counter large ceiling effects (girls obtaining perfect 10/10 scores) observed at midline. While the full new test is not comparable to BL and ML, the first 10 questions of the test remain the same and are comparable across the three data collection periods. In this report, we display scores from both the original 10 questions and the expanded 17-question test.

Activities of the endline evaluation took place between November 5 and December 17, 2016, and included a data collection training for 40 enumerators and supervisors in Hargeisa, Somaliland as well as six weeks of field data collection. Trainings and data collection were conducted and managed by the local data collection firm Forcier Consulting, with appropriate input and participation from SI and RI. Data collection in Puntland, Somaliland, and Benadir and Galmudug project areas began on or around November 11, 2016, and was completed by December 17, 2016. SI performed all data analysis using Stata 14 software.

Sampling: At endline, SI visited a total of 1,091 households, surveyed 106 primary schools, and administered primary learning tests to 1,500 girls and 299 boys. SI also conducted 49 separate qualitative FGDs and KIIs. Recontacting originally sampled girls, households, and schools was not without challenge. Some girls had moved schools, dropped out, or were dis-

placed by physical and economic insecurity and could not be located. Further, ISIS, Al-Shabab, and interclan violence in late 2016 delayed or prevented data collection in catchment areas of several sampled schools. Working closely with the data collection firm to mitigate risks, SI was able to minimize attrition of cohort girls at 18% and households at 15% (not taking into account replaced schools in Galkayo), significantly better than the 37% and 31% attrition rates, respectively, at midline. Ten schools sampled at midline were dropped at endline, mostly due to physical insecurity, school closures, and end-of-year testing. At the onset of data collection, interclan violence in Galkayo forced SI to replace a total of 27 schools in the North and South Galkayo regions at endline. As a result, findings displayed in this report for Puntland and Benadir and Galmudug are not representative of the situation of girls in North and South Galkayo.

Limitations: The endline evaluation had several major limitations, including differences in seasonality of when ML and EL data collection took place, lack of a control group to support attribution of project interventions to observed outcomes, lack of learning test data to create realistic endline benchmarks for Grade 3 cohort girls, and large ceiling effects (perfect scores) on literacy tests. SI took concerted steps to mitigate these risks prior to, during, and after endline data collection. More information on limitations and our mitigation strategies can be found in section 1.2.6 of this report.

Outcome-level findings: From BL to EL, EGEP activities saw progressively positive improvements for most of its outcome-level indicators. For numeracy and literacy, primary school-level cohort girls overall did not exceed their midline or endline targets. Broken out by sub-group, OOSG surpassed their learning targets at midline, and OOSG and grade 3 girls exceeded their numeracy targets at endline. Secondary school girls exceeded midline targets for numeracy but not literacy. Between BL and EL, attendance of cohort girls rose by 9.2 percentage points, as measured by the classroom

headcount tool. As to retention, 72% of baseline cohort girls were still in school at midline, 82% were still in school at endline, and, of OOSG at baseline who were successfully recontacted at endline, 93% had enrolled in school. Enrollment of cohort girls between baseline and midline increased by 3.4% and then decreased by 3.4% between midline and endline, amounting to a zero change across the three data collection periods, per EGEP enrollment records.

Output-level findings: EGEP output-level interventions were tracked via 20 output indicators, which can be found in the program’s logical framework in Annex 1. These interventions ranged from community awareness activities, civil works construction, and distribution of sanitary kits and solar lamps, to building capacity of CECs and MOE officials and training teachers in girl-centered teaching methods. The following table lays out the high-level findings from output interventions. Significant associations between project interventions and outcomes from regression analyses are bolded.

Regression analysis findings: SI carried out bivariate and multivariate regression analysis to determine the relationship of certain demographic, economic, social, and school-based factors and program outputs on program outcomes (learning, attendance, and enrollment). At endline, SI also combined these regression analyses with drought-affected, conflict-affected, IDP, rural, urban, and orphaned girls, to see the effect of outputs on the outcomes of different populations of marginalized girls targeted by EGEP. These quantitative analyses do not definitely attribute program interventions to observed changes in program outcomes; rather, they denote statistically significant positive or negative associations. Figure 1 shows the result of regression analyses, in particular the relationships between key interventions (the left-hand column) and target groups of marginalized girls (across the top) and project outcomes (also across the top).

Table 1: Outcome-level findings of the endline evaluation

Key Outcome Indicator	Baseline Value	Midline Value	Endline Value	Endline Target	Δ from Baseline to Midline (points or %)	Δ from Midline to Endline (points or %)
Primary Learning: numeracy (out of 10) — OOSG	1.2	5.0	5.9	+3.8	+0.9	+0.6
Primary Learning: numeracy (out of 10) — Grade 2	4.7	6.6	7.1	8.7	+1.9	+0.5
Primary Learning: numeracy (out of 10) — Grade 3	6.3	6.9	7.4	7.3	+0.6	+0.5
Primary Learning: literacy (out of 10) — OOSG	1.5	5.9	6.9	7.5	+4.4	+1.0
Primary Learning: literacy (out of 10) — Grade 2	6.2	8.1	8.9	9.9	+1.9	+0.8
Primary Learning: literacy (out of 10) — Grade 3	7.7	8.2	8.9	9.6	+0.5	+0.7
Secondary Learning: numeracy (out of 32*)	15.9	17.1	-	16.0**	+1.2	--
Secondary learning: literacy (out of 32)*	14.6	16.1	-	17.6**	+1.5	--
Attendance	76.8%	81.8%	86.0%	--	+5.0%PT	+4.2%PT
Retention	--	71.6%	82.0%	--	--	+10.4%PT
Enrollment (girls per school)	230	238	230	--	+3.4%	-3.4%

*At baseline, Forms 1 and 2 were tested; at midline, Forms 3 and 4 were tested; at endline, Forms 1 and 2 were tested
 **Secondary learning targets displayed in Table 1 are ML targets given that the secondary cohort was tracked from BL to ML only.

Project area findings: Throughout the report, SI disaggregated key findings by project area to highlight key discrepancies among intervention results and to assist RI and EGEP in any future potential programmatic management decisions. Table 3 lays out the key findings, both positive and negative.

Recommendations: Despite the oftentimes dire macroeconomic and security context of the country, as well as a myriad of financial, household, cultural, and personal barriers, interventions carried out by EGEP have overall been met with positive results. As there is no control group in this study, complete attribution of EGEP interventions to observed change is not possible, yet in-depth quantitative and qualitative analysis usefully triangulates and informs the data collected to paint a picture in which girls' educational outcomes in EGEP target areas are on the rise. With certain tweaks, EGEP and future interventions have the potential to contribute to the meaningful change taking place in the schools and communities in which the organization works.

Table 4 lays out recommendations from Social Impact for EGEP/RI, for local grant organizations that continue the work, and for donors such as DFID. While many of these refer to standalone interventions, SI has observed that combining certain interventions and focusing them on specific target populations of girls has the potential to increase the value for money of project activities. Drought, hunger, and financial burden appear to be the largest barriers to achieving positive increases in key outcomes. We find that combining school feeding programs with sanitary kit distribution in rural, drought affected, and IDP areas, linking radio awareness messaging and financial support interventions (such as bursaries) in urban areas, and combining functional, private latrines with the presence of a female mentor/advisor may produce compounded positive effects on program outcomes. To the extent possible, interventions should target drought-affected and displaced populations of girls to achieve the greatest impact.

Table 2: Output-level findings of the endline evaluation

Intervention	High-level findings and relationship to outcomes
Output 1: Marginalized girls are supported to enroll and stay in school by their communities, families, schools, and mentors	
Community-level awareness raising activities on girls' education	<ul style="list-style-type: none"> 81% of caregivers at endline said that people in the community have become more encouraging of girls succeeding in school in the past 3 years. 90% of caregivers want a girl to achieve a college- or university-level education. 88% of caregivers want a girl to be "in education" when she turns 18. Only 5% of caregivers cite a child's gender as an important factor in deciding whether he/she will be enrolled in school. 37% of caregivers have heard or witnessed any type of awareness-raising activity in the past 3 years. Of those who have heard of these activities, the most commonly stated activity heard or seen (at 46%) was radio programs. Of caregivers exposed to radio messages, 90% indicated having perceptions of the importance of girls' education changed. Households with a caregiver who had seen or heard an awareness-raising message in the past year were associated with having more girls enrolled in school than households with a caregiver who had not heard or witnessed an activity.
Bursary support	<ul style="list-style-type: none"> Differences in learning scores between girls who did and did not receive bursaries were not statistically significant. Broken out by grade, girls who were OOSG at baseline appear to do slightly worse on learning tests at lower grades compared to bursary girls but quickly catch up to their bursary counterparts as they age. Girls who were OOSG when they received a bursary are initially significantly associated with lower learning scores compared to girls who were ISG when they received a bursary; however, these differences become insignificant as girls age. Qualitatively, bursaries were the most influential factor for improving enrolment, attendance, and retention of marginalized girls. This was expressed frequently across all FGDs and KIIs.
Sanitary kit distribution	<ul style="list-style-type: none"> Qualitative evidence suggests that sanitary kits are essential for maintaining and improving attendance of girls Though it is notoriously difficult to measure quantitatively, one multiple regression model showed a positive association between sanitary kits and a girl's attendance and math scores. A Shapley decomposition finds that sanitary kits explain more of the variation in math scores (9%) and enrollment (6%) than any other output intervention, and are the second highest driver of variation in attendance (12%).
Solar lamp distribution	<ul style="list-style-type: none"> At endline, 28% of girls had received a solar lamp since baseline. 17% of all girls use a solar lamp to do homework at night at endline. Among girls who received a solar lamp in the previous year, 70% use them to do homework at night, up from 57% at midline. Among girls who had received a solar lamp between BL and ML, 40% were still using them at EL. Among girls who had never received a solar lamp, 10% of girls at midline and 8% of girls at endline had accessed solar lamps to do their homework at night. Provision of solar lamps to girls living in rural areas and drought-and conflict-affected areas has positive significant effects on learning scores. In a Shapley decomposition, among output interventions, solar lamps are the second highest driver of variation in reading scores (7%).

Female mentors	<ul style="list-style-type: none"> • Qualitatively, girls who have access to female mentors have higher psychosocial wellbeing at school. • CECs indicate that when girls' clubs have female mentors and/or female CEC members as advisors, they are much more involved with CECs in terms of advocacy.
Output 2: Primary and lower secondary schools across Puntland, Somaliland, Benadir and Galmudug provide a more gender sensitive environment for learning and a more relevant quality of teaching for girls	
Civil works	<ul style="list-style-type: none"> • At endline, 4% of girls identified a lack of water as something they did not like about school, down from 23% at midline. Also, 11% of girls identified insufficient latrines at endline, down from 31% at midline. • The overall proportion of girls reporting that their school had functioning latrines for girls rose steadily from 79% at baseline to 82% at midline to 86% at endline. • The proportion of girls who feel comfortable using latrines at their school dropped precipitously from baseline to midline (87% to 53%) and then rose again at endline to 61%. 23% of girls are uncomfortable but will still use a latrine. Nearly one in six girls (16%) will not use a latrine at school. • Water availability was cited as an improvement at school in the past year by 6% of girls at baseline, skyrocketing to 40% of girls by endline. • At endline, 60% of girls say something improved at their school in the past year, up from 29% at baseline. • According to girls, water availability, latrines/washrooms, lessons/teachers, and fairness to girls had the the largest progressive improvements across the three data collection periods. • Civil works construction in schools in rural and drought-affected areas and areas with internally displaced persons (IDPs) are significantly associated with higher learning scores. The presence of girls' latrines at a school had a positive significant correlation with attendance. Among all output interventions, Shapley decomposition shows that civil works are the highest driver of variation in reading scores (7.5%).
Girls' clubs	<ul style="list-style-type: none"> • The existence of girls' clubs among schools is on the rise, in 64% of all schools at endline, up from 55% at midline. Much of this gain came in Somaliland, which jumped from 21% to 48% of schools. • Qualitative data suggests that girls' clubs are contributing positively to empowerment of girls and that girls' clubs are extra strong when there is a female mentor/teacher at school who acts as an advisor to the club. • In bivariate regression models, a school with a girls' club was associated with significantly higher average learning scores in rural and drought-affected areas compared to schools in those areas that did not have girls' clubs.
Girl-centered teaching methods and psychological wellbeing	<ul style="list-style-type: none"> • The proportion of teachers using girl-centered teaching approaches decreased slightly overall from midline to endline, down to only 30% of teachers. • Of those teachers employing girl-centered teaching techniques, nearly an equal proportion are EGEP trained and non-EGEP trained. • Psychosocial wellbeing of girls increased by 17% between baseline and endline, according to a 3-question index on levels of happiness and safety at school. • Qualitative findings suggest that positive psychosocial wellbeing of girls at school appears to be driven by accessibility of female figures at the school and improved privacy of latrines. • Regression findings suggest that as a girl's psychosocial wellbeing surpasses a high score (10/12), the average days of school that she misses in the past two weeks drops substantially.
Mobile libraries	<ul style="list-style-type: none"> • Mobile libraries were significantly associated with lower learning scores among girls at schools that received mobile libraries. This does not necessarily indicate the intervention does not work; these schools may have been generally underperforming compared to schools that did not get mobile libraries. • Qualitatively, girls indicated that mobile libraries contribute to improve reading and overall learning, though the sample size (one FGD) was extremely small.
Accelerated Learning Program (ALP) classes	<ul style="list-style-type: none"> • In 2 ALP FGDs, girls overwhelmingly cited positive aspects of the program and a strong desire to re-enroll in school after completion of the program. • 46% of girls enrolled in ALP programs throughout the project lifetime are now enrolled in school.
School feeding programs	<ul style="list-style-type: none"> • The proportion of schools with feeding programs managed by CECs stayed about the same from midline to endline, at 61%. • EGEP feeding programs are almost entirely managed by CECs, whereas the same is true of only half of non-EGEP feeding programs. • Qualitatively, feeding programs were cited as the number one reason parents send their children to school. • Non-EGEP school feeding programs have a significant positive association with higher learning scores for a wide variety of girls. Non-EGEP school feeding programs also have significant positive correlation with attendance. • In regression models, EGEP-implemented school feeding programs were not significantly associated with higher enrollment, attendance, or learning outcomes. • In the Shapley decomposition model, feeding programs explain more of the variation in reading scores (14%) and attendance (17%) than any other output intervention.

Output 3: The Ministries of Education across all project areas and regions of Puntalnd, Somaliland, Benadir and Galmudug provide leadership in promoting girls' education and undertake routine monitoring of gender equality in education

MOE trainings and dialogue between MOE and	<ul style="list-style-type: none"> MOE Gender Focal points retain knowledge from gender trainings and speak articulately about the importance of girls' education and of conducting monitoring visits. Overall, the proportion of schools receiving monitoring visits by MOE officials increased slightly between baseline and endline (67% to 70%). Teaching quality remained the focus of most monitoring visits, as so indicated in 47% of all schools at endline. 58% of schools had engaged with an MOE department in the previous year, primarily through group or one-on-one meetings. Of schools engaging with the MOE, 74% did so with the Regional Education Office (REO) and only 19% did so with the Gender Unit. A visit from an MOE official in the past year was significantly associated with lower average learning scores in drought-affected, IDP, and urban school. This may indicate that MOE officials are visiting the most under-performing schools, a potentially positive finding.
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Output 4: Communities, mothers, and girls participate routinely and more forcefully in education policy and in the planning, monitoring, and budgeting processes for their schools

CEC capacity building and CEC awards	<ul style="list-style-type: none"> The proportion of CECs with school development plans (SDPs) that had specific activities targeting girls was already high at midline (92%). This proportion increased to 99% at endline. The proportion of CECs with SDPs that are supported through financial or in-kind contributions increased from 32% to 47% from midline to endline. The proportion of schools where girls' clubs and CECs interact fell from 71% to 58% between midline and endline. Matching cash grant awards to CECs to implement their SDPs are significantly associated with higher girls' learning scores in rural and drought-affected areas, compared to schools in those areas that did not receive awards.
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Figure 1: Matrix of bivariate and multivariate regression analysis findings

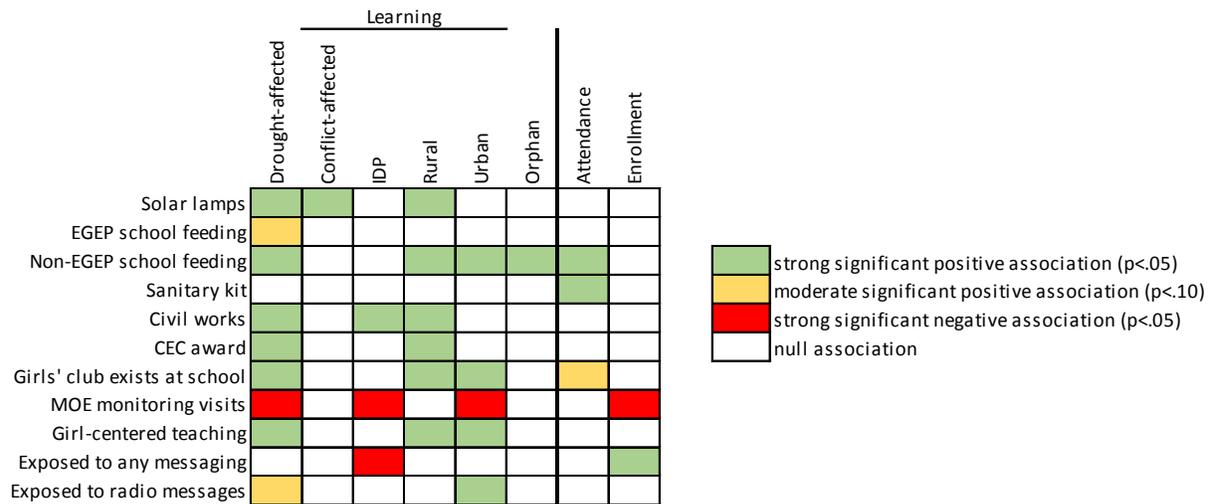


Table 3: Project area analysis summary findings

Project Area	Notable findings
Puntland	<ul style="list-style-type: none"> Households most often in IDP camps (19%) compared to other project areas; 26% of girls at endline stated that they went to school hungry all or most days of the week. The lowest average days of school missed in the last two weeks (0.87 days) for a girl in any project area Highest enrollment rate of girls in all project areas, at an average of 90.7% of girls in a household enrolled in school. Highest increase in enrolment among all project areas between BL and EL (7.7%), according to EGEP figures. Girls who receive solar lamps have the highest numeracy (8.0) and literacy scores (9.3) of all girls who receive solar lamps. Girls feel significantly more comfortable using latrines at school (73% at endline, compared to 55% in SL and 53% in B&G). Highest proportion of schools with teachers who use girl-centered teaching methods (43%) Lowest psychosocial wellbeing of all project areas at endline (10.3/12.0) Highest proportion of schools receiving an MOE monitoring visit in the past year (75%) Schools are more likely than schools in other project areas to have engaged with the MOE in the past year (62%). Schools are most likely to have a girls' club (80%) and most likely to have a girl participate in a girls' club (25% of girls). Girls that receive solar lamps, girls at schools that have an EGEP-feeding program, girls at schools that have a girls' club, and girls at schools that have a civil works program are associated with higher average learning scores compared to schools and girls in Puntland that do not have those interventions.
Somaliland	<ul style="list-style-type: none"> Households are most rural (65%), least literate (47% of head of household [HOH]), and least educated (11% having secondary education or higher). 56% of girls go to school hungry all or most days of the week. Greatest positive change among all project areas in attendance from BL to EL (15.7%). Highest average days of school missed in the last two weeks for a girl (1.42 days) Enrollment decreased from BL to EL overall by 16.6% according to headcounts and 18% according to EGEP enrollment figures, the only project area to experience a decrease from BL to EL. 16% of caregivers heard a radio message on girls' education, compared to 81% of caregivers in B&G. Girls who receive solar lamps had the highest percentage increase in learning scores from midline to endline (10.0 points) compared to other project areas. Only project area to experience progressive increases from BL to EL in the proportion of schools receiving an MOE monitoring visit in the past year (68% at BL, 70% at ML, 74% at EL) Highest proportion of schools receiving feedback after an MOE visit (55%) Lowest proportion of schools at endline with SDPs that are supported through financial or in-kind contributions (33%) Schools are much less likely to have a girls' club compared to other project areas (48%). Girls that receive solar lamps in SL and schools that receive CEC awards are associated with higher average learning scores compared to schools and girls in SL that do not have those interventions. Girls are strongly associated with lower overall learning scores, lower attendance, and lower enrollment compared to girls in PL and B&G.
Benadir and Galmudug	<ul style="list-style-type: none"> Households are the most urban (88%), literate (66% of HOH), and educated (22% having secondary education or higher), yet the highest proportions of families report low cash flow (63%) and difficulty in affording to send a girl to school (76%). 37% of girls go to school hungry all or most days of the week. Highest average daily time spent on chores (4.2 hours); time spent on chores affected 22% of girls' ability to go to school and 26% of girls' ability to do schoolwork. Proportion of caregivers citing violence at a girl's school in the past year is three times higher than in any other project area (18%). Lowest enrollment rate of girls in all project areas (83.5%) The only project area to have an increase in enrollment from BL to EL (11.9%) Caregivers more likely to have heard a radio message on girls' education compared to the other project areas (81% of caregivers) Smallest proportion of girls receiving solar lamps since the beginning of the project (13%) and smallest proportion of girls using solar lamps to do their homework at night (4%) Largest increase from BL to EL in percentage of girls claiming that their school had functioning latrines (70% to 98%); however, also the lowest proportion of girls who are comfortable using latrines at school (53%) A teacher using girl-centered teaching techniques was 50% more likely to be EGEP-trained than not. Largest increase in psychosocial wellbeing scores from BL to EL among all project areas (25%) Proportion of schools receiving an MOE monitoring visit decreased from 67% to 55%, the only project area to have experienced a negative change from BL to EL Schools least likely of all project areas to have received feedback after an MOE visit (17%) Schools least likely of all project areas to have engaged with the MOE in the past year (50%) Higher proportion of schools at endline with SDPs that are supported through financial or in-kind contributions (89% compared to 42% in Puntland and 33% in Somaliland) The only project area to see a decrease between ML and EL in the proportion of schools with girls' clubs (71% to 64%) Most likely to cite that girls' clubs interact with CECs (62% of schools) Girls in schools in B&G with a non-EGEP feeding program are associated with higher average learning scores compared to girls in schools in B&G that do not have that intervention.

Table 4: Summary of key recommendations from Social Impact

For EGEP/RI	For CECs/ Grantee organizations	For donors/DFID
Continue to use radio for awareness messaging in urban areas. For rural populations, use vehicles and printed materials as well as local networks of trusted community members, such as teachers and CECs, to help raise awareness. Combin with financial support interventions, such as bursaries.	Focus fundraising efforts on tuition fees and school uniforms.	Advocate to WFP to expand/scale up their school feeding programs, particularly in drought-affected areas.
Ensure that rural girls have access to functioning, consistent sources of light, such as solar lamps.	CECs should continue to manage school feeding programs, particularly in Somaliland in order to ensure their sustainability.	Advocate at the MOE level for increased support of gender-specific interventions at schools. This could include monitoring of girl-centered activities and incentives for good teaching.
Maintain bursary support, as a means to ensure funds for enrolling girls, particularly to those in Puntland and B&G.	Expand membership of females in CECs.	Incentivize and advocate at the MOE level for the promotion of public-private partnerships between the MOE and private institutions and/or NGOs for funding of schools.
Consider adding holistic livelihood and income-generating activities/interventions where appropriate.	Support schools to continue and strengthen sanitary kit distribution programs, particularly by utilizing female figures of authority in the community. Standardize methodology for distribution of sanitary kits at the school level.	
Maintain distribution of sanitary kits alongside MHM behavior change communication campaigns.	Enlist CEC members and teachers to encourage enrollment of girls, particularly among rural populations that are hard to reach.	
Assess the barriers that prevent teachers from using girl-centered techniques.	CECs play an active role in maintaining and raising funds for latrines.	
Ensure that there are sufficient, functioning, and appropriate latrines for rural, drought-affected, and IDP girls. Maintain CEC awards to ensure funds exist for upgrading latrines.	Promote and support girls' clubs at schools, particularly by headteachers and CECs. Female mentors and/or female CEC members should act as permanent advisors to girls' clubs.	

1 Introduction

1.1 Background to Project

1.1.1 Project context

Somaliland, Puntland, and Benadir and Galmudug: A fragile and conflict affected context. Save the Children's Girls' Opportunity Index rates these three project areas as the fifth worst place in the world in which to be a girl¹, and one of the key contributing factors is the low school completion rates. National statistics on education fall far short of global averages, and the challenges the country faces to deliver the goal of universal primary education are numerous. In these three areas, less than 42% of girls enroll in primary school, falling to as low as 13% in Benadir and Galmudug.² At least a third of those girls have dropped out by grade 5. Across all areas, enrollment and survival rates are consistently higher for boys, rising to a difference of 10% in Puntland.³ In recent years, progress has been made globally on girls' education, particularly during the course of the Millennium Development Goals (MDGs): MDG 2 aimed to achieve universal primary education by 2015, and the attainment is currently 91% worldwide.⁴ MDG 3, on gender equality, also included education as a core issue, and aimed to eliminate gender inequality in education at the primary level by 2005. At the time of writing, this has been achieved,⁵ although the larger goal of achieving gender parity at all levels by 2015 remains to be reached.⁶

Somaliland, Puntland, and Benadir and Galmudug together are ranked as the most fragile state in the world in the Fragile States Index.⁷ States are considered fragile per a range of indicators, including levels of economic decline, human flight, demographic pressures, human rights and rule of law, and their ability to deliver essential resources and services – including education – to their populations. ISIS and Al Shabab's threats and attacks affect families and schools, especially in Benadir, Galmudug, and Puntland. Somaliland is comparatively stable and secure next to Puntland, Benadir and Galmudug, and this relative stability has arguably enabled the area to establish a stronger public education system.

Education System: In the three project areas, education services are under serious stress.

¹ Save The Children (2016), Every Last Girl, Save the Children, London, see https://assets.savethechildren.ch/downloads/index_only_every_last_girl_print_version_inside_pages_3_10_16_3, October 2016, p25

² (July 2016) Education Statistics Year Book, 2015/16, Federal Government Somalia, Education Management Information System (EMIS) Unit, Mogadishu

³ (June 2016), Education Statistics Year Book, 2015/16, Puntland State of Somalia, EMIS Unit, Garowe

⁴ UN, 'Millennium Development Goals and beyond 2015', <http://www.un.org/millenniumgoals/education.shtml> (last checked 05 Jan 2016)

⁵ UN, 'Millennium Development Goals and beyond 2015', <http://www.un.org/millenniumgoals/education.shtml> (last checked 05 Jan 2016)

⁶ UN, 'Millennium Development Goals and beyond 2015', <http://www.un.org/millenniumgoals/education.shtml> (last checked 05 Jan 2016)

⁷ Fund for Peace 2016, available at <http://fsi.fundforpeace.org/>, last checked 16 December 2016

Leadership, management, and accountability of education and school systems across the country are weak and fragmented. All project areas have some established school management capacity at the community level, with CECs fulfilling school management responsibilities to varying extents. The capacity of the respective Ministries of Education is generally low, especially in Galmudug, which has only recently been formalized as a state. Schools in Benadir are largely private, with the state maintaining little control over their quality. The average revenue budget allocation across the three project areas for education is 7% and more than 90% is spent on recurring costs for personnel and operations.⁸ This highlights the low priority for education and high dependency on non-state financing in delivering education services. Lack of strong central governance creates a void for civil society organizations to fill, meeting the basic needs of populations facing acute poverty, widespread violence, and a lack of essential services including health and education.

There can be overlap and confusion between Federal and State Ministries of Education's scope and remit with relation to administrative and financial management. Today, different actors have managed education service provision in their own ways. The overall education services can be categorized under three types of delivery mechanisms: private, community, and public. This has led to a diversity of curricula, medium of instruction, syllabi, and examinations. Girls face educational barriers across all project areas in which EGEP operates. For example, of those girls that start primary school, a significant proportion have dropped out before they reach Grade 5: 33% in Somaliland,⁹ 46% in Puntland,¹⁰ and 48% in Benadir and Galmudug.¹¹ Despite these commonalities, there are significant differences between the specific geographical areas, both in terms of the context and challenges.

The school system nationally is based on primary Grades 1-8 and secondary Forms 1-4. Of the targeted EGEP secondary schools, only 10% of teachers were female in 2016, and 42% of schools had no female teachers at all.¹² Teachers are generally unqualified and untrained, leading to poor teaching quality.¹³ This is compounded by the language of instruction officially changing to English at the secondary level. Teachers often have a poor grasp of English, and only 8.5% of teachers use English consistently in class.¹⁴ This

⁸ This data draws on information shared by the Somaliland Ministry of Education and Higher Education and the Puntland Ministry of Education and Higher Education respectively in September 2016. It has not been published externally.

⁹ (April 2016) Education Statistics Year Book, 2014/15, Somaliland Government, Data and Statistics Unit (EMIS), Hargeisa, p19

¹⁰ (June 2016), Education Statistics Year Book, 2015/16, Puntland State of Somalia, EMIS Unit, Garowe. p19

¹¹ (July 2016) Education Statistics Year Book, 2015/16, Federal Government Somalia, Education Management Information System (EMIS) Unit, Mogadishu

¹² Relief International, EGEP Target school profiles

¹³ Federal Government Somalia 2016, p37

¹⁴ Somalia Youth Learners Initiative Baseline Report, Somalia Program Support Services, USAID Somalia, 23 October 2015, p8

leaves children at a significant disadvantage during assessments, which are in English.

Drought: The country has been experiencing a protracted drought. The situation has continued to worsen since the midline evaluation was conducted as there has been little precipitation during the Gu season. The humanitarian situation is deteriorating rapidly and famine is possible in 2017.¹⁵ EGEP target schools in all three project areas have been affected. Due to the inter-reliance of families and communities in rural and urban areas, most are reported to be affected indirectly if not directly. While no human lives are officially reported to have been lost at this point, the drought has claimed many livestock and forced families to migrate. The latest findings from a countrywide seasonal assessment conducted in December 2016 indicate that over 2.9 million people face an elevated “emergency and crisis” status across the country through June 2017, a more than two-fold increase compared to June 2016. Additionally, more than 3.3 million people face a “stressed” status, bringing the total number of people facing acute food insecurity across the country to over 6.2 million.¹⁶ Current estimates suggest 250,000 people are currently displaced due to the drought.¹⁷ As of February 2017, four EGEP-targeted schools in Somaliland are closed due to drought with no immediate plans to reopen. Schools are reporting that the student population has been declining significantly due to forced migration.

Social context for girls’ education: A mapping exercise conducted by Relief International¹⁸ of secondary schools across the country in August 2016 found that 37% of enrollments are girls, and 37% of these girls dropout before Form 4, increasing the gender gap in secondary education. The level of economic poverty facing families in the country is extreme, a factor that prevents many families from educating girls. There are also barriers relating to particular marginalized groups. A high number of girls in the three project areas fit into EGEP’s severely marginalized category which includes orphans, those affected by displacement, those from impoverished female-headed households, and those from ethnic or clan minorities.

Twelve percent of families EGEP works with are in IDP camps, but a significant amount of those outside the camps are also affected by displacement. Thirty percent of girls that EGEP provides bursary support to are internally displaced persons (IDP). Over a million people in the country are IDPs – amounting to 9% of the population, with almost 400,000 in Mogadishu.¹⁹ The UN continues to repatriate refugees from Dadaab and Kakuma refugee camps in Kenya, to the southern part of the country. These returnees are particularly economically marginalized and face numerous challenges, particularly psychosocial challenges which impacts their ability to attend and succeed in school.

All girls and women face challenges, in particular those who have had to leave their homes due to conflict and other disasters, those who have become IDPs, those in female-household heads, and adolescent mothers. In response to this situation, families may be more inclined than before to keep girls within the home or to encourage them into early marriage, sometimes for reasons including their daughters’ safety.

Among the barriers to girls’ education in the country are deep-rooted attitudes and beliefs about women and girls’ roles in the household and other social institutions, and associated behaviors which

¹⁵ UN OCHA, ‘Somalia: Humanitarian Snapshot (as of 9 March 2017).

¹⁶ Somalia NGO Education Cluster, February 2017

¹⁷ UN OCHA, ‘Somalia: Humanitarian Snapshot (as of 9 March 2017).

¹⁸ EGEP Secondary School Mapping Exercise, August 2016

¹⁹ UNHCR, ‘Somalia: Overview Situation Report’, April 2016, <https://data.unhcr.org/horn-of-africa/download.php?id=1889>

are critical factors in determining whether a girl attends and excels in school. However, it is when these beliefs combine with severe economic challenges that support for the girl to attend school is most commonly compromised. Without a regular household income from a present male family member, for example, mothers are increasingly needed to work on a daily basis, thus requiring a girl in the family to stay home and perform household chores. It should also be noted that many families do not live within easy access to healthcare facilities and/or cannot meet the associated costs. If a parent or other family member is ill, it is the girl that is expected to remain home to care for the person.

Social expectations of girls to remain at home intensify as the girl reaches adolescence. Furthermore, within the classroom, expectations placed on girls are often different to those placed on boys: girls are not necessarily expected to achieve at the same level as boys, to hold leadership positions, and to complete the full education cycle.

In 2015, the country ratified the UN Convention on the Rights of the Child which states the minimum age for marriage to be 18. However, this is not enforced and almost half of all girls are married by the time they are 18 years old.²⁰ Once married, it is usually expected that the girl will remain in the home and not continue with schooling. Early marriage is a practice heavily embedded in the culture. A further driving factor for early marriage is poverty. When families face significant economic pressures, early marriage can be a way of reducing the number of mouths to feed in the household. Economic pressures, influence of cultural norms, and other factors can be further exacerbated by the effect of protracted conflict.

1.1.2 Project theory of change and assumptions

The EGEP Theory of Change is developed on the premise that there is no single ‘silver bullet’ approach that can ensure challenges related to girls’ education are overcome. The project is implemented through a multilevel holistic approach. The EGEP Theory of Change suggests that both demand and supply side barriers faced by girls need to be tackled through community-led interventions in partnership with the respective Ministries of Education, and that this approach will lead to improvements in outcomes related to enrollment, attendance, sustainability, and most critically learning.

The range of interventions conducted across this project is vast. Firstly, the project tackles demand-side barriers to individual girls’ access and learning. This includes significant focus on awareness-raising and behavior changing activities such as media messaging in various contexts that promote the importance of girls’ education and learning. Economic barriers are tackled through the provision of bursaries for the most marginalized girls. In Benadir, Galmudug and Puntland, bursaries are distributed in the form of payment of school fees; in Somaliland, bursaries are in the form of conditional grants to families (as there are no primary school fees in Somaliland). Safety net support is provided to the most marginalized girls, which includes the provision of items such as school uniforms, shoes, bags, and exam fees to girls at risk of dropping out. For both bursaries and safety net support, the most marginalized girls are identified for support, specifically IDPs, those from ethnic and clan minorities, girls with disabilities, those affected by displacement, and girls from the most impoverished households. The majority of those identified fit into more than one of these categories. There are also activities focused on the girl and her needs

²⁰ UNICEF, State of the World’s Children, June 2016, New York, https://www.unicef.org/publications/files/UNICEF_SOWC_2016.pdf, p152

as an individual. Trained teacher mentors provide psychosocial support as the precursor to girls' wellbeing. They also distributing sanitary kits along with menstrual hygiene advice to girls.

Secondly, the project tackles supply-side barriers at the school level, in terms of both facilities and teachers, with the aim of ensuring that primary and lower secondary schools provide a more gender sensitive environment for learning and a more relevant quality of teaching for girls. The project also assesses physical infrastructure needs and conducts classroom construction and renovations, latrine and water point construction, and the provision of school furniture. School supplies, including chalk and chalkboards, workbooks, and pens, as well as supplementary reading books are also distributed to all schools. To strengthen teaching quality, the project supported teachers to attend two-year in-service teacher training at accredited training institutions.

Thirdly, the project tackles supply-side barriers at the community level, aiming for communities and girls themselves to participate routinely and more forcefully in education policy and in the planning, and monitoring processes for their schools. Interventions in this area mainly center on work with the Community Education Committees, an entity that consists of parents and other community members who hold some management and oversight responsibility at the individual schools. Trainings with committees have included in school management, maintenance of school facilities, child protection, and approaches for getting out-of-school girls into school. Training also addresses maintenance of the school facilities.

Community Education Committees have also been trained and provided ongoing one-to-one support in the development of their School Development Plans and have developed proposals for community interventions that will lead to girls being able to attend school. These proposals include sustainable community approaches, either through time or resources input by the communities, and are being match-funded through a community grant. The project is also training girls' club leaders and providing leadership skills which are aimed at increasing engagement between the girls and CECs so that girls can advocate for their needs (see Annex 15 for a complete description of the objectives and activities of girls' clubs).

Finally, the project is tackling supply-side barriers at the institutional level through supporting the respective Ministries of Education at national, regional, and district levels to provide leadership in promoting girls' education and undertake routine monitoring of gender equality in education. Relief International has worked with the Education Development Trust in training of Ministry of Education staff in gender-responsive learning and leadership skills, alongside provision of office equipment to respective Ministry of Education Gender Units, and facilitation of Pathways of Dialogue workshops between Ministry of Education staff and Head Teachers.

The Theory Change was based on the following assumptions:

- Girls are not directly targeted or threatened by terrorist or criminal elements.
- Extremist elements do not block the participation of girls.
- Security conditions do not worsen significantly.
- Participating teachers are committed to their profession.
- The respective MOEs remains the key decision-makers on education policy and planning.
- The CECs remain responsible for day-to-day school management in the country.

The EGEP project follows a consortium approach with RI as the lead and organizations ADRA and CISP as implementing partners in the consortium. While ADRA carries out activities in Somaliland, CISP in B&G, and RI in Puntland, differences in activities implemented among the three organizations and three project areas are very minor. These small differences are found mostly in the implementation of ALP classes, and financial support interventions (given that SL schools are tuition-free). A full description of the differences between programming among the three organizations can be found in Annex 14.

Table 5: EGEP Theory of Change

Aspects of Education	Barriers to Overcome	Strategy of Change	Summary of Activities	Outputs	Impacts
Demand-side	Social	Component 1: Overcoming Demand-side Barriers	Door to door, recruitment; attitudinal change campaigns; graduation ceremonies	Marginalized girls are supported to enroll and stay in school by their communities, families, schools, and mentors	The project will change the minds of communities, and boys and girls alike about the value of girl's education, and in this way will get more girls into school.
	Psychological		Mentors; tutors for home-based learning; menstrual hygiene management		
	Economic		Bursaries; Safety Net Fund		
	Cultural		Girls' Education campaigns; video exchanges		
Supply-side (facilities and teachers)	Social	Component 2: Overcoming Supply-side Barriers	Training of rural teachers; mobile libraries	Primary and lower secondary schools across Puntland, Somaliland, Benadir and Galmudug provide a more gender sensitive environment for learning, and a more relevant quality of teaching for girls	The project will change the lives of girls by making resources available, such as good teachers and safe spaces, that will allow them to complete a full cycle of schooling and achieve better learning outcomes.
	Economic		School refurbishment (latrines, water points, furniture, classroom renovation); school supplies; text books; supplementary school feeding.		
	Cultural		Girl project areas in schools; remedial classes; workshops for boys		
Supply-side (institutions at national, regional, and district level)	Political	Component 3: Achieving Institutional Sustainability	MOE ESSP and Gender Policy Framework implementation; capacity-building (human resources, materials, skills); advocacy of MOE to national government; project ownership	The MOEs across Puntland, Somaliland, Benadir and Galmudug provide leadership in promoting girls education and undertake routine monitoring of gender equality in education	The project will build the capacity of the MoE and Gender Units enabling sustainability.
	Cultural				
Supply-side (community)	Social	Component 4: Achieving Financial and Social Sustainability	CEC School Development Plan implementation; CEC curriculum / quality monitoring; Diaspora exchanges; girls' groups advocate for school and education needs; project ownership	Communities, mothers, and girls themselves participate routinely and more forcefully in education policy, and the planning, monitoring, and budgeting processes for their schools	

1.2 Monitoring and evaluation (M&E) approach and research methods

1.2.1 Evaluation approach

This report describes the endline evaluation findings of the End Girls, End Poverty (EGEP) project, implemented by a Relief International (RI)-led consortium as part of the United Kingdom's Department for International Development's (DFID) Girls' Education Challenge (GEC) program. This study employs a pre-post evaluation design from baseline to midline to endline. The methodology involves collecting and analyzing baseline, midline, and endline data on program participants, with no control or comparison group.²¹

This design will help to measure changes in academic achievement of students in participating schools regarding the four primary GEC indicators: enrollment, attendance, retention, and learning. Since there is no formal control group, SI cannot directly attribute changes in outcomes to the EGEP intervention alone. This design is susceptible to threats such as maturation or history bias and external contamination (i.e., trends in the outcome indicators over time that are not caused by EGEP but rather by natural growth of the children or external events), though we attempt to mitigate these threats through triangulation using multiple quantitative and qualitative data collection approaches.

SI employed a panel or longitudinal design to better understand the influence of evaluation subjects' personal characteristics and motivations on the outcomes of interest. At endline, SI followed up with the same panel of schools, households, and girls as at baseline and midline to the furthest extent possible. This panel, known as the "cohort," was selected at baseline to include a balance of out-of-school girls (OOSG) and second- and third- graders.

To counter maturation bias²² in the learning outcome, at baseline SI tested older girls to create benchmarks that approximated the level at which participating girls would be performing in school without the intervention. While these benchmarks provide useful points of comparison for learning outcomes of participating students, the use of these benchmarks should not be considered a true counterfactual (i.e., the level at which the cohort students would be performing had they not received the intervention), because benchmarked students at baseline could be quite different from cohort girls at endline. For example, the scores of a girl used for benchmarks do not account for potential changes in security, policy, nutritional trends, school resources, or any of the myriad differences that characterize the educational context of a third-grade girl in 2013 versus that of one in 2016.

Data collection activities for the endline evaluation of the EGEP project took place between November 5, 2016, and December 17, 2016. Training for 40 data enumerators and team leaders was held in Hargeisa, Somaliland from November 5–10, 2016. Trainings covered key topics such as introduction to EGEP and the purpose of the evaluation, data ethics, child protection, and review of all data collection tools and protocols. Social Impact designed and directed the evaluation in consultation with Relief International. Trainings and data collection were conducted and managed by the data collection firm Forcier Consulting, with appropriate input and participation from SI and EGEP. Data collection in Puntland, Somaliland, and Benadir and Galmudug project areas began on November 12 and was completed by December 17, 2016. SI performed all data analysis.

21 In agreement with the Fund Manager, the evaluation approach was revised after the baseline to exclude control schools. It was determined that a control group was not feasible in the Somali context for reasons of acceptability and security.

22 Maturation bias is the natural, unobservable improvement of learning scores that comes as a function of aging.

1.2.2 Sampling

In line with the pre-post panel design of the study, at endline SI followed up with the same schools and cohort girls from the midline evaluation to the furthest extent possible. Notable additions to the sample frame at endline include:

- 299 grade 5 and 6 boys receiving learning tests to note potential interesting gender differences,
- 56 grade 6 girls in non-intervention schools in Somaliland and receiving learning tests to approximate a grade 6 benchmark for cohort girls,
- 3 focus group discussions with girls in the Accelerated Learning Programme (ALP), and
- 9 key informant interviews with teachers.

Primary schools: Data collectors followed up with the 112 primary schools sampled at midline, a subset of the 172 primary schools in which EGEP carries out interventions. Because of various reasons,²³ 24 primary schools were dropped at endline and replaced with 18 primary schools benefiting from EGEP interventions and in the same project areas as the dropped schools, amounting to a total of 106 primary schools sampled (6 fewer than at midline). At endline, approximately four of five cohort girls were located at the primary schools; when an in-school cohort girl (ISG) could not be located after several attempts, she was replaced with a peer in the same school whose grade and age were as close as possible to that of the original cohort girl, in accordance with Evaluation Manager guidance.

Secondary schools: Data collectors set out to test all girls in Form 1 and Form 2 in the four secondary schools from midline. For ease of logistics, a maximum of 25 girls in each form at each secondary school were tested, a slight departure from the methodology at baseline and midline, where all girls in the targeted form were tested. At endline, four secondary schools were added to the sample to better balance the number of secondary schools across the three project areas. A total of 712 secondary learning assessments (336 Form 1, 376 Form 2) were carried out at the eight secondary schools at endline. The cohort of secondary girls tracked from BL to ML had graduated by endline and given the addition of several secondary schools, endline secondary girls' learning scores do not reflect a cohort approach and should be considered separately from baseline and midline findings.

Households: Because of a change in data collection methodology at the household level between midline and endline,²⁴ most sampled households at endline were different from those at midline. Per the original baseline methodology, approximately one-third of households included a cohort girl who was OOSG at baseline; at endline, to the extent possible, enumerators followed up directly with the same households that were successfully recontacted at midline. Where an original OOSG cohort girl could not be located in a household, an eligible (aged 8–18) replacement girl was randomly chosen from within the same household using a Kish grid.²⁵ If no eligible girl existed in the household, data collectors searched for eligible girls in the houses to the left and then to the right of

23 Twenty-four primary schools were dropped at endline because of physical insecurity in North Galkayo, South Galkayo, and Qandala, the refusal of a head teacher to allow data collection at his school, and erroneous school names, which resulted in duplicate schools. Only 18 schools were replaced, because of insufficient availability of comparable EGEP schools. SI added four additional secondary schools to make up for this discrepancy.

24 At endline, in conjunction with EGEP, SI revised its household survey methodology to target solely the households of cohort girls. At baseline and midline, household selection was done randomly in catchment areas regardless of whether a cohort girl was living in the household. This methodology was changed to allow for easier linking of household characteristics and cohort girls. Household findings are no longer comparable among the three data collection periods because of this change in methodology.

25 *SWTS Sample Design and Implementation, Module 3 Sampling Methodology*. International Labour Organization, pp 14-15 978-92-2-121419-9 [ISBN] 2009

the original household. Where a household of an ISG cohort girl could not be located for any reason, that girl's household was not replaced, as doing so would preclude SI from linking girl-level outcomes with her household-level characteristics. A total of 1,091 household surveys were carried out at endline, of which 166 were replacements—an attrition rate of 15%. If we consider the 195 households at replacement schools, the effective attrition rate rises to 32%.

Cohort girls: At endline, 1,026 cohort girls received learning tests, compared to 1,132 at midline. Of endline cohort girls, 178 were 1-for-1 replacements at replacement schools. Of original cohort girls not at replacement schools (n=848), 163 were replaced; this constitutes an attrition rate of 18% (Table 6). If we consider the 178 replacement cohort girls at replacement schools, the effective attrition rate rises to 39%. A total of 106 cohort girls were thus not replaced between midline and endline for various reasons.²⁶

26 Replacement of 106 cohort girls was not possible because of several factors, including: schools closing prior to the end of data collection because of violence and end-of-year schedules; girls unavailable because of end-of-year testing schedules; refusals of head teachers at some schools to allow data collection; inability to match midline girls' records to those endline girls.

27 Girls' modules were integrated into the households survey at baseline, separated into a standalone tool at midline, and reintegrated into the household survey at endline.

28 At baseline and midline, school surveys were conducted at primary and secondary schools. Given that secondary school data would not be analyzed as part of the evaluation, SI conducted school surveys at primary schools only at endline.

29 Includes girls tested in grades 1, 4, and 5 to establish benchmarks for midline.

30 Two focus groups were held in PL and B&G with girls in the ALP program.

Table 6: Targeted cohort sample at endline, by schooling age

School age	n	No. of schools sampled
Lower primary (Grades 1-4)	358	106 primary schools
Upper primary (Grades 5-8)	613	
Lower secondary (Forms 1 and 2)	336	8 secondary schools
Upper secondary (Forms 3 and 4)	376	

Table 7: Reasons for replacements of cohort girls at endline

Reasons for replacements	n	%
Girl moved away	85	52%
Girl is unknown	45	28%
Girl refused	2	1%
Girl was away during data collection	8	5%
Girl's caregiver/HOH refused	6	4%
Girl changed school	5	3%
Girl married	5	3%
Girl was sick	2	1%
Other reason	5	3%
Total	163	100%

Table 8: Sample attainment, baseline to endline

Tool	Total			Somaliland			Puntland			Benadir and Galmudug		
	BL	ML	EL	BL	ML	EL	BL	ML	EL	BL	ML	EL
Household Survey	1227	1170	1091	446	456	372	525	469	442	256	245	277
Girls' Module ²⁷	669	785	1022	227	269	350	305	342	419	137	174	253
Classroom Observation	780	136	207	258	56	88	317	36	82	139	44	42
Head	564	856	112	224	312	352	231	352	376	109	192	168
School Visit Survey ²⁸	121	116	1	45	45	42	52	46	42	24	25	22
Learning Assessment (cohort girls)	1548 ²⁹	1131	1025	510	372	367	642	438	396	396	321	262
Learning Assessment (bursary girls)	0	536	4	0	108	104	0	225	200	0	203	178
Learning Assessment (boys)	0	0	299	0	0	123	0	0	116	0	0	59
Mothers FGD	6	6	6	2	2	2	2	2	2	2	2	2
Principals & Teachers	7	0	9	3	0	3	2	0	3	2	0	3
Fathers FGD ³⁰	0	6	7	0	2	3	0	2	2	0	2	2
Girls FGD	0	9	15	0	3	5	0	3	5	0	3	5
CEC KII	7	6	6	3	2	2	3	2	2	1	2	2
MOE KII	6	6	6	2	3	2	4	3	2	0	0	2

Bursary girls: At endline, SI followed up with girls who received bursaries (termed “bursary girls”). Using lists of girls provided by EGEP, SI conducted a random stratified sample of 690 in-school bursary girls at midline—130 in Somaliland, 280 in Puntland, and 280 in Benadir and Galmudug, administering UWEZO learning assessments and recording their attendance at school. In order to gauge effects of enrollment status and receipt of bursary, approximately half of bursary girls sampled were OOSG when they received a bursary and half were ISG. To facilitate logistical ease, only bursary girls who also attended an originally sampled baseline school were chosen to be sampled. Given that there was no replacement strategy for bursary girls who could not be located, data collectors successfully administered learning tests to 536 of 690 sampled bursary girls at midline. At endline, SI formulated a replacement strategy for bursary girls: prior to data collection, a suitable replacement bursary girl was identified in a school should the original bursary girl at that school be unreachable. At endline, SI carried out 474 learning tests with the same panel of bursary girls from midline, with an effective attrition rate of 11% among original schools and a total attrition rate of 25% when considering replacement schools.

1.2.3 Tools

At endline, SI employed the same quantitative and qualitative tools as at midline. Notable differences from midline included:

- Addition of an extended 17-question learning assessment on literacy
- Removal of the standalone girl’s module (rather, implementing it in full as part of the household survey)
- Addition of key informant interview guide for teachers/female mentors
- Addition of focus group guide for adolescent mothers
- In general, an increased emphasis on qualitative data to inform quantitative data

A total of 13 tools were used in data collection: Qualitative tools included a (1) girls focus group discussion (FGD) guide, (2) mothers FGD guide, (3) fathers FGD guide, (4) Community Education Committee (CEC) key informant interview (KII) guide, (5) Ministry of Education (MOE) official KII guide, (6) teacher/female mentor KII guide, and (7) adolescent mothers FGD guide. Quantitative tools included a (8) household survey, (9) school survey, (10) headcount tool, (11) classroom observation template, (12) primary school learning assessment, and (13) secondary school learning assessment. All quantitative tools were developed and programmed using the Open Data Kit (ODK) software and hosted online via the SurveyCTO platform. Quantitative surveys were implemented in the field using Samsung smart phones.

Household Survey: At endline, In the catchment areas of the schools, SI administered a survey to households that contained an OOSG cohort girl at midline and to households of ISG cohort girls. The survey sought to gather information from families about the cohort girl who lived in the household to better link her educational outcomes with household characteristics. The primary respondent was the caregiver for girls in the household. Questions captured topics from demographics, personal, economic, and social questions about the head of household to attitudes on girls’ education. The survey also captured levels of vulnerability (e.g., disabled or chronically ill household members), attitudes and expectations regarding education, and how these elements affected family and educational decision-making. At endline, SI used the same household survey from midline, with some modifications. Household surveys also included an embedded girl’s module (a

standalone tool at midline), which was administered to an ISG cohort girl at the household.

School Survey: SI administered the same school visit questionnaire from midline, modified with some additional questions on key EGEP output indicators. The survey captured school-based factors that may affect the quality of education and appeal of the school to local girls as well as information on school conditions such as the number of teachers and classrooms; quality of facilities, including construction materials and electricity; the availability of water, sanitation, and hygiene facilities and separation of latrines by gender; teachers’ attendance at trainings on education quality or gender-based issues; and the presence of feeding programs or interventions from other groups. The survey verified enrollment, attendance, and test score data of cohort girls, bursary girls, and selected boys and recorded average enrollment and standardized test score data at the school. The primary respondent was the principal or head teacher. School surveys were carried out at 114 schools at endline.

Headcount/Attendance Spot Check: An attendance spot check (headcount) was conducted of boys and girls in a maximum of eight classrooms per school (one per grade). The proportion of the cohort as well as the overall headcount in attendance identified through this spot check was compared to the school attendance records kept by teachers or school administrators. The number and percent difference between the methods were noted. Headcounts were carried out at 112 schools at endline.

Class Observations: A class observation tool supplemented other data with descriptions of a variety of practices in pedagogy and classroom management. Data collectors carried out class observations in a maximum of two classrooms taught by EGEP-trained teachers in each school. Enumerators observed a class and evaluated teaching practices, giving particular attention to gender-sensitive practices. Enumerators visited teachers twice during the school day in four 10-minute observation blocks. The observations were recorded by a single enumerator per classroom, sitting to the side or in the back of the class to minimize disruption. Classroom observations were carried out in all schools at endline.

Learning Assessment—Primary Schools: For numeracy, the endline learning assessment tool was the same as the one used at baseline and midline. As at baseline and midline, the endline numeracy assessment was adapted based on the UWEZO (www.uwezo.net), the East African adaptation of the Annual Status of Education Report (ASER) Assessment Tool, and was conducted in Somali. The assessment was chosen for its extensive use in East Africa as well as its less intensive nature relative to the Early Grade Reading Assessment (EGRA). The methodology at endline was slightly different, though. At endline, SI used an expanded 17-question version of the literacy learning assessment tool, as opposed to the 10-question version used at baseline and midline. This decision was made in direct response to a high frequency of literacy ceiling effects observed at midline. Prior to endline data collection, SI worked with RI and CARE International’s SOMGEP project to jointly develop and pilot the expanded version of the literacy assessment. After successful piloting in October 2016, the assessment was approved and adapted for the EGEP project in early November and incorporated into the enumerator training. Like previous data collection periods, at endline the learning assessment was administered orally and individually to all cohort ISG and OOSG, bursary girls, grade 6 girls in non-intervention schools (to establish benchmarks), and a select number of boys at schools or households. At endline, 1,863 primary learning assessments were administered.

Learning Assessment—Secondary Schools: SI developed the secondary learning assessment to follow the themes and skill types of the primary school testing but with higher level material and was conducted in English. The material was developed based on commonly used curricula for secondary schools in Puntland, Somaliland, and Benadir and Galmudug. Both the numeracy and literacy modules were piloted in Puntland, Somaliland, and Benadir and Galmudug prior to baseline data collection and were refined based on pilot results. The assessment was administered as a written test in the English language, as English is the language of instruction in secondary school. More secondary assessments were conducted at endline to allow for a larger sample size and thus provide a wider range of learning results. A cohort approach was used from baseline to midline, though dropped at endline as girls being tracked had graduated. At midline, 300 secondary learning assessments were administered in four schools. At endline, 713 secondary learning assessments were administered in eight schools.

Focus Group Discussions: At endline, focus group discussions with mothers, fathers, and girls (with ISG and adolescent mothers) provided meaningful programmatic data on perceptions toward EGEP at the community level, general community support for girls' education, and important insights on various EGEP output indicators. Selection of school catchment areas in which focus groups were to be held as well as the selection of focus group members was done considering logistics and convenience, according to traveling enumerator teams' schedules and availability of community members and students: FGDs were not carried out, nor were participants chosen, randomly. Focus groups were facilitated by experienced qualitative interviewers from the data collection firm who underwent a day-long training prior to field work. Each FGD or KII included a paper roster sheet that kept track of important details such as physical location, number of participants, and participants' gender and age, to facilitate subsequent data analysis. After a focus group took place, qualitative data were transcribed from digital voice recordings and translated into English by the data collection firm. Transcripts were reviewed for common themes and responses to questions using Dedoose software. Key information gleaned from these interviews is synthesized and presented throughout the report as a means of providing a more nuanced understanding to the endline study. At endline, qualitative interviewers facilitated 15 girls, 6 mothers, and 6 fathers focus groups with a total of 162 participants

Key Informant Interviews: At endline, qualitative interviewers carried out KIIs with CEC members, teachers/female mentors, and key MOE personnel to understand attitudes about girls' education, barriers to change, and perceptions of GEC implementation and management. KIIs provided contextual information to inform and triangulate quantitative data for several key EGEP output indicators. KIIs were stratified across regions. At endline, qualitative interviewers held a total of 6 MOE, 6 CEC, and 9 teacher/female mentor KIIs.

1.2.4 Quality Assurance

SI considers data quality to be of the utmost importance in all its evaluation work. To that end, SI has developed a proprietary and proven Data Collection Toolkit (DCT) as a standard practice for all impact evaluations. Adherence to this system is governed by a comprehensive toolkit containing a set of checklists, templates, and guidelines, including a specialized Stata module developed in-house for monitoring data quality. Tools are customized to the unique needs of each project and cover all activities in the IE life cycle, including: preparation and rapid start-up, fieldwork and data

collection, data management, data quality monitoring, and analysis and reporting. For the midline evaluation, SI utilized its DCT before, during, and after data collection. Full details on how the DCT was used during the endline evaluation can be found in Annex 4.

In conjunction with Relief International and Forcier Consulting, SI carried out a six-day enumerator training in Hargeisa, Somaliland, between November 5 and 10, 2016. Forty enumerators and supervisors along with two Forcier staff, two SI staff, and two RI staff attended the training. The goal of the training was to familiarize the data collection teams with the various quantitative and qualitative tools and protocols, allow enumerators and team leaders to review and give input to tools, give teams the opportunity to role play and pilot the tools, and expose the teams to good and ethical data collection processes. The training included the following components: quantitative tool review (3 days), quantitative tool role play (1 day), qualitative tool review and role play for supervisors and female enumerators (1 day), field piloting of quantitative tools in two school catchment areas (1 day), review of data collection ethics and the RI Child Protection Policy (1 half day), and review of data collection protocols and scenarios (1 half day). Forcier Consulting monitored progress by all enumerators and supervisors to ensure that they adequately understood the Somali language tools and could implement tools appropriately. In two cases, Forcier identified enumerators who were weak in language comprehension. These enumerators were relegated to data collection roles more appropriate to their comprehension levels. RI and SI staff were present at all sessions to ensure that data collection teams understood the goal of EGEP and the various interventions and to answer any relevant questions.

In addition to the DCT system and the in-country training, SI hired two local consultants with past evaluation experience to carry out data quality assurance activities concurrent with data collection. Traveling independently of one another, the consultants conducted surprise visits to data collection teams in order to observe data collection protocols and procedures and provide corrective guidance as needed. Though consultants did not conduct actual data collection, they were encouraged to participate in qualitative FGDs and KIIs where appropriate and were responsible for reviewing daily quantitative data submissions on the SurveyCTO online data platform. Consultants submitted weekly reports on data quality to SI.

1.2.5 Data Analysis

Endline data were imported from the SurveyCTO platform and analyzed by SI using Stata 14 software. Estimation of standard errors and 95% confidence intervals were adjusted to account for cluster-based sampling at the school level using the `svy` command. In cases of attrition, Evaluation Manager (EM) guidelines were followed to select replacement units as similar as possible to identify and to treat replacement observations as endline values for midline observations lost to follow-up.

For most key variables, t-tests were used to determine whether differences in midline and endline means were statistically significant. However, for the learning and attendance outcomes of the selected cohort, panel-based multivariate regression analysis using the `xtreg` command was used to test the significance of baseline-to-midline and midline-to-endline changes while controlling for basic factors known to be associated with these outcomes. Bivariate and multiple regression models controlled for key girl, household, and school-level characteristics as appropriate.

1.2.6 Limitations of the evaluation approach

Prior to endline data collection, SI recognized the potential for problems to arise before, during, and after endline data collection. To that end, SI set forth a plan to mitigate potential risks associated with factors such as the timing of data collection during the school calendar, attrition of the original sample, contamination of the sample, attribution of effects, data quality issues, ethical considerations, child protection, and physical security. As challenges arose during training and data collection, SI worked closely with RI and Forcier Consulting to adapt and/or revise methodology ad hoc to account for and overcome challenges while maintaining high data quality and sticking to the set timeline. Despite these actions, the endline evaluation has a number of limitations that should be considered when interpreting results. The following table presents major challenges and limitations faced during the endline evaluation as well as the strategies employed to mitigate the respective issues.

Table 9: Summary of limitations, challenges, and mitigation strategies of the endline evaluation

Topic	Limitation/Challenge	Mitigation strategy
Timing of data collection	Given the endline date for submission of the final report to FM/DFID, data collection could not be carried out in February 2017 as originally planned and in line with the same time period as midline, threatening the comparability of data between the two time periods. Furthermore, all data collection needed to be completed by December 15, 2016, prior to the close of the school year, a tight timeline complicated by CARE SOMGEP's concurrent data collection in similar areas.	Working with Forcier Consulting, SI increased the number of data collectors by 10% over midline numbers and devised a plan to ensure optimal efficiency of data collector team geographic coverage to ensure that data collection finished on time. Further, while seasonality has the potential to lead to variation in and incomparability of learning scores across data collection periods, after careful consideration, the team determined that seasonality would have little effect on learning scores, as no new teaching was expected to happen between the end of the school year in December 2016 and the beginning of the school year in early February 2017. Given that testing of girls happened across a 6-week period at midline and endline, the team analyzed learning data and found no significant differences in average scores of girls tested at the beginning and end of data collection.
Attribution	Lack of a control group at baseline negates the ability to definitively attribute project activities to observed change.	While it is not possible to have direct attribution without a control group, the use of learning benchmarks mitigates maturation bias. Otherwise, we sought to identify other potential external factors that could have led to change when interpreting results and the likely contribution the EGEP project made to them. These are discussed in Section 4 of the report. Where quantitative data provides an incomplete picture, qualitative data is presented to inform potential findings on the impact of EGEP activities on program outcomes.
Attrition—loss of cohort girls and households	Attrition levels were over 30% at midline. High attrition rates again at endline would affect data quality as the sample becomes smaller and less representative of the total population.	Forcier Consulting data collection teams employed an extensive recontact protocol that ensured multiple attempts would be made to find an original girl before she was replaced. Where possible, teams in different areas coordinated to locate cohort girls. Data collection teams returned to already-canvassed areas after data collection was complete to follow up with girls who were initially unavailable to be interviewed. Using these methods, attrition was minimized to 18% at endline (not counting replaced schools in Galkayo). SI replaced girls and households closely following FM 1-for-1 replacement guidance to ensure that new girls and households were similar to those who could not be located.
Attrition—loss of schools	At endline, a total of 28 schools used at midline were dropped from the sample because of various reasons. While many of these schools were replaced, attrition threatens representativeness of the sample.	SI replaced these 28 schools with 22 schools in which EGEP interventions were taking place since 2013 and which had not been selected for sampling at baseline or midline. To minimize changes in balance of BL-ML-EL characteristics, the replacement schools chosen were in the same project areas, and cohort girls were replaced on a 1-for-1 basis. Findings measured at the school level, particularly attendance, should be interpreted with caution.
Time delays and grade 6 girls' learning scores	At baseline, SI collected learning test data from Grade 4 and 5 girls to establish endline benchmarks for Grade 2 and 3 cohort girls. Given the GEC extension of one year between baseline and midline, there were no data available to calculate endline learning targets for Grade 3 cohort girls who would be in Grade 6 at endline.	At endline, SI planned to collect data on grade 6 girls' learning scores in two non-EGEP schools per project area in order to create endline targets for baseline grade 3 cohort girls. Because of security concerns, SI was only authorized to collect this data from schools in SL (56 girls in 5 schools were tested). The resulting learning (numeracy and literacy) targets for grade 3 girls at endline as well as the total overall targets and project area disaggregations are thus biased toward SL girls' learning scores (which are on average lower than those from PL and B&G). Given this bias, we do not recommend using this data as baseline or control figures for follow-on GEC activities.
Generalization of data at the project area level	Because of physical insecurity, all schools, girls, and households in North and South Galkayo had to be replaced.	While findings in this report disaggregate at the project area level, final findings displayed are not representative of girls, schools, and their households in North and South Galkayo.
Data quality—errors	Erroneously programmed questions, particularly around what a girl does not like at school, limited SI's ability to analyze key output indicators.	SI notes any errors in the respective sections and, where necessary and appropriate, offers alternative methods of measuring an indicator.
Data quality—school register inaccuracy	School registers were often found to have data that appeared to be faked or highly erroneous. This had the potential to skew results and paint an inaccurate picture of enrollment and attendance.	At midline and endline, SI relegated school register data to secondary sources for analyzing key outcome and output indicators. In the case of attendance, SI used headcounts. For enrollment, SI used EGEP's official enrollment numbers at the time of endline.

Ethical considerations	Four schools—one in Puntland, two in Benadir and Galmudug, and one in Somaliland—refused to let Forcier conduct full or partial data collection activities. Data was incomplete or not gathered at all.	Forcier Consulting worked with the local RI office, its counterparts CISP and ADRA, and local MOE contacts to ensure that data collection activities were well explained and approved when there was uncertainty within the community. Through these relationships, the number of refusals were generally minimized at endline.
Physical insecurity	Violence in Puntland (Qandala, North Galkayo) and Benadir and Galmudug (South Galkayo and Mogadishu) stalled data collection for several days and in some cases prevented data collection altogether. As a result, Forcier Consulting was not able to conduct data collection activities in three schools in B&G, and it was not possible to sample any schools and Galkayo.	SI and Forcier Consulting agreed that the security of Forcier’s data collection teams was paramount to data collection. In some situations, teams could carry out data collection in safer surrounding areas while waiting for the violence to die down or access school catchment areas via roundabout, safer routes. A small number of girls in the sample were dropped from midline to endline because of these issues.
School closures and erroneous school information	Due to misinformation around school names and/or the end of the year testing schedules, a total of seven schools at endline closed before data collection could be carried out. This delayed data collection in some schools and prevented Forcier from collecting data in others.	Forcier attempted to conduct as many data collection activities as possible, focusing first on school surveys, learning assessments, and household surveys. Forcier worked with principals to locate cohort girls and their households in the community. As a result, most data collection occurred, though two schools had to be dropped from the final sample.
Inability to access MOE in Galmudug	Given physical security concerns in Galkayo, data collection teams were unable to interview MOE officials in Galmudug. Output indicators measured under Output 3 thus lack information from this area and are not nationally representative findings.	Forcier teams successfully collected data from two MOE GFPs each in Benadir (Mogadishu area), PL, and SL. Though we collect information on some MOE level activities (IE monitoring), our inability to interview GFPs in Galmudug means that we are unable to make larger conclusions about the effectiveness of MOE level interventions there.
Repeated testing bias	The same initial 10 questions of the learning assessments were used at baseline, midline, and endline, which typically poses a risk of children “learning the test” and naturally performing better the second time.	This risk is expected to be very low, as baseline and midline learning assessments were retained by data collectors and not left at the schools, and correct answers were not discussed with children after the assessment. Nine to ten months had passed between midline and endline, and SI believed it was unlikely that students remembered the content.
Floor and ceiling effects	At baseline and midline, floor and ceiling effects were observed in the learning test scores, potentially skewing learning results. At endline, ceiling effects were expected to be even higher, further limiting our ability to observe the true changes in girls’ learning scores.	At endline, in conjunction with RI and CARE, SI used an expanded, 17-question test for the reading learning assessment. As a result, ceiling effects were minimized at endline for reading. SI measured the change in ceiling scores from data collection period to period and displays them in Table 22 and Table 30. However, as the 17-question test was not used at baseline or midline, it was not possible to observe progress in learning over time using the test and consequently, the results from the 17-question test have not been taken into account when establishing whether the project learning targets have been achieved. Ceiling effects were low on the numeracy assessment in all three rounds of data collection and did not warrant a modified assessment. Ceiling effects were high on the literacy assessment, reaching 63% at endline on the standard 10-section assessment. Ceiling effects were much lower on the extended 17-section literacy assessment, which reached as high as 31% at endline. Ceiling effects result in a less accurate picture of average learning scores; more difficult assessments may be necessary in future rounds of data collection to paint a clearer picture of improvements in girls’ learning.
Biases in qualitative data collection	When analyzing audio transcriptions of qualitative data collection, SI found that questions were sometimes asked to participants in FGDs and KIIs in a leading manner. Further, the school catchment areas for FGDs and KIIs were chosen based on convenience sampling, not random methods. These biases could lead to misleading qualitative findings.	SI worked with Forcier Consulting to identify and rectify transcripts that needed clarification. To increase the diversity of responses and respondents, SI increased the number of qualitative events from 36 at midline to 49 at endline. While methodology to implement FGDs and KIIs may have differed somewhat across data collection teams, all team leaders received a thorough full-day qualitative training prior to data collection. Fifteen percent of qualitative events were supervised by SI consultants to ensure adherence to protocol. SI only reports qualitative data in this report that has been triangulated by multiple sources in different FGDs and KIIs.

2.1 To what extent has the GEC reached and affected marginalized girls?

2.1.1 Who did the project target?

According to the definition established at baseline by the Fund Manager, educationally marginalized girls are girls who are out of school or at risk of dropping out of school. In Puntland, Somaliland, and Benadir and Galmudug, where the threat of violence is ever present and high levels of poverty are the norm, EGEP considers all girls in the project's target communities as educationally marginalized.

Severe marginalization: While EGEP categorizes all girls as marginalized, it also recognizes deeper levels of marginalization. Certain interventions, most notably bursary support, are provided only to girls who meet the standard of "severe" marginalization, which means they must fall into one of the following categories:

- Disabled
- From a minority group (ethnically or clan-based)
- From a female-headed impoverished household
- Girls affected by displacement (including internally displaced, refugees and returnees).
- Orphans (defined as a child with only one or no parents alive, though this is understood differently across project areas)
- Those in severely conflict affected areas

Bursary Support: One of the main ways the project targets the most severely marginalized is through the provision of bursary support, the beneficiaries of which all fall into one of the above categories. In Puntland and Benadir and Galmudug a significant proportion of the girls targeted for bursary support were out-of-school and brought into school through the support. Over the course of the program, EGEP has supported 3,890 girls classified as severely marginalized across all project areas with bursary support. While this number is large, there are clearly far more girls meeting the definition of "severely marginalized" than the project is able to support.

This report makes an effort wherever possible, taking into account sample size, to disaggregate outcome findings by these key sub-groups considered as severely marginalized, such as orphans, IDPs, and girls with disabilities. Refer to Annex 5 for a full list of targeted sub-groups.

Solar lamps: As with the bursary support, targeting and distributions for other interventions are made according to need. For solar lamps, girls in rural areas were the first priority, hence the largest number distributed in Somaliland

and lowest in B&G. Aside from rural/urban status, further criteria for solar lamp distribution focuses on the poorest girls with lowest access to electricity, which is often IDPs.

Sanitary kits: Sanitary kits are distributed by the female mentor at a school, with a large focus on discretion. In some cases, the female mentor leaves the kits in a location where girls can access whenever they need. In other cases, the mentors distribute directly to the individual girl. Kits are distributed to the poorest girls who are unable to afford to buy kits themselves.

Targeting marginalized boys: Boys will have benefited from the majority of school level interventions, including but not limited to: school classroom construction and rehabilitation, teacher training, CEC training, school feeding, remedial classes, men and boys' community workshops, and provision of teaching and learning materials to schools. While it is recognized that there are severely marginalized boys, these groups were not targeted as part of this project as resources available were focused on severely marginalized girls.

2.1.2 Description of the sample

Schools (Table 10)

Contributions and support: Non-cash contributions from CECs remained largely constant from midline to endline on average, though with variation when disaggregated by project area. Schools in Somaliland reported increased non-cash contributions from 7% to 24%, while Puntland and Benadir and Galmudug showed between 9 and 14 percentage points decreases. Cash contributions from CECs decreased by 10 percentage points on average from midline to endline across all project areas.

Monetary support from families increased from 5% at baseline to 16% at endline. Incentives for teachers also increased across all project areas, from 31% at baseline to 33% at midline to 48% at endline. Schools with solar lamps significantly increased from midline at 28% to 75% at endline, with Somaliland marking the highest at 95% at endline and Puntland seeing a 50 percentage points increase. The increasing trend for girls receiving scholarships continued across all project areas, from 27% at baseline to 87% at midline and 93% at endline. At endline, Somaliland had the highest percentage in this category, at 98%.

Classroom setting: Number of teachers per school gradually increased from 8.5 at baseline to 12.4 at midline to 13.4 at endline on average. Numbers of female teachers increased from 2.2 at baseline to 3.7 at endline. The number of pupils per teacher remained relatively constant from baseline to endline, slightly decreasing from 28 to 27. Puntland and Somaliland had the lowest pupil to teacher ratio at 25 each, compared to 35 in Benadir and Galmudug.

2

Key Findings

Safety: At endline, less than 8% of caregivers (n=80) expressed that it was fairly or very difficult or unsafe for a girl to get to school. When it came to reasons for these difficulties, 90% of those caregivers indicated that they were due to long distances, 21% said they were due to harassment by other children, and 11% cited harassment from other adults. At endline, 5% of caregivers indicated that a girl had had a bad or dangerous experience or experienced harassment while traveling around her community in the past year. Nine percent of all caregivers at endline stated that there had been violence at a girl's school in the past year. Disaggregated by project area, this was 18% of caregivers in B&G and 6% of caregivers in each of Puntland and Somaliland.

Infrastructure: Despite the increase in access to water from baseline to midline to endline, at endline, schools in Somaliland (which are substantially more rural than the other project areas) displayed significantly poorer access to water compared to other project areas, with 69% having access to reliable water compared to 91% in Puntland and 86.3% in Benadir and Galmudug. This was also the case for access to electricity: at endline, 26.2% of schools in Somaliland recorded having reliable access to electricity, which was an increase from baseline at 19% and midline at 9.3%. However, this was in stark contrast to 48% and 50% of schools in Puntland and Benadir and Galmudug, respectively, that reported reliable access to electricity at endline. While more schools had access to reliable electricity in Puntland and Benadir and Galmudug, they also showed a decreasing trend from baseline to midline to endline in their access to reliable electricity. Across data collection periods, there was an increase in schools having only cement floors, from 21% at baseline to 87% at endline. Separate toilets by gender became more available with an increase in the number of toilets available for girls from 1.8 at baseline to 3.7 at endline on average across all project areas. Somaliland saw the largest increase in this category, with 5.4 toilets on average at endline, up from 3.3 at midline and 1.6 at baseline.

Households and cohort girls (Table 11)

Because of different sampling and data collection methodology, findings of the endline household survey cannot be compared to those at baseline and midline, except in the case of 371 OOSG households followed across the three time periods (approximately 34% of the sample). Despite this, there were general trends and comparisons observed across the three project areas. At endline, 1,091 household surveys were conducted, of which 166 were "replacements," or households of girls who were randomly selected in school to replace an original cohort girl and her household if she could not be interviewed. Fourteen percent of households (n=128) stated that there was a former household member under 18 who no longer lived at home. Of these household members who left, 45% were female (n=57). The major reasons for female household members under 18 leaving were for educational purposes (21%), marriage (18%), migration (18%), and to help elderly and other family members at home (16%).

Attitudes around girls' education: Across all project areas, households expressed an overwhelming support for girls' education, with 97% responding that it is usual to send girls to schools; 89.2% responding that it is common in the community to send girls to school; and 81% responding that, over the course of the project, the communities have become more encouraging for girls' success in schools. Awareness-raising activities on girls' education were heard or witnessed by 37% of caregivers.

Households' economic characteristics: 65% of households expressed difficulty with affording girls' education. Specifically, 76%

of households in Benadir and Galmudug expressed great difficulty with affording girls' education, compared to 51% in Puntland and 69% in Somaliland. This was consistent with the flow of cash income into the households, as 63% in Benadir and Galmudug have recorded that they do not receive cash income for 10 days or more. These percentages were lower in Puntland and Somaliland, at 46% and 48%, respectively. In contrast to the 29% of households that have either TV or radio, on average 91% of households had a working phone across all project areas.

Head of household (HOH) characteristics: 86% of selected girls' mothers were present in the household, compared to 63% of selected girls' fathers. Aside from households in Somaliland, 35% of which were urban, most households surveyed were from urban areas, with 75% in Puntland and 88% in Benadir and Galmudug. A majority of the heads of the households were literate, with Somaliland marking the lowest at 47% and Benadir and Galmudug the highest at 66%. This was consistent with the percentage of heads of households who attended madrassa, as Somaliland had the lowest percentage of heads of households who attended madrassas at 50%, as opposed to 80% in Puntland and 73% in Benadir and Galmudug. This was also consistent with the percentage of heads of households who received some secondary education, with Somaliland recording the lowest at 11%, Puntland at 14%, and Benadir and Galmudug at 22%.

Cohort girl characteristics: Nine percent of cohort girls are orphans. The average age of a cohort girl was 12.7, and the range was from 6 to 18. The average cohort girl started school relatively late: at 8.0 years of age, though this was as young as 7.5 years in Somaliland and as old as 8.8 years in B&G. The average cohort girl spends 5.0 hours per day in school, ranging from 4.8 in PL and B&G to 5.4 in SL. On average, a cohort girl spends 2.8 hours per day on household chores, ranging from 2.1 hours per day in Somaliland at the low end to 4.2 hours per day in B&G. Fourteen percent of caregivers stated that time spent at home on chores stopped a girl from going to school (highest in B&G at 22%) and 18% said that it affected the amount of time she spent on her homework (highest in B&G at 26%). When asked if there was anything else that made it difficult for a girl to work at home, 52% of caregivers said yes: 36% cited a lack of electricity/light, 14% cited a lack of help or support, and 10% cited a lack of writing materials.

Girls receiving bursaries: The average age of bursary girls at endline was 13.3, ranging from 5 to 18. The majority of bursary girls were between grades 3 and 8, with 19% of girls in grade 8 and 15% of girls in grade 3. Non-bursary girls were, on average, 12.1 years old, with ages ranging from 6 to 18, and the majority of these girls were in grades 2 to 5. Of all girls that received bursaries in EGEP, approximately 44% were OOSG when they received a bursary and 56% were ISG; the final endline sample of bursary girls was approximately half ISG and half oOSG when receiving a bursary.

2.1.3 How well were target groups reached?

Interventions that targeted specific girls included: Bursary support; provision of school uniforms; remedial classes; provision of solar lamps; provision of sanitary kits, Accelerated Learning Programme classes.

Bursary support: Both in-school and out-of-school severely marginalized girls were identified through a process involving three parties: an EGEP consortium staff member, the Community Education Committee, and a Ministry of Education official. CECs were trained in how to identify the girls and the set criteria to use in

Table 10: Descriptive statistics of sample schools, baseline to endline

	Total						Puntland						Somaliland						Benadir and Galmudug						
	Baseline		Midline		Endline		Baseline		Midline		Endline		Baseline		Midline		Endline		Baseline		Midline		Endline		
	n	mean	n	mean	n	mean	n	mean	n	mean	n	mean	n	mean	n	mean	n	mean	n	mean	n	mean	n	mean	
Total annual dropouts																									
Girl dropouts	86	7.0	78	7.8	60	9.9	41	7.6	41	8.5	27	6.6	31	5.2	30	5.8	15	3.6	14	9.1	7	12.0	18	20.2	
Boy dropouts	86	5.6	77	8.1	60	8.0	41	6.1	41	9.2	27	6.3	31	3.5	29	6.1	15	5.5	14	9.0	7	10.1	18	12.7	
Access to electricity (reliably or occasionally)	112	42.0	112	36.6	106	40.0	49	51.0	48	50.0	42	47.6	42	19.0	43	9.3	42	26.2	21	66.7	21	61.9	22	50.0	
Access to water	111	74.8	111	71.1	105	81.0	49	83.6	48	77.1	41	90.2	41	58.5	42	54.8	42	69.0	21	85.7	21	90.5	22	86.4	
Cement floors only	112	21.4	112	84.8	106	86.8	49	18.4	48	97.8	42	85.7	42	26.2	43	95.3	42	92.9	21	19.0	21	33.3	22	77.3	
Teachers per school	110	8.5	112	12.4	104	13.4	49	7.3	48	9.8	40	11.8	40	8.3	43	13.5	42	13.3	21	11.9	21	16.0	22	16.2	
Female teachers per school	111	2.2	111	3.7	104	3.7	49	1.8	48	2.7	41	2.8	41	2.3	42	5.1	41	4.8	21	3.1	21	3.6	22	3.3	
Pupils per teacher	108	28.4	98	30.4	93	27.0	47	27.4	48	33.0	29	24.7	40	26.3	43	27.2	42	24.4	21	34.9	7	32.4	22	35.0	
Provides sanitary towels	112	7.1	111	84.7	104	83.7	49	8.2	48	91.7	41	87.8	42	4.8	43	79.1	42	100.0	21	9.5	20	80.0	21	42.9	
Separate toilets by gender	111	71.1	111	82.9	96	90.6	48	70.8	47	87.2	39	92.3	42	71.4	43	74.4	37	86.5	21	71.4	21	90.5	20	95.0	
No. of toilets available for girls	112	1.8	103	3.2	99	3.7	49	1.5	45	1.8	42	2.1	42	1.6	37	3.3	36	5.4	21	2.9	21	6.0	21	4.0	
Girls can bring textbooks home	110	67.3	108	46.3	102	46.1	47	60.0	43	26.7	42	35.7	42	78.6	43	83.7	40	65.0	21	61.9	20	100.0	20	30.0	
Each child gets own textbook	90	40.0	92	12.0	89	42.7	38	44.7	37	21.6	36	44.4	37	24.3	42	7.1	33	51.5	15	66.7	13	0.0	20	25.0	
Receiving assistance from outside groups	111	13.5	112	32.1	105	23.8	49	12.2	48	39.9	41	26.8	41	9.7	43	14.0	42	26.2	21	23.8	21	52.4	22	13.6	
Girls receiving scholarships	110	27.3	110	87.3	106	92.5	47	29.8	47	83.0	42	85.7	42	16.7	42	88.1	42	97.6	21	42.9	21	95.2	22	95.5	
Schools with solar lamps	--	--	112	27.7	104	75.0	--	--	48	20.8	40	70.0	--	--	43	46.5	42	95.2	--	--	21	4.8	22	45.5	
Non-cash contributions from CECs	--	--	112	22.3	104	22.1	--	--	48	31.3	41	22.0	--	--	43	7.0	42	23.8	--	--	21	33.3	21	19.0	
Cash contributions from CECs	--	--	112	30.4	105	20.0	--	--	48	33.3	41	22.0	--	--	43	35.0	42	26.2	--	--	21	14.3	22	4.5	
Incentives for teachers	111	30.6	110	32.7	104	48.1	49	12.2	47	44.7	41	48.9	41	53.7	42	21.4	42	54.8	21	28.6	21	28.6	21	33.3	
Monteary support from families	112	4.5	109	7.3	103	15.5	49	6.1	46	8.7	42	16.7	42	2.4	42	9.5	42	14.3	21	4.8	21	0.0	19	15.8	
Schools with feeding program	110	48.2	112	32.1	106	37.7	48	41.7	48	25.0	42	33.3	42	61.9	43	44.2	42	57.1	20	35.0	21	23.8	22	9.1	

Table 11: Descriptive statistics of sampled households at endline

	Total		Puntland		Somaliland		Benadir & Galmundug	
	n	Mean	n	Mean	n	Mean	n	Mean
HH found in IDP camp (%)	1091	9.3	442	18.8	372	3.0	277	2.9
Percent urban	1091	65.0	442	75.6	372	34.9	277	88.4
HH has functioning TV or radio (%)	1070	28.7	438	24.9	368	24.2	264	41.3
HH has any kind of working phone (%)	1073	91.2	438	89.3	368	91.8	267	93.6
HH makes payments to somebody to live in house (%)	957	23.6	376	29.8	344	11.0	237	32.1
HH has access to electricity (%)	1069	59.5	434	63.1	368	54.9	267	59.9
HH is in a safe neighborhood (%)	1077	92.6	440	93.6	367	89.9	270	94.4
Average years of residence a HH has spent at current location	1072	12.4	438	11.6	364	14.0	270	11.8
HOH attended madrassa (%)	1067	67.7	436	80.1	364	49.7	267	73.4
HOH literate (%)	1072	59.0	439	64.5	368	47.3	265	66.4
HOH has some completed secondary education (%)	1036	14.9	429	13.5	351	11.4	256	21.9
HH member is part of a school committee or education group (%)	1074	7.4	437	6.9	368	10.1	269	4.5
HH with caregiver who has heard a radio messages on girls' education in the past year (%)	797	29.5	283	33.9	281	27.0	233	27.0
HH with a caregiver who is satisfied with a school's:								
Classrooms (%)	983	92.7	403	96.8	331	86.4	249	94.4
Toilets (%)	898	80.3	342	91.2	320	75.3	236	71.2
Textbooks (%)	893	85.3	355	95.2	330	79.4	208	77.9
Teaching (%)	980	92.4	400	96.5	332	83.1	248	98.4
Cohort girl's mother is member of HH (%)	1076	86.4	439	86.6	367	87.5	270	84.5
Cohort girl's father is member of HH (%)	1073	63.3	439	60.1	366	68.6	268	61.2
Proportion orphan (%)	1091	9.2	442	10.2	372	9.7	277	6.9
Cohort girl is literate (%)	1076	89.1	440	93.6	368	83.3	268	89.6
HH indicates that it is difficult to afford for girl to go to school (%)	1013	64.8	418	69.4	342	50.9	253	75.9
Cohort girl received a bursary in past 3 yrs (%)	1070	27.9	437	27.7	364	26.1	269	30.9
Cohort girl received some type of help from outside of her family to stay in school (%)	1065	14.2	434	14.5	364	9.9	267	19.5
% cohort girl received tutoring	827	22.2	308	15.6	284	23.6	235	29.4
Average time cohort girl spends on daily chores (hrs.)	914	2.8	390	2.7	323	2.1	201	4.2
Cohort girl has received solar lamp in the past year (%)	838	16.5	319	13.2	284	29.9	235	4.7
Average age cohort girl first started school (years of age)	1014	8.0	420	7.8	341	7.5	253	8.8

identification. Out-of-school girls were initially identified through door-to-door visits conducted by the CECs. In-school girls were initially identified through CECs in conversations with teachers and head teachers. All girls identified for support were verified by each of the three parties and a profile with photograph was made. The project aimed to continue to support the same girls through the life of the project and their attendance was monitored on a monthly basis.

School uniforms: School uniforms were provided for in-school girls considered at risk of dropping out of school without the provision of this safety net. In partnership with teachers, the CECs were responsible for identifying the girls most in need of the uniforms.

Remedial classes: Remedial classes were provided for boys and girls who were falling behind their peers in learning. The teachers identified the children in their classes most in need of the additional coaching. They also made use of the children's exam grades to prioritize those who were most in need of the remedial classes.

Solar lamps: CECs in partnership with teachers were responsible for identifying the girls most in need of solar lamps to enable them to study in the evenings. Based on midline findings, any remaining solar lamps were distributed to girls in rural areas and IDP camps.

Sanitary kits: Sanitary kits were provided to all girls of the appropriate age (generally in grade 6 and above). In response to midline findings and ongoing project M&E findings, distributions in the final year focused particularly on girls in rural areas and IDP camps. Female teacher mentors were responsible for the provision of the kits to specific girls, along with accompanying menstrual hygiene management information. It is important to note that girls were not always given the kits directly. To avoid any potential embarrassment, discreet approaches were utilized wherever possible. For example, in many schools, the female teacher mentor explained to the girls that the sanitary kits would be stored in a particular office cupboard that they could access whenever they wished without having to ask necessarily.

Accelerated Learning Program classes: This activity targeted out of school young mothers and girls who had married early. The CECs were responsible for identifying the girls who wanted to access these non-formal classes. However, the activity initially started as a large group of girls who proactively approached EGEP staff themselves and expressed the desire for support to learn.

Minority Groups: One particular subgroup that presented problems for targeting are those from minority groups— both ethnic and clan-based minorities. Discussing clan minorities is largely a taboo topic and controversial to raise. Minority groups are known to face additional barriers, often facing discrimination, however the problem is largely hidden. EGEP found that girls in minority groups didn't like to be seen or labeled as a minority for fear of the stigma attached.

The identification process for bursary beneficiaries was adapted to address this challenge. While CEC members were involved in the identification process for all girls, they were particularly crucial in the case of identifying minority girls for bursaries. Project staff and MoE officials relied on the local knowledge of the CECs — who know the girls and the families best— and were therefore able to identify the appropriate girls to support without causing any shame or embarrassment to the girls themselves.

Dropouts: ALP and remedial courses target a combination of girls who have either dropped out of school or never had the chance to go to school. Reasons for girls dropping out of school are myriad; quantitative analysis for dropouts was very limited at endline due to the fact that only 3% of girls in households (a total of 33 girls) fit into the definition of a “dropout” (they had gone to school the previous year but were no longer enrolled). Further, on average 4.3% of girls in a school (9 girls per school on average) had dropped out at endline. These small sample sizes precluded our ability to make larger generalizations on dropouts. However, given qualitative findings on bursary dropouts and findings on the reasons for replacement of cohort girls (Table 7), we can extrapolate that the primary drivers of dropouts are migration to other areas and household financial pressures.

2.2 What impact has the project had on marginalized girls' learning?

2.2.1 What impact has the project had on literacy outcomes?

2.2.1.1 Methodology and design

As at baseline and midline, the endline literacy assessment was adapted based on the UWEZO (www.uwezo.net), the East African adaptation of the Annual Status of Education Report (ASER) Assessment Tool, and was conducted in Somali. The assessment was chosen for its extensive use in East Africa as well as its less

intensive nature relative to the Early Grade Reading Assessment (EGRA). At baseline, SI modified the open source UWEZO literacy tests so that they were appropriate to the Somali language and context and secured approval from the MOE to use the UWEZO. The endline testing approach was also the same as at baseline and midline, with literacy assessments being administered orally and individually at school for all cohort and bursary girls who were enrolled at the time of endline, and the test was administered at the girl's home if the girl was not enrolled at endline.

Due to a high frequency of ceiling effects observed on the literacy assessment at midline, SI used an expanded 17-question version of the literacy assessment tool at endline, as opposed to the 10-subsection version used at baseline and midline. The first 10 subsections were the same throughout the three time periods, but an additional seven reading and listening comprehension subsections were added at endline. Prior to endline data collection, SI worked with RI and CARE International's SOMGEP project to jointly develop and pilot the expanded version of the assessment. After successful piloting in October 2016, the assessment was approved and adapted for the EGEP project in early November and incorporated into the enumerator training. This extended literacy test was used for all cohort and bursary girls regardless of their age or grade. Further, SI tested a small sample of 299 boys across the sample schools so that comparisons could be made between boys and girls.

The literacy section of the learning assessment included 17 Somali reading subsections (See Annex 8). The subsections consisted of two sections on letters, one on sounds, two on words, two on reading sentences, and 10 on reading and listening comprehension. Each subsection has four questions, and the subsection is scored as “0” for incorrect or else “1” for correct if the child gets at least three out of four of the subsection's questions right, for a maximum of 17 points. The assessment is designed such that questions become increasingly difficult as the assessment progresses. The original UWEZO assessment is conducted in a way that the student can only progress to the next section if she or he successfully completes the previous section. The adapted learning assessment used in this evaluation is administered differently, so that students complete all questions from start to finish, before the final result is recorded. Figure 6 shows the breakdown of the subtasks for the reading assessment, including the number of questions.

For comparison purposes, the literacy findings below are presented out of 10 total points, given that the literacy assessments at baseline and midline were conducted based on a test out of 10. Endline scores out of the 17-subsection extended test are presented after these comparisons. Midline literacy scores were compared to target scores that incorporated the baseline benchmark score plus a 0.2 standard deviation improvement over girls who were in grade 4 at baseline (comparison to cohort grade 2 girls expected to have aged into grade 4 at midline), grade 5 at baseline (comparison to cohort grade 3 girls), and grade 1 girls (compared to cohort OOSG). This one-year difference used to set the benchmark for OOSG reflects the fact that OOSG who enrolled did not necessarily do so within one year of the baseline. An argument could be made for using a more restrictive grade 2 benchmark. For endline, these benchmarks were calculated based on the baseline benchmark score plus a 0.2 standard deviation improvement over girls who were in grade 5 at baseline (comparison to cohort grade 2 girls expected to have aged into grade 5 at endline), grade 6 at baseline (comparison to cohort grade 3 girls), and grade 2 girls (compared to cohort OOSG).

2.2.1.2 Findings

At midline, a total of 1,508 girls completed the primary school learning assessment. This included 482 girls receiving bursaries and 1,026 girls not receiving bursaries. The average age of the cohort group was just under 13, with ages ranging from 5 to 18. Cohort girls were also asked a few questions about their households to provide a snapshot of their demographics and as potential data for further analysis. Nearly all (over 99%) of the girls speak Somali at home. The majority (66%) live with both of their parents, while 23% live with their mother only and nearly 9% are orphans (defined as not living with either parent). When asked about their parents' occupations, girls reported a wide variety of occupations for their fathers, with the plurality (8.3%) being a salesperson or service worker. Over half of girls reported their mother's main occupation as being domestic chores inside the home. Further, a large portion of girls reported low levels of education within the household: nearly 40% of girls' fathers have no schooling, while only 13% have completed some or all primary education and 4% completed senior/upper secondary school. Lack of education is more common for mothers, with over 50% of girls reporting that their mothers have completed no schooling; but, nearly 17% of mothers have completed some or all their primary education.

Finally, most schools' primary language of instruction was Somali (near 90%), while only 8% of schools' primary language of instruction was English, making the difference not notable. When it comes to who has authority over school curriculum, 64% of schools' curriculum is controlled by the regional government and national government (32% each), while 13% of schools' curriculum is determined by the head teacher.

Using data from classroom observations, there is considerable room for improvement among critical teaching styles. The majority of students (84%) spent most of the time copying directly from the board. Only 17% of teachers used student-centered activities or games at any point during the observations, while only 33% and 32% of teachers asked open-ended questions that encourage critical thinking and questions that ask for student opinions, respectively. Less than half of teachers (44%) called on or actively tried to involve students who were not participating. Improving upon these practices may improve students' learning performance.

Of the 423 baseline OOSG recontacted or replaced at midline, 371 were retested at endline. Of these 371, 346 (93%) were enrolled in school at the time of endline. This is an improvement from midline, where 75% of baseline OOSG girls were enrolled in school. Figure 2 below shows the distribution of grades that these 346 girls are enrolled in at endline and the endline grades of all cohort girls and bursary girls. The plurality of the baseline OOSG (18.3%) were enrolled in third grade; 16.2% were enrolled in fourth grade, and 13.7% were enrolled in second grade. Less than 25% enrolled in grades six, seven, and eight. It is important to consider the age OOSG were at baseline, as a young baseline age may imply that a girl had naturally enrolled at midline or baseline rather than because of EGEDP interventions. Figure 3 shows that overall, most out of school girls were between the ages of 7 and 11 at baseline, a fact that suggests that natural aging into first-time school enrollment was not responsible for observed rates of enrollment for baseline OOSG. This argument is strongest in Benadir and Galmudug, where the average age of OOSG girls at baseline was 8 to 13. Somaliland had the youngest girls; however, the majority were still ages 6–8 at baseline—old enough to have already enrolled in school.

Changes in literacy scores from baseline to endline: Overall, scores from the literacy learning assessment improved from baseline to midline and from midline to endline for each group of cohort girls (out of school, grade two, grade three, and overall) as well as in each project area. Given the two years between baseline and midline and the additional year between midline and endline, this was expected. When it came to literacy targets, all midline groups except for OOSG did not surpass their respective targets set for literacy. At endline, no subgroup of girls passed its target in literacy, though they came very close.

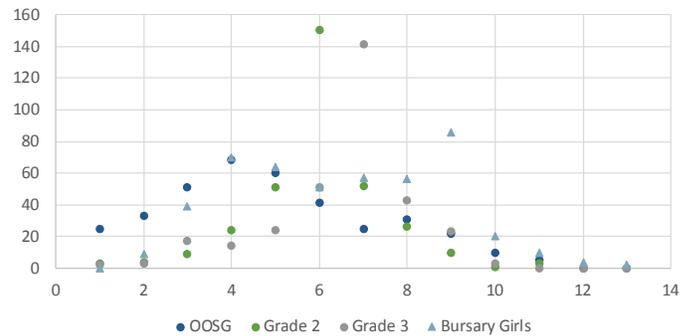


Figure 2: Endline grades of baseline cohort and bursary girls

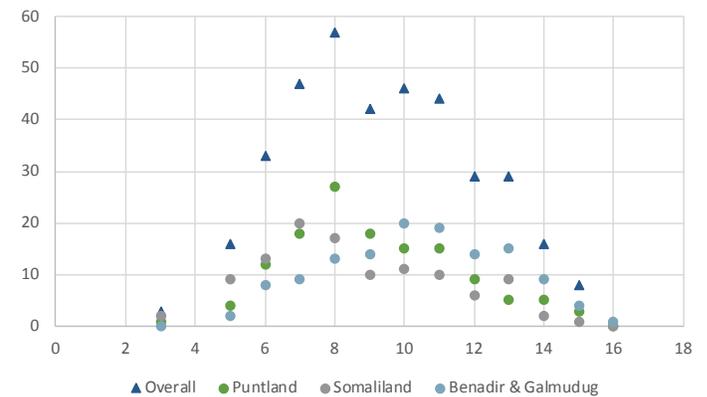


Figure 3: Baseline ages of baseline OOSG

Baseline to midline literacy scores: Girls' mean literacy scores improved from baseline to midline at an even greater rate than did numeracy scores, though girls overall fell short of the midline target by 0.8 points out of 10. Girls who were out of school at baseline improved the most, with their scores improving from 1.5 at baseline to 5.9 at midline (an increase of 4.4 points out of 10). Girls who were in grades two and three at baseline also improved notably, with grade 2 girls increasing to a mean of 8.1 points and grade 3 girls increasing to a mean of 8.2 points (Table 12). When compared against midline targets, all groups and subgroups fell short of their respective targets, except for OOSG, which surpassed theirs by nearly one full point. Average literacy scores disaggregated by project area followed the same trend, with girls' scores improving from baseline to midline but falling below the midline targets. Puntland came the closest to reaching its benchmarks, with Somaliland being the furthest away.

Figure 4: Literacy trends by cohort subgroup, baseline to midline

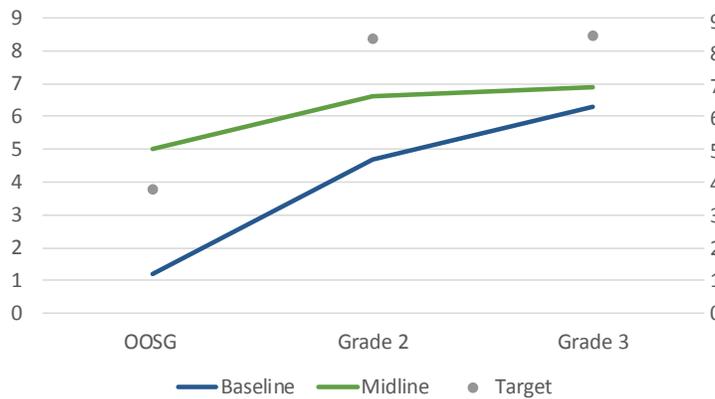


Figure 5: Literacy trends by cohort subgroup, baseline to midline

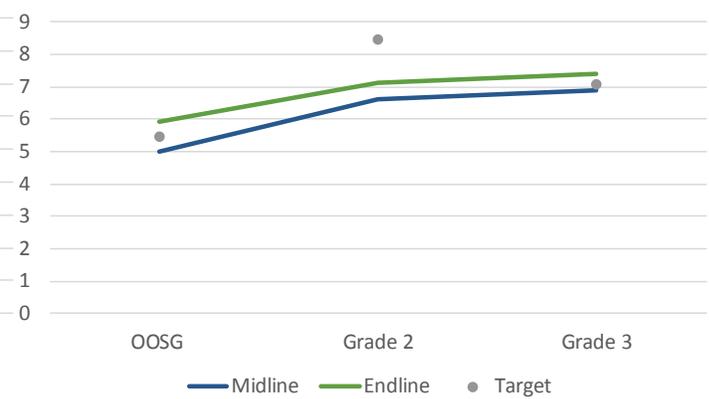


Table 12: Cohort girls' literacy scores, baseline to midline

Learning cohort subgroup	Baseline			Midline			Δ from BL to ML	p-value	t-value	ML target	Proportion of target met	ML target basis
	n	Mean	SE	n	Mean	SE				Mean		
Total	1025	5	0.2	1025	7.3	0.2	2.3	0.0000	16.62	8.07	0.90	Mean of grades 1, 4, and 5 at BL plus 0.2 SD
OOSG	371	1.5	0.2	371	5.9	0.3	4.4	0.0000	17.50	4.81	1.23	OOSG/ G1 mean at baseline + 0.2 of
Grade 2	334	6.2	0.3	334	8.1	0.2	1.9	0.0000	9.02	9.37	0.86	G4 mean at baseline + 0.2 of
Grade 3	321	7.7	0.2	321	8.2	0.2	0.5	0.0315	2.16	9.74	0.84	G5 mean at baseline + 0.2 of
Puntland	396	6	0.3	396	8	0.2	2	0.0000	9.13	8.62	0.93	Mean of grades 1, 4, and 5 at BL plus 0.2 SD
Somaliland	367	4.1	0.3	367	6.2	0.2	2.1	0.0000	9.82	7.15	0.87	Mean of grades 1, 4, and 5 at BL plus 0.2 SD
Benadir and Galmudug	262	4.8	0.4	262	7.8	0.4	3	0.0000	9.99	8.60	0.91	Mean of grades 1, 4, and 5 at BL plus 0.2 SD

Table 13: Cohort girls' literacy scores, midline to endline

Learning cohort subgroup	Midline			Endline			Δ from ML to EL	p-value	t-value	Endline Target	Proportion of target met	Endline target basis
	n	mean	SE	n	mean	SE				mean		
Total	1025	7.3	0.2	1025	8.2	0.1	0.9	0.0000	8.1770	8.59	0.95	Mean of grades 2, 5, and 6 at BL + 0.3 SD, weighted by proportion of grades by cohort
OOSG	371	5.9	0.3	371	6.9	0.2	1.0	0.0000	5.1045	7.45	0.93	OOSG/G2 mean at BL + 0.3 of grade 2 SD at baseline
Grade 2	334	8.1	0.2	334	8.9	0.1	0.8	0.0000	5.0259	9.92	0.90	G5 mean at BL + 0.3 of of grade 5 SD at baseline
Grade 3	321	8.2	0.2	321	8.9	0.2	0.7	0.0000	4.1210	9.61	0.93	G6 mean at BL + 0.3 of grade 6 SD at baseline
Puntland	396	8	0.2	396	8.5	0.2	0.5	0.0022	3.0813	9.33	0.91	Mean of grades 2, 5, and 6 at BL + 0.3 SD, weighted by proportion of grades in cohort
Somaliland	367	6.2	0.2	367	7.4	0.2	1.2	0.0000	6.4315	7.86	0.94	Mean of grades 2, 5, and 6 at BL + 0.3 SD, weighted by proportion of grades in cohort
Benadir and Galmudug	262	7.8	0.4	262	8.9	0.2	1.1	0.0000	4.5256	8.87	1.00	Mean of grades 2, 5, and 6 at BL + 0.3 SD weighted by proportion of grades in cohort

Midline to endline literacy scores: Similar to midline, girls' average literacy scores increased from midline to endline. Overall, girls scored under their literacy targets at endline (8.2/8.5). Disaggregated by baseline cohort grade, girls did not pass their respective targets, with grade 2 girls scoring the furthest from their target (8.9/9.9). Out of school girls' average literacy scores were the closest to their endline target, missing it by 0.55 points, and grade 3 girls missed it by 0.7 points. When disaggregated by project area, only girls in Benadir and Galmudug met their respective endline targets, while girls in Somaliland were 0.46 points away from their target and girls in Puntland missed their target by 0.83 points out of 10.

31 Endline Grade 3 targets were calculated using grade 6 girls' scores collected at endline in 5 non-EGEP schools in Somaliland. Sample sizes were small and limited to one project area; SI urges caution in generalizing grade 3 targets to all cohort girls. These grades are factored into the total endline target and the endline target of each project area.

Endline literacy scores out of 17: It should be emphasized that the majority of girls scored beyond 10, which was to be expected given that at midline, approximately 55% of girls scored perfectly on the literacy learning assessment, and 63% did so at endline. Endline literacy scores out of 17 (using the extended literacy test) are presented in Table 14. Overall, girls scored an average of nearly 12 points out of 17 on the extended literacy test. Even OOSG scored nearly 10, with 9.7 points. Girls in Benadir and Galmudug scored the highest, with 13.5 points, and girls in Somaliland scored the lowest, with 10.5 points. This upward trend is further highlighted below in Figure 6 and Figure 7, which present the distribution of girls' literacy scores across the reading subtasks. Girls scoring a perfect 10 out of 10 increased from 32% at baseline to 55% at midline and 63% at endline. Further, when looking at girls' scores on the extended literacy test out of 17, 40% of girls scored 17 out of 17. This is notably positive, particularly given that points 7–17

Figure 6: Distributions of literacy scores by at baseline, midline, and endline (endline out of 10)

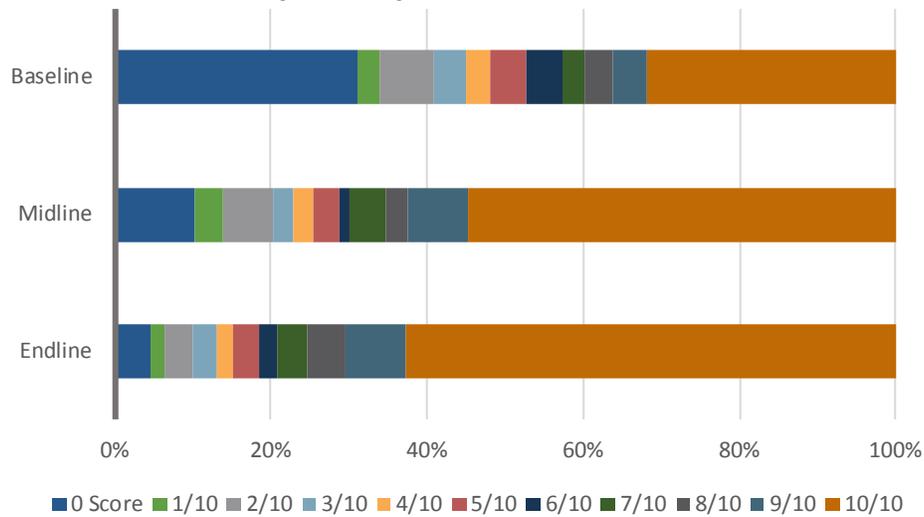


Figure 7: Distribution of literacy scores at endline (out of 17)

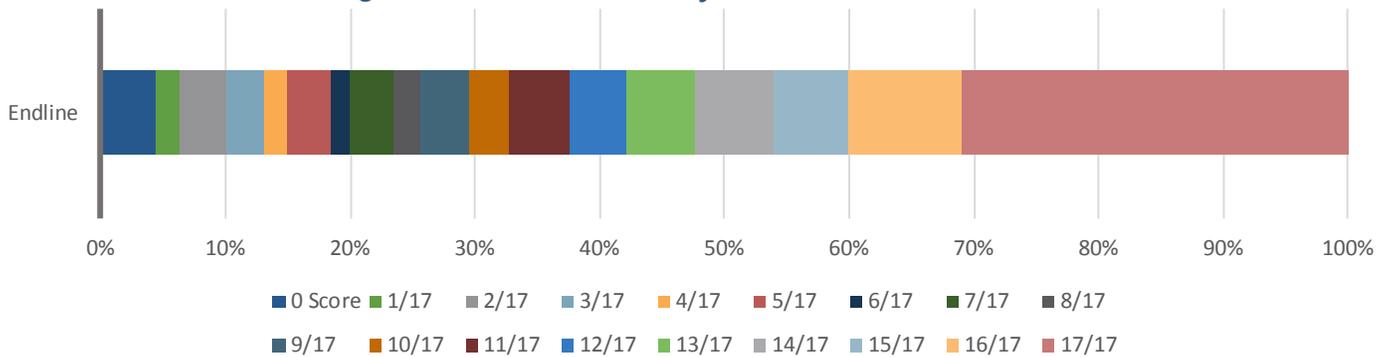


Table 15: Secondary girls' literacy scores, baseline to midline

Learning cohort subgroup	BL			ML			Δ from BL to ML	ML Target	ML Target Basis
	n	Mean	SD	n	Mean	SE			
Forms 1 & 2 (baseline) Forms 3 & 4 (midline)	209	14.6	6	300	16.1	2.2	1.5	17.6	Forms 3 & 4 mean at baseline + 0.2 of Forms 3 & 4 SD at baseline

focus on reading and listening comprehension, meaning that girls are developing and mastering the reading skills to become independent readers.

The distribution of scores on the literacy test offers further insight into how girls are progressing toward becoming independent readers. As Figure 6 and Figure 7 show, zero scores decreased drastically from over 30% at baseline to less than 5% at endline. Further, girls scored higher at endline on the more difficult sub-tasks, such as reading and listening comprehension.

Table 14: Cohort girls' literacy scores, endline (out of 17)

Learning cohort subgroup	Endline (out of 17)		
	n	Mean	SE
Total	1,025	11.9	0.2
OOSG	371	9.7	0.4
Grade 2	334	13	0.3
Grade 3	321	13.3	0.3
Puntland	396	12.2	0.3
Somaliland	367	10.5	0.4
Benadir and Galmudug	262	13.5	0.4

Secondary girls' literacy scores: Table 15 and Table 16 present literacy scores for secondary schools. At baseline, scores for forms 1 and 2 are presented, and at midline, scores for forms 3 and 4 are presented to show progression from baseline to midline, keeping in mind that this group of girls is not the same girls were tested between the two periods. However, at endline, given that Form 3 and 4 girls had graduated and EGEP activities directly target Forms 1 and 2, only scores for forms 1 and 2 are presented. For these reasons, comparisons are not made between midline and endline.

Overall, secondary school girls improved from baseline to midline in literacy. This improvement was by about 1.5 points out of 32. Secondary girls did not meet the midline target in literacy at midline. At endline, secondary girls scored an average of 13.4 points out of 32. Girls in form 1 scored an average of 13 points, while girls in form 2 scored an average of 13.8 points, showing an upward trend in scores as girls progress through secondary school. Further, the secondary assessment is conducted in English and is purely reading and listening comprehension based; thus, this upward trend in scores is a positive sign that girls are learning and understanding English. However, girls scored nearly 2.5 points below the endline target, showing that room for improvement remains. Worryingly, secondary girls (Form 1 and 2) at endline scored 1.2 points worse than Forms 1 and 2 did at baseline, though the sample was very different between the two periods. While the sample size is much larger at endline, the small number of secondary schools sampled across all periods (5 at BL; 4 at ML; 8 at EL) limit our ability to make larger generalizations. Floor and ceiling effects were negligible, with less than 1% of secondary girls scoring zero and no secondary girls scoring perfectly.

Table 16: Secondary girls' literacy scores, endline

Learning cohort subgroup	EL			Endline Target	EL target basis
	n	Mean	SE		
Forms 1 & 2	712	13.4	0.6	15.8	Forms 1 & 2 mean at baseline + 0.2 of Forms 1 & 2 SD at baseline

2.2.1.3 Subgroup analysis

Boys' endline literacy scores: On average, boys scored slightly higher than girls overall and higher or the same when disaggregated by project area. On the 10-question test (Table 17), mean scores reached 9.5 points overall, 0.1 points higher than girls at endline. Boys in Puntland scored the highest, with an average of 9.8 points, 0.1 points higher than endline girls in Puntland. Boys in Somaliland scored the lowest, with 9.2 points, 0.2 points higher than endline girls in Somaliland. There was no notable difference between boys' and girls' scores when scores were broken down by grade, with boys in grade 5 scoring an average of 9.3 points and boys in grade 6 scoring an average of 9.8 points out of 10. Boys' scores were high when using the extended test out of 17 which, like girls, was to be expected given that ceiling effects reached 82.3% on the literacy test scored out of 10 and 48.2% on the extended literacy test scored out of 17. Overall, boys scored an average of 14.8 points and reached as high as 15.8 points in Benadir and Galmudug (Table 18). There was a slight difference when broken down by grade, with boys in grade 5 scoring an average of 14.3 points and boys in grade 6 scoring an average of 15.6 points out of 17, meaning that boys are successfully progressing toward becoming independent readers. Given that sampled boys were in grades 5 or 6 only, boys' scores were compared to the scores of cohort girls who were in grades 5 and 6 as well. Boys

and girls performed similarly on the literacy test out of 10, with boys scoring only slightly higher than girls overall and scoring the same in Benadir and Galmudug. On the extended test, boys outperformed girls at a greater magnitude, with the difference being the greatest in Somaliland (boys scored 13.9 points while girls scored 13.1 points).

Recontacted versus replacement girls' literacy scores:

There was no notable difference in overall or cohort grade-disaggregated mean scores between girls who were recontacted at endline and girls who were replaced at endline. There was a slight difference when disaggregated by project area, though. Somaliland had the largest difference, with recontacted girls scoring an average of 7.5 and replaced girls scoring an average of 6.8; girls in Puntland had the smallest difference, with recontacted girls scoring 8.6 and replaced girls scoring 8.1. The differences between the two groups of girls was slightly more notable when looking at scores on the extended literacy test out of 17. Overall, recontacted girls scored an average of 12 points out of 17 while replaced girls scored an average of 11.6 points. It should be noted here that "replacement" girls do not include replaced Galkayo schools.

Literacy scores of ISG and OOSG:

Comparisons were also made between girls who were enrolled at the time of endline (ISG) and girls who were not enrolled at endline (OOSG). However, it should be noted that nearly all cohort girls were enrolled at the time of endline, making the sample too small for significant comparison, so these comparisons should be taken lightly. The difference in scores between ISG and OOSG is high, with ISG scoring an average of 8.4 points out of 10 and OOSG scoring an average of 3 points. When using scores from the extended literacy test out of 17, ISG scored an average of 12.2 points out of 17, and OOSG scored only 3.4 points.

Other key disaggregations:

The evaluation team also disaggregated learning scores by urban/rural schools, schools in IDP camps, drought-affected schools, and conflict-affected schools. Scores were further disaggregated by girls' orphan and non-orphan status. Figure 8 below presents scores from baseline to midline to endline for the location-based data (urban/rural, IDP, drought-affected, and conflict-affected). In all groups, girls' literacy scores improved from baseline to midline and midline to endline, but the differences were most notable among different groups. The Shapley decomposition (Figure 52) shows that student and household-level characteristics along with unobservable project-area-level characteristics explain nearly two-thirds of the variation in literacy (10 and 17-question) scores. Therefore, hypotheses set forth in the following sections on why certain groups score better than others should be taken with caution.

Urban and rural schools:

When disaggregated by urban and rural schools, the improvements were most notable in urban schools from baseline to midline and in rural schools from midline to endline. From baseline to midline, girls in rural schools improved by nearly 2 points (from 4.7 to 6.6 points), while girls in urban schools improved by over 2.5 points (from 4.8 to 7.4 points). From midline to endline, girls in rural schools improved by 1.3 points (from 6.6 to 7.9 points), and in urban schools, girls improved by 0.9 points (from 7.4 to 8.3 points). Overall, rural girls score worse than urban girls, a fact that makes more sense when considering that the majority of rural girls are found in Somaliland, the project area suffering the most from hunger and with the lowest overall learning scores.

Table 17: Boys' literacy scores, endline (out of 10)

Learning cohort	Boys Endline (out of 10)			Girls Endline (out of 10)			p-value
	n	mean	SE	n	mean	SE	
Total	299	9.5	0.1	460	9.4	0.1	0.15
Puntland	116	9.8	0.1	187	9.7	0.1	0.28
Somaliland	123	9.2	0.1	203	9.0	0.2	0.28
Benadir and Galmudug	59	9.7	0.2	70	9.7	0.1	0.87

Table 18: Boys' literacy scores, endline (out of 17)

Learning cohort	Boys Endline (out of 17)			Girls Endline (out of 17)			p-value
	n	mean	SE	n	mean	SE	
Total	299	14.8	0.2	460	14.1	0.2	0.00
Puntland	116	15.3	0.4	187	14.7	0.2	0.05
Somaliland	123	13.9	0.4	203	13.1	0.3	0.07
Benadir and Galmudug	59	15.8	0.4	70	15.3	0.3	0.29

Table 19: Recontacted versus replacement girls' literacy scores, endline (out of 10)

Learning cohort subgroup	Recontacted			Replaced			p-value
	n	mean	SE	n	mean	SE	
Total*	870	8.2	0.1	156	8.1	0.3	0.58
OOSG	300	6.9	0.3	71	7	0.5	0.81
Grade 2	288	8.9	0.2	46	9.2	0.3	0.39
Grade 3	282	8.9	0.2	39	8.7	0.4	0.60
Puntland	329	8.6	0.2	67	8.1	0.5	0.21
Somaliland	326	7.5	0.2	41	6.8	0.5	0.23
Benadir and Galmudug	214	8.8	0.2	48	9.2	0.2	0.19

Table 20: Recontacted versus replacement girls' literacy scores, endline (out of 17)

Learning cohort subgroup	Recontacted			Replaced			p-value
	n	Mean	SE	n	Mean	SE	
Total*	870	12	0.2	156	11.6	0.5	0.40
OOSG	300	9.7	0.4	71	9.9	0.8	0.74
Grade 2	288	13	0.3	46	13.4	0.6	0.51
Grade 3	282	13.4	0.3	39	12.4	0.7	0.20
Puntland	329	12.4	0.3	67	11.4	0.8	0.22
Somaliland	326	10.7	0.4	41	9.5	0.9	0.24
Benadir and Galmudug	214	13.4	0.4	48	13.6	0.6	0.85

Table 21: Endline ISG versus OOSG literacy scores, endline (out of 10)

Learning cohort subgroup	ISG			OOSG			p-value
	n	Mean	SE	n	Mean	SE	
Total	996	8.4	0.1	30	3	0.7	0.00
Puntland	388	8.6	0.2	8	5.4	1	0.00
Somaliland	355	7.7	0.2	12	0.6	0.3	0.00
Benadir and Galmudug	252	9.1	0.2	10	4	1.1	0.00

Table 22: Endline ISG versus OOSG literacy scores, endline (out of 17)

Learning cohort subgroup	ISG			OOSG			p-value
	n	Mean	SE	n	Mean	SE	
Total	996	12.2	0.2	30	3.4	0.9	0.00
Puntland	388	12.3	0.3	8	5.5	1.1	0.00
Somaliland	355	10.9	0.4	12	0.6	0.3	0.00
Benadir and Galmudug	252	13.8	0.4	10	5.2	2	0.00

IDP schools: Score improvements were most notable among girls in non-IDP schools from baseline to midline and midline to endline. From baseline to midline, girls in non-IDP schools improved by nearly 2.5 points (from 4.8 to 7.2 points), while girls in IDP schools improved by just over 2 points (from 4.4 to 6.6 points). From midline to endline, girls in non-IDP schools improved by 1 full point (from 7.2 to 8.2 points), and in IDP schools, girls improved by just under 1 point (from 6.6 to 7.5 points). IDP girls score the lowest overall at endline, potentially due to the temporary and migratory nature of the communities and IDP schools in which the girls live.

Drought-affected schools: When disaggregated by drought-affected status, the improvements were greatest in non-drought-affected schools from baseline to midline, while from midline to endline, the improvements were greatest among girls in drought-affected schools. From baseline to midline, girls in non-drought-affected schools improved by 2.5 points (from 4.8 to 7.3 points), while girls in drought-affected schools improved by 2 points (from 4.7 to 6.7 points). From midline to endline, girls in non-drought-affected schools improved by 1 full point (from 7.3 to 8.3 points), and in drought-affected schools girls improved by 1.3 points (from 6.7 to 8.0 points). Girls in drought-affected area score slightly below the mean at endline, potentially due in part to high levels of hunger (Somaliland makes up 50% of sampled

drought-affected schools), and other unobservable project area-level characteristics.

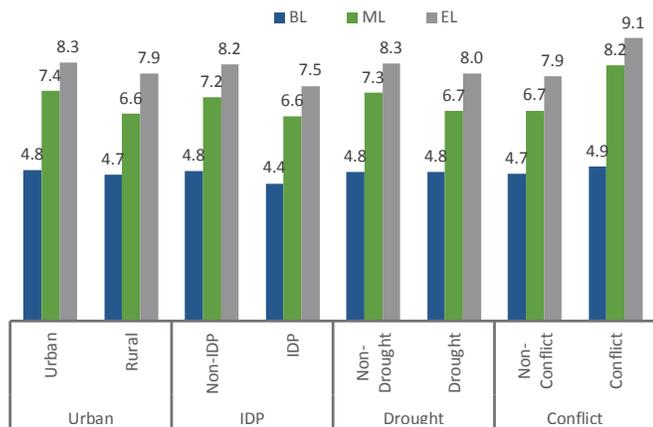
Conflict-affected schools: When disaggregated by schools that are affected by conflict, girls in conflict-affected schools improved more from baseline to midline, while girls in non-conflict-affected schools improved more from midline to endline. From baseline to midline, girls in non-conflict-affected schools improved by 2 points (from 4.7 to 6.7 points), while girls in conflict-affected schools improved by over 3 points (from 4.9 to 8.2 points). From midline to endline, girls in non-conflict-affected schools improved by slightly over 1 point (from 6.7 to 7.9 points), and in conflict-affected schools, girls improved by slightly under 1 point (from 8.2 to 9.1 points). Conflict-affected girls score highest of all sub-groups, potentially due to the fact that most are located in B&G, a highly urban project area where the majority of schools are privately-run. B&G has the highest overall learning scores of all project areas.

Orphan status: There was not much difference in endline literacy scores between girls who were orphans and those who were not, though scores improved more for non-orphan girls from baseline to midline. From baseline to midline, orphan girls improved by 2 full points (from 5.6 to 7.6 points), while non-orphan girls improved by 2.4 points (from 4.9 to 7.3 points). From midline to end-

line, orphan girls improved by just under 1 point (from 7.6 to 8.5 points), while non-orphan girls similarly improved by just under 1 point (from 7.3 to 8.2 points).

Disability status: Girls’ disability status is drawn from the household survey, where questions about the cohort girl were asked regarding ability to hear, walk, see, remember/concentrate, self-care, and communicate in the class language. The sample is too small to make substantive conclusions (41 girls are recorded as disabled), but the results offer insight as to how disabilities affect learning. There was a notable difference between scores of disabled girls and non-disabled girls across all three rounds of data collection, with non-disabled girls scoring higher than disabled girls in each round. At baseline, non-disabled girls outperformed disabled girls by 1.2 points (6.6 and 5.4 points for non-disabled and disabled, respectively). At midline, the difference was smaller, but non-disabled girls still scored 0.8 points higher than disabled girls (7.8 versus 7.0 points). Finally, the difference was greatest at endline, with non-disabled girls outperforming disabled girls by 2.2 points (8.4 versus 6.2 points). Scores improved among both groups across all three data collection rounds, except for disabled girls from midline to endline, where scores decreased by 0.8 points. When looking at scores on the extended literacy test out of 17 points, non-disabled girls scored 3.2 points higher than disabled girls (11.8 points for non-disabled girls and 8.6 point for disabled girls).

Figure 8: Literacy scores, location-based, baseline to midline to endline



2.2.1.4 Literacy results in context of local/regional/national environment, and ceiling effects

The UWEZO test (and the adapted version used in this evaluation) is intended to measure competency at grade 2; however, it must be noted that the majority of the cohort was in grades 4 and 5 at midline and grades 5 and 6 at endline. Ceiling effects were expected because girls were older at midline and endline and have spent more time in the classroom and thus warranted the extended UWEZO test piloted and used at endline. An argument could be made for a more advanced test, based on the high ceiling effects for all groups on the extended test. Boys’ ceiling effects on the extended test were the highest, at nearly 50%, with slightly over 40% of bursary girls and slightly over 30% of cohort girls scoring 17 out of 17. Such high scores exhibit the quickly-developing reading skills of girls and their ability to not only decipher letters and words but to absorb and comprehend the content.

Cohort girls’ ceiling effects were further disaggregated by cohort grade level and project area (Table 22). When disaggregated by cohort group, results were as expected, with girls who were out of school at baseline scoring a perfect score the least often and girls

who started in grade 3 at baseline scoring a perfect score the most often. Ceiling effects were much lower on the extended 17-section literacy assessment, but still reached 31% overall, meaning that a more difficult assessment would be necessary in future rounds of data collection. Further, ceiling effects were highest in Benadir and Galmudug and lowest in Somaliland in all three rounds of data collection and on both the 10-section literacy assessment and the 17-section literacy assessment, which is to be expected given that scores in Somaliland were consistently the lowest when compared to the other project areas.

Table 23: Ceiling effects, literacy

Learning cohort group overall	Baseline	Midline	Endline (out of 10)	Endline (out of 17)
Overall	31.9%	54.9%	62.8%	31.0%
OOSG	8.1%	38.8%	46.4%	22.9%
Grade 2	36.2%	61.7%	71.6%	32.6%
Grade 3	54.8%	66.4%	72.6%	38.6%
Puntland	42.4%	60.1%	66.7%	31.1%
Somaliland	19.4%	40.1%	52.3%	17.7%
Benadir and Galmudug	33.6%	67.9%	71.8%	49.6%

It is important to note the role that external and contextual factors played in results of the literacy outcome. Figure 52 shows a Shapley decomposition of a multiple regression model of the influence of various factors on literacy scores (out of 10) at endline. While the model explains only 13% of all variation, the share of each factor in that explained by student and household-level indicators, followed by project-level unobservable variables (30%), school-level characteristics (17%), and conflict, drought, and IDP status combined (10%). Though not insignificant, this leaves approximately 35% of variation explained by EGEDP interventions.

2.2.2 What impact has the GEC had on numeracy outcomes?

2.2.2.1 Methodology and design

As with literacy, the endline numeracy assessment was adapted based on the UWEZO (www.uwezo.net), the East African adaptation of the Annual Status of Education Report (ASER) Assessment Tool, and was conducted in Somali. At baseline, SI modified the open source UWEZO numeracy tests so that they were appropriate to the Somali language and context and secured approval from the MOE to use the UWEZO. The endline testing approach was also the same as at baseline and midline, with numeracy assessments being administered orally and individually at school for all cohort and bursary girls who were enrolled at the time of endline, and being administered at the girl’s home if the girl was not enrolled at endline. Further, the same test was used in all three rounds of data collection, since ceiling effects remained low and thus did not warrant an extended test. The same numeracy learning assessment was used for all cohort and bursary girls regardless of their age or grade. Further, SI tested a small sample of 299 boys across the sample schools so that comparisons could be made between boys and girls.

The numeracy section of the learning assessment included 10 math subsections (see Annex 8). These comprised subsections on identifying and comparing two and three-digit numbers, operations (addition, subtraction, multiplication, and division), shapes,

Table 24: Cohort girls' numeracy scores, baseline to midline

Learning cohort subgroup	Baseline			Midline			Δ between baseline and midline	p-value	t-value	Mid-line target	Perfor- mance	Midline target basis
	n	Mean	SE	n	Mean	SE				Mean		
Total	1025	3.9	0.1	1025	6.1	0.2	2.2	0.0000	18.6438	6.94	0.88	Mean of grades 1, 4, and 5 at BL plus 0.2 SD
OOSG	371	1.2	0.1	371	5	0.3	3.8	0.0000	17.8999	3.77	1.33	OOSG/G1 mean at baseline + 0.2 of
Grade 2	334	4.7	0.2	334	6.6	0.2	1.9	0.0000	10.6109	8.37	0.79	G4 mean at baseline + 0.2 of
Grade 3	321	6.3	0.2	321	6.9	0.2	0.6	0.0003	3.6758	8.45	0.82	G5 mean at baseline + 0.2 of
Puntland	396	4.5	0.2	396	7	0.2	2.5	0.0000	13.7636	7.31	0.96	Mean of grades 1, 4, and 5 at BL plus 0.2 SD
Somaliland	367	3.4	0.2	367	4.8	0.2	1.4	0.0000	7.8485	6.43	0.75	Mean of grades 1, 4, and 5 at BL plus 0.2 SD
Benadir and Galmudug	262	3.8	0.3	262	6.6	0.3	2.8	0.0000	10.8756	7.11	0.93	Mean of grades 1, 4, and 5 at BL plus 0.2 SD

and time. Each subsection has four questions, and the subsection is scored as “0 for incorrect or “1” for correct if the child gets at least 3 out of 4 of the subsection's questions right, for a maximum of 10 points. The assessment is designed such that questions become increasingly difficult as the assessment progresses. The original UWEZO assessment is conducted in a way that the student can only progress to the next section if she or he successfully completes the previous section. The adapted learning assessment used in this evaluation is administered differently, so that students complete all questions from start to finish, before the final result is recorded. Figure 11 shows the breakdown of the subtasks for the math assessment, including the number of questions.

The numeracy findings below are presented out of 10 total points for all three rounds of data collection (baseline, midline, and endline). Midline numeracy scores were compared to target scores that incorporated the baseline benchmark score plus a 0.2 standard deviation improvement over girls who were in grade 4 at baseline (comparison to cohort grade 2 girls expected to have aged into grade 4 at midline), grade 5 at baseline (comparison to cohort grade 3 girls), and grade 1 girls (compared to cohort OOSG). This one-year difference used to set the benchmark for OOSG reflects the fact that OOSG who enrolled did not necessarily do so within one year of the baseline. An argument could be made for using a more restrictive grade 2 benchmark. For endline, these benchmarks were calculated based on the baseline benchmark score plus a 0.2 standard deviation improvement over girls who were in grade 5 at baseline (comparison to cohort grade 2 girls

expected to have aged into grade 5 at endline), grade 6 at baseline (comparison to cohort grade 3 girls), and grade 2 girls (compared to cohort OOSG).

2.2.2.2 Findings

At midline, a total of 1,508 girls completed the primary school numeracy assessment. This included 482 girls receiving bursaries and 1,025 girls not receiving bursaries. The average age of the cohort group was just under 13, with ages ranging from 5 to 18. Additional demographics about these cohort girls is presented above in the literacy section.

Baseline to midline numeracy scores: Numeracy mean scores (Table 24) improved the most for girls who were out of school at baseline, increasing nearly 4 points out of 10. This group of girls is by far the most improved group, surpassing their midline target by over 1.2 points. When disaggregated by project area, girls in Somaliland underperformed girls in both Puntland and Benadir and Galmudug at midline, following the same trend as at baseline. Girls in Benadir and Galmudug have improved the most out of the three project areas from baseline to midline (Table 24), but girls in Puntland scored the highest at midline. Somaliland girls missed their target by 1.6 points, while Puntland and Benadir and Galmudug girls missed theirs by 0.3 and 0.5 points, respectively. Further, ceiling effects were low, at only 7.3% at baseline and 7.4% at midline.

Table 25: Cohort girls numeracy scores, midline to endline

Learning cohort subgroup	Midline			Endline			Δ between midline and endline	p-value	t-value	End-line Mean	Perfor- mance	Endline target basis
	n	Mean	SE	n	Mean	SE						
Total	1025	6.1	0.2	1025	6.7	0.1	0.6	0.0000	7.4333	7.01	0.96	Mean of grades 2, 5, and 6 at BL plus 0.3 SD, weighted by proportion of grades in cohort
OOSG	371	5	0.3	371	5.9	0	0.9	0.0000	5.4480	5.74	1.03	OOSG/G2 mean at baseline + 0.2 of grade 2 SD at baseline
Grade 2	334	6.6	0.2	334	7.1	0.2	0.5	0.0002	3.7444	8.65	0.82	G5 mean at baseline + 0.3 of grade 5 SD at baseline
Grade 3	321	6.9	0.2	321	7.4	0.1	0.5	0.0006	3.4466	7.28	1.02	G6 mean at baseline + 0.3 of grade 6 SD at baseline
Puntland	396	7	0.2	396	7.3	0.1	0.3	0.0097	2.5973	7.55	0.97	Mean of grades 2, 5, and 6 at BL + 0.3 SD, weighted by proportion of grades in cohort
Somaliland	367	4.8	0.2	367	5.8	0.2	1	0.0000	6.7205	6.51	0.89	Mean of grades 2, 5, and 6 at BL + 0.3 SD, weighted by proportion of grades in cohort
Benadir and Galmudug	262	6.6	0.3	262	7.2	0.2	0.6	0.0009	3.3494	7.15	1.01	Mean of grades 2, 5, and 6 at BL + 0.2 SD, weighted by proportion of grades in cohort

Figure 11: Distribution of numeracy scores by subtask at abseline, idline, and endline

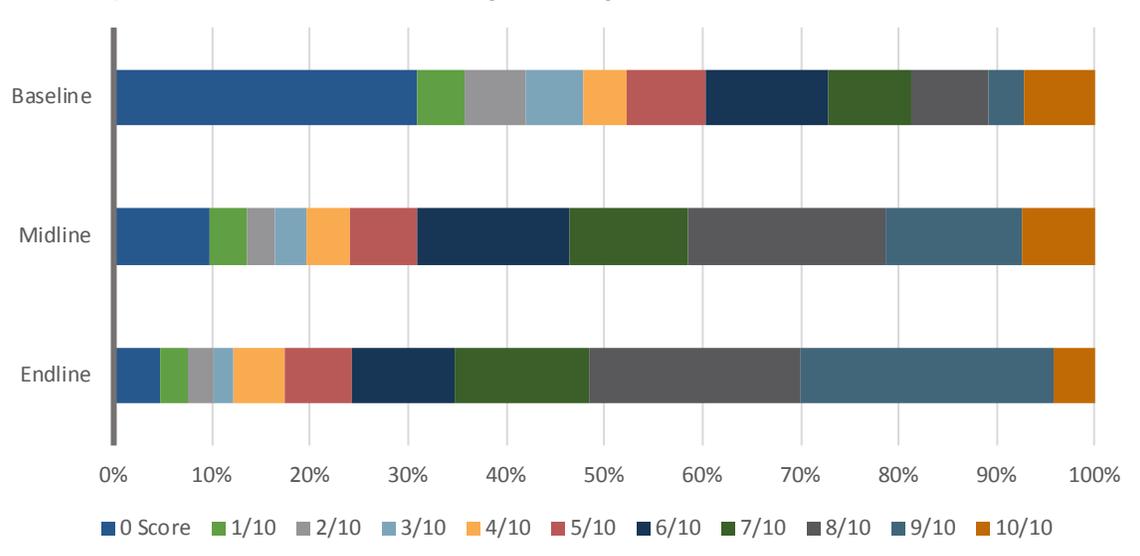


Table 26: Secondary girls' numeracy scores, baseline and midline

Learning cohort subgroup	Baseline			Midline			Δ from baseline to midline	Midline target	Midline target basis
	n	Mean	SD	n	Mean	SE			
Forms 1 & 2 (baseline) Forms 3 & 4 (midline)	209	15.9	7.5	299	17.1	2.4	1.2	16	Forms 3 & 4 mean at baseline + 0.2 of Forms 3 & 4 SD at baseline

Table 27: Secondary girls' numeracy scores, endline

Learning cohort subgroup	Endline			Endline target	Endline target basis
	n	Mean	SE		
Forms 1 & 2	712	13.6	0.7	17.4	Forms 1 & 2 mean at baseline + 0.2 of Forms 3 & 4 SD at baseline

Figure 9: Numeracy trends by subgroup cohort, baseline to midline

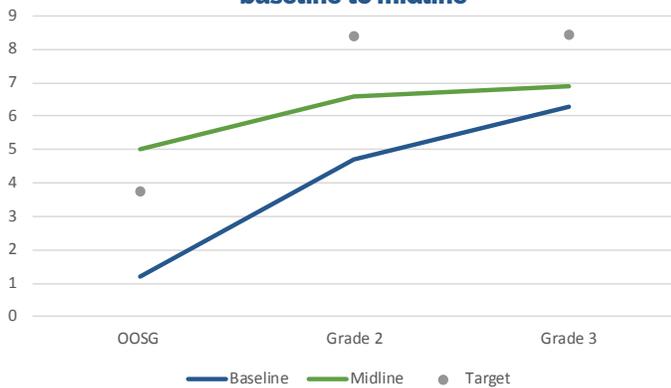
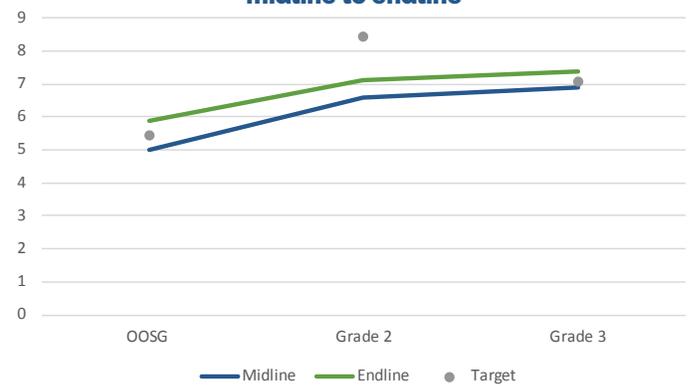


Figure 10: Numeracy trends by subgroup cohort, midline to endline



Numeracy scores midline to endline:³² Girls performed better on the numeracy learning assessment at endline, with grade 3 and OOSG surpassing their respective targets and grade 2 falling well short. OOSG performed the best, improving from midline by 0.9 points and surpassing their benchmark by nearly 0.2 points. Girls in grade 2 improved from midline by 0.5 points but scored under their benchmark by nearly 1.6 points. Overall, cohort girls did not meet their numeracy targets for endline (6.7/7.0). All three project areas improved from midline to endline, but only B&G met their endline target. Girls in Somaliland improved the most, with scores improving from 4.8 points at midline to 5.8 points at endline, however they fell short of their target by 0.7 points out of 10. Girls in Puntland only improved by 0.3 points from midline to endline and did not meet their target (7.3/7.6) (Table 25).

As with literacy, the distribution of numeracy scores offers insight into whether girls are becoming proficient in all stages of math. As can be seen in Figure 11, zero scores have decreased drastically from baseline to endline. Over 30% of girls scored zero at baseline, while less than 5% of girls scored zero at endline. Further, girls at endline were scoring higher on the more difficult subtasks such as multiplication, division, and shapes. These results show that girls are not only mastering the basics of math but also the more complex concepts.

³² Endline Grade 3 targets were calculated using Grade 6 girls' scores collected at endline in 5 non-EGEP schools in Somaliland. Sample sizes were small and limited to one project area; SI thus urges caution in generalizing Grade 3 targets to all cohort girls. These grades are factored into the total endline target and the endline target for each project area.

Secondary girls' numeracy scores: Table 26 and Table 27 present numeracy scores for secondary schools. As with literacy, at baseline, scores for Forms 1 and 2 are presented, and at midline scores for Forms 3 and 4 are presented, to show progression in time among same group of girls from baseline to midline. However, at endline, only scores for Forms 1 and 2 are presented, given that the cohort from midline had graduates and, EGEP activities target girls in Forms 1 and 2. For these reasons, comparisons are not made between midline and endline.

Overall, secondary school girls improved from baseline to midline in numeracy. This improvement was by 1.1 points out of 30. Secondary girls exceeded the midline target by 1.0. At endline, secondary girls scored an average of 13.6 points out of 30. Endline numeracy scores were further disaggregated by grade level, with girls in form 1 scoring an average of 13 points and girls in form 2 scoring an average of 14.3 points out of 30. As with literacy, this upward trend in numeracy scores is an indication that girls are learning and becoming proficient in more difficult math concepts. However, girls scored nearly 4 points below the benchmark, so there is still room for improvement. As with literacy, secondary girls at endline (Forms 1 and 2) scored significantly less than Form 1 and 2 girls at baseline, though the sample between the two periods was very different. Sample sizes of secondary schools remained small throughout the data collection phases (5 schools at BL; 4 at ML; 8 at EL), limiting our ability to make larger generalizations. As with literacy, floor and ceiling effects were negligible, with less than 1% of secondary girls scoring zero and 0 secondary girls scoring perfectly.

2.2.2.3 Subgroup Analysis

Boys' numeracy scores: Boys scored higher than girls overall and when disaggregated by project area, following the same trend as with the literacy assessment. Specifically, boys scored nearly 1.5 points higher than girls overall. The largest discrepancy was in Somaliland, with girls scoring 5.8 and boys scoring 7.6 (a difference of 1.8 points). As with girls, though, ceiling effects remained low, at only 6.4%. As with the literacy test out of 10, there was not a notable difference between boys in grade 5 and grade 6 (boys in grade 5 scored an average of 8.1 points, and boys in grade 6 scored an average of 8.3 points). Boys were sampled from grades 5 and 6 and thus compared to cohort girls from the same grades. Boys slightly outperformed girls, with the greatest difference being in Somaliland (boys scored 7.6, while girls scored 7.0).

Replaced and recontacted girls' numeracy scores: As with literacy, the difference between recontacted and replaced girls was negligible. Overall, recontacted girls scored an average of 0.2 points higher than replaced girls, while the difference when broken down by cohort subgroup is similar or less. Girls in Somaliland had the largest discrepancy, with recontacted girls scoring 0.7 points higher than replaced girls; this follows the same trend as the literacy assessment. It should be noted here that "replacement" girls do not include replaced Galkayo schools.

Table 28: Boys' numeracy scores endline

Learning cohort sub-groups	Boys Endline			Girls Endline			p-value
	n	mean	SE	n	mean	SE	
Total	299	8.1	0.1	460	7.6	0.1	0.00
PL	116	8.4	0.2	187	8.2	0.1	0.12
SL	123	7.6	0.2	203	7.0	0.2	0.00
B&G	59	8.3	0.3	70	7.9	0.2	0.12

Table 29: Recontacted versus replacement girls' numeracy scores, endline

Learning cohort sub-groups	Boys Endline			Girls Endline			p-value
	n	mean	SE	n	mean	SE	
Total	870	6.8	0.1	156	6.6	0.2	0.38
OOSG	300	5.9	0.2	71	5.9	0.4	0.96
Grade 2	288	7.1	0.2	46	7.2	0.3	0.74
Grade 3	282	7.4	0.1	39	7.2	0.3	0.52
PL	329	7.3	0.2	67	7	0.2	0.27
SL	326	5.9	0.2	41	5.2	0.5	0.13
B&G	214	7.2	0.2	48	7.2	0.4	0.88

ISG and OOSG status: By the time of endline, nearly all cohort girls were enrolled, making the sample too small for significant comparisons; thus, the results discussed from Table 29 should be taken lightly. Girls enrolled at endline (ISG) scored much higher than girls not enrolled at endline (OOSG). On average, ISG scored 4.7 points higher than OOSG. The largest difference in scores was in Somaliland, with ISG scoring 6 points on average and OOSG scoring only 0.5 points (a difference of 5.5 points).

Table 30: Endline ISG versus OOSG numeracy scores, endline

Learning cohort sub-group	ISG			OOSG			p-value
	n	Mean	SE	n	Mean	SE	
Total	996	6.9	0.1	30	2.2	0.7	0.00
PL	388	7.3	0.1	8	4.3	1	0.03
SL	355	6	0.2	12	0.5	0.4	0.00
B&G	252	7.4	0.2	10	2.7	1.3	0.00

Other disaggregations: Similar to literacy, the evaluation team disaggregated numeracy scores by locations of particular interest, including urban/rural schools, schools in IDP camp areas, drought-affected schools, and conflict-affected schools. Scores were also disaggregated by orphan and non-orphan status. Figure 12 below presents scores from baseline to midline to endline for the location-based data (urban/rural, IDP, drought-affected, and conflict-affected). Girls improved from baseline to midline in all groups, but notably in different location-based groups. The Shapley decomposition (Figure 52) shows that student and household-level characteristics along with unobservable project-area-level characteristics explain 60% of the variation in numeracy scores. Therefore, hypotheses set forth in the following sections on why certain groups score better than others should be taken with caution.

Urban and rural schools: Girls improved more in urban schools from baseline to midline but more in rural schools from midline to endline. This trend was the same as on the literacy test. From baseline to midline, girls in rural schools improved by 1.5 points (from 3.7 to 5.2 points) while girls in urban schools improved by 2.3 points (from 3.9 to 6.2 points). From midline to endline, girls in rural schools improved by a full point (from 5.2 to 6.2 points), and in urban schools' girls improved by 0.7 points (from 6.2 to 6.9 points). Similar to literacy score results, rural girls do significantly worse than urban schools, worse than the mean, and are overall the lowest numeracy scores in any subgroup, probably due to the fact that the majority of rural girls are found in Somaliland, a project area with well below average scores and most affected by hunger and drought.

IDP schools: Girls in IDP schools improved the most from baseline to midline, while improvement was greater among non-IDP school girls from midline to endline. From baseline to midline, girls in non-IDP schools improved by slightly over 2 points (from 3.8 to 5.9 points), while girls in IDP schools improved by slightly under 2 points (from 3.9 to 5.8 points). From midline to endline, girls in non-IDP schools improved by 0.8 points (from 5.9 to 6.7 points), and in IDP schools, girls improved by only 0.5 points (from 5.8 to 6.3 points). IDP girls score below the mean numeracy scores and below non-IDP girls, potentially due to the temporary and migratory nature of the communities and IDP schools in which they live and study. Further, girls in IDP camps are more likely to be affected by drought and conflict, further influencing their learning scores.

Drought-affected: Girls in non-drought-affected schools improved more from baseline to midline, while the improvement was the same in both groups from midline to endline. From baseline to midline, girls in non-drought-affected schools improved by 2.2 points (from 3.9 to 6.1 points), while girls in drought-affected schools improved by 1.7 points (from 3.7 to 5.4 points). From midline to endline, girls in non-drought-affected schools improved by 0.8 points (from 6.1 to 6.9 points), and in drought-affected schools,

girls similarly improved by 0.8 points (from 5.4 to 6.2 points). However, it is interesting to note that regression analysis of midline results showed that, for the subset of cohort girls, being in a drought affected area was associated with greater point changes in reading scores from baseline to midline. Along with rural girls, drought-affected girls score the lowest of any subgroup, and over 10% worse than non-drought affected girls. This is probably due to the fact that nearly 50% of sampled schools in drought-affected areas are in Somaliland, and girls in drought-affected schools are much more likely to be hungry and displaced.

Conflict-affected: From baseline to midline, girls improved the most in conflict-affected schools, while girls in non-conflict-affected schools improved more from midline to endline. From baseline to midline, girls in non-conflict-affected schools improved by 1.7 points (from 3.8 to 5.5 points), while girls in conflict-affected schools improved by nearly 3 points (from 3.9 to 6.8 points). From midline to endline, girls in non-conflict-affected schools improved by nearly a full point (from 5.5 to 6.4 points), and in conflict-affected schools, girls improved by 0.6 points (from 6.8 to 7.4 points). Conflict-affected girls do significantly better in numeracy than both the mean and non-conflict affected schools. This is undoubtedly due to project area-level characteristics, as the majority of conflict-affected girls are in B&G, and to a lesser extent Puntland, which, though wracked by violence in some areas, is substantially more urban and with more privately-funded schools than Somaliland.

Orphan status: When disaggregated by orphan status, there was not much difference in scores. From baseline to midline, orphan girls' scores improved by slightly over 2 points (from 4.4 to 6.5 points), while non-orphan girls' scores improved by slightly under 2 points (from 3.9 to 6.0 points). From midline to endline, orphan girls' scores improved by 0.5 points (from 6.5 to 7.0 points), while scores of non-orphan girls improved by 0.7 points (from 6.0 to 6.7 points).

Disability status: Girls' disability status is drawn from the household survey, where questions about the cohort girl were asked regarding girls' ability to hear, walk, see, remember/concentrate, self-care, and communicate in the class language. As stated in the literacy section, the sample is too small to make substantive conclusions (41 girls are recorded as disabled and 92 are not), but the results offer insight as to how disabilities affect learning. Non-disabled girls outperformed disabled girls in all three rounds of data collection. At baseline, non-disabled girls scored 0.9 points higher than disabled girls (5.1 points versus 4.2 points). At midline, non-disabled girls outperformed disabled girls by 1.1 points (7.0 versus 5.9 points). At endline, non-disabled girls scored 1.2 points higher than disabled girls (6.8 points versus 5.6 points). Further, while scores improved among both groups from baseline to midline, scores declined from midline to endline. For non-disabled girls, scores decreased from 7.0 points at midline to 6.8 points at endline, while for disabled girls, scores decreased from 5.9 points at midline to 5.6 points at endline.

2.2.2.4 Numeracy results in context of local/regional/national environment, and ceiling effects

The UWEZO test (and the adapted version used in this evaluation) is intended to measure competency at grade 2; however, it must be noted that most of the cohort was in grades 4 and 5 at midline and grades 5 and 6 at endline. Ceiling effects were expected because girls were older at midline and endline and have spent more time in the classroom, but ceiling effects were low at all three rounds of data collection (baseline, midline, and endline) and thus did not warrant an extended version of the assessment.

Ceiling effects for girls stayed below 8% across all three rounds of data collection and below 7% for boys at endline. Bursary girls had the highest ceiling effects, at 11% at midline but only 6% at endline. Table 30 below presents ceiling effects for cohort girls overall, disaggregated by cohort grade level and by project area. There was no notable difference between cohort groups at midline and endline, but at baseline, 15% of girls in grade 3 and only 2% of OOSG scored a perfect score. Further, ceiling effects were lowest in Somaliland, which is to be expected given that scores in Somaliland were consistently the lowest when compared to the other project areas.

Figure 12: Numeracy scores, location-based, baseline to midline to endline

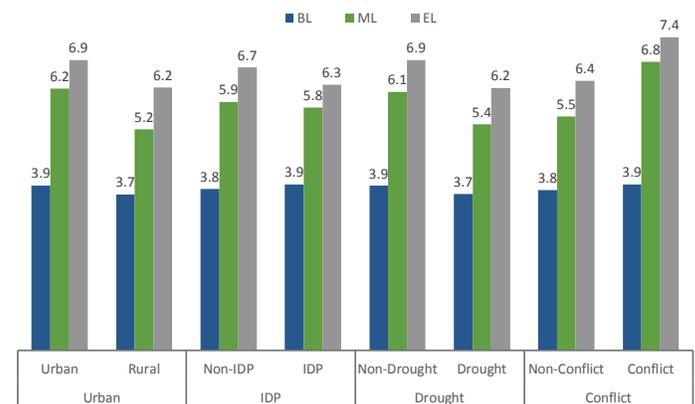


Table 31: Ceiling effects, numeracy

Learning cohort subgroup	Baseline	Midline	Endline
Overall	7.31%	7.41%	4.29%
OOSG	2.16%	6.74%	4.04%
Grade 2	5.99%	7.78%	3.89%
Grade 3	14.64%	7.79%	4.98%
Puntland	7.32%	7.83%	4.55%
Somaliland	7.08%	3.81%	2.45%
Benadir and Galmudug	7.63%	11.83%	6.49%

Share of contextual factors in explaining variation in learning scores

It is important to note the role that external and contextual factors played in results of the numeracy outcome. Figure 52 shows a Shapley decomposition of a multiple regression model of the influence various factors on numeracy scores (out of 10) at endline. While the model explains only 15% of all variation, the share of each factor in that explained variation is quite telling of the overall effects of certain factors on numeracy score. Important to note is the finding showing that the largest share of variation (44%) is explained by project area-level unobservable indicators. Student and household-level indicators explain another 14%, school-level characteristics explain 11%, and conflict, drought, and IDP status combined explain 7%. This leaves only approximately 20% of variation explained by EGEP interventions.

Table 32: Girls' attendance, baseline to midline

		BL			ML			p-value	Δ from BL to ML
		n	Mean	SE	n	Mean	SE		
Total	Headcount	756	76.81	1.5	640	81.75	1.7	0.0010	4.94
	Teacher	693	78.56	1.5	592	82.84	1.7	0.0005	4.28
Puntland	Headcount	318	81.9	1.7	292	84.07	2.4	0.4443	2.17
	Teacher	277	83.38	1.5	271	86.86	2.4	0.0222	3.48
Somaliland	Headcount	294	70.63	2.8	247	76.22	2.8	0.0515	5.59
	Teacher	270	72.77	2	220	75.19	3	0.4149	2.42
Benadir and Galmudug	Headcount	144	78.17	3.5	101	88.56	2.5	0.0002	10.39
	Teacher	146	80.12	3.5	101	88.71	2.5	0.0004	8.59

Table 33: Boys' attendance, baseline to midline

		Baseline			Midline			p-value	Δ from BL to ML
		n	Mean	SE	n	Mean	SE		
Total	Headcount	768	77.6	1.5	642	81.21	1.8	0.0036	3.61
	Teacher	719	79.84	1.4	606	81.95	1.9	0.0660	2.11
Puntland	Headcount	317	79.76	2.0	294	83.87	2.4	0.0822	4.11
	Teacher	291	83.15	1.6	277	84.97	2.4	0.1389	1.82
Somaliland	Headcount	304	74.87	2.4	250	75.3	3.2	0.511	0.43
	Teacher	281	74.64	2.6	231	75.54	3.4	0.8634	0.9
Benadir and Galmudug	Headcount	147	78.58	4.0	98	88.34	2.3	0.0005	9.76
	Teacher	147	83.2	3.3	98	88.49	2.3	0.0020	5.29

Table 34: Girls' attendance, midline to endline

		Midline			Endline			p-value	Δ from ML to EL
		n	Mean	SE	n	Mean	SE		
Total	Headcount	640	81.75	1.7	743	85.95	1.1	0.0000	4.2
	Teacher	592	82.84	1.7	637	87.52	1.1	0.0001	4.68
Puntland	Headcount	292	84.07	2.4	290	86.9	1.5	0.0047	2.83
	Teacher	271	86.86	2.4	234	88.72	1.7	0.2212	1.86
Somaliland	Headcount	247	76.22	2.8	319	86.36	1.5	0.0000	10.14
	Teacher	220	75.19	3	280	87.13	1.5	0.0000	11.94
Benadir and Galmudug	Headcount	101	88.56	2.5	134	82.89	3.7	0.0005	-5.67
	Teacher	101	88.71	2.5	123	86.12	3	0.0471	-2.59

2.2.3 Qualitative support for literacy and numeracy findings

Teaching quality: FGD and KII respondents did not go into much depth on the quality of teaching or certain pedagogical methodologies in the classroom. In two FGDs with ALP girls, they stated that some teachers did not appear to take teaching seriously and oftentimes did not show up to class, leading many girls to drop out. These findings were not observed in other FGDs. Further, quantitative findings paint a fairly positive and stable picture of teachers

and their teaching practices: only 15% of caregivers stated that a girl missed school sometimes due to a teacher's absence, and 92% of caregivers were satisfied with the teaching at a girl's school.

Gender differences: All else being equal, boys and girls should not score significantly different from each other on learning tests. The significant differences between girls and boys in literacy scores in Table 18 and numeracy scores in Table 28 imply that contextual factors play some unobservable role in affecting learning scores. While girls in FGDs expressed the notion that girls are

Table 35: Boys' attendance, midline to endline

		Midline			Endline			p-value	Δ from ML to EL
		n	Mean (%)	SE	n	Mean (%)	SE		
Total	Headcount	642	81.21	1.8	741	85.48	1.2	0.0003	4.27
	Teacher	606	81.95	1.9	628	87.2	1.2	0.0003	5.25
Puntland	Headcount	294	83.87	2.4	294	87.28	1.6	0.0039	3.41
	Teacher	277	84.97	2.4	231	89.52	1.7	0.0192	4.55
Somaliland	Headcount	250	75.3	3.2	313	84.6	1.8	0.0004	9.3
	Teacher	231	75.54	3.4	277	86.32	1.7	0.0001	10.78
Benadir and Galmudug	Headcount	98	88.34	2.3	134	83.59	2.8	0.0075	-4.75
	Teacher	98	88.49	2.3	120	84.76	2.9	0.0014	-3.73

Figure 13: Out of the last 5 school days, for how many days was attendance taken?

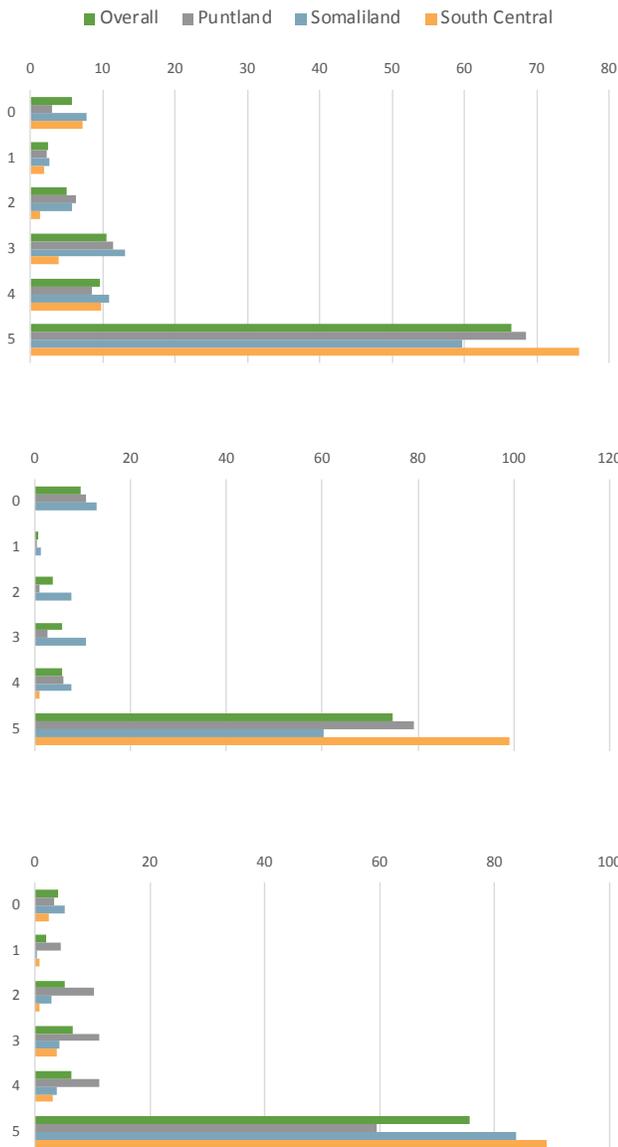


Figure 14: Teachers' records versus headcounts

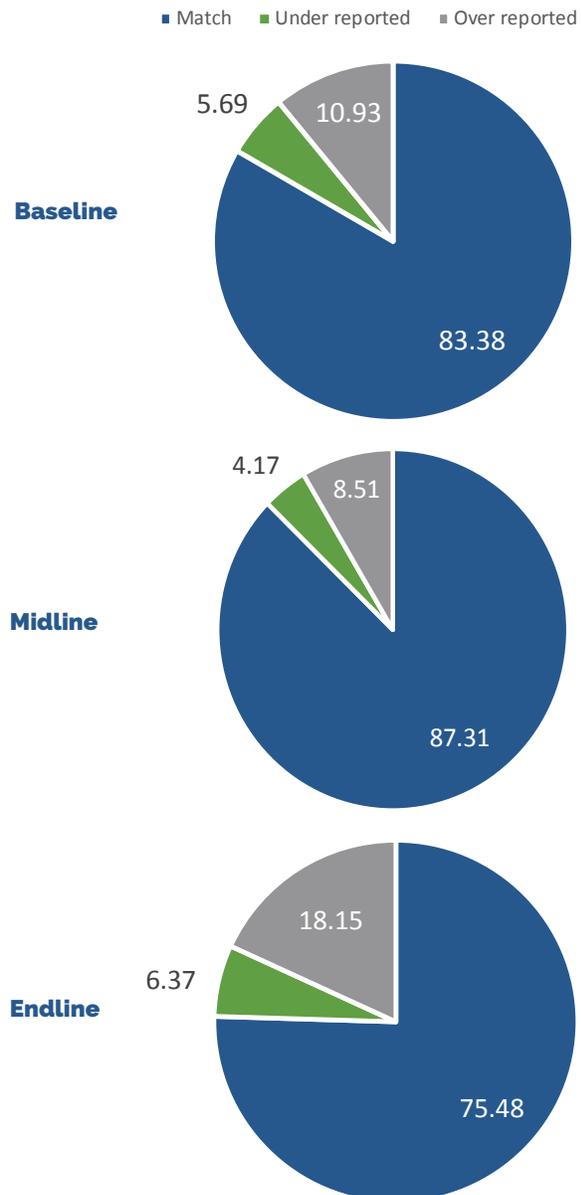


Table 36: Cohort attendance reported by head teacher, baseline to midline

	Baseline			Midline			Difference	p-value
	n*	Mean	SE	n*	Mean	SE		
Overall	39	84.91%	0.03	60	90.70%	0.05	5.79	0.2327
Puntland	17	79.12%	0.05	21	81.22%	0.04	2.08	0.7196
Somaliland	16	89.30%	0.03	22	95.35%	0.12	6.05	0.3344
Benadir and Galmudug	6	89.63%	0.08	17	96.39%	0.01	6.76	0.4976

*Data represent 39–60 schools with sufficient attendance records

Table 37: Cohort attendance reported by head teacher, midline to endline

	Midline			Endline			Difference	p-value
	n*	Mean	SE	n*	Mean	SE		
Overall	60	90.70%	0.05	58	89.21%	0.04	-1.49	0.0285
Puntland	21	81.22%	0.04	16	94.04%	0.04	12.82	0.5548
Somaliland	22	95.35%	0.12	24	91.15%	0.09	-4.20	0.1725
Benadir and Galmudug	17	96.39%	0.01	18	82.34%	0.05	-14.05	0.0258

*Data represent 58–60 schools with sufficient attendance records

smarter than boys, both qualitative and quantitative evidence suggests that girls have large household obligations which may act as obstacles in terms of attending school or having enough time to do homework. Further, qualitative evidence suggests that girls are under increased pressure to perform well in school, complete their chores, and contribute to school development, findings that were no, for the most part, observed in relation to boys who, according to qualitative findings, use most of their free time to play sports and spend time with friends.

Rural schools: Qualitative evidence suggests that rural schools still face considerably stronger barriers to girls’ education than do urban schools. Fathers, mothers, girls, CEC representatives, and MOE representatives all indicated that distance to schools and poor roads in rural areas persist as substantial barriers to attendance and therefore learning. However, in light of these barriers, girls in rural schools saw greater improvement in both literacy and numeracy than did urban students at endline. This improvement for rural schools from midline to endline may be partially attributed to increased interventions in rural schools implemented by both the MOE and EGEP implementing partners. MOE representatives, mothers, and fathers all indicated an increase in the frequency of MOE visits to the schools, in particular for monitoring. Additionally, mothers, fathers, and CEC members indicated that, with the help of NGOs such as RI, efforts are being made to reduce the substantial barriers facing girls in rural communities. One example includes working with teachers to provide extra educational opportunities, such as extra lesson time, for rural students who face additional barriers to attendance.

Conflict-affected schools: Qualitatively, while all FGD and KII respondents indicated that schools themselves are safe and secure, it seems that at endline more respondents have safety concerns for the girls as they travel to and from school. For example, in Somaliland, a group of mothers in one FGD felt uncomfortable sending their girls to school outside of urban areas as they felt it was unsafe. Additionally, fathers in Benadir and Galmudug discussed dangers such as car explosions on the roads to schools. According to qualitative evidence, in terms of psychosocial wellbeing and

attendance, conflict situations in the country between midline and endline may have an impact on learning.

Orphan girls: While quantitative information indicates very little difference in the improvement of scores for orphan girls and non-orphan girls, the improvement in both numeracy and literacy for orphan girls is especially remarkable given that qualitative data indicates that orphan girls remain markedly more marginalized than non-orphan girls. However, a profound shift from midline to endline is highlighted in the qualitative data across all respondent types and all three project areas: the community is internally working together to ensure that one day all orphan girls will have equal access to education. Mothers and fathers alike have discussed supporting orphan girls’ education in addition to the education of their own children, even though their financial situations are bleak. Additionally, CEC members discussed their extensive efforts in finding solutions to the barriers faced by orphan girls. Girl students themselves also indicated a desire to assist girls in their communities who are particularly vulnerable, including orphaned girls. Therefore, based on qualitative information, while girls who are orphaned appear to face substantial barriers to learning, it is likely that these community efforts will continue to make progress in diminishing those barriers.

Drought-affected girls: Quantitatively, the pattern regarding the impact of drought on learning seems inconsistent when compared to girls who are not drought-affected. However, qualitatively, drought was mentioned as a barrier to learning, attendance, and enrollment, most frequently by fathers. This seems to be particularly true for pastoralist communities, such as those in Puntland. Therefore, while drought-affected girls did see an increase in literacy and numeracy scores, qualitative data indicates that drought remains a barrier to learning to an unknown degree.

2.3 What impact has the GEC had on enabling marginalized girls to be in school?

2.3.1 What effects has the GEC had on attendance?

2.3.1.1 Methodology and design

The primary source of attendance rate measurement was from in-classroom headcounts conducted by the enumerator on the day of the school visit. One headcount for each grade was conducted, with a maximum of eight grades/classrooms (if a school had more than 8 grades, only the first 8 grades were done), and both boys' and girls' attendance and enrollment were measured. Data for attendance was collected via spot checks and school registers. For spot checks, the number of children counted present that day were divided by the total girls and boys listed in the enrollment register to determine the attendance rate. For school registers, spot check data were compared to teacher-recorded attendance to determine level of reliability of recent attendance recording at each school. This approach is consistent with what was done at midline.

2.3.1.2 Findings

Baseline to midline girls' and boys' attendance: Present-day attendance rates according to headcounts increased from baseline to midline for both boys and girls by about 4%–5%. When disaggregated by project area, headcount attendance rates followed this positive trend for all project areas, most notably in Benadir and Galmudug, where attendance rates increased by nearly 10% for boys and 11% for girls. When looking at the school registers, attendance rates increased overall from baseline to midline by 2–4% for both boys and girls. Project area disaggregation showed the same positive trend across all project areas for both boys and girls, again most notably in Benadir and Galmudug.

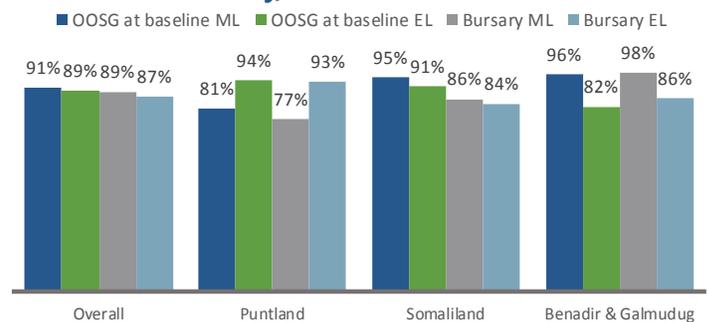
Midline to endline girls' and boys' attendance: Present-day attendance rates according to headcounts increased overall from midline to endline for both boys and girls by about 4%–5%. When disaggregated by project area, headcount attendance rates followed this positive trend for Somaliland and Puntland but decreased in Benadir and Galmudug by 5–6%. Somaliland improved the most, by 9–10% for boys and girls. When looking at the school registers, attendance rates increased overall from midline to endline by 3–5% for both boys and girls. Project area disaggregation showed the same positive trend across Puntland and Somaliland, but again, attendance decreased in Benadir and Galmudug, by 2.6%.

Reliability of attendance data: Enumerators also reviewed teachers' attendance records in detail. These practices were compared against the headcounts to determine the reliability and efficacy of teachers' attendance-keeping practices. Figure 13 shows that the majority of teachers took attendance all five days of the week at baseline, midline, and endline, with teachers in Benadir and Galmudug performing the best but decreasing from midline to endline (76% at baseline, 99% at midline, and 89% at endline). After comparing these attendance records to headcounts, it was found that over 80% of teachers' records matched the headcounts at baseline and midline, but only 75.5% of teachers' records matched the headcounts at endline. In sum, the majority of teachers are taking attendance consistently and reliably, and the accuracy of their recordkeeping has improved from midline to endline. However, this does not necessarily translate into accurate school registers maintained by a school's head teacher.

Attendance data from school registers: In order to triangulate headcount findings, school attendance records were reviewed for each cohort girl. Total days attended in the current academic year were divided by total possible days of attendance to determine the attendance rate for each girl. This type of attendance data was not available at many schools, and SI discarded data from several schools because of a lack of variation across girls, suggesting a lack of reliable or truthful attendance-taking (i.e., all girls were recorded to have perfect attendance or half-time attendance across the full school year). This was especially true with baseline data, with only 39 schools' data being usable. School records from the remaining 58–60 schools showed a 5.8 percentage point improvement in attendance in EGEP-supported schools from baseline to midline and a 1.5 percentage point decrease in attendance from midline to endline. Attendance was above 90% at midline and slightly below 90% at endline, though, which is already relatively high. When disaggregated by project area, attendance drastically increased for girls in Puntland by 12.8%. This is in contrast to the headcount data, where attendance improved dramatically in Somaliland but only slightly in Puntland. Due to the small sample size of schools with reliable school register data and the large school replacement rate at endline due to inaccessibility of several schools in Mudug and Galmudug regions, this method is not considered a primary source of attendance measurement data collection and findings are used only for triangulation purposes.

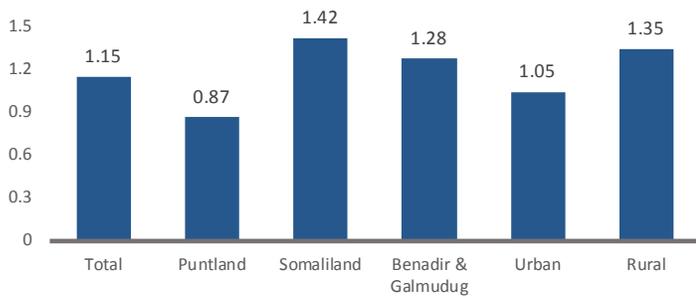
Attendance of bursary girls: Another comparison was made between girls at midline who had received bursaries for school versus girls in the cohort who had not, for both midline and endline. These results are presented in Figure 15. Reliable attendance records were obtained for 420 bursary girls and 35 schools at midline, and 429 bursary girls and 41 schools at endline. Attendance rates decreased slightly from midline to endline for both non-bursary and bursary girls. However, attendance in Puntland improved for both groups from midline to endline for both groups of girls, most notably for bursary girls (an increase of 16.4%). Attendance decreased only slightly for non-bursary and bursary girls in Somaliland, and more dramatically in Benadir and Galmudug (14.1% for non-bursary girls and 11.7% for bursary girls. Again, this contrasts with headcount data, where attendance increased in Somaliland and Puntland but decreased in Benadir and Galmudug.

Figure 15: School-reported attendance, by receipt of bursary, midline and endline



Attendance measure from household survey: A third triangulation method for attendance came from the household survey. Caregivers were asked how many days of school the selected girl missed in the past two weeks (Figure 16). On average, cohort girls missed 1.15 days. This figure was highest in Somaliland, where girls missed an average of 1.42 days. Girls in rural areas missed 1.25 days, compared to 1.08 days in urban areas. Comparisons to baseline and midline could not be made because of different sampling and data collection methodology at endline compared to baseline and midline.

Figure 16: Average number of school days missed in the last 2 weeks, asked at endline



Qualitative support: Based on the qualitative data and according to all participant types, attendance has improved in all three project areas. Participants attributed this largely to an increase in knowledge among community members, as a result of awareness-raising carried out both by EGEP and internally by community members themselves. Participants across all project areas, including fathers and CEC members, also raised sanitary kits as a critical component in improving attendance. For example, a father in Benadir and Galmudug noted that “[sanitary kits] are useful, and a lot of poor girls have benefited and are now able to attend school.” Additionally, a female teacher in Somaliland stated: “Some of the girls did not have sanitary pads at the time of menstruation, so they would leave the school because they don’t even have the money to buy them. Now they can stay in school.” However, it was noted by several respondents, including girl students, teachers, and mothers, that while minimized, menstruation remains a barrier to attendance. At endline, this appears to be less a matter of lack of access to sanitary products and more an issue of lack of education and a persisting stigma of shame. As one teacher in Somaliland explained: “There are still girls who are afraid when they receive menstruation, and so they stop their education. But if mothers start to discuss menstruation, that would be a great encouragement.” Additionally, a female student in Puntland indicated that “you might feel shy, and you might fear that people suspect, so you stay home.” Across project areas, several respondents across teachers, girl students, and parents indicated that some girls still believe that they cannot attend school during menstruation, even though they have access to sanitary kits. Further, it appears as though not all girls receive access to sanitary kits, creating an additional barrier for those girls in comparison to those receiving kits.

Respondents also indicated that improvements to latrines have improved attendance, most specifically as a result of the increased privacy that these latrines have afforded. Otherwise, while civil works such as classroom improvements were appreciated by all respondents, a link between such civil works and attendance was not reported.

Overall, respondents did not believe there was a substantial link between bursaries and increased attendance, because even non-bursary girls who are in school recognize that somebody is paying for their education and therefore are motivated to do their very best to attend every day. Parents, girls, and teachers across all project areas expressed that low attendance is no longer an issue, as the community has recognized the importance and value of girls’ education.

Having female teachers also seems to have played a role in the increased attendance at endline. All respondent types across all three project areas indicated that having female teachers available for the girls is critical for their comfort and success in school.

Girls indicated that the increased confidence and comfort that they experience by having female teachers at school encourages them to attend school regularly. For example, a student in Benadir and Galmudug explained: “There is a lady in school that we can tell our ideas to. And she tells us what is good and bad. This motivates us to go to school.” However, participants in this same FGD explained that there is a need for more female teachers in the school. As one respondent indicated: “I shy to talk about issues because most of the teachers are men.” Parents also indicated this pattern of improved attendance and motivation when female teachers and mentors are present in schools. As one Puntland father stated: “There are more obstacles that girls face as they become adults, but what has motivated is getting female teachers. They have become motivated to go to school now that they have female teachers.” Similarly, a Somaliland mother stated that she hopes to see more female teachers in the schools, because it is going to “help our daughters so much. They can feel comfortable talking to female teachers, and those teachers will encourage them to continue in their education.”

While the qualitative data suggests that overall attendance has improved, barriers to attendance do persist, such as the issue of education around menstruation, as mentioned above. Additionally, household obligations remain a barrier to attendance for girls. Girls who are eldest in their families seem to face this barrier more frequently, as parents rely on them heavily to fulfill household obligations. However, it is important to note that overall, respondents indicated that household obligations have decreased substantially as a barrier to education, as parents have made an effort to allow their daughters to attend school regularly, despite the critical role girls play in taking care of the home. According to qualitative information, pastoralism also seems to be a barrier to attendance, particularly in Puntland. This barrier to attendance seems to be exacerbated by drought situations.

2.3.1.3 Subgroup analysis

We also analyzed the attendance of targeted groups of marginalized girls using data from the household survey. Caregivers were asked how many days of school the selected girl missed in the past two weeks (Figure 16). Differences were notable in some areas, particularly in that cohort girls in Puntland missed less (less than 1 day) than cohort girls in Somaliland and Benadir and Galmudug in all location categories except for IDP status and conflict-affected status. Cohort girls in Somaliland and Benadir and Galmudug missed around the same days in all location categories except for IDP areas and non-conflict affected areas. Girls in Benadir and Galmudug IDP areas missed an average of 2 days in the past two weeks, while Somaliland girls missed only 0.88 days. Girls in Benadir and Galmudug non-conflict-affected areas missed over 2 days, while Somaliland girls missed 1.37 days. Of all subgroups, girls in drought-affected areas missed the most days in the last 2 weeks (an average of 1.39), whereas those not in drought areas missed the least (1.01 days) (Table 38). These results should be taken lightly, though, given the small sample in certain groups.

2.3.2 What effects has the GEC had on enrollment?

2.3.2.1 Methodology and design

Multiple methods were used to generate enrollment figures, including EGEP-reported enrollment figures, reviewing attendance registers, and asking head teachers, teachers, and primary caregivers within the household. EGEP-reported enrollment figures obtained through monitoring records are used as the primary method of data collection for enrollment, given that household-reported enrollment is not comparable over time and the EGEP-reported data contains a more comprehensive number of schools’ worth of data.

2.3.2.2 Findings

Boys' enrollment was higher than girls' enrollment (more boys were enrolled than girls) in all three rounds of data collection, and in Somaliland and Puntland. However, in Benadir and Galmudug, girls' enrollment was higher than boys' in all three rounds of data collection. Further, enrollment increased overall from baseline to midline, but decreased from midline to endline overall. This decrease was most pronounced in Somaliland, while Benadir and Galmudug was the only area where enrollment increased from midline to endline.

Enrollment trends were similar in secondary schools, with boys' enrollment higher than girls' enrollment in all three rounds of data collection. Unlike primary school, though enrollment in secondary schools increased from baseline to midline and from midline to endline, indicating a positive trend in students continuing from primary to secondary school from baseline to endline.

Household surveys provide a representative sample of the enrollment rate of eligible girls in the community served by each EGEP-supported school. However, this sample's utility is limited because at endline only the households of cohort girls were visited. Given that the household protocol changed at endline and the sample and approach vary greatly from baseline and midline methodology, comparisons cannot be made to baseline and midline. Each household respondent was asked to provide the enrollment status for each school-aged girl and boy living in the household. Baseline and midline averages were calculated across all girls and boys, accounting for clustering at the household level.

At endline, enrollment was high overall, ranging from 83.5% to 90.7%. Puntland enrollment was the highest, at over 90%. displays the data for enrollment rates as taken from the household roster within the household survey. Girls' enrollment was nearly 10% higher than boys'. When broken down by recontacted versus substitute households, there was less than a 2% difference in girls' enrollment (86.6% versus 88.3% for recontacted and substitute households, respectively). The difference was greater for boys' enrollment, at nearly 3% overall (78.0% versus 75.3% for recontacted and substitute households, respectively). Somaliland and Benadir and Galmudug drove most of this difference; in Somaliland, boys' enrollment was 75.3% in recontacted households and 68.9% in substitute households; in Benadir and Galmudug, boys' enrollment was 70.3% in recontacted households and only 61.2% in substitute households. SI triangulated this data with EGEP's own enrollment data obtained through their monitoring records, showing data for all EGEP intervention schools (Table 39–Table 42).

2.3.2.3 Subgroup analysis

Following the same trend as overall enrollment, girls' enrollment was high when disaggregated by location status, staying in the high 80-percent range. When disaggregated by project area, the number of observations is often too low to make accurate assumptions (Table 44). Still, Puntland enrollment was typically the highest while Benadir and Galmudug enrollment was typically the lowest.

Boys' enrollment was lower than girls' enrollment when disaggregated by location status, sometimes dipping into the low 70-percent range. As for girls, the number of observations is often too low to make accurate assumptions when disaggregated by project area (Table 44). Still, Puntland enrollment was typically the highest, while Benadir and Galmudug enrollment was typically the lowest. Broken out by age according to the household survey (Table 46), girls' enrollment is lowest at Age 8 (75%), but jumps between 80% and 85% for Ages 8-18, with the highest levels of enrollment among girls aged 11-15.

Table 38: Average number of school days missed in the last 2 weeks, by location

	Overall		Puntland		Somaliland		Benadir and Galmudug	
	n	Mean	n	Mean	n	Mean	n	Mean
Urban	636	1.08	288	0.89	152	1.22	196	1.27
Rural	306	1.25	164	0.86	118	1.51	24	1.46
IDP	111	1.15	97	1.12	8	0.88	6	2.00
Non-IDP	831	1.14	309	0.80	308	1.38	214	1.27
Drought	317	1.39	118	0.86	131	1.76	68	1.60
Non-Drought	625	1.01	288	0.89	185	1.09	152	1.14
Conflict	219	1.23	18	1.61	1	1.00	200	1.20
Non-Conflict	723	1.11	388	0.85	315	1.37	20	2.20

Table 39: EGED total enrollment data, all intervention primary schools, baseline to midline

	2014-2015				2015-2016				Difference			Total % change from 1 year ago
	n	Mean			n	Mean			Boys	Girls	Total	
		Boys	Girls	Total		Boys	Girls	Total				
Total	165	260.0	229.5	480.4	172	273.8	237.2	508	13.8	7.7	27.6	5.7%
Somaliland	62	256.9	220.0	479.5	68	267.0	211.1	470.3	10.1	-8.9	-9.2	-1.9%
Puntland	75	232.9	193.6	423.1	69	256.6	209.8	466.4	23.7	16.2	43.3	10.2%
Benadir and Galmudug	28	339.5	347.3	636.0	35	320.5	341.8	662.3	-19	-5.5	26.3	4.1%

Table 40: EGED total enrollment data, all intervention primary schools, midline to endline

	2015-2016				2016-2016				Difference			Total % change from 1 year ago
	n	Mean			n	Mean			Boys	Girls	Total	
		Boys	Girls	Total		Boys	Girls	Total				
Total	172	273.8	237.2	508	172	272.7	230.2	500	-1.1	-7	-8	-1.6%
Somaliland	68	267.0	211.1	470.3	68	260.5	180.2	433.1	-6.5	-30.9	-37.2	-7.9%
Puntland	69	256.6	209.8	466.4	69	244.0	209.6	453.6	-12.6	-0.2	-12.8	-2.7%
Benadir and Galmudug	35	320.5	341.8	662.3	35	352.2	368.0	720.3	31.7	26.2	58	8.8%

Table 41: EGED enrollment data, all intervention secondary schools, baseline to midline

	2014-2015				2015-2016				Difference			Total % change from 1 year ago
	n	Mean			n	Mean			Boys	Girls	Total	
		Boys	Girls	Total		Boys	Girls	Total				
Total	43	224.5	149.8	374.3	32	298.4	187.9	486	73.9	38.1	111.7	29.8%
Somaliland	13	302.6	148.7	451.3	13	289.2	160.8	450.0	-13.4	12.1	-1.3	-0.3%
Puntland	12	271.6	176.8	448.4	12	398.5	252.7	651.2	126.9	75.9	202.8	45.2%
Benadir and Galmudug	18	136.6	132.6	269.2	7	143.9	127.4	271.3	7.3	-5.2	2.1	0.8%

Table 42: EGED enrollment data, all intervention secondary schools, midline to endline

	2015-2016				2016-2016				Difference			Total % change from 1 year ago
	n	Mean			n	Mean			Boys	Girls	Total	
		Boys	Girls	Total		Boys	Girls	Total				
Total	32	298.4	187.9	486	32	347.4	238.8	586	49	50.9	100.	21%
Somaliland	13	289.2	160.8	450.0	13	392.5	245.2	637.8	103.3	84.4	187.	42%
Puntland	12	398.5	252.7	651.2	12	402.2	284.5	686.7	3.7	31.8	35.	5%
Benadir and Galmudug	7	143.9	127.4	271.3	7	169.7	148.3	318.0	25.8	20.9	46.7	17%

Table 43: Girls' and boys' enrollment at endline, via household survey

	Girls			Boys		
	n	mean	SE	n	mean	SE
Overall	1,062	87.08%	0.01	741	77.25%	0.01
Puntland	435	90.68%	0.01	304	85.66%	0.02
Somaliland	360	85.38%	0.01	249	74.74%	0.02
B&G	267	83.51%	0.02	188	66.99%	0.03

Table 44: Girls' enrollment at endline, via the household survey, by location status

	Overall		Puntland		Somaliland		Benadir and Galmudug	
	n	Mean	n	Mean	n	Mean	n	Mean
Urban	689	87.75%	301	91.35%	172	86.77%	216	83.51%
Rural	336	86.78%	125	89.92%	185	83.84%	26	92.63%
IDP	119	89.19%	102	88.86%	11	86.36%	6	100.00%
Non-IDP	906	87.20%	324	91.59%	346	85.22%	236	84.09%
Drought	354	85.26%	125	89.92%	154	84.47%	75	79.12%
Non-drought	671	88.58%	301	91.35%	203	85.85%	167	86.90%
Conflict	240	84.70%	18	96.76%	1	100	221	83.65%
Non-Conflict	785	88.27%	408	90.68%	356	85.21%	21	93.25%

Table 45: Boys' enrollment at endline, via the household survey, by location status

	Overall		Puntland		Somaliland		Benadir and Galmudug	
	n	Mean	n	Mean	n	Mean	n	Mean
Urban	689	83.22%	301	90.54%	172	85.20%	216	71.17%
Rural	336	79.25%	125	86.01%	185	78.43%	26	52.94%
IDP	119	88.19%	102	87.79%	11	100.00%	6	62.50%
Non-IDP	906	81.18%	324	89.75%	346	81.00%	236	69.51%
Drought	354	74.79%	125	86.01%	154	78.37%	75	51.85%
Non-drought	671	85.51%	301	90.54%	203	84.15%	167	77.78%
Conflict	240	71.93%	18	100.00%	1	100.00%	221	70.31%
Non-Conflict	785	85.01%	408	89.01%	356	81.77%	21	57.69%

Qualitative support regarding enrollment: Across all project areas and across all FGDs and KIIs, participants indicated an increase in enrollment. A mother from Somaliland noted: "The number of girls enrolling in school is increasing day after day. In past no one was caring about girls' education, but now that the community understands, many girls are enrolling." Another mother added: "We are so happy and proud to see this change. At the current time even the adult women are going to school." A teacher from Puntland stated: "The first year we only had one girl in class 8, the next year we had two, and now we have twenty . . . the parents are pointing their finger at the school and saying 'they are improving students very well, especially the girls.'" This increase in enrollment was largely attributed to the financial support (bursaries) provided by EGEP as well as to awareness-raising on the part of EGEP and the community itself. According to a teacher in Somaliland, "the most important change is the financial encouragement, which allowed girls to continue their education." A CEC member in Puntland stated: "The change is because of

Table 46: via the household survey, by age

Age	Overall		Puntland		Somaliland		B&G	
	n	mean	n	mean	n	mean	n	mean
8	139	75.10%	53	80.90%	53	72.99%	33	69.17%
9	153	80.75%	71	87.65%	48	84.90%	34	60.47%
10	190	84.06%	81	89.10%	71	86.39%	38	68.97%
11	239	86.81%	97	89.83%	93	85.70%	49	82.96%
12	266	86.66%	124	90.02%	82	84.68%	60	81.42%
13	281	85.85%	123	90.18%	89	84.16%	69	80.33%
14	275	88.02%	118	94.00%	71	83.69%	86	83.40%
15	198	86.44%	88	90.38%	60	82.39%	50	84.38%
16	168	82.93%	59	86.40%	56	79.61%	53	82.56%
17	81	81.24%	27	85.96%	25	72.93%	29	83.99%
18	87	81.89%	35	87.21%	26	77.63%	26	78.97%

Relief International. They pay many girls' school fees. Now girls who used to stay at home are being brought to school, and their knowledge is increasing." A Somaliland father shared that enrollment increased because "the NGO met the local people, teachers, and parents, and gave inspiration that we should let the girls learn. After that, the parents gave an opportunity for the girls to learn, and now the girls are in school."

However, while respondents believe enrollment has improved across all project areas, barriers still persist. Most detrimentally, financial hardship appears to be the largest barrier to girls' enrollment in school. As one Somaliland father shared: "We all want all of our children to be educated, but we cannot afford that. Then we have to choose, and it is very difficult." Additionally, while knowledge and awareness among communities appears to have increased substantially, lack of awareness among some community members was cited several times across project areas as a barrier to enrollment. More specifically, respondents indicated that girls who are living with grandmothers or older relatives are typically not encouraged to attend school, indicating a persistent generational barrier. Early marriage and adolescent motherhood was still cited several times across participant types and project areas as barriers to enrollment and retention, though these barriers appear to be continuously reducing. Lastly, girls who are members of pastoralist families appear to face additional barriers to enrollment as a result of the movement patterns of these families.

SI notes that for enrollment, findings from the household survey roster consistently show boys' levels of enrollment to be lower than that of girls, while findings from EGEP's official school registers show the opposite. Given qualitative findings that suggest cultural values which push for boys to go to school before girls, the discrepancy in these findings is puzzling. This could be explained by the fact that all households surveyed at endline had, at minimum, one girl enrolled in school (the cohort girl), potentially upwardly biasing girl enrollment rates. We also hypothesize that, given increased drought and conflict between ML and EL, overall enrollment may have dropped for both sexes, though the drop may have been less so for girls since households in catchment areas continued to receive targeted EGEP aid specifically for girls to enroll in school.

2.4 What has worked, why, and with what effects?

2.4.1 How has the project performed against its target outputs in the logframe, and did the project successfully overcome barriers to girls' educational outcomes?

Table 47: Project performance against endline targets in logframe outputs* n=36 at midline; n=27 at endline

Output and Output indicators	Activities	Baseline level	Midline level	Endline target	Endline achieved	Source
Output 1: Marginalized girls are supported to enroll and stay in school by their communities, families, schools, and mentors						
1.1 Percentage of people who feel there is enough local support for girls to succeed in school	Awareness-raising activities in the community	SL: 58% PL: 65% B&G: 49%	SL: 83 % PL: 90% B&G: 83%	SL: 57% PL: 51% B&G: 39%	SL: 86% PL: 77% B&G: 80%	HHS
1.2 Percentage of caregivers and girls who have been exposed to project awareness-raising activities and report their perceptions of the importance of girls' education have changed	Awareness-raising activities in the community	SL: N/A PL: N/A B&G: N/A	SL: 80% PL: 73% B&G: 82%	SL: 20% PL: 20% B&G: 20%	SL: 96% PL: 81% B&G: 95%	HHS
1.3 Percentage of caregivers/ girls with access to radio who listen to project radio broadcast (n=118)	Awareness-raising activities in the community, particularly radio programs	SL: N/A PL: N/A B&G: N/A	SL: 31% PL: 74% B&G: 67%	SL: 30% SL PL: 30% PL B&G: 30%	SL: 12% PL: 56% B&G: 91%	HHS
1.4 The increase in learning levels of out-of-school girls in maths and literacy who receive bursaries to support them to enroll in school	Bursary distribution	Numeracy: SL: N/A PL: N/A B&G: N/A Literacy: SL: N/A PL: N/A B&G: N/A	Numeracy: SL: 56% PL: 65% B&G: 71% Literacy: SL: 69% PL: 74% B&G: 87%	Numeracy: SL: 32.9% PL: 40% B&G: 33% Literacy: SL: 41.5%; PL: 53%; B&G: 40%;	Numeracy: SL: 66% PL: 72% B&G: 72% Literacy: SL: 81% PL: 85% B&G: 89%	Literacy tests
1.5 Percentage of girls receiving bursary support that stay in school	Bursary distribution	SL: N/A PL: N/A B&G: N/A	SL: 96% PL: 94% B&G: 99%	SL: 90% PL: 90% B&G: 90%	SL: 99% PL: 87% B&G: 99%	RI monitoring
1.6 Attendance of girls who receive sanitary kits	Sanitary kit distribution	SL: 68% PL: 89% B&G: 99%	SL: 73% PL: 89% B&G: 99%	Increase by 3% from baseline in each zone	SL: N/A PL: N/A B&G: N/A	School survey – deemed too inaccurate at EL
1.7 Percentage of girls that report using solar lamps when doing their homework	Solar lamp distribution	SL: N/A PL: N/A B&G: N/A	SL: 75% PL: 44% B&G: 38%	SL: 50% PL: 50% B&G: 50%	SL: 78% PL: 59% B&G: 50%	HHS
Output 2: Primary and lower secondary schools across Puntland, Somaliland, and Benadir & Galmudug provide a more gender sensitive environment for learning and a more relevant quality of teaching for girls						
2.1 Percentage of girls who identify insufficient latrines or lack of water in their school environment*	Civil works construction at schools	SL: 3% PL: 15% B&G: 12%	SL: 33% PL: 26% B&G: 50%	SL: 29% PL: 31% B&G: 30%	SL: 13% PL: 8% B&G: 67%	HHS
2.2 Percentage of girls who report there being something about their school environment that they feel has improved in the past year	Civil works construction at schools	SL: 35% PL: 26% B&G: 24%	SL: 45% PL: 75% B&G: 77%	SL: 49% PL: 49.7% B&G: 41.9%	SL: 38% PL: 65% B&G: 80%	HHS
2.3 Percentage of girls who cite their school club or extra-curricular activity as something they like about school	Promotion of girls' clubs at school	SL: 22% PL: 20% B&G: 14%	SL: 12% PL: 21% B&G: 22%	SL: 10% PL: 11.28% B&G: 10%	SL: 24% PL: 25% B&G: 17%	HHS

2.4 Percentage of trained teachers demonstrating knowledge of girl-centered approaches to learning	Teacher training in girl-centered approaches	SL: 47% PL: 44% B&G: 43%	SL: 32% PL: 33% B&G: 59%	SL: 45% PL: 50% B&G: 45%	SL: 43% PL: 43% B&G: 38%	Classroom observation tool
2.5 Percentage of Community Education Committees (in Supplementary School Feeding (SSF) schools) playing an active role in management of the school feeding programme	Training of CECs to manage school feeding programs	SL: N/A PL: N/A B&G: N/A	SL: 60% PL: 67% B&G: 57%	SL: 50% PL: 65% B&G: 65%	SL: 67% PL: 50% B&G: 100%	School survey
2.6 Percentage of girls reporting improved levels of psychosocial wellbeing at school**	Teacher training in girl-centered approaches	SL: 9.8% PL: 8.4% B&G: 8.6%	SL: 6% PL: 21% B&G: 35%	SL: 4.2% PL: 3.3% B&G: 2.7%	SL: 3% PL: 1% B&G: -7%	HHS
Output 3: The Ministries of Education across all project areas and regions of Puntland, Somaliland, and Benadir & Galmudug provide leadership in promoting girls' education and undertake routine monitoring of gender equality in education						
3.1 Percentage of trained MOE officials that report increased level of knowledge around gender-responsive education	MOE trainings on gender-responsive education	SL: N/A PL: N/A B&G: N/A	SL: 75% PL: 50% B&G: N/A	SL: N/A PL: N/A B&G: N/A	SL: 100% PL: 100% B&G: 100%	KIIs with MOE
3.2 Trained MOE staff increasingly monitoring gender sensitivity of learning environment in schools	MOE trainings on monitoring of schools for gender-responsive education	SL: 68% PL: 65% B&G: 67%	SL: 70% PL: 88% B&G: 48%	SL: 20% of target schools	SL: 74%	School survey; KIIs with MOE
3.3 Percentage of Head Teachers reporting increased dialogue with the Ministry of Education	Promotion of dialogue between MOE and schools	SL: N/A PL: N/A B&G: N/A	SL: 69% PL: 87% B&G: 57%	SL: 60% PL: 50% B&G: 40%	SL: 60% PL: 62% B&G: 50%	School survey; KIIs with MOE; KIIs with teachers
Output 4: Communities, mothers, and girls themselves participate routinely and more forcefully in education policy and in the planning, monitoring, and budgeting processes for their schools						
4.1 Number of trained CECs establishing school development plans that have specific activities targeting girls	Training of CECs in SDP implementation; grant awards to CECs to implement SDPs in schools	SL: N/A PL: N/A B&G: N/A	SL: 100% PL: 94% B&G: 71%	SL: 70% PL: 80% B&G: 80%	SL: 100% PL: 98% B&G: 100%	School survey
4.2 Number of scholarships provided as a result of Diaspora internship program		SL: N/A PL: N/A B&G: N/A	SL: N/A PL: N/A B&G: N/A	SL: N/A PL: 50% B&G: N/A	SL: PL: B&G:	RI monitoring records
4.3 Number of CECs with School Development Plans that are supported either through financial or in-kind contributions (including time)	Training of CECs in SDP implementation	SL: N/A PL: N/A B&G: N/A	SL: 15% PL: 44% B&G: 52%	SL: 40% PL: 50% B&G: 50%	SL: 33% PL: 42% B&G: 89%	RI monitoring records
4.4 Percentage of girls' clubs advocating for school needs through the CECs	Promotion of girls' clubs at school and training of CECs to work with girls' clubs	SL: N/A PL: N/A B&G: N/A	SL: 67% PL: 63% B&G: 93%	SL: 80% PL: 80% B&G: 80%	SL: 55% PL: 59% B&G: 62%	School survey

*n=36 at midline; n=27 at endline

**Denotes change over the previous data collection period.

Please see Annex 12 which details the methodology for measuring all 20 Output Indicators.

Output 1: Marginalized girls are supported to enroll and stay in school by their communities, families, schools, and mentors

Sub Indicators

- 1.1 Percentage of people who feel there is enough local support for girls to succeed in school
- 1.2 Percentage of caregivers and girls who have been exposed to project awareness-raising activities and report their perceptions of the importance of girls' education have changed
- 1.3 Percentage of caregivers/girls with access to radio who listen to project radio broadcast (n=118)
- 1.4 The increase in learning levels of out-of-school girls in maths and literacy who receive bursaries to support them to enroll in school
- 1.5 Percentage of girls receiving bursary support that stay in school
- 1.6 Attendance of girls who receive sanitary kits
- 1.7 Percentage of girls that report using solar lamps when doing their homework

Barriers

Lack of support to complete education:

Progress regarding girls' enrollment, retention, and learning is hindered due to prevailing beliefs and attitudes towards girls' education. This related to a lack of support for girls to achieve well in school and complete the education cycle.

Financial constraints: School-related costs (school fees, uniforms, books, etc.) cause an economic burden on households. Many girls are unable to afford to go to school or afford materials necessary to succeed in school, and their enrollment, attendance and learning suffer as a result. This can also lead to already-enrolled girls to drop out of school.

Menstruation: Some girls miss days of school (lower attendance) when they are menstruating because they do not have access to menstrual pads and/or lack critical knowledge around menstrual hygiene management.

Lack of light: Lack of light (via electricity, gas, etc.) in many homes means that girls are unable to study once it gets dark. Combined with a girl's other responsibilities at home, this severely limits the time she might have available to do homework and study.

Activities

Community-level awareness raising events

(1.1; 1.2; 1.3): These have the goal of promoting support for girls' education within the community and ultimately increasing enrollment, attendance and retention. EGEP implements several activities at the community level, including household visits, community events, radio messaging, and posting and distribution of materials such as billboards, posters, and caps.

Bursaries (1.4; 1.5): EGEP provides bursaries in the form of school fees (Puntland and Benadir and Galmudug) or cash to families (Somaliland) to offset costs associated with a girl's education. It is expected that this offset will be an important factor in enabling a girl to enroll in school and to attend school safe in the knowledge that these costs have been met, ultimately, leading to an increase in learning levels. The most severely marginalised girls are identified to receive the support. In all the project areas, girls' attendance is monitored on a monthly basis and continued payment is conditional on continued attendance. If problems are identified in a girls' attendance then project staff and CEC members investigate to identify the problem and support the girl as necessary.

Sanitary kits: (1.6) EGEP distributes sanitary kits to all schools. It is expected that receipt of a sanitary kit, should improve the attendance of a girl of menstruating age. Up until the midline point, the kits distributed to girls were all re-usable (for three months). Given mixed reception of these kits, the majority of distributions between midline and endline was changed to disposable kits. Over 3,800 girls received bursaries from EGEP over the course of the project

Solar lamps (1.7): EGEP distributes solar lamps to the most marginalized girls at school. Girls are encouraged to use solar lamps to do homework at night. Due to access to electricity being more limited in rural areas and IDP camps, the distributions have been particularly weighted towards those areas.

1.1 Percentage of people who feel there is enough local support for girls to succeed in school

Summary Findings

- 81% of caregivers at endline said that people in the community have become more encouraging of girls succeeding in school in the past three years.
- 90% of caregivers want a girl to achieve a college or university level education, and 88% of caregivers want a girl to be “in education” when she turns 18. Only 5% of caregivers cite a child’s gender as an important factor in deciding if he or she will be enrolled in school.
- Because of changes in methodology of household data collection between endline and earlier phases of data collection, quantitative data for this output indicator is not comparable to baseline and midline data. As such, regression analysis on changes between phases was not possible.

Methodology: The indicator on local support for girls’ education in communities was measured primarily in a quantitative manner via one question asked of a girl’s primary caregiver on the household survey. These answers were triangulated through secondary measures of qualitative data garnered in focus group discussions (FGDs) with mothers and fathers and through key informant interviews (KI) with CECs and teachers.

Limitation: In conjunction with EGEP, at endline SI altered the methodology for administering household surveys from that of baseline and midline. Specifically, SI did not follow up with the same households visited in the first two data collection phases; rather, at endline, SI visited the households of cohort girls so that cohort girls’ outcomes could be easier linked with their respective household characteristics. Because of this departure in methodology, any quantitative results between endline and previous data collection phases are incomparable, and therefore the report displays only the endline quantitative results for output indicator 1.1. The question on the household survey “Is there enough local support for girls’ education in the community?” was removed by FM at endline. Quantitative results for this indicator are measured via a new question added at endline by FM: “In the past 3 years, do you feel that people in your community have become more or less encouraging for girls to succeed in school?”

Findings: In the past 3 years since the beginning of the project, 81% of caregivers report that people in their communities have become more encouraging toward girls succeeding in school, 7% report less encouraging, and 12% state no change at all. Disaggregated by project area, these numbers are similar, though it is noteworthy that nearly one in five (18%) caregivers in Puntland answered that there was no change in the past 3 years in attitudes toward girls succeeding in school (Figure 17). Further, 89% of caregivers report that in the past 3 years it has become more common to send girls to school (Figure 18).

Figure 17: How have people’s attitudes toward girls succeeding in school changed in the past 3 years?

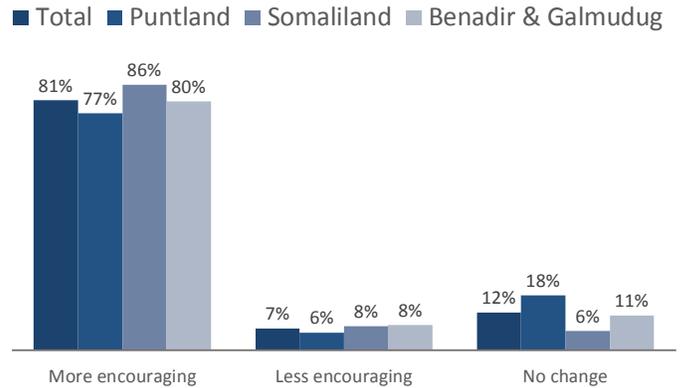
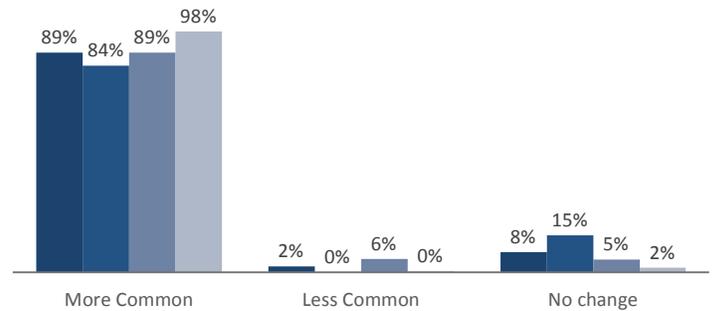


Figure 18: In the past 3 years, has it become more or less common to send girls to school?



Qualitative Support: Across all mothers, fathers, and girls FGDs, as well as all CEC KIIs, all respondents indicated an increase in community support from midline to endline. As one Benadir and Galmudug teacher stated: “Previously girls were not involved in education. Parents used to reject their daughters’ desires to go to school. But now it seems the situation has changed. Parents want the opportunity to send their girls to school.” Similarly, a Puntland mother shared: “The community’s support for girls has increased recently, because people now understand the importance of education. Before we used to say to the girls ‘cook rice and let the boys study.’ But this organization showed us the importance of girls’ education.”

All respondents across all project areas attributed this continuous increase in knowledge and community support for girls’ education to the awareness raising initiatives of EGEP. According to all respondent types, these EGEP efforts have gone further to equip community members themselves to carry out awareness raising efforts.

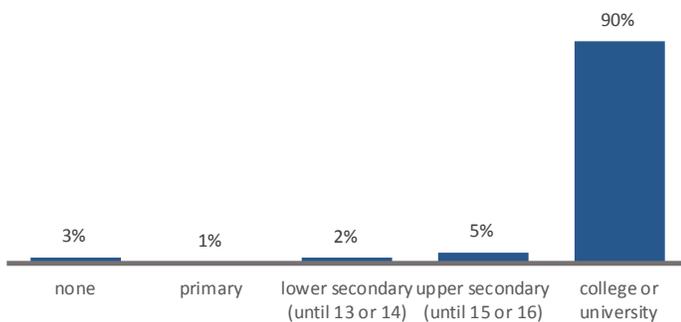
More notable than the increase in community support for girls’ education, the qualitative data collectively indicates that community members are now taking several actions to continue improving support for girls’ education within their communities. Teachers in all three project areas indicated personal efforts to get OOSG in school, including home visits. For example, a teacher from Benadir and Galmudug shared, “meetings between the teachers and community members can make the community members and parents active in finding solutions and make efforts and developments for girls’ education.” One teacher and female mentor from Somaliland shared that, “if a student faces a personal problem, I will search for the reason for the problem and work with the students and par-

ents to try to solve it." Mothers shifted from speaking only about how they have learned about the importance of girls' education at midline to discussing how to help other families and girls in the community at endline. One mother in Puntland stated, "We want to support the other families who have children still in the house to get support like we did." Another mother from Somaliland shared, "We want to reach other Somali communities." Even the in-school girls themselves are working together to assist marginalized girls. As a Somaliland teacher noted, "the girls pave the way to solving the difficult issues facing community girls. They even contribute money among themselves when girls are in need." Additionally, fathers discussed sending orphan girls to school, even though financial strain is difficult. For example, one father in Puntland who is housing an orphan stated, "She is in school because she has encouragement from us and her education is improving." According to the FGDs, parents feel very responsible for awareness raising in the community, because EGEP's awareness raising efforts encouraged them to send their daughters to school. Now, they want the same for others.

All key informant interviews with CEC members indicated that, not only do they see an increase in community support, but that they themselves are more active within the community in trying to break down the barriers to girls' education. CECs across all project areas report that their main role is to manage relationships between the community and the school, which includes assisting families with personal struggles and encouraging OOSG to return to school. As one Benadir and Galmudug CEC member mentioned: "The most important thing the committee exists for is to protect girls from leaving education. We do this by raising awareness to families, and sometimes financial support in very difficult situations." Members of CECs are no longer simply participating in awareness raising activities carried out by organizations but are establishing and implementing their own methods. This is a critical shift from midline, highlighting the beginnings of community ownership and pride in participation of efforts for girls' education. As a result, the qualitative data suggests that, while a massive financial barrier stands in the way of sustainability across all project areas, all respondent types believe that this desire to further the cause of girls' education will be sustained, and therefore there is a will to establish financial solutions as a community.

Caregivers' attitudes about girls' education: Figure 19 shows that among caregivers of cohort girls, a large proportion (90%) want their girls to achieve the highest level of education possible on the survey: to go to college or university. There were no meaningful differences in this proportion when disaggregated by project area, rural/urban, gender of HOH, or education level of HOH.

Figure 19: Level of schooling a caregiver wants for a girl now



At endline, caregivers overwhelmingly expressed a desire for girls, when they turn 18, to continue in education (as opposed to mar-

riage or work). While these results did not differ substantially when disaggregated by urban/rural, gender of HOH, or education level of HOH, there was a notable difference among Puntland caregivers who answered "marriage" and "working" more (and "in education" less) than their Somaliland and Benadir and Galmudug counterparts (Figure 20).

At endline, the factors that are important to a caregiver in determining if a child should go to school are overwhelmingly the child's age and the child's ability (Figure 21). A positive finding here is that the child's gender plays a very small role (5% of respondents) in determining whether a child should attend school. There were no substantial differences in answers across key disaggregations. Caregivers could select multiple responses to this question.

Mothers and fathers resoundingly reported lofty aspirations for their daughters, both during their primary and secondary education and for post-secondary education. One mother from Benadir and Galmudug echoed the voices of many mothers and fathers across all three areas when she said, regarding her aspirations for her daughter, "I hope she will complete all the way through university level." Similarly, when asked which level of education he would like his daughters to achieve, one father from Somaliland stated, "I expect her to reach and prepare for two PhDs. It is good for her to have good expectations." While at midline, overall parents indicated a desire to see girls complete secondary education, the support for girls pursuing post-secondary education appears to have increased immensely at endline.

Figure 20: Aspirations for a girl when she turns 18, as expressed by caregiver, by project area

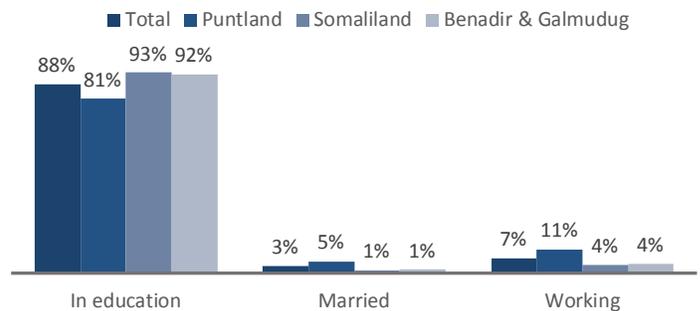
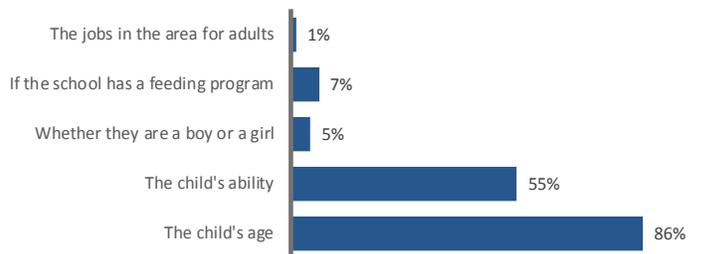
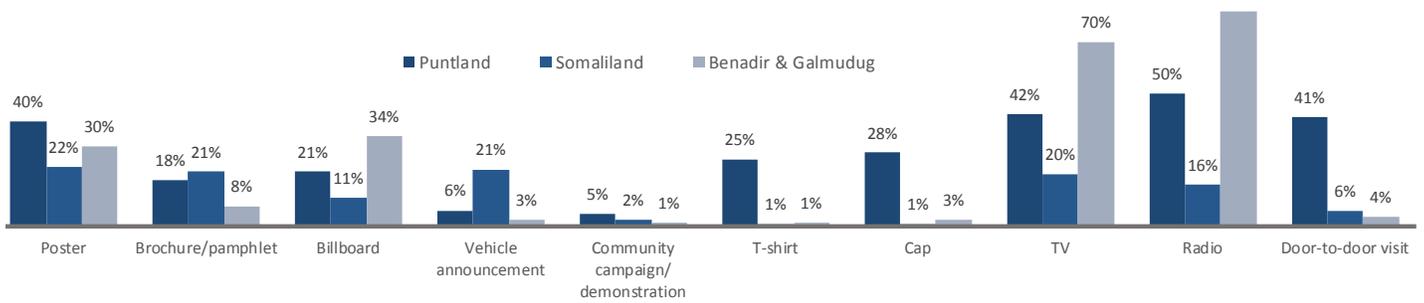


Figure 21: Important factors for deciding if a child should attend school, as expressed by caregiver



Sustainability: At endline, the qualitative data mirror the quantitative data regarding factors for deciding if a child should attend school. All mothers and fathers across all project areas indicated a desire to send all of their children to school. As one father expressed: "We want all of our children to go to school. We want all of our daughters to reach university. But financially we cannot afford this." Because of financial barriers such as the one cited above, mothers, fathers, CEC members, and MOE representatives all concur that sustainability will be incredibly difficult to establish

Figure 22: Activities heard or witnessed by caregivers at endline



once the project reaches completion. While parents desperately want all their children to attend school and have demonstrated increased awareness and support of the importance of girls' education, financial barriers may force parents to choose which children are provided for. The qualitative data is mixed in this regard, with some parents saying they would choose boys first and others choosing girls. For those parents who choose boys first, it appears to be for two reasons. First, parents worry considerably more about the futures of their sons. To expand, parents believe their sons are at a much higher risk of making poor decisions regarding drugs and behavior, and they hope that providing their sons with education will avoid such challenges. Secondly, in line with cultural norms, parents still rely heavily on the support of their daughters within the home. As such, when a choice must be made, parents justify sending sons because daughters have a critical role in the home. However, while this financial barrier is daunting, the behavioral and ideological shift that has occurred within communities regarding caregivers' aspirations for their daughters' education appears to be lasting, impactful, and sustainable in the long term.

Additionally, at the point of endline, the quantitative data suggests that girls are now surpassing boys in enrollment in many areas. This could suggest that the situation is slowly shifting and that the increased support for girls' education is slowly translating into action, in terms of choosing girls to go to school.

Though BL and ML statistics are not presented in this section due to differences in data collection methodology, it is important to note the relatively large improvements in key community support indicators between the three data collection periods. At baseline, community support for girls' education was only 45% (readjusted to 59% at midline after attrition). By midline, this indicator had increased to 86%. Proxy indicators (displayed in Figures 17-18) show similarly high levels of community support (in the 80-90% range) at endline. Further, the level of education that a caregiver wants for a girl now increased dramatically from 42% at baseline (readjusted to 50%) to 82% at midline and 90% at endline (Figure 19). While we cannot definitively attribute these changes to EGEP interventions, given the significant increases and the fact that EGEP is the only actor in the girls' education sphere in these particular catchment areas, we believe that EGEP awareness-raising activities have played a large and important role in changing community attitudes in this regard.

1.2 Percent of caregivers who have been exposed to project awareness raising activities and report having perceptions of the importance of girls' education changed

Summary Findings

- 37% of caregivers have heard or witnessed any type of awareness raising activity in the past three years.
- Of those who have heard these activities, the most commonly stated activity heard or seen was radio programs (46% of caregivers who had seen or heard anything), followed by TV programs (33%), posters (31%), and billboard (20%).
- Of caregivers exposed to project messaging, 90% indicated having perceptions of the importance of girls' education changed, measured by the level of schooling they wish a girl to achieve when she turns 18.
- Because of changes in methodology of household data collection between endline and earlier phases of data collection, quantitative data for this output indicator is not comparable to baseline and midline data. As such, regression analysis on changes between phases was not possible.

Methodology: This indicator was measured primarily in a quantitative manner via two questions asked of a girl's primary caregiver on the household survey. A caregiver was defined as "having a positive perception of girls' education" if they indicated that they wished a girl to achieve a college or university level education. Given the incomparability of household-based endline data to previous data collection phases (see note on Limitations below), we are unable to comment upon any actual change in this indicator between data collection periods. These answers were triangulated through secondary measures of qualitative data garnered in focus group discussions with girls, mothers, and fathers.

Limitation: See limitation in Output 1.1 describing incomparability of findings across all data collection periods.

Findings: Thirty-seven percent of caregivers reported seeing or hearing any awareness raising activity in the past three years, and this was consistent across project areas. The activities seen or heard most often were radio programs (46% of those indicating they had seen or heard any activity in the past three years), TV programs (33%), posters (31%), and billboards (20%) (Figure 22). Of all caregivers who had been exposed to any project messaging, 90% aspired for their girls to go to college or university. This proportion was equal for those caregivers who had not been exposed to project messaging.

Table 48: Literacy results, bursary girls, midline

Learning cohort subgroup	Baseline scores of girls who were OOSG at baseline			Midline scores of girls who were OOSG at baseline			Bursary midline scores			Bursary differences
	n	Mean	SE	n	Mean	SE	n	Mean	SE	
Total	371	1.5	0.2	371	5.9	0.3	466	8	0.3	6.5
Puntland	132	1.9	0.3	132	6.5	0.4	188	7.8	0.5	5.9
Somaliland	110	1.2	0.3	110	4.3	0.5	104	6.9	0.5	5.7
Benadir and Galmudug	128	1.3	0.4	128	6.6	0.5	174	8.8	0.4	7.5
Grade 3	n/a	n/a	n/a	57	6.7	0.7	55	7.8	0.4	1.1
Grade 4	n/a	n/a	n/a	45	8.0	0.5	61	8.6	0.5	0.6
Grade 5	n/a	n/a	n/a	33	8.4	0.6	57	9.2	0.3	0.8
Grade 6	n/a	n/a	n/a	22	9.4	0.3	57	8.6	0.4	-0.8
Grade 7	n/a	n/a	n/a	16	6.3	1.2	58	9.1	0.5	2.8
Grade 8	n/a	n/a	n/a	17	9.5	0.4	55	9.2	0.4	-0.3

Table 49: Literacy results, bursary girls, endline (out of 10)

Learning cohort subgroup	Midline scores of girls who were OOSG at baseline			Endline scores of girls who were OOSG at baseline			Bursary endline scores			Bursary differences
	n	Mean	SE	n	Mean	SE	n	Mean	SE	
Total	371	5.9	0.3	371	6.9	0.2	466	8.6	0.2	1.7
Puntland	132	6.5	0.4	132	7.4	0.3	188	8.7	0.3	1.3
Somaliland	110	4.3	0.5	110	4.8	0.3	104	8.1	0.4	3.3
Benadir and Galmudug	128	6.6	0.5	128	8.3	0.2	174	8.9	0.3	0.6
Grade 3	57	6.7	0.7	68	6.8	0.4	68	7.6	0.4	0.8
Grade 4	45	8.0	0.5	60	8.0	0.4	58	7.8	0.5	-0.2
Grade 5	33	8.4	0.6	41	9	0.4	48	8.9	0.5	0.1
Grade 6	22	9.4	0.3	25	9.5	0.4	55	9.1	0.3	-0.4
Grade 7	16	6.3	1.2	31	9.6	0.2	57	9.6	0.2	0.0
Grade 8	17	9.5	0.4	22	9.4	0.4	86	10.0	0.03	0.6

Table 50: Literacy results, bursary girls, by enrollment status when receiving a bursary, midline

Learning cohort group	OOSG bursary			ISG bursary			p-value	All bursary		
	n	Mean	SE	n	Mean	SE		n	Mean	SE
Total	236	8.1	0.4	225	7.9	0.4	0.604	46	8	0.3
Puntland	122	7.4	0.6	61	8.6	0.4	0.016	18	7.8	0.5
Somaliland	n/a	n/a	n/a	104	6.9	0.5	n/a	104	6.9	0.5
Benadir and Galmudug	114	8.7	0.5	60	8.9	0.6	0.634	178	8.8	0.4

Table 51: Literacy results, bursary girls, by enrollment status when receiving a bursary, endline (out of 10)

Learning cohort group	OOSG bursary			ISG bursary			p-value	All bursary		
	n	Mean	SE	n	Mean	SE		n	Mean	SE
Total	236	8.7	0.2	225	8.6	0.2	0.666	46	8.6	-0.2
Puntland	122	8.5	0.3	61	9	0.3	0.192	18	8.7	-0.3
Somaliland	n/a	n/a	n/a	104	8.1	0.4	n/a	104	8.1	-0.4
Benadir and Galmudug	114	8.9	0.3	60	8.9	0.4	0.936	178	8.9	-0.3

Table 52: Literacy results, bursary girls, by enrollment status when receiving a bursary, endline (out of 17)

Learning cohort group	OOSG bursary			ISG bursary			p-value	All bursary		
	n	Mean	SE	n	Mean	SE		n	Mean	SE
Total	236	12.6	0.6	225	12.7	0.5	0.893	46	12.7	-0.4
Puntland	122	11.6	0.8	61	12.8	0.9	0.133	18	12.1	-0.7
Somaliland	n/a	n/a	n/a	104	12	0.7	n/a	104	12.0	-0.7
Benadir and Galmudug	114	13.6	13.6	60	13.7	0.8	0.906	174	13.7	-0.6

Table 53: Literacy results, bursary girls, by marginalization status

	Overall		Puntland		Somaliland		Benadir and Galmudug	
	n	Mean	n	Mean	n	Mean	n	Mean
IDP	151	8.69	42	9.12	15	6.87	94	8.79
Non-IDP	310	8.57	141	8.47	89	8.33	80	9.03
Orphan	156	8.74	62	8.73	34	8.24	60	9.05
Non-orphan	305	8.54	121	8.56	70	8.06	114	8.82
Impoverished	169	8.72	123	8.69	46	8.78	0	n/a
Non-impovertised	292	8.55	60	8.47	58	7.59	174	8.90
Minority	81	8.69	9	8.56	14	7.64	58	8.97
Non-minority	380	8.59	174	8.62	90	8.19	116	8.86
Disabled	14	7.93	5	8.40	4	7.00	5	8.20
Non-disabled	447	8.63	178	8.62	100	8.16	169	8.92

Table 54: Numeracy results, bursary girls, midline

Learning cohort subgroup	Baseline scores of girls who were OOSG at baseline			Baseline scores of girls who were OOSG at midline			Bursary midline scores			Bursary differences
	n	Mean	SE	n	Mean	SE	n	Mean	SE	
Total	371	1.2	0.1	371	5	-	466	6.7	0.3	1.7
Puntland	132	1.6	0.3	132	5.6	0.3	188	6.8	0.3	1.2
Somaliland	110	1.0	0.2	110	3.4	0.4	104	5.6	0.4	2.2
Benadir and Galmudug	128	1.1	0.3	128	5.7	0.5	174	7.3	0.5	1.6
Grade 3	n/a	n/a	n/a	57	6.0	0.4	55	6.2	0.3	0.2
Grade 4	n/a	n/a	n/a	45	6.5	0.4	61	7.0	0.4	0.5
Grade 5	n/a	n/a	n/a	33	7.1	0.4	57	7.4	0.4	0.3
Grade 6	n/a	n/a	n/a	22	8.1	0.3	57	7.6	0.3	-0.5
Grade 7	n/a	n/a	n/a	16	6	1.1	58	7.6	0.4	1.6
Grade 8	n/a	n/a	n/a	17	8.5	0.4	55	7.6	0.3	-0.9

It is interesting to note the differences in reach of the particular awareness raising activities in the different project areas. While radio penetrated well in Puntland and Benadir and Galmudug, this was not the case in Somaliland. These findings are similar to those at midline and are likely due to the higher proportion of target schools in rural areas (where radio ownership is low) of Somaliland, compared to urban schools in Puntland and Benadir and Galmudug. In response to the midline findings, EGED report that greater emphasis was placed on alternative awareness raising activities to reach those in rural areas, which is reflected in the endline findings that show substantially higher reach through means such as vehicles with loud speakers in Somaliland compared to Puntland and Benadir and Galmudug.

Qualitative support: Consistent with midline findings, all FGD respondents across all project areas indicated exposure to awareness raising activities. In line with the quantitative data, qualitatively, radio broadcasts were the most commonly referenced by all respondent types and across all project areas. Respondents also frequently mentioned community meetings and television broadcasts as methods of spreading awareness of the importance of girls' education. At least one respondent in each FGD suggested that these awareness raising efforts were impactful and that this impact will be lasting. For example, one mother in Puntland shared that through the EGED awareness raising efforts the community "has been told many things that were not known before, especially that the quality of education for girls should not be different to

Table 55: Numeracy results, bursary girls, endline

Learning cohort sub-group	Midline scores of girls who were OOSG at baseline			Endline scores of girls who were OOSG at baseline			Bursary endline scores			Bursary differences
	n	Mean	SE	n	Mean	SE	n	Mean	SE	
Total	371	5	0.3	371	5.9	0.2	466	7.2	0.2	1.3
Puntland	132	5.6	0.3	132	6.4	0.2	188	7.3	0.2	0.9
Somaliland	110	3.4	0.4	110	4.2	0.3	104	6.6	0.3	2.4
Benadir and Galmudug	128	5.7	0.5	128	6.9	0.3	174	7.4	0.3	0.5
Grade 3	57	6.0	0.4	68	5.8	0.2	68	6.2	0.3	0.4
Grade 4	45	6.5	0.4	60	6.7	0.3	58	6.2	0.5	-0.5
Grade 5	33	7.1	0.4	41	7.7	0.3	48	7.1	0.4	-0.6
Grade 6	22	8.1	0.3	25	7.9	0.4	55	7.6	0.3	-0.3
Grade 7	16	6	1.1	31	8.3	0.2	57	8.0	0.2	-0.3
Grade 8	17	8.5	0.4	22	7.9	0.5	86	8.1	0.2	0.2

Table 56: Numeracy results, bursary girls, by enrollment status when receiving a bursary, midline

Learning cohort group	OOSG bursary			ISG bursary			All bursary		
	n	Mean	SE	n	Mean	SE	n	Mean	SE
Total	122	7.2	0.3	61	7.5	0.3	200	7.3	0.2
Puntland	n/a	n/a	n/a	104	6.6	0.3	104	6.6	0.3
Somaliland	114	7.2	0.3	60	7.7	0.2	178	7.4	0.3
Benadir and Galmudug	236	7.2	0.2	225	7.1	0.2	482	7.2	0.2

Table 57: Numeracy results, bursary girls, by enrollment status when receiving a bursary, endline

Learning cohort group	OOSG bursary			ISG bursary			All bursary		
	n	Mean	SE	n	Mean	SE	n	Mean	SE
Puntland	122	7.2	0.3	61	7.5	0.3	200	7.3	0.2
Somaliland	n/a	n/a	n/a	104	6.6	0.3	104	6.6	0.3
Benadir and Galmudug	114	7.2	0.3	60	7.7	0.2	178	7.4	0.3
Total	236	7.2	0.2	225	7.1	0.2	482	7.2	0.2

Table 58: Numeracy results, bursary girls, by marginalization status

	Overall		Puntland		Somaliland		Benadir and Galmudug	
	n	Mean	n	Mean	n	Mean	n	Mean
IDP	151	7.35	42	7.79	15	6.60	94	7.28
Non-IDP	310	7.06	141	7.13	89	6.63	80	7.44
Orphan	156	7.19	62	7.45	34	6.44	60	7.33
Non-orphan	305	7.14	121	7.19	70	6.71	114	7.36
Impoverished	169	7.34	123	7.41	46	7.15	0	n/a
Non-impovertised	292	7.05	60	7.02	58	6.21	174	7.35
Minority	81	7.16	9	7.44	14	6.29	58	7.33
Non-minority	380	7.16	174	7.27	90	6.68	116	7.36
Disabled	14	6.71	5	7.20	4	5.25	5	7.40
Non-disabled	447	7.17	178	7.28	100	6.68	169	7.35

us than the quality of education for boys, and so girls should not be given less accessibility to education than boys.” Additionally, a father from Benadir and Galmudug stated: “Yes, the awareness raising had an effect on the community. We learned a lot that we did not know before, and that it is possible to give girls access to education.”

Regression finding: Households with a caregiver who had seen or heard an awareness raising message in the past year were associated with having more girls enrolled in school than households with a caregiver who had not heard or witnessed an activity, a finding that was statistically significant.

Sustainability: Sustainability findings for output 1.2 are similar to those found in 1.1. While it was not something explored through the endline data collection process, EGEP report that the approach to awareness-raising is very much community-led; messages are developed by girls and communities themselves. In community events and radio shows, it is the girls, teachers, and community members leading the discussions. The project reports that community events such as regular poetry and debating events have gathered momentum and enthusiasm and it is possible that some would continue beyond the life of the project.

1.3 Percent of caregivers/girls with access to radio who listen to project radio broadcast

Summary Findings

- In households with access to a TV or radio, 60% of caregivers and 33% of girls had heard a radio message in the past year.
- In the past three years, of all caregivers and girls who had heard or witnessed an awareness activity, 46% of caregivers and 29% chose radio messaging as a method they heard.
- Findings vary considerably when it comes to project area and rural/urban geography. This could be due to intervention locations, the typical location of a radio in a particular area (at school, in the household, etc.) and/or radio ownership rates.
- Caregivers, and to a lesser extent girls, are exposed to messaging regardless of having a functioning radio in their households.

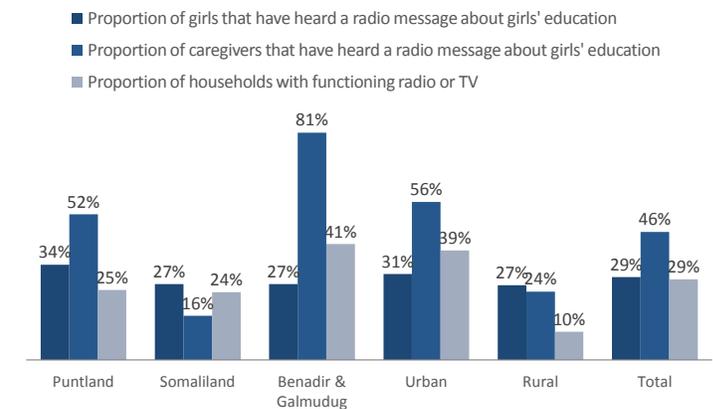
Methodology: The indicator on access to radio and listening to broadcasts was measured primarily in a quantitative manner via two questions asked of a girl’s primary caregiver on the household survey. Given the incomparability of household-based endline data to previous data collection phases (see note on Major Limitations below), we are unable to comment upon any actual quantitative change in the indicator from baseline and midline to endline. Quantitative findings were triangulated through secondary measures of qualitative data garnered in focus group discussions with girls, mothers, and fathers.

Limitation: See limitation in Output 1.1 describing incomparability of findings across all data collection periods. “Access to a radio” was not well defined in this study. A question in the household survey asked households if they had a working radio or TV (29% of the sample), and among those who did, 60% of caregivers and 33% of girls cited having heard a radio message promoting the importance of girls’ education. This data does not necessarily reveal much given that it does not indicate whether a household had a functioning TV, radio, or both. Further, the idea of “access” is

complex: a household may have access to a radio via a neighbor, a different household, or other source. If we disregard the question on possessing a functioning TV or radio, the data paints an interesting picture of who and where radio messaging is reaching; the following text and data utilizes this approach.

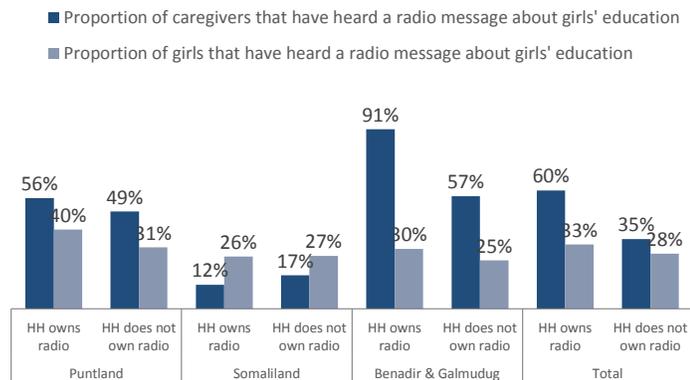
Findings: Figure 23 shows that overall, caregivers are much more likely to have heard a radio message (46% of the sample) compared to girls (29%). The differences are stark across project areas and urban/rural settings. While in Puntland and Benadir and Galmudug caregivers are more likely to hear a message on the radio than a girl, the finding is reversed in Somaliland, where only 16% of caregivers have heard messages compared to 27% of girls. Further, girls cite hearing messages almost equally whether they are in an urban or rural setting (31 and 27%, respectively), even though radio/TV ownership rates between those two settings differ substantially. Caregivers are more than twice as likely to hear a message if they are in an urban setting versus rural (56% compared to 24%), and, interestingly, a girl is more likely to hear a message than a caregiver in a rural setting. In households that had a functioning TV or radio, 60% of caregivers and 33% of girls had heard a radio message on girls’ education in the past year (Figure 24).

Figure 23: Percent of caregivers and girls who heard a message on girls’ education through the radio in the past 3 years



These findings could be explained by several factors, particularly the location of radio awareness projects (both project area and rural/urban location within project areas) and the typical location that radios are accessed in an area (school versus the household, for example). The proportion of those hearing messages on the radio on girls’ education, be they a girl or a caregiver, is, on average, equal to or higher than the proportion of households that own a functioning TV or radio in the same setting. This indicates that community members, particularly caregivers, are hearing radio messages whether they own a radio or not.

Figure 24: In households with a functioning radio, percent of caregivers and girls who heard a message on girls' education through the radio in the past 3 years



Qualitative support: Consistent with midline, at endline, qualitative data overwhelmingly supports that radio messages are being heard and are encouraging girls' education. Radio broadcasts were the most commonly referenced awareness raising activity in FGDs and KIs. However, it is important to note that radio broadcasts are the only method that respondents were asked about specifically. Additionally, it seems as though mothers heard radio broadcasts the least across all three project areas, and respondents in Benadir and Galmudug reported hearing radio announcements more than others.

Regression finding: In drought-affected areas, girls of caregivers who had heard a program on the radio on girls' education were associated with a positive significant increase in learning scores compared to girls whose caregivers had not heard a radio message.

Sustainability: Sustainability findings for radio interventions are similar to 1.1 and 1.2. Respondents in FGDs indicated that these messages will have lasting impact because the encouragement these broadcasts have provided to parents and community members has helped to shape communities' new approaches to girls' education. One Somaliland father shared that he records the radio messages in order to hear them more carefully. Additionally, a girl student from Puntland shared that "radios are motivating people to teach the girls of the community, saying that 'one who teaches a girl has taught a nation.' Girls are leaving every house to go to school now, and I hope if all of those girls can complete education, [the country] can leave poverty."

1.4 The increase in learning levels of out-of-school girls in math and literacy who receive bursaries to support them to enroll in school

Summary Findings

- Girls who were OOSG at baseline (and did not receive bursaries) appear to do slightly worse on learning tests at lower grades compared to bursary girls, but quickly catch up to their bursary counterparts as they age.
- Differences in learning scores between girls who do and do not receive a bursary were not statistically significant.
- Girls who were OOSG when they received a bursary are initially, for the most part, significantly associated with lower learning scores compared to girls who were ISG when they received a bursary; however, these differences become insignificant as girls age.
- Qualitatively, bursaries were the most influential factor for improving enrolment, attendance, and retention of marginalized girls, as expressed frequently across all FGDs and KIs.

Methodology: This is measured through learning assessments administered to in-school girls who received bursaries. At midline, 529 bursary girls, randomly sampled from a list of over 3,000, were tested, of whom 371 were successfully recontacted or replaced at endline. Important analyses included effects on girls' learning if a bursary girl was ISG or OOSG when receiving her bursary and effects on learning based on the criteria for which a bursary girl was chosen (IDP, orphan, impoverished, minority, or disabled). Answers were triangulated through a secondary measure of qualitative data garnered in FGDs with mothers, fathers, and girls.

Findings: Literacy scores of girls receiving bursaries improved overall by 0.6 points from midline to endline overall and when disaggregated by project area. Average girls' scores in Somaliland improved the most, increasing from 6.9 points at midline to 8.1 points at endline. Benadir and Galmudug scores were the highest at endline, with 8.9 points, but improved the least given that scores were at 8.8 at midline (Table 48 and Table 49). Ceiling effects were slightly higher with bursary girls than with cohort girls, with 62.5% of midline bursary girls and 69% of endline bursary girls scoring 10 out of 10. When looking at scores based on the extended literacy test out of 17 (Table 52), over 40% of bursary girls scored 17 out of 17. On average, girls scored 12.6 points out of 17, with Benadir and Galmudug girls scoring the highest with 13.7 points and girls in Puntland and Somaliland both scoring an average of 12 points. Based on these results, girls likely could have benefited from an even more difficult literacy assessment. Literacy scores (both literacy and numeracy) of girls who were OOSG at baseline increased more than the literacy scores of bursary girls between midline to endline; however, bursary girls' overall scores remain significantly higher than those of girls who did not receive bursaries, probably because of differences in the mean age of the two groups (those receiving bursaries are on average 1.2 years older than those who did not receive bursaries.) Given that bursary girls score much higher than girls who were OOSG at baseline, it is highly possible that ceiling effects play a role in limiting the observed increase in learning scores of bursary girls from midline to endline. Broken out by grade, girls who were OOSG at baseline appear to do slightly worse than bursary girls at lower grades but quickly catch up to their bursary counterparts as they

age (Table 48 and Table 49). A basic comparison of learning scores between girls who did and didn't receive bursaries shows no significant differences between the two groups. The enrollment status at which a bursary girl received her bursary (either OOSG or ISG) is, for the most part, initially associated with significant differences in scores, with ISGs benefiting most. However, as girls age, these differences become insignificant. Thus, enrollment status when receiving a bursary (either OOSG or ISG) has a small effect at younger ages but quickly disappears as girls age.³³

Literacy scores by marginalization status: Overall, scores did not differ notably when disaggregated by marginalization status. The greatest difference was among disabled and non-disabled girls, with non-disabled girls scoring 0.7 points higher than disabled girls. However, there were only 14 girls considered disabled, so these results should be taken lightly.

Numeracy scores by marginalization status: As with literacy, there was no notable difference between scores when disaggregated by marginalization status. Also like literacy, the greatest difference was between disabled and non-disabled girls. Non-disabled girls scored nearly 0.5 points higher than non-disabled girls, though the sample size is too small to make accurate conclusions.

Qualitative support: As discussed earlier, qualitative information indicates that bursaries are the single most influential factor for improving enrollment and retention for marginalized girls. This was expressed frequently by all respondent types and across all project areas. For example, one Benadir and Galmudug father shared: "Girls who receive bursaries are different than other students who have to look for school fees. They come to school every day and don't meet the challenge that other students do, so they can focus on learning." Similarly, a female student from Benadir and Galmudug added that "if you receive a scholarship you feel happiness and you don't face any challenges, while the people who don't receive scholarships face challenges like being forced to leave school, and sometimes even to drop out."

However, as noted earlier, respondents did not feel that bursaries have a critical link to learning outcomes, specifically because all in-school girls are receiving support to attend school, whether from parents or bursaries. Therefore, respondents indicated that this acknowledgment motivates all girls, non-bursary and bursary alike, to work very hard in school. As one Benadir and Galmudug teacher noted: "Girls who receive bursaries are motivated to come to school and work very hard every day, and study very hard every night. However, even girls who do not receive school fees from an organization, they know that someone is working very hard to pay for those fees. So, those girls work very hard, too. Overall, the girls work very hard in school." This qualitative data matched with the quantitative data that suggested that bursary and non-bursary girls performed almost equally on learning tests.

Sustainability: At baseline, the team added a question to the school survey asking head teachers if CECs and/or school management support girls with their school fees. This question was asked to try and ascertain the sustainability of bursary support, particularly via CECs' continuing provision of bursaries after the completion of EGEP. Across all project areas, 22% of schools replied that CECs or school management are active in supporting girls with their school fees. Project area variation was high: 25% of schools in Puntland (n=10), 7% in Somaliland (n=3), and 45% in B&G (n=10) supported girls with their school fees. If we exclude

Somaliland schools that do not charge school fees, the proportion rises to an average of 32%. While it is encouraging that nearly one in three schools in Puntland and B&G provide this support, communities must work to find ways to increase this proportion to avoid the potential negative effects of losing bursary support on girls' educational outcomes.

Qualitatively, all respondents frequently expressed deep concern regarding the end of bursary provision. However, these concerns never pertained to learning specifically. This indicates that, for girls who are able to remain in school without the provision of a bursary, impacts on learning after the bursary has ended may be unclear. The negative impact will be mostly on enrollment and retention for those girls who cannot pay for school fees from other sources.

1.5 Percent of girls receiving bursary support that stay in school

Summary Findings

- 91.5% of girls who received bursary support since baseline were still studying in school at endline or had transitioned to upper education.

Methodology: Data for this indicator was gathered by Relief International. Data regarding the girls receiving bursary support is updated regularly by Relief International in Puntland, ADRA in Somaliland, and CISP in Benadir and Galmudug and uploaded to the monitoring database. This data is triangulated with qualitative data from monitoring tools, including KIIs with bursary girls, which include the question, "What difference has the fee waiver/bursary support made to you?" A challenge experienced in collecting the quantitative data is uncertainty around the reason why girls drop out of school, as experienced at both midline and endline. It is important to distinguish actual educational dropout from relocation to a different school or graduation to secondary school. EGEP works closely with the schools and CECs to obtain this detail and to follow up with girls who drop out of school.

Table 59: Criteria for determining a bursary girl "dropout"

No	Possible status	Count as retained?
A	Studying	Yes
B	Newly added	Yes
C	Transferred to another school	Yes
D	Transitioned to secondary	Yes
E	Transitioned to upper secondary	Yes
F	Completed secondary	Yes
G	Joined	Yes
H	Migrated (outside)	No
I	Married	No
J	Moved to another city	No
K	Dropped	No

Findings: From baseline to endline, RI supported a total of 3,890 girls with bursaries, 3,350 of which were still being supported at the time of the endline evaluation. Of all girls supported with bursaries, 3,3616 were still in school or had transitioned to upper education by endline, for a retention rate of 93% (Table 60).

³³ Girls receiving bursaries in Somaliland were all ISG when they received a bursary, therefore the Total (overall) mean score of ISG is not comparable to the total (overall) mean of OOSG in tables 48, 49, 50, 54, and 55.

In the current academic year (2016-2017), EGEP supports 3,350 girls with bursaries. In the entirety of the project, EGEP has supported 3,890 girls, of which 3,616 have stayed in school, for a retention rate of 93.0% ().

Table 60: Data on bursary girls at endline

Zone	PL	SL	B&G	Total
Total no. of bursary girls supported between baseline and endline	1825	988	1077	3890
No. bursary girls being supported at time of endline	1412	891	1047	3350
No. of bursary girls supported between baseline and endline who were retained in school through the education cycle	1614	954	1048	3616
% of bursary girls supported between baseline and endline who were retained in school through the education cycle	88.4%	96.6%	97.3%	93.0%
Dropouts	176	34	13	223
Migrated outside Puntland, Somaliland, and B&G	5	0	0	5
Moved to another city	30	0	16	46
In Primary	1309	572	824	2705
In Lower Secondary	218	136	161	515
In Upper Secondary	87	246	63	396

** including those who have completed secondary/joined university

* percent is calculated as the corresponding number divided by either the total primary or secondary figures

: Percent of girls receiving bursary support that stay in school

Status	Project Area			Total	%
	PL	SL	SC		
(In-School) Studying	1116	891	975	2982	76%
Completed Secondary	0	12	3	15	0%
Disqualified	13	0	0	13	0%
Dropped Out	172	34	13	219	6%
Migrated	5	0	0	5	0%
Moved to another city	30	0	16	46	1%
Newly Added	296	0	35	331	8%
Transferred to Non-EGEP school	2	63	1	66	2%
Transitioned to Lower Secondary	121	0	0	121	3%
Transitioned to University	0	0	5	5	0%
Transitioned to Upper Secondary Level	79	0	37	116	3%
Unknown	4	0	0	4	0%
Total	1838	1000	1085	3923	100%

Qualitative Support: Overwhelmingly, FGD and KII respondents across all project areas indicated that bursaries have remained hugely influential in diminishing financial barriers to enrollment and retention for girls. Respondents at endline continued to express an urgent need for more bursaries to allow additional marginalized girls to enroll and remain in school. As one Somaliland teacher stated, “the most important change that has happened has been from the money they gave to girls, which allowed the girls to continue in their education.” Additionally, a father from Puntland indicated: “Relief International paid for girls’ school fees, including orphans. When EGEP provided that help, mothers brought their children to school. You can feel the changes when you see the girls in school, because the number of girls has increased since Relief International started helping them with bursaries.” Parents frequently indicated that, while they desperately wish they could pay for their children’s school fees and additional school-related expenses, the poor economic situation throughout the country has made this impossible.

Sustainability: In all FGDs and KIIs, respondents were deeply concerned about the implications of ending the bursary program. Respondents fear that many girls who have been given the opportunity to enroll and remain in school because of bursary provision will no longer be able to stay in school. Additionally, the remaining OOSG may not have the chance to attend school. Bursary provisions, as a financial intervention, have the potential to affect a household’s ability to enroll their girl in school. Without efforts to improve families’ financial situations as a whole, these improvements in enrollment and retention are likely not sustainable. Points raised in the indicator above also apply here: it is encouraging to see that CECs are starting to support girls themselves with bursary support; sustainability of this activity could largely rely on them continuing to expand in this responsibility.

1.6 Attendance of girls who receive sanitary kits

Summary Findings

- Qualitative evidence suggests that sanitary kits are essential for maintaining and improving attendance of girls.
- Regression analysis finds that girls at schools that distribute sanitary kits are significantly associated with less days of school missed in the past two weeks and higher math scores compared to girls at schools that do not distribute kits.
- A Shapely decomposition showed that sanitary kits were responsible for 12% of explained variation in girls’ attendance measures (second among all output interventions) and 9% of the variation in math scores (higher share than any other output intervention). See Annex 11 for more details.

Methodology: At baseline and midline, this indicator was measured quantitatively via school-based register attendance records of girls in grades 6, 7, and 8 and supplemented by qualitative data from focus groups with girls. Because of the low quality of school-based records and a highly varied methodology in distribution of sanitary kits among schools, we focus heavily on qualitative methods to measure this indicator at endline. We also conduct regression analysis of distribution of sanitary kits at the school level (measured through the school survey) on attendance, since 23% of schools had not distributed sanitary kits to girls in the past year—a proportion that was deemed large enough to use in a regression model. These findings are explained below.

Findings: Consistent with midline, qualitative data at endline suggest that sanitary kits have a substantially positive impact on attendance. Improving from midline, all girls in FGDs across all project areas indicated that sanitary kits are distributed at their schools, while 77% of head teachers answered in the school survey that their school distributed sanitary kits in the past year. Mothers and even fathers and CEC members supported this claim that sanitary kits are helpful to attendance, and by extension, learning. Additionally, endline qualitative data suggests that girls are more open about talking about the need for sanitary kits and also that having female teachers present has been critical in girls' comfort. Girls indicated that the methods of distributing the sanitary kits have improved, providing more privacy for the girls. At endline, girls in Puntland and in Somaliland indicated that the kits are kept at teachers' homes, where they can collect them when needed. Others indicated that sanitary kits are kept in private rooms, and that with female teachers, it is not a challenge to retrieve them. This was also recommended by the girl students at midline. As one teacher stated: "When they brought sanitary kits for the girls it made a big difference. It is possible that some of the girls did not have sanitary pad during menstruation, and so they used to leave school because they didn't have the money to buy pads." Similarly, a mother in Puntland shared that "the sanitary kits helped the girls because before they were missing school for the whole seven days. Now they can stay in the school. As a result, the girls now have the freedom of both dealing with menstruation and also learning at the same time. In the previous time there was not that freedom." A girl student from Somaliland stated that "the kits support us so much, because if you do not have the sanitary kit you cannot come to school. You might feel too shy and worried. But now you can come to school." Qualitatively, aside from financial support and awareness raising, sanitary kits were the most frequently cited factor for improving attendance.

It is important to note that the pads themselves will not fully solve the problem as some girls will continue due to the pain suffered during menstruation. Ninety-eight percent of girls are subject to infibulation, the most severe form of FGM. One of the side effects is considerable pain and discomfort during menstruation—the practice of sewing inhibits blood flow. Girls suffer from recurring urinary tract infections and are often incapacitated during menstruation, effects that are well documented in international research and publications. Unsurprisingly, this issue is not frequently being raised by girls during FGDs and KIIs, as it is extremely taboo. However, it has been raised by female Somali staff and occasionally by female teachers. EGEP is not able to tackle this problem directly, as the project is not in a position to provide pain relief drugs to girls. Though there are significant advocacy campaigns being conducted by agencies such as UNICEF to reduce this cultural practice, the topic cannot currently be heavily incorporated into EGEP behavior change campaigns, as its complexity would require substantial financial, programmatic, and human resources to have any hope of effecting lasting change.

Regression finding: Girls at schools that had distributed sanitary kits were significantly associated with less days of school missed in the last two weeks and higher math scores compared to schools that did not distribute sanitary kits.

Sustainability: Currently, the only sanitary kits available to the girls are provided by EGEP. If the project ceases, new sources of sanitary kits and funding will be necessary to continue this intervention. Based on the enthusiastic responses on the part of all respondents regarding the positive impact of sanitary kits on attendance and learning, it is likely that attendance and therefore also learning will be negatively impacted if sanitary kits are no longer available to marginalized girls.

As discussed previously, teachers, mothers, girls, fathers, and CEC members all emphasized the role of sanitary kits in allowing girls to attend school without interruption and focus on learning without the psychosocial stress of menstruation happening during school. Therefore, high attendance rates and continuous improvements in learning may not be sustainable without ready access to sanitary kits. Further, a lack of correct knowledge around MHM limits the effectiveness of sanitary kits. If girls are too embarrassed or uncomfortable and thus stay home during menstruation, the total effect of this intervention will be limited. Future sanitary kit interventions must continue to integrate MHM behavior change activities to be both successful and sustainable.

1.7 Percentage of girls that report using solar lamps when doing their homework

Summary Findings

- At endline, 28% of girls had received a solar lamp since baseline. This was highest in Somaliland (36%) and lowest in B&G (13%).
- At endline, 17% of all girls use a solar lamp to do homework at night, down from 19% at midline. Project area differences were large again, from 31% of girls in Somaliland to 4% of girls in Benadir and Galmudug at endline.
- Among girls who received a solar lamp in the previous year, 70% use them to do homework at night, up from 57% at midline. Girls in Somaliland use them the most (78%) compared to just half of the girls receiving them in Benadir and Galmudug.
- Sustainability is encouraging: among girls who had received a solar lamp between BL and ML, 40% were still using it at EL.
- Among girls who had never received a solar lamp, 10% of girls at midline and 8% of girls at endline had accessed solar lamps to do their homework at night. Barrier: Lack of light (via electricity, gas, etc.) in most homes means that girls are unable to study once it gets dark. Given a girl's other responsibilities at home, this severely limits the time she might have available to do homework and study.

Methodology: At endline, SI measured this indicator by including a question at the beginning of the learning assessment and triangulated with two additional questions asked to cohort girls at the household as part of the household survey. At the school level, head teachers are asked if their school distributes solar lamps. This indicator was also heavily informed by qualitative data from girl, mother, and father focus groups.

Findings: From midline to endline, 28% of all sampled cohort girls received a solar lamp. This was highest in Somaliland, where more than one in three (36%) girls received a lamp, and lowest in B&G, where less than one in seven (13%) received one (Figure 25). The cumulative numbers are positive, as many girls who received lamps between baseline and midline have retained them at endline.

Figure 25: Cumulative proportion of girls who were given a solar lamp between midline and endline

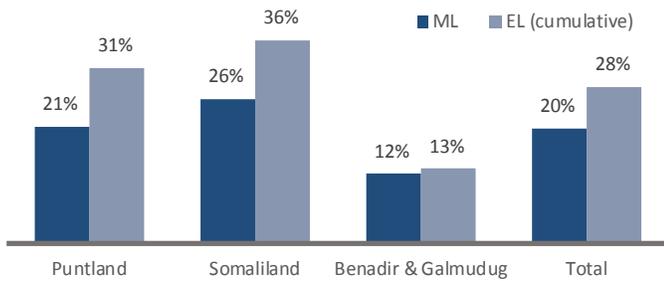


Figure 27: Among girls receiving solar lamps, proportion of girls who use solar lamps to do homework at night

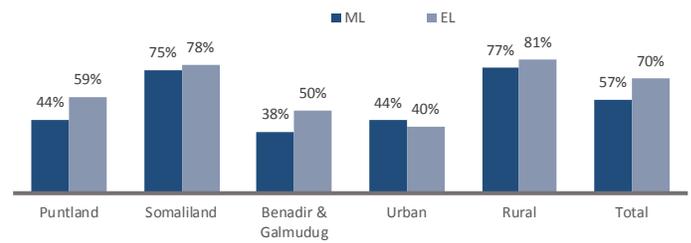
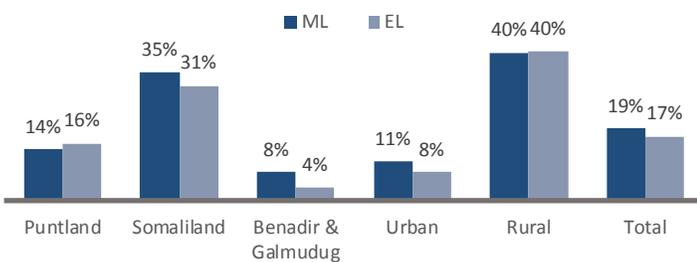


Figure 26 displays the proportion of girls using solar lamps to do their homework at night when there is no light, regardless of having received a solar lamp. Overall, between midline and endline, the proportion dropped from 19% to 17%. The proportions of girls using solar lamps to do their homework by project area more or less mirror those found in Figure 25. Among all disaggregations, girls in rural areas are using solar lamps the most to do their homework—40% are doing so.

Figure 26: Proportion of girls using solar lamps to do homework at night



Among girls who have received a solar lamp in the past year, those who actually use the solar lamps to do homework at night increased from 57% to 70% between the two data collection periods (Figure 27). The proportion is highest among rural girls (81% of girls who received lamps) and in Somaliland (78%) and lowest in Benadir and Galmudug (50%). These data make some sense, since target girls in Somaliland are mostly rural and Benadir and Galmudug is highly urban. While the proportion of girls who use lamps to do their homework is similar to the proportion of girls who have received lamps, Figure 27 shows that not all girls who receive lamps are using them (70% at endline). An analysis of who uses solar lamps to do their homework, broken out by receipt of lamp at endline or midline (the question was not asked at baseline) reveals that 10% of girls who did not receive a lamp at midline used lamps to do their homework and 8% did so at endline. This indicates that a small portion of girls are able to access solar lamps regardless of receiving one, and girls may also be grouping around solar lamps in communal areas to share the benefit.

At baseline, 5% of households cited using solar lamps as a source of electricity, increasing to 15% at midline and 18% at endline. Somaliland was by far the leader in using solar: at endline, 29% of households there reported it as a main source of energy when there was no light (up from 26% at midline), compared with 16% in Puntland at endline (up from 8% at midline) and 5% in B&G at endline (down from 8% at midline).

Solar lamps and learning scores

The methodology of this intervention differed from project area to project area: in Somaliland, girls in grades 3–8 were given solar lamps; in Puntland, this was only done for girls in grade 5, and, in Benadir and Galmudug, lamps were given to girls in grades 7 and 8. This methodological difference may explain the wide variety in scores seen in Figure 28 and Figure 29. To account for this, the team focused its findings on changes in scores between midline and endline, rather than the total score compared between project areas. For both literacy and numeracy at endline, girls who received solar lamps did slightly better than peers who did not receive lamps, except on literacy in Benadir and Galmudug, where they scored slightly worse. The findings in B&G are not surprising given that B&G is 95% urban with higher rates of electricity than other project areas, and girls in B&G report the lowest utilization rates of solar lamps.

Figure 28: Solar lamps and numeracy scores

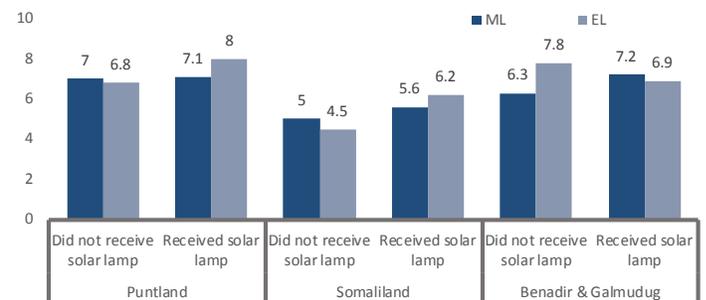
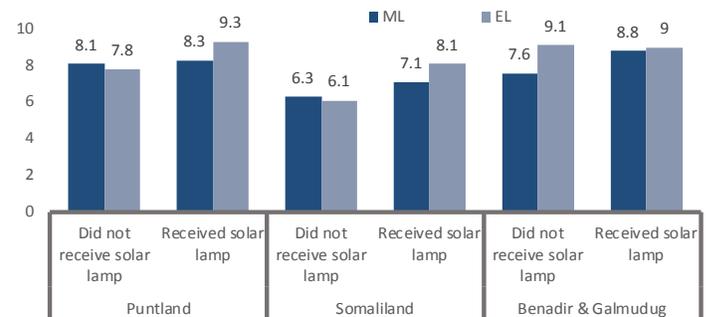


Figure 29: Solar lamps and literacy scores



Regression findings: Provision of solar lamps to girls living in rural areas, drought, and conflict-affected areas is significantly associated with higher learning scores compared to girls in those areas who did not receive solar lamps.

Qualitative support: Qualitative evidence provided by all respondent types suggests that solar lamps have a positive impact on learning. Respondents indicated that solar lamps allow girls without electricity to complete homework and study in the evening after household obligations are finished. As a teacher in Somaliland shared, “the reason the girls became good, for example, in math, is that the girl has materials for reading such as solar lamps, and even when there is no light in the house and the family is poor, the situation will not be the same because the studying, reading, and reviewing will still increase.” Additionally, a female student in Somaliland shared that “during night when there is no light, we use solar lamps to read our lessons and learn because we don’t have electricity.” It would be interesting to understand what percentage of girls that did not receive a solar lamp has other means of light. Qualitative data at endline suggests that the increase in provision of solar lamps was critical to girls’ learning. As at midline, all mother, father, and girl FGD respondents indicated solar lamps being important to girls’ ability to complete homework, especially considering household obligations that carry into the evening, as reflected in the quantitative findings above. Further, girls without solar lamps reported that they often complete homework at neighbors’ homes with solar lamps. As one teacher in Somaliland shared, “the solar lamps are very helpful to reading and learning because they bring light so that the girls can read and learn. Therefore, ADRA is very good.” Additionally, a mother in Somaliland requested that more girls be provided with solar lamps because they are so important to girls’ abilities to learn outside of school. Fathers in Puntland also frequently indicated that solar lamps are related to improvements in learning. The girls echoed this, with one Somaliland student explaining that “during the night when there is no other light, we use solar lamps to read our lessons and study because we don’t have electricity.”

Sustainability: An analysis of girls who receive solar lamps and use them to do their homework shows that 40% of girls who received a solar lamp at midline are still using them to do their homework at endline. Further, at endline, among girls receiving solar lamps in the past two years, 84% said they use their solar lamps (the application was not specified) sometimes or often, compared to 8% who never used it and 8% who confessed that their lamp was not functioning. These numbers are relatively high and are encouraging for the sustainability of this intervention in terms of girls continuing to use the lamps after the project ends.

Currently, the only solar lamps available to the girls are provided by EGEP. If the project ceases, new sources of solar lamps and funding will be necessary to continue this intervention. As discussed above, FGD and KII respondents indicate that access to solar lamps has a positive relationship with learning outcomes. This was indicated by mothers, fathers, girls, and teachers alike. Therefore, solar lamps may play an important role in continued learning improvements for marginalized girls. At endline, 8% of girls who had received a solar lamp reported that their solar lamp was not functioning. Without availability of materials or proper knowledge on repairing broken solar lamps, these tools will eventually become non-functional. Provision of solar lamps in the future will thus require extended funding for not only the lamps themselves but also proper maintenance and training.

Output 2: Primary and lower secondary schools across Puntland, Somaliland, Benadir and Galmudug provide a more gender sensitive environment for learning and a more relevant quality of teaching for girls

Sub Indicators

- 2.1 Percentage of girls who identify insufficient latrines or lack of water in their school environment
- 2.2 Percentage of girls who report there being something about their school environment that they feel has improved in the past year
- 2.3 Percentage of girls who cite their school club or extra-curricular activity as something they like about school
- 2.4 Percentage of trained teachers demonstrating knowledge of girl-centered approaches to learning
- 2.5 Percentage of Community Education Committees (in Supplementary School Feeding [SSF] schools) playing an active role in management of the school feeding programme
- 2.6 Percentage of girls reporting improved levels of psychosocial wellbeing at school.

Barriers

Lack of key infrastructure: EGEP has identified a lack of key infrastructure, teaching materials, and teaching methods as barriers to girls going to school and learning effectively.

Gender inequalities in infrastructure: These lead to girls often feeling uncomfortable at school. Girls lack safe fora within which to congregate and through which they can discuss challenges they face, support each other in studies, and advocate for their school needs amongst other things.

Gender inequalities in teaching methods: This leads to girls often feeling uncomfortable at school or not being given an equal opportunity to learn. Girls are sometimes treated unfairly compared to boys and are often less willing to participate in class, negatively affecting their learning levels.

Hunger: Girls oftentimes go to school hungry. Many children have nutritional needs that are not met either at home or through basic school feeding, but for which supplementary food items are required. A girl who is hungry is not able to fully engage at school, thus affecting her learning levels. While basic school feeding is provided in some schools by outside agencies, these programs lack potential for sustainability due to the limited role played by the community in managing and owning the activities.

Activities

Construction of civil works (2.1; 2.2; 2.6): EGEP constructs and/or refurbishes key school infrastructure, such as classrooms, water tanks, and latrines. At endline 49 schools sampled had received civil works construction.

Formation of girls' clubs (2.3; 2.6): EGEP encourages the formation of girls' clubs where girls can meet safely and through which, in conjunction with CECs, they can advocate for their needs. In every school, the project trains Girls Club Leaders, along with a female teacher mentor to support the club. The girls themselves choose the kinds of activities they want to conduct as a club, and these include but are not limited to study sessions, fundraising activities to support other girls in their schools, sessions to discuss menstrual hygiene, participation in debating and poetry events.

Teacher and female mentor training (2.4; 2.6): EGEP supports in-service female teachers to be holistically trained. This training is based on locally required curriculum and includes girl-centered approaches that encourage appropriate treatment of girls in school. Teachers participate in two-year-long training programs at different universities or training institutions depending on their location. EGEP specifically targets the most marginalized teachers with the least education and professional training. EGEP also trains these teachers to act as female mentors to girls. At endline nearly all schools had one EGEP-trained female teacher sampled.

Supplementary feeding programs (2.5): WFP carries out feeding programs in many EGEP-intervention schools. EGEP operated a pilot programme, supplementing already existing WFP feeding programs in some schools through providing training to CECs to own and manage the school feeding programme, while also providing nutritional items such as vegetables to supplement the basic items provided by WFP. At endline, 41 sampled schools had a feeding program.

Capacity building of CECs (2.5): EGEP builds the capacity of CECs to better support girls' needs by encouraging CECs to interact with girls' clubs and to manage school feeding programs. EGEP also encourages increased female CEC membership.

2.1 Percentage of girls who identify insufficient latrines or lack of water in their school environment

Summary Findings

- Four percent of girls at endline identified a lack of water in their school environment, down from 23% at midline. Eleven percent of girls identified insufficient latrines at endline, down from 31% at midline. Because of a methodological error, sample sizes for this indicator are extremely small and should be interpreted with caution.
- The overall proportion of girls reporting that their school had functioning latrines for girls rose steadily from 79% at baseline to 82% at midline to 86% at endline. Nearly all of these gains were made in Benadir and Galmudug, which increased its share from 70% at baseline to 98% at endline, while the other project areas saw very little change.
- The proportion of girls who feel comfortable using latrines at their school dropped precipitously from baseline to midline (87% to 53%) and then rose again at endline to 61%. Nearly one in six girls (16%) is not comfortable using latrines at her school.
- Water availability was cited as an improvement at school in the past year by 6% of girls at baseline, skyrocketing to 40% of girls by endline. A large majority of this improvement happened in Benadir and Galmudug.
- Improvements in the indicators around civil works construction in B&G make sense as work in that project area was still ongoing through much of the period between midline and endline but had already finished in Puntland and Somaliland by midline.

Methodology: This indicator was measured by responses to questions asked to girls in the household survey. The questions centered on what a girl did and did not like about her school.

Limitation: At baseline, the question was phrased: “What are the things that you feel are not good about this school?” compared to a simple binary asked at midline and endline: “Are there things you do not like about school?” When the binary question was answered in the affirmative at midline and endline, the respondent received the original baseline question. The binary option at midline and endline may have led many respondents to easily choose a negative answer, resulting in a much smaller sample size of responses. Though project area disaggregation is presented below, caution should be taken, especially with regard to project area-based conclusions, given the extremely small sample size of responses.

Findings: At baseline, 79% of girls reported that their school had functioning latrines for girls, increasing to 82% at midline and further increasing to 86% at endline. Benadir and Galmudug made up nearly all of the increases in this indicator, rising from 70% at baseline to 98% at endline, while Puntland and Somaliland stayed stagnant across the three periods (Figure 30).

Of all respondents, 42% of girls at baseline said there was something about their school that they did not like. At midline, only 7% of girls said there was something about their school they did not like (92 observations), and at endline this dropped to 4% of girls (27

observations). Between baseline and endline, no water availability was cited by 10% (BL), 23% (ML), and 4% (EL) of girls as something they did not like at their school. Insufficient/bad latrines were cited by 3%, 31%, and 11% of girls over the three periods, respectively (Figure 31). With such small sample sizes, results displayed in Figure 31 should be taken with caution.

To supplement this indicator, we show the changes from baseline to midline to endline for the question “How comfortable are you using latrines?” (Figure 32) as a means to showing improvement on the portion of indicator 2.1 concerning latrines. Figure 33 under indicator 2.2 shows the proportion of girls citing water availability improving over time. These findings can be used as a proxy for indicator 2.1’s portion on lack of water availability.

A girl’s comfort level when using latrines has changed dramatically and inexplicably between baseline and endline. At baseline, 87% of girls surveyed were comfortable using latrines at their school, 10% were not comfortable but would still use them, and 3% were not comfortable and would not use them (Figure 32). At midline, this dropped to 53%, 31%, and 16%, respectively, and up slightly to 61%, 22%, and 16% at endline. While the increase from midline to endline is encouraging, SI believes that the transition into puberty for most girls between baseline and endline may have caused the massive drop in this indicator during that time period (at baseline girls were 9.9 years old on average and 12.7 years old at endline).

Regression findings: Civil works construction in schools in rural, drought-affected, and IDP areas are significantly associated with higher learning scores compared to schools in these areas that did not receive civil works.

Qualitative support: As discussed above, civil works improvements, most specifically latrines and classrooms, have positively influenced attendance and learning among girls, according to qualitative data. Girls feel more comfortable in school as a result of private, improved latrines. One girl student from Somaliland stated: “Before, girls did not have those good toilets. We had outdoor toilets that we were not using because we felt shy and we were afraid people would see us out there. So we were fearful before. Now they are better.” This encourages attendance, which in turn improves learning. There is no qualitative evidence suggesting that the classroom improvements have impacted learning. However, all girl respondents indicated being thrilled about classroom improvements, which likely provided additional motivation to attend lessons. One girl student in Puntland shared, about the receipt of new chairs in classrooms, “when you bring for us some things new and beautiful, it is inspiring us to go to school.”

Mirroring the quantitative findings, qualitative findings show that latrines have markedly improved across all project areas. All FGD girl student respondents indicated functional and private latrines at their schools. In contrast to the quantitative findings, at endline girls indicated comfort in using the latrines, even during menstruation. As one female student in Benadir and Galmudug stated, “the latrines have improved over the last three years. Now the latrines for girls are built in a special place, and boys and male teachers do not use them.” This is a substantial improvement from qualitative findings at the midline, in which the vast majority of girl students indicated either no latrines or very poor latrines with no privacy. Further, these respondents at midline indicated lacking latrines and privacy as a barrier to psychosocial wellbeing and attendance. Other respondent types also supported the girls’ claim that latrines have improved and are satisfactory. For example, one MOE official from Puntland stated that “girls were not getting toilets in the previous time, and the school used to have two public toilets.

Figure 30: Proportion of girls who state that their school has functioning latrines for girls

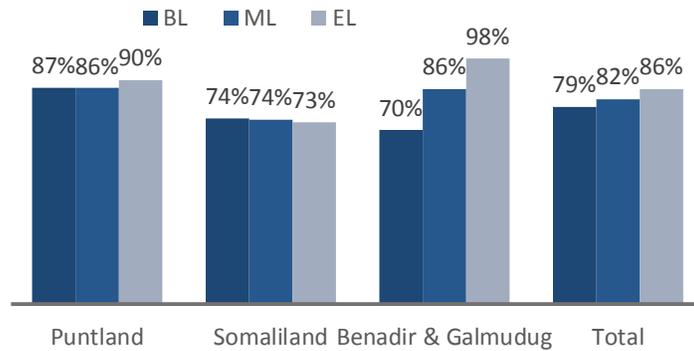


Figure 31: Proportion of girls citing select things that they do not like about school

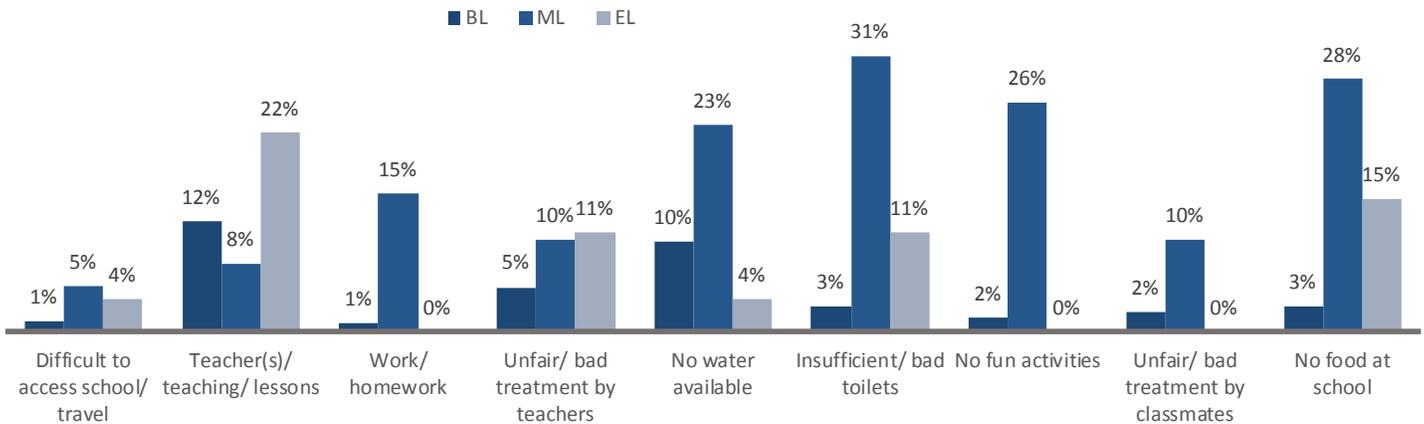
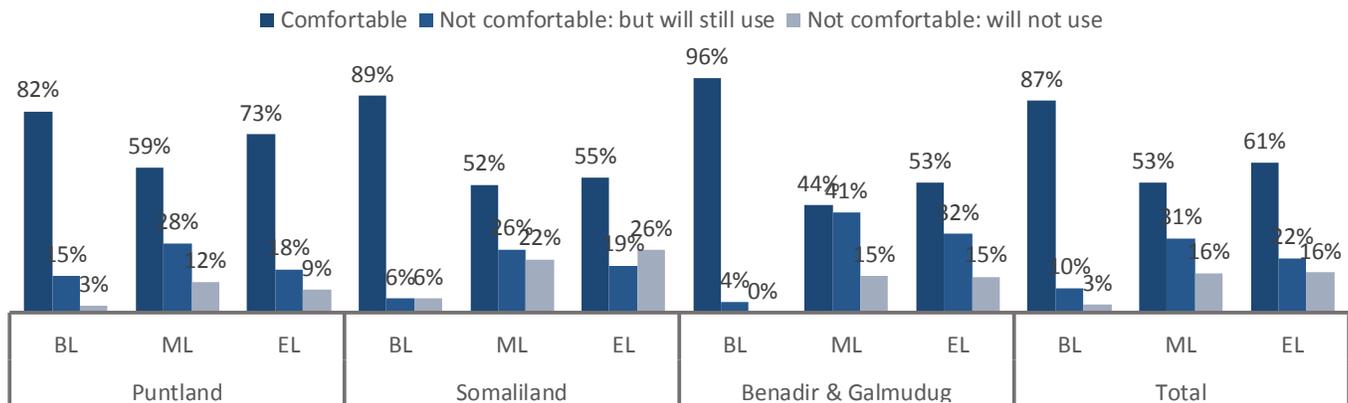


Figure 32: Comfort using latrines at school



Now the organization built separate toilets for the girls, and that has eliminated their shyness, and they are satisfied for learning."

Sustainability: Financial barriers, a lack of maintenance, and/or a lack of tools and materials to fix latrines, if they persist, may eventually become problematic, as the latrines need upkeep. As part of civil works projects, EGEP trained many CECs in school maintenance, an activity that should support the sustainability of civil works interventions. An analysis of the quantitative data shows that approximately 22% (23/106) of schools at endline were receiving non-cash contributions from CECs. Of these schools, 22% (5/23) of CEC donations were cited as relating to the refurbishment, maintenance, or construction of civil works. The proportion of schools where CECs give in-kind non-cash contributions around civil works is very low. Given the nature of civil works interventions

such as latrines, the impact of the improved latrines should be sustained in the short term, both in terms of impact on attendance and learning. But, while it is encouraging that help from CECs is happening in some schools, CECs will need to take a much larger role in the maintenance of civil works, particularly girls' latrines, for this indicator to be sustainable in the long run. Qualitatively, respondents, most markedly the girl students themselves, report that improved latrines for girls have had a positive impact on attendance, psychosocial wellbeing, and learning for girl students.

2.2 Percentage of girls who report there being something about their school environment that they feel has improved in the past year

Summary Findings

- At endline, 60% of girls say something improved at their school in the past year up from 29% at baseline.
- Water availability, latrines/washrooms, lessons/teachers, and fairness to girls experienced the largest progressive improvements across the three data collection periods.
- A large majority of these improvements happened in Benadir and Galmudug.

Methodology: This output was measured primarily through a question asked to girls in the household survey and triangulated through qualitative data from girls' focus groups. Answers from girls were cross-tabulated with a list of schools receiving civil works from EGEP.

Findings: From baseline to midline to endline, the percentage of girls who think their school environment had improved in some way in the past year changed from 29% to 65% to 60%, respectively. Classrooms remained the largest choice among girls as a school improvement at baseline, midline, and endline (43%, 68%, and 65% of girls, respectively). Water availability showed a large progressive improvement over time, from 6% at baseline to 22% at midline to 40% at endline. Latrines/washrooms, lessons/teachers, and fairness toward girls also saw large progressive improvements over the three data collection periods (Figure 33).

Looking at the distribution of school improvements across project areas, Figure 34 compares the change from baseline to endline across project areas in the proportion of girls citing a specific school improvement. The largest increases in school improvements appear to come in Benadir and Galmudug, which saw an average 27 percentage point increase in the proportion of girls citing water availability as an improvement between baseline and endline, a 10 percentage point increase for latrines/washrooms, a 31 percentage point increase for lessons/teachers, and a 6 percentage point increase for fairness toward girls. Somaliland saw the highest average percentage point increases from baseline to endline in proportions of girls citing classrooms (15 percentage points) and books (18 percentage points) as improvements in school.

Figure 33: Things that have improved at school in the past year

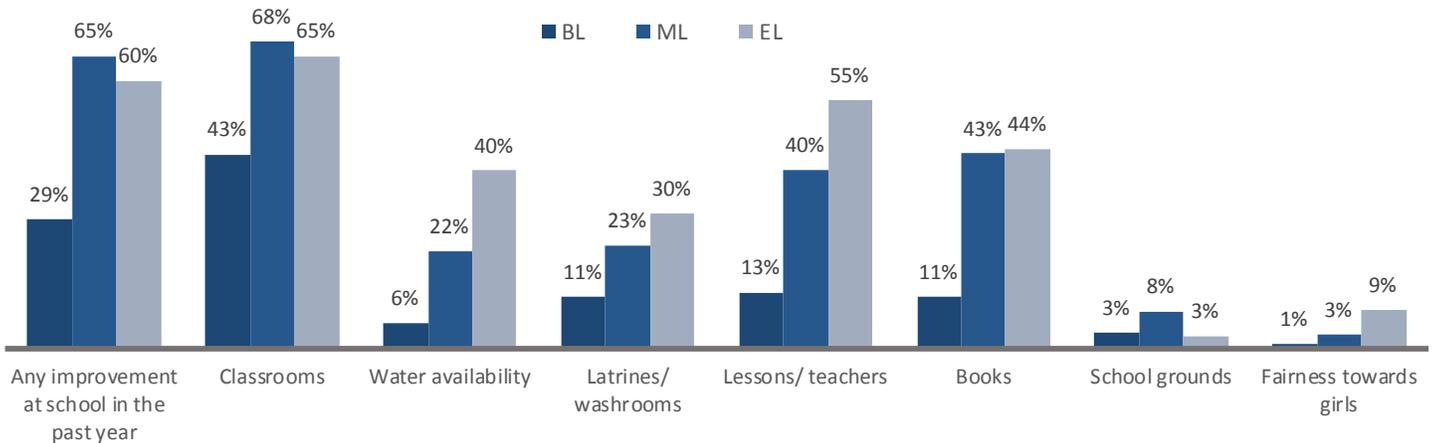
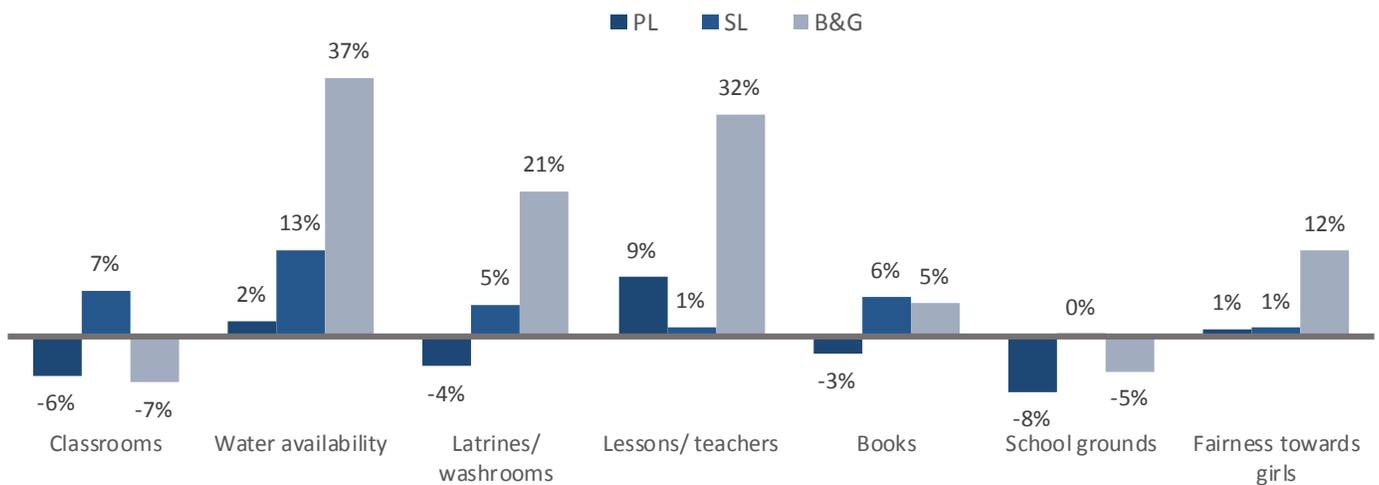


Figure 34: Withinproject area average percentage point change from baseline to endline in proportions of girls citing select school improvements



Qualitative support: At endline, FGD respondents, including girls, fathers, and mothers, indicated improvements in the schools. This was consistent across all project areas. Most commonly cited were the improvements to latrines (as discussed above), improvements to classrooms, and satisfaction with teachers, most specifically female teachers. One CEC member in Somaliland shared that the CEC participated in rehabilitating the school by building new classrooms and a security fence around the school, as well as providing additional renovations to the building. Additionally, a father in Benadir and Galmudug indicated that EGEP initiatives such as building good shelters for the students have been very beneficial for students' learning. One girl student in Puntland shared about the receipt of new chairs in classrooms: "When you bring for us some things new and beautiful, it is inspiring us to go to school." Neither improvements to nor a need for water availability was mentioned in any qualitative data. Overall, aside from latrines, civil works were discussed minimally, specifically in terms of their effects on learning, attendance, enrollment, and retention. In fact, when civil works were discussed, respondents were often indicating additional needs. For example, one mother in Benadir and Galmudug stated that "the school needs a new waste tank to keep the students' health safe."

Regression finding: The presence of girls' latrines at a school had a positive significant effect on attendance.

Sustainability: In the short term, positive impact from the variety of civil works improvements cited at endline will be sustainable. The improved classrooms and classroom material and improved latrines will remain positive and satisfactory in the short term. However, because of financial challenges, upkeep will be challenging in the years to come. In addition, as stated above, numerous respondents of all types and across all project areas indicated that. While they are happy with the improvements to date, there is still a need for additional latrines, improved classrooms, additional turbines to assist with the heat, and so on. Without financial support and materials to complete these projects, the additional improvements to learning and attendance that may have resulted will be halted. As noted previously, without further NGO intervention, sustained upkeep of these improvements will likely rely on continued actions by CEC members in terms of maintenance. There have been some signs that CEC actions are taking place in this regard, and they would need to both continue and scale up to ensure sustainability.

2.3 Percentage of girls who cite their school club or extra-curricular activity as something they like about school

Summary Findings

- *Girls clubs are not selected by a large proportion of girls as something they like about their school. Only 1% chose the option at baseline, 2% at midline, and 2% at endline.*
- *The existence of girls' clubs among schools is on the rise, in 64% of all schools at endline, up from 55% at midline. Much of this gain came in Somaliland, which jumped from 21% to 48% of schools.*
- *The concept of "girls' clubs" may not have been well translated or understood by respondents at midline, as girls' clubs come in different forms at different schools. According to qualitative findings at endline, there appeared to be greater awareness and consistency of understanding amongst girls in relation to girls' clubs.*

Methodology: This indicator is measured via a question on the household survey that asks a girl what she likes at school. Changes in this indicator are measured by the proportion of girls who mention "clubs and/or extracurricular activities" as a spontaneous answer to the question. Girls are not prompted with answer choices. The indicator is supplemented and triangulated by qualitative data from girls' focus groups. After review at midline, we concluded that this methodology does not effectively capture progress (or otherwise) on this activity, and therefore at endline increased emphasis was placed on consideration of other related quantitative and qualitative findings.

Limitation: "Girls' clubs" may be understood in different ways among different groups of girls. At midline, in some places, the term was understood by girls to refer to a physical space such as a room, while others interpreted it as a group. At midline, SI encountered issues in correctly and comprehensively defining exactly what a girl's club was in qualitative FGDs. At endline, SI corrected this by adding additional guidance in the qualitative training on girls' clubs. Quantitatively, the methodology for the question did not ask enumerators to read the options aloud; only spontaneous answers were recorded. This fact does not necessarily mean that girls do not like girls' clubs; rather, it indicates that they are not at the forefront of girls' minds when it comes to things they like about school.

Findings: When asked what they liked about their school environment, the vast majority of girls at baseline, midline, and endline chose teacher(s)/teaching (48%, 77%, and 82%, respectively). The choice of clubs and extracurricular activities was only freely mentioned 1% of the time at baseline, 2% at midline, and 2% at endline. The answer choice of teachers/teaching/lessons encompasses many different types of answers; therefore, it is unclear what exactly has improved over time. Given that Output 2.4 does not necessarily show an increase in girl-centered teaching among schools, it is unclear what is driving the improvements in teachers/teaching/lessons observed in this indicator.

At endline, 64% of schools had a girls' club, up from 55% at midline. Much of this improvement was made up in Somaliland, where the proportion of schools with girls' clubs increased substantially from 21% at midline to 48% at endline (Figure 36). Though 64% of schools had a girls' club, among cohort girls, only 22% had participated in a girls' club in the past year (Figure 37). Participation rates of girls in girls' clubs were varied across project areas and across time periods but remain the highest in PL and SL at endline (25% and 24%, respectively), and 17% in B&G. Between midline and endline, there was a particularly high level of conflict in Benadir and Galmudug due to both interclan disputes and federal elections. It was therefore not possible for EGEP project staff to make frequent onsite monitoring visits to schools during that time. It is possible that this factor led to less activity amongst girls' clubs in Benadir and Galmudug between midline and endline.

Qualitative support: While endline quantitative data does not show significant increases in scores for girls clubs, qualitative data suggests that many more girls are active in girls' clubs and that those participants look forward to girls' clubs activities on a weekly basis. At midline, most girls seemed unaware of girls' clubs in FGD responses. This was not the case at endline, with extensive answers reported regarding both enjoyment of the club and explanations of the clubs' functioning. According to FGD responses, girls' clubs are creating a space for the students to work toward solving both school and community problems as well as a place for the girls to bond and support each other. Qualitative evidence suggests that this is very empowering for the girls involved. When

Figure 35: Things that girls like about their schools

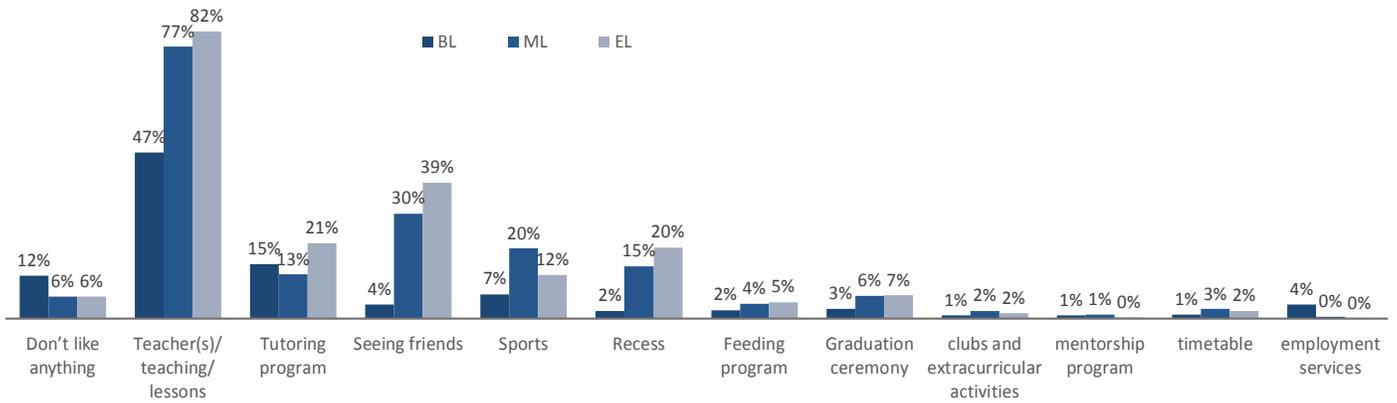


Figure 36: Proportion of schools with girls' clubs, by project area

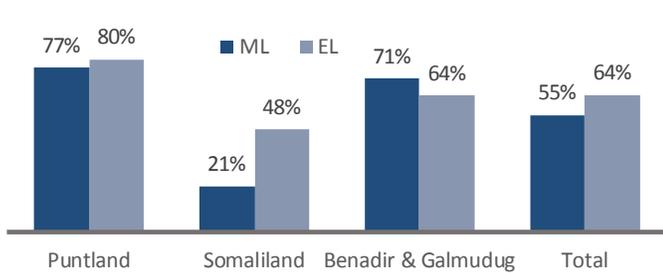
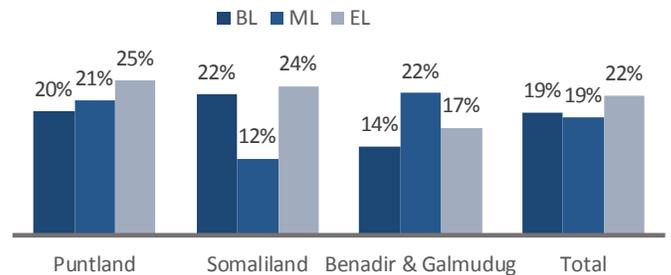


Figure 37: Proportion of girls participating in girls' clubs



asked about the advantages of the girls' club, a female teacher in Puntland shared: "They are excited to meet every Thursday, and this helps them have more motivation in school. The girls are happy during girls' club, and they are also glad that they have me to consult with every week." Another female teacher from Benadir and Galmudug stated that the girls' club is "very useful and [she] hopes that all school girls will eventually participate." As one female student from Somaliland explained, "the girls' club raises awareness, helps with cleaning the school, gives advice to girls who have left school, and helps girls solve any home problems. It makes us feel good to help other students and to be leaders."

Regression finding: A school with a girls' club was associated with significantly higher average learning scores in rural and drought-affected areas compared to schools in drought-affected and rural areas that did not have girls' clubs.

Sustainability: Sustainability of the girls' club intervention seems very likely, as the girls operate the clubs independently, with assistance from female teachers and CEC members. Based on the qualitative feedback, it appears participants will ensure its sustainability, as there was no mention of any required funding or external assistance to operate the clubs, and the members themselves, along with their female mentors, facilitate the clubs internally.

2.4 Percentage of trained teachers demonstrating knowledge of girl-centered approaches to learning

Summary Findings

- The proportion of teachers using girl-centered teaching approaches decreased slightly overall from midline to endline, down to only 30% of teachers. The proportion dropped by nearly 50% in Benadir and Galmudug and increased by over 40% in Puntland.
- Of those teachers employing girl-centered teaching techniques, nearly an equal proportion are EGEP trained and non-EGEP trained. Given that the most marginalized teachers were targeted for training, this could indicate that EGEP-trained teachers have caught up to their already-trained counterparts. Project area variation on this indicator is high.
- 72% of schools had at least one female teacher who had undergone a 2-year service training since baseline.

Methodology: This indicator was measured primarily through the use of the classroom observation tool, a checklist-based tool that enumerators used in four 10-minute blocks in a maximum of two classrooms per school at midline and endline. The observation checklist measured key indicators on gender equity. At endline, it was employed in two classrooms per school: one taught by teachers who had received EGEP trainings on girl-centered approaches to learning and one with non-EGEP-trained teachers to allow for subsequent comparative analysis. Selection of a classroom for observation began after the end of the school survey,

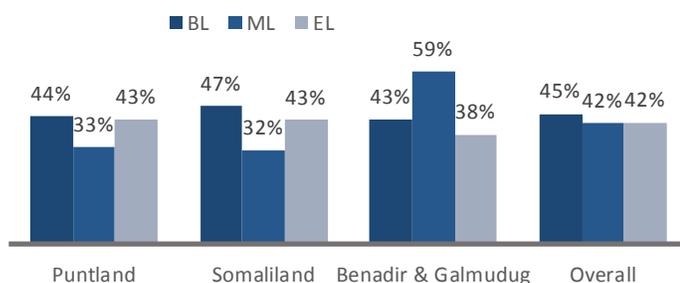
when enumerators explained the classroom observation exercise to the head teacher and asked for his/her consent to do the classroom observation. Teachers observed at midline are those identified by EGEP as having particularly weak teaching skills and thus receiving training. Timeline of the intervention differed by project area; whereas in Benadir and Galmudug and Puntland, the teacher training started in 2014, teachers in Somaliland only started being trained in 2015 because of delays in obtaining appropriate permissions from MOE. The baseline data collected for this indicator utilized randomly selected teachers who had not yet received training, whereas at midline, as much as possible, the teachers observed were those being trained with EGEP support. It is worth noting that the teachers selected to receive training are selected because they are the most marginalized themselves and most in need of training. As much as possible, they are female, and female teachers tend to have received a lower level of education than their male counterparts. EGEP also specified that teachers selected must be those who have received no other training.

A teacher was said to use girl-centered teaching methods if he or she treated female students as well as or better than male students within the following criteria:

- NOT OBSERVED: Teacher provided positive, encouraging feedback to a BOY: Teacher did not provide positive, encouraging feedback to a GIRL.
- NOT OBSERVED: Only GIRLS are disciplined physically in class: BOYS not disciplined physically.
- NOT OBSERVED: Asked BOYS questions that are MORE difficult than questions to GIRLS
- NOT OBSERVED: GIRLS had LESS access to desks, learning materials, etc. (e.g., same amount of sharing of books, desks)

Findings: Teachers using girl-centered teaching methods did not improve overall from baseline to endline (Figure 38). When disaggregated by project area, all project areas had similar levels at endline as they did at baseline, though at midline, B&G saw a large improvement, whereas PL and SL saw large declines. Reasons for these findings are uncertain: differences in teacher training programs and their dates of completion could explain some of the project area variation in this indicator, though qualitative data was unclear. Further, seasonal variation in data collection could affect findings. Teachers who are observed in exam periods (endline) may exhibit different teaching styles than those observed teaching at the beginning of the term (midline).

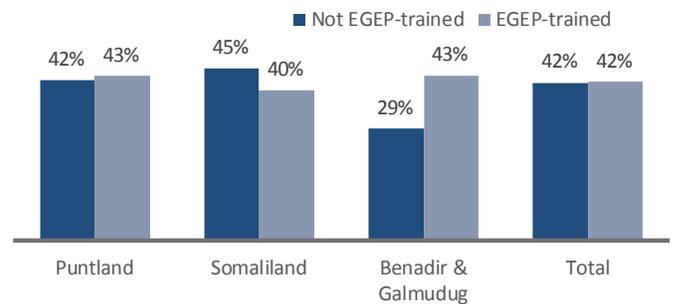
Figure 38: Percentage of teachers using girl-centered teaching methods



Importantly, Figure 39 shows the proportion of teachers employing girl-centered teaching methods at endline, disaggregated by training status, an equal proportion were EGEP and non-EGEP trained teachers. Given that EGEP trainings targeted the most marginalized teachers, These findings are positive and may

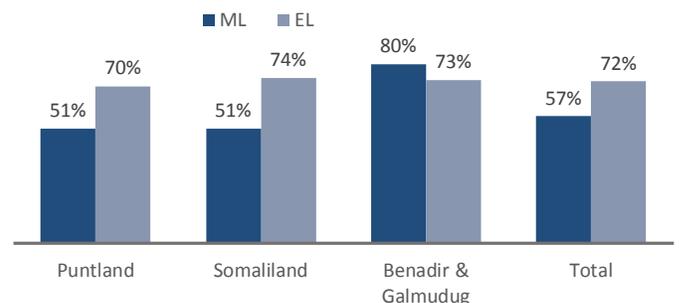
suggest that EGEP-trained teachers have caught up to their already-trained counterparts. In the case of Benadir and Galmudug, %EGEP-trained teachers were nearly 50% more likely to use girl-centered teaching methods compared to non-EGEP-trained teachers (43% versus 29%, respectively). These findings, combined with Figure 38, may also highlight the differences in quality of training programs across project areas. Since non-EGEP-trained teachers were not measured at midline, SI cannot compare midline and endline statistics for the findings in Figure 39.

Figure 39: Proportion of teachers who employ girl-centered teaching methods at endline, by training status



Examining teacher training may shed light on the observed changes of teachers using girl-centered methods between the data collection periods and better explain which project areas are better at using girl-centered techniques than others. In Figure 40, 72% of schools have at least one female teacher that has undergone a two-year EGEP training since baseline. This proportion was nearly consistent across project areas, though changes between midline and endline were greatest in Puntland and Somaliland which increased their share of schools with a female trained teacher by 19 and 23 percentage points, respectively. B&G saw a small drop in its cumulative proportion of schools due to some schools not responding to the question at midline and replacements of some schools at endline.

Figure 40: Cumulative proportion of schools with female teachers receiving two-year in service trainings since baseline



Qualitative support: At endline, qualitative evidence from both teachers and MOE officials suggests that teachers have been trained extensively, but there was no qualitative indication of trainings specifically regarding girl-centered methods. However, all teachers across all project areas indicated that the trainings were substantially beneficial to their teaching approaches, including for girls. Additionally, MOE officials have indicated improvements in monitoring systems, both in quality and frequency. This monitoring has been improved to focus on girl-centered approaches, as displayed in the classrooms.

Regression finding: Schools with teachers who utilize girl-centered teaching techniques are significantly associated with higher learning scores, particularly in rural and drought-affected areas, compared to schools with teachers who do not use these techniques.

Sustainability: Teacher trainings and MOE involvement, including monitoring, rely heavily on financial support, according to qualitative evidence. Therefore, it is possible that sustainability will be challenging after completion of the project. In terms of those teachers who have received training, the fact that the project focused on two-year holistic training, rather than a one-off short course may mean that the learning will be sustained and those teachers will continue to implement what they have learned. One hundred percent of the teachers interviewed indicated that training was very important to their success as teachers and that they in fact frequently requested additional training opportunities. Additionally, several mother, father, and CEC respondents indicated that teachers are severely underpaid. This was indicated as a substantial obstacle to students' learning. EGEP provides incentives for three teachers in each school, with the understanding that the MoE will be supporting the remaining teachers; however, the qualitative findings may suggest that these incentives may not be sufficient or that teachers are not necessarily always receiving their full salaries. Therefore, it can be stated that teachers are in need of additional support moving forward, both financially and in regard to training, in order to do their jobs effectively, which will in turn improve learning, attendance, and enrollment. Additionally, teachers indicated in interviews that they need more support from school administration, specifically with respect to student needs and disciplinary measures and by hiring additional qualified teachers. Teachers also frequently indicated a need for additional trainings in order to support their students, and specifically girl students, to the best of their abilities.

2.5 Percentage of Community Education Committees (in Supplementary School Feeding [SSF] schools) playing an active role in management of the school feeding programme

Summary Findings

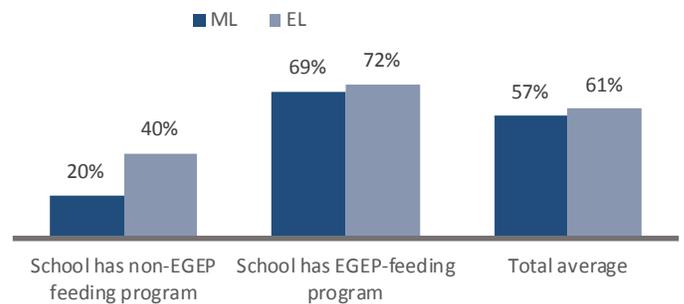
- At endline, 72% The percentage of CECs in Supplementary School Feeding schools playing an active role in management of the school feeding programme increased to 72% at endline program, up from 69% at midline.
- The proportion of schools with feeding programs managed by CECs stayed more or less the same from midline to endline, at 61%. EGEd feeding programs are almost entirely managed by CECs, whereas the same is true of only half of non-EGEP feeding programs.

Methodology: This indicator is measured quantitatively using several questions from the school-based survey on the presence of a feeding program in school and management of such programs by CECs. The indicator is also measured qualitatively via data collected from KIIs with CECs.

Findings: Feeding programs (implemented in a school either by WFP or a combination of WFP and EGEP) were present in 21 schools sampled at midline and 41 schools sampled at endline. Among all schools with feeding programs regardless of who imple-

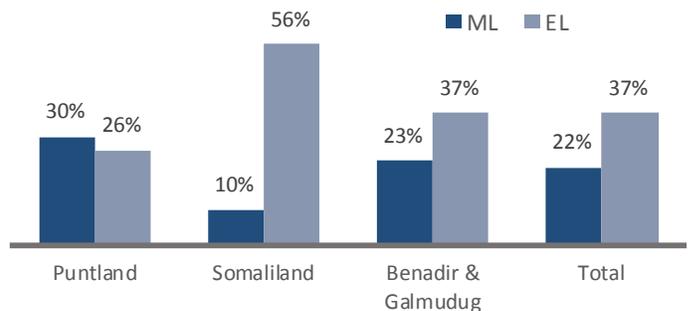
mented the feeding program, 57% of head teachers (12 schools of 21 responding) reported that CECs assisted in managing the feeding program at midline, rising to 61% (17 of 28 schools responding) at endline. Disaggregating by entity implementing the feeding program displays a very different picture. Schools where EGEP is helping to implement a feeding program are much more likely to have CECs managing these programs (69% and 72% at midline and endline, respectively) compared to non-EGEP feeding programs (20% and 40% at midline and endline, respectively). When head teachers were asked at endline if CECs also managed school feeding programs three years prior, or before the beginning of EGEP programming, 45% of schools with a supplementary feeding program answered affirmatively. Sample sizes were too small to make meaningful project area disaggregation.

Figure 41: Proportion of schools with feeding programs that report active management of feeding program by CEC



Though EGEP interventions do not focus on increasing the number of feeding programs in schools, it is important to note that the reduction of these programs since baseline has produced interesting reactions among mothers and girls. Though sample sizes were very small, not having enough food provided at school was cited as something a girl did not like about school 14% of the time at endline, down from 27% at midline, and slightly up from 5% at baseline. The percentage of girls who say they go to school hungry all or most of the time rose from 22% at midline to 37% at endline, most significantly in Somaliland and Benadir and Galmudug, and slightly dropping in Puntland. This could be explained in part by significant drought in Somaliland and a sharp rise in conflict in Benadir and Galmudug during those time periods.

Figure 42: Proportion of girls who go to school hungry all or most of the time



Qualitative support: Among respondents who indicated that their school has a feeding program, all indicated that the feeding program improves enrollment and attendance. Fathers, mothers, girl students, CEC members, and MOE officials all suggested a positive relationship between feeding programs and enrollment and attendance. As one mother from Puntland shared, "feeding has

played a great role in attendance the girls get to eat when they are hungry. Also, girls were getting oil and that attracted a lot of girls to join the school." Another mother from Puntland echoed that the feeding program has "been effective because it is possible that mothers send their children to the schools while they are hungry, and we know that hungry children will not study effectively and efficiently." Additionally, when asked the main factor that may enable girls to attend school, a mother in Benadir and Galmudug stated that "number one, a feeding program is needed since they don't have access to a break time and the school is far from home." Further, a Somaliland father stated that "the feeding program is good because it allows the children to get food at school during break times instead of coming back to their homes."

Qualitative data at endline suggests that feeding programs are not operating in several of the schools in Somaliland, Puntland, and Benadir and Galmudug. This is expected as the supplementary school feeding program was being piloted by EGEP in a selection of schools, and WFP do not operate the basic school feeding program in all schools. Overall, for schools that do have functional feeding programs, qualitative data was insufficient to understand the role of CECs in managing those feeding programs. However, one CEC member in Puntland indicated that he takes the inventory of the food provided by WFP and EGEP and signs off on that inventory. Another CEC member in Benadir and Galmudug stated that, while there is no currently operating feeding program at the school, a feeding program is part of their future development plan. All other CEC respondents indicated that the school does not have a feeding program.

It can be assumed that, with the current drought and high possibility of famine, school feeding will become increasingly important as a lifeline to children. Aside from contribution to the project outcomes, it should be noted that this activity potentially contributes to children's basic survival. Arguably no outcomes can be achieved in the near future if children reach a state of severe malnourishment.

Regression findings: EGEP-implemented school feeding programs appear to have no significant correlation on program outcomes. However, an interesting finding is that non-EGEP school feeding programs are significantly associated with higher learning scores for a wide variety of girls, compared to schools that had no feeding program, though the effect is strongest for rural and drought-affected schools. Non-EGEP school feeding programs also have significant positive association with attendance compared to schools that had no feeding program.

As the EGEP program only supplements and in no way diminishes the WFP programs already operating, these findings are surprising. As simple bivariate regression analysis does not take into account other explanatory variables, it's possible that schools that receive non-EGEP supplementary programs are lower performing schools in the first place. Given that EGEP-supplementary programs are managed by CECs, EGEP may do well to look at whether the CECs are effectively managing the feeding programs as that is the key difference between the two programs.

Sustainability: At endline, 61% of feeding programs at schools were actively managed by a CEC. Moreover, this proportion was even higher (72%) among schools with feeding programs that were specifically implemented by EGEP (Figure 41). These findings are encouraging for sustainability, as schools where CEC capacity has been built to manage school feeding will have a higher chance of continuing those programs after EGEP finishes. Given the realities of cyclical drought and famine in a context where the average

girl's level of hunger has increased in the past year (Figure 42), school feeding programs play and will continue to play a major role in girls' educational outcomes. School feeding programs are associated with positive, significant increases in enrollment of girls and are cited qualitatively as one of the main reasons for why a caregiver sends her girl to school. Sustainability of school feeding programs will be a critical point of focus for any post-EGEP activities.

2.6 Percentage of girls reporting improved levels of psychosocial wellbeing at school

Summary Findings

- Psychosocial wellbeing of girls did not increase or decrease overall between midline and endline, but rose by 17% between baseline and endline.
- The bulk of change in psychosocial wellbeing from baseline to endline was found in Benadir and Galmudug and Puntland. Most of this change came in the form of positive answers to the question "How often do you feel unhappy at school?"

Methodology: At baseline, midline, and endline, SI used three questions from the girls' module to gauge girls' psychosocial wellbeing:

- How often do you feel happy at school? All of the time, most of the time, some of the time, or never?
- How often do you feel unhappy at school? All of the time, most of the time, some of the time, or never?
- How often do you feel afraid at school? All of the time, most of the time, some of the time, or never?

To fit the concept of psychosocial wellbeing to the logframe, an index scale was created ranging from 0 to 12 (each question was worth 4 points), with higher values representing healthier psychosocial wellbeing. At midline and endline, SI added 10 more questions to the girls' module to attain a more in-depth measure of psychosocial wellbeing. Quantitative results were both triangulated and strengthened by key findings from girls' focus group discussions.

Findings: Between midline and endline, girls' psychosocial wellbeing across all project areas stayed relatively the same. This was mostly true when disaggregated by project area, where only Benadir and Galmudug saw a meaningful change from midline to endline (a decrease of 0.8 points or 7%). Between baseline and endline, psychosocial wellbeing of girls positively increased 1.6 points overall from 9.0/12.0 to 10.6/12.0 (Figure 43). At endline, girls' feelings of wellbeing was highest overall in Benadir and Galmudug at 10.8/12.0 and smallest in Puntland at 10.3/12.0.

To better understand the issues that drove the most change in girls' psychosocial wellbeing, SI conducted an analysis of how much each question contributed to changes in levels of psychosocial wellbeing over the three data collection periods. Figure 44 lays out the total point change from baseline to endline for the three questions that make up the index for psychosocial wellbeing. The bulk of the increase over time came from answers to the question "How often do you feel unhappy at school?", which contributed to a total of a 1.2-point increase over the three data collection periods, followed by "How often do you feel afraid at school?", which contributed to a 0.5-point increase. Among project areas, Benadir and Galmudug saw the highest changes in scores, with a total of

Figure 43: Psychosocial wellbeing of girls from baseline to midline to endline

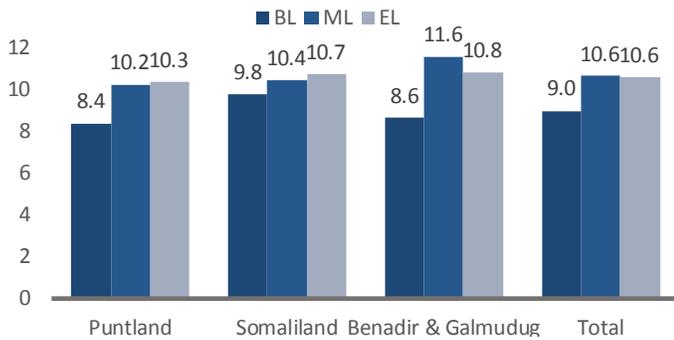


Figure 44: Total overall point change from baseline to endline among questions that make up index for psychosocial wellbeing

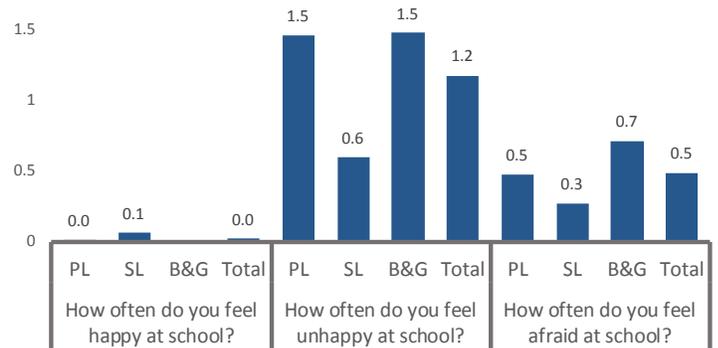
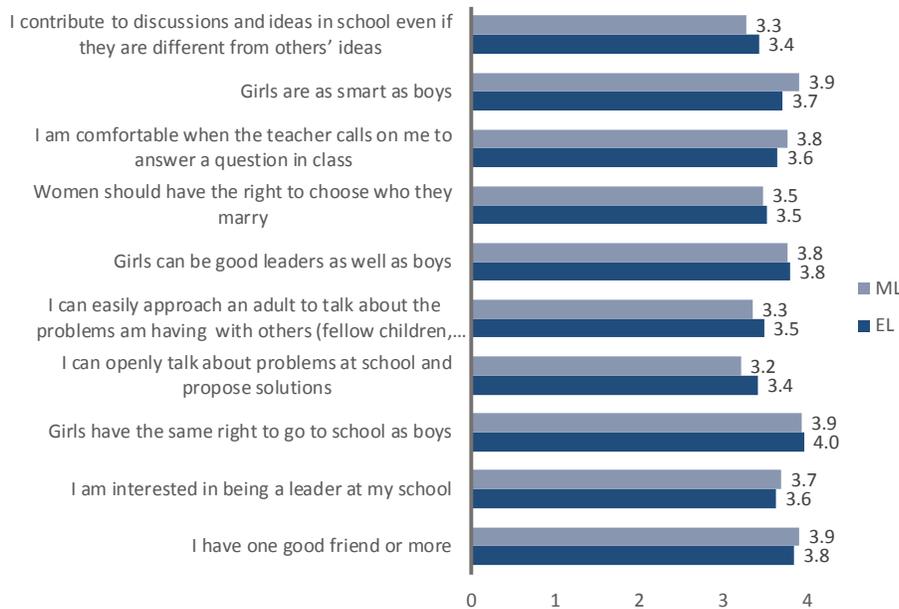


Figure 45: Psychosocial wellbeing of girls from midline to endline



a 2.2-point increase from baseline to endline, followed by Puntland, with an increase of 2.0 points. Somaliland girls' psychosocial wellbeing increased the least over the same timeframe, at approximately 1.0 points.

Among the 10 new psychosocial questions asked at midline and endline (Figure 45), there was no major change across the time periods. In general, all 10 questions received highly satisfactory answers. Girls most enthusiastically agreed that, "Girls have the same right to go to school as boys," "I have one good friend or more," and "Girls can be good leaders as well as boys." (Figure 45). The lowest scores were "I contribute to discussions and ideas in school even if they are different from others' ideas" (3.4/4.0) and "I can openly talk about problems at school and propose solutions" (3.4/4.0). Though these scores are not by any means low, they signify that a girl's outward confidence at school—her desire or motivation to draw attention to herself by speaking up, whether to express an idea or register a complaint—may still be contentious.

Findings on female mentors and psychosocial wellbeing:

No FGDs or KIs specifically addressed female mentors. However, as noted throughout the report, the increase in female teachers and female CEC members has been invaluable to the girl students. They feel more comfortable in school and receive support for solv-

ing problems. A teacher in Somaliland shared: "The girls have a good faith in us. They are able to tell us their private concerns and needs." Similarly, a mother in Benadir and Galmudug expressed: "I hope that I see more female teachers in the schools. This will help our daughters, as they will feel more comfortable to talk with them. Female teachers encourage the girls to continue in their education." A father also echoed this sentiment, stating that "girls face unique obstacles that boy do not face, but what has motivated them is having female teachers. They look forward to going to school now." Additionally, a female student in Puntland shared that "the female teacher advises us and help us find solutions to our problems. She also motivates us to go very far in our education." As shared above, one male CEC member in Somaliland shared: "Women play an important role in the CEC. If there were no women in the CEC it would be impossible to achieve anything. Mostly, the girls share their needs with female members of the CEC because that is more comfortable for them. Later on, female members of the CEC will share the needs of the girls with the entire CEC, and we will work together to find solutions." Given that nearly 100% of sampled schools had a female mentor, quantitative analysis was not possible on this output intervention.

Qualitative support: At endline, qualitative data from girls' FGDs strongly supports quantitative findings. All respondents indicated being happy at school and thankful to have access to education. Additionally, most girls reported that they are able to speak openly to teachers, principals, and CEC members if they have a problem. At endline, having access to additional female teachers and female CEC members seems to have further increased the girls' comfort level from midline. In girls' FGDs, participants said they had friends at school and were happy to attend school to see those friends. Supporting the quantitative evidence, girls enthusiastically agreed that they should have the same rights as boys when regarding education, that girls are as smart, if not smarter than, boys, and that girls can be great leaders.

Additionally, improving from midline when girls reported that they can be great leaders, their answers were not followed by limitations based on societal or religious standards. For example, at midline, girls frequently indicated that their learning opportunities were limited based on religious and societal standards, particularly in regards to marriage. At midline, this was intimately linked to financial pressure. As one Puntland father explained at midline: "All poor girls are married, so this is the obstacle for the girls. There is huge unemployment, fathers don't have jobs. That joblessness caused early marriage, which then causes lack of girls' education." Girls most commonly indicated at midline that, while they dream of educational advancement, they would honor their families first. This also translated to a near unanimous indication that the girls would drop out of school to honor their husbands, if married before completing school. The vast majority of girls did not conform to these ideas at endline. For example, resoundingly, girls indicated a right to choose their own spouses in their own time. As one female student from Somaliland shared: "Girls have the right to choose, because marriage is not meant to be created by force. Women consider men as potential husbands for many reasons, and she should be able to choose her husband based on her priorities." Similarly, a female student in Puntland shared: "It is not good to take away freedom. The girls have rights, and they have the right to choose who they marry and when." At endline, girls do not seem to acquiesce in societal or religious expectations placed on them, even in situations in which a girl's marriage may have the potential to economically support a family.

Regression finding: As a girl's level of psychosocial wellbeing increases over 10, her average number of days missed of school in the past two weeks drops substantially. Between 7 and 10, she averages 1.1 days of school missed per two weeks. Between 10 and 12, this number drops to 0.9.

Sustainability: Based on qualitative information, the psychosocial wellbeing of girls in school is largely dependent on community support for girls' education, as well as internal support by peers and female mentors (i.e., teachers and CEC members), access to sanitary kits, and private latrines. Access to each of these factors seems to have a positive impact on girls' psychosocial wellbeing. As such, the positive effect of community support and female mentors will easily be sustained because the shift in behavior and ideology within communities will have lasting impact. The sustainability of the positive impact resulting from access to sanitary kits is largely dependent on the elimination of financial barriers and lack of education around menstruation. In the long term, lack of resources will also be relevant regarding latrines, as financial barriers will need to be eliminated in order to maintain functioning private latrines.

Output 3: The Ministries of Education across all project areas and regions of Puntland, Somaliland, and Benadir and Galmudug provide leadership in promoting girls' education and undertake routine monitoring of gender equality in education

Sub Indicators

- 3.1 Percentage of trained MOE officials that report increased level of knowledge around gender responsive education
- 3.2 Trained MOE staff increasingly monitoring gender sensitivity of learning environment in schools
- 3.3 Percentage of head teachers reporting increased dialogue with the Ministry of Education

Barriers

Lack of key infrastructure: EGEP has identified a lack of key infrastructure, teaching materials, and teaching methods as barriers to girls going to school and learning effectively.

Gender inequalities in infrastructure: These lead to girls often feeling uncomfortable at school. Girls lack safe fora within which to congregate and through which they can discuss challenges they face, support each other in studies, and advocate for their school needs amongst other things.

Gender inequalities in teaching methods: This leads to girls often feeling uncomfortable at school or not being given an equal opportunity to learn. Girls are sometimes treated unfairly compared to boys and are often less willing to participate in class, negatively affecting their learning levels.

Hunger: Girls oftentimes go to school hungry. Many children have nutritional needs that are not met either at home or through basic school feeding, but for which supplementary food items are required. A girl who is hungry is not able to fully engage at school, thus affecting her learning levels. While basic school feeding is provided in some schools by outside agencies, these programs lack potential for sustainability due to the limited role played by the community in managing and owning the activities.

Activities

Trainings to MOE/Gender Focal Points (3.1; 3.2; 3.3): Between baseline, midline and endline, EGEP held several different types of trainings with MOE officials to communicate the importance of gender-responsive education. Between baseline and midline, classroom trainings were provided for a range of MoE officials across education departments. Between midline and endline, the approach was adjusted to focus more specifically on on-the-job trainings for Gender Focal Points within the Gender Units, along with Regional Education Officers. At endline, 6 GFPs (2 from each project area) were interviewed in KIs.

During the midline and endline period, the training approach differed across the project areas: intensive training was provided in-person by RI staff in Somaliland and Puntland. However, face-to-face trainings were not possible in Benadir and Galmudug due to deterioration in security within the area, affecting staff access. During this period, officials in Benadir and Galmudug were instead supported to participate in a three month long online UNESCO training on gender and education.

3.1 Percentage of trained MOE officials that report increased level of knowledge around gender responsive education

Summary Findings

- MOE Gender Focal points retain knowledge from gender trainings and speak articulately about the importance of girls' education and of conducting monitoring visits. Many recognized the major change in knowledge gained from these trainings as compared to years prior.

Methodology: This indicator was not measured at baseline. At midline and endline, MoE staff were asked several questions in KIIs about gender equity in teaching. Responses to the questions helped judge the effectiveness of the MOE training conducted by EGEP.

Findings: As at midline, qualitative evidence suggests that MOE officials from all three project areas have received additional gender-sensitive training as well as training in monitoring. At endline, one hundred percent of MOE respondents indicated that trainings improved their knowledge extensively around gender-sensitive education and monitoring schools' performance. For example, one MOE official from Puntland shared that "most of the trainings were about awareness of girls' education and improving the challenges that girls face. There is a big difference for myself from five years ago when I joined the staff and now. I learned how to deal with all types of students and how to recognize the exact needs that exist for each. We now visit the schools frequently which help us to know the exact needs of the girls' education and in general. This is why it is important for us to visit the schools regularly." Similarly, a Benadir and Galmudug MOE official added that "the trainings have been very beneficial to me. They have taught me about equality, monitoring, and awareness. Therefore, we received a lot of information that we could contribute to the community." A Somaliland MOE official discussed the impact of a Gender Mainstreaming and Leadership Training, which considered the needs required by girls to continue their education and ways that the MOE and other community actors can support them: "This training improved our level of gender education and the education level of the ministry itself."

Sustainability: All trainings identified in the MOE KIIs were external trainings in which the MOE officials participated. It is encouraging that all GFPs interviewed at endline were able to discuss learning from the various trainings. GFPs in the three project areas interviewed were females with an average age in the mid-to-late twenties. Political transitions aside, the fact that the knowledge from trainings has stayed with relatively young and invested public servants bodes well for the sustainability of knowledge gain.

3.2 Trained MOE staff increasingly monitoring gender sensitivity of learning environment in schools

Summary Findings

- Overall, the proportion of schools receiving monitoring visits by MOE officials increased slightly between baseline and endline (67% to 70%). Broken out by project area, Puntland saw the largest positive increases in this regard, while Benadir and Galmudug saw the largest decreases. The median number of monitoring visits to a school was two per year.
- The proportion of schools in Somaliland receiving feedback after an MOE monitoring visit nearly doubled between midline and endline, while slightly decreasing in the other project areas during the same period.
- Teaching quality remained the focus of most monitoring visits, as so indicated in 47% of all schools at endline.
- 49% of monitored schools in Somaliland received a monitoring report after a visit, compared to 5% in Puntland and 4% in B&G.

Methodology: At midline and endline, MoE staff were asked several questions in KIIs about gender equity in teaching. Responses to the questions helped judge the effectiveness of the MOE training conducted by EGEP. The indicator was measured in a supplemental manner quantitatively via the school-based survey. Schools were asked if MOE officials had made monitoring visits in the past year to monitor facilities, teaching quality, or teacher attendance and if these visits had increased in frequency over the past year. These were followed up by questions asking schools if they had received any feedback or reports after the visits. Additionally, the indicator was measured through EGEP consultations with MoE Officials and the gathering of monitoring reports produced as a result of any monitoring visits.

Limitation: The question on the school survey that asked "what did MOE officials monitor at your school?" was erroneously programmed as a "select one answer" question as opposed to "select multiple answers." Responses to this question, therefore, do not paint an entirely accurate picture of the full range of activities conducted on monitoring visits. Findings displayed in Figure 46 related to this question are interpreted to mean "one of the focuses of the monitoring visit."

Findings: At endline, visits from an MOE official to a school to conduct monitoring decreased to 70% from a midline value of 73%. The median number of visits was two per year. The decrease was mirrored in the overall proportion for the indicator on increases in monitoring visits in the past year over the prior year, which saw a drop from 54% of schools at midline to 45% at endline. At endline, MOE officials spent the most time during their monitoring visits observing teaching quality (47%), followed by facilities (26%), and teacher attendance (20%). Encouragingly, 38% of schools reported receiving some type of feedback after a monitoring visit, up from 29% of schools at midline. In Figure 46, missing baseline values are due to the absence of the respective question at baseline.

Somaliland and Benadir and Galmudug saw slight increases in MOE visits from midline to endline, while schools in Puntland, though more likely to experience an MOE monitoring visit than schools in other project areas, experienced a decrease in visits from 88% of schools at midline to 75% at endline. At endline in

Figure 46: MOE monitoring of gender sensitivity at endline

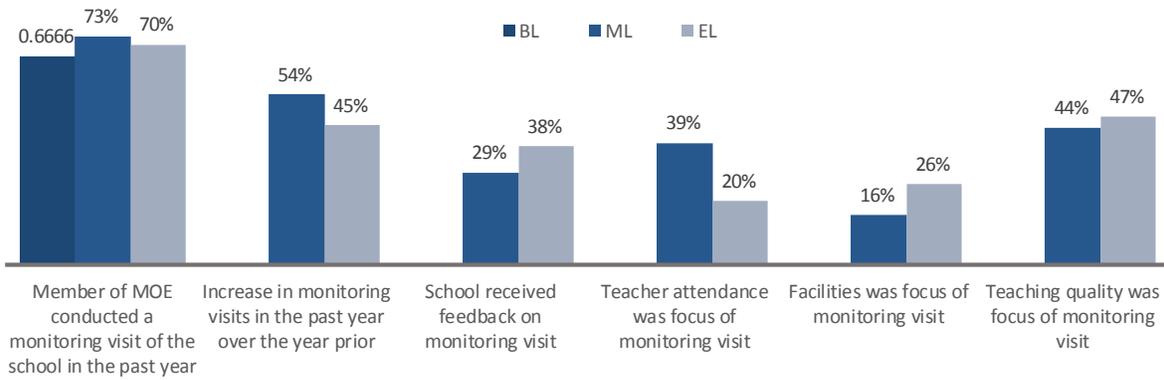
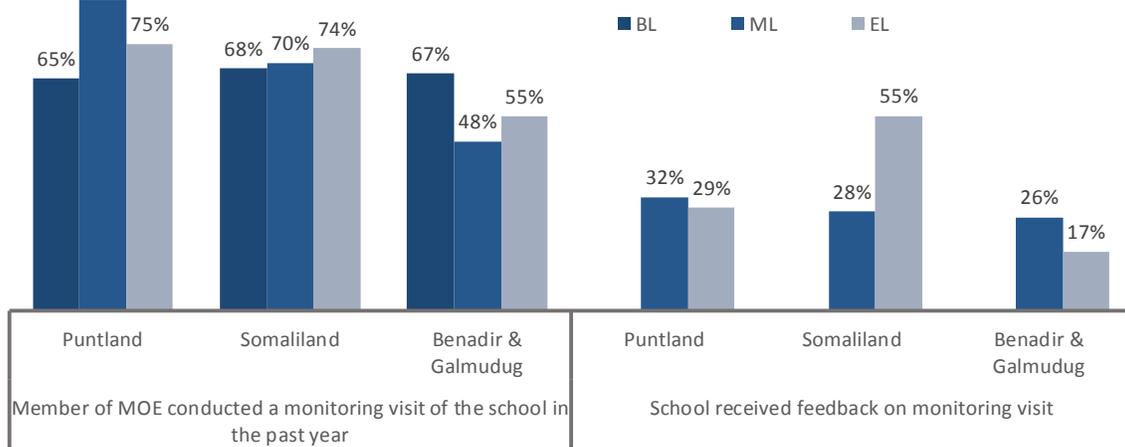


Figure 47: Select indicators on MOE monitoring, baseline to endline



Puntland and Somaliland, the proportion of schools receiving a monitoring visit from the MOE in the past year was above baseline value; this was not the case in Benadir and Galmudug, which saw a large gap between the baseline value (67% of schools) and endline (55%). The proportion of schools receiving feedback after a monitoring visit nearly doubled in Somaliland from midline (28%) to endline (55%), while slightly decreasing in the other project areas (Figure 47).

Qualitative support: According to qualitative data, the MOE's monitoring of schools has improved, including monitoring of gender-sensitive methods. All MOE officials who participated in interviews indicated that, across all project areas, monitoring has increased from occurring once per year to once every three months. Additionally, components of their monitoring agenda focus specifically on gender-sensitive methods in the schools. Additionally, all MOE officials indicated that additional trainings have been provided, improving their capabilities on the ground level while monitoring is carried out. Endline qualitative evidence also suggests positive relationships between the MOE and school management across all three project areas, allowing for free-flowing communication and provision of recommendations to the schools.

In terms of the number of monitoring visits to target schools for which a report has been produced, shows what was achieved by the respective MOEs.

Table 62: Number of target schools receiving MOE monitoring visits for which a report has been produced

Zone	Region	# of schools monitored by MoE personnel	# of monitoring reports produced by MoE	% of schools monitored that received a report
Somaliland	Maroodi Jeeh	15	6	40%
	Awdal	12	6	50%
	Sahil	10	6	60%
Total		37	18	49%
Puntland	Muudug	27	1	4%
	Bari	25	1	4%
	Gardafuu	3	1	33%
	Nugal	25	1	4%
Total		80	4	5%
Benadir and Galmudug	Benadir	23	1	4%
	Mudug	0	0	0%
	Galgadud	0	0	0%
Total		23	1	4%

Regression finding: Among some disaggregations of schools (urban, drought-affected, and IDP), a visit from an MOE official in the past year was significantly associated with lower average learning scores. This may indicate that MOE officials are visiting the most underperforming schools, a potentially positive finding.

Sustainability: Continuance of monitoring visits will depend on political will at the MOE level and availability of funds to pay for monitoring visits. Currently some of the financial costs associated with these visits (e.g. vehicle hire) are met by EGEP, however the majority of visits takes place without EGEP support. This may suggest potential sustainability in terms of continuation of monitoring visits beyond the life of the project. However, it should also be noted that EGEP provides ongoing incentives for the Gender Focal Points and it is not clear whether these positions will continue to operate without this financial support. In order for these interventions to be sustainable, it may be necessary to advocate for the MOE to take over such payments and incorporate the GFPs into any existing payroll system.

3.3 Percentage of head teachers reporting increased dialogue with the Ministry of Education

Summary Findings

- In the previous year, 58% of schools had engaged with an MOE department, primarily through group or one-on-one meetings.
- Of schools engaging with MOE, 74% did so with the REO, and only 19% did so with the Gender Unit.

Methodology: This indicator was measured primarily through the school-based survey. Head teachers were asked if they had had any contact with the MOE in the previous year, and if so, what type of interaction and with what MOE entity. The quantitative data is triangulated with qualitative data gathered from KIIs with MOE officials.

Findings: Fifty-eight percent of schools surveyed had engaged with an MOE official in the past year, down from 74% at midline (Figure 48). Disaggregated by project area, Puntland had the highest proportion of schools at midline and baseline that had interacted with MOE in the past year (87% and 62%, respectively), though it also experienced the largest decline between the two periods.

Figure 48: Proportion of schools that have engaged with the MOE in the past year

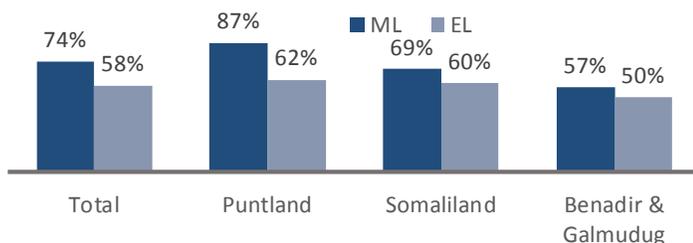
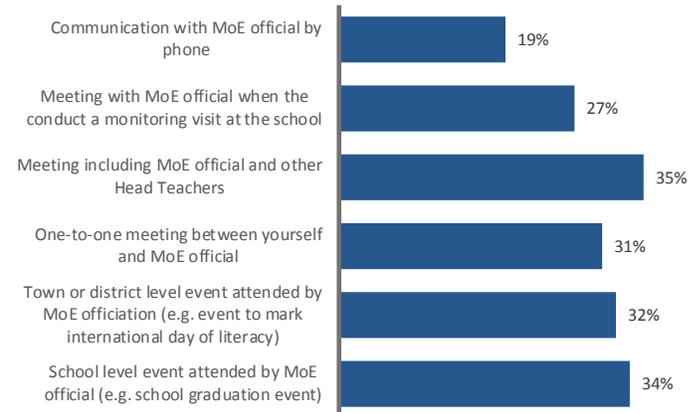


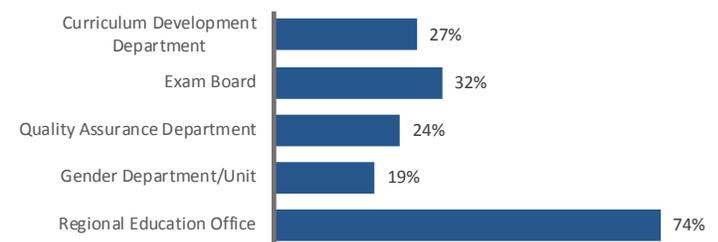
Figure 49 displays the methods through which schools engaged with the MOE. Of schools that had engaged in the past year, engagement happened via four primary methods: group meetings between several head teachers and an MOE official (35% of schools), school-level events attended by an MOE official (34%), town or district level events attended by an MOE official (32%), and one-on-one meetings with MOE officials (31%).

Figure 49: Where dialogue happened between head teachers and MOE at endline



When asked about which MOE department they engaged with, 74% of schools stated the Regional Education Office (REO), followed by Exam Board (32%), Curriculum Development Department (27%), Quality Assurance Department (24%), and the Gender Department/Unit (19%) (Figure 50).

Figure 50: MOE departments that teachers engaged with at endline



Qualitative support: As noted above, MOE officials have indicated improved relationships and dialogue with school management, including head teachers, which have improved the flow of information and the ability of MOE to provide recommendations to the teachers. One CEC member in Somaliland expanded on this, saying that “there is direct communication between the ministry and schools. I think it is particularly good and constructive communication. Teachers also work directly with an MOE employee to talk about steps to contribute to the improvement of the school.” This same MOE official indicated the influence of politics on ministry efforts, saying “you know there’s politics here in Somaliland and they always affect the policies of the ministry. For example, if the president changes the minister, policy will change inside the ministry. If the new minister comes up with a new and good policy for communications, communication between the ministry and schools will be good. It entirely depends on what kind of minister is running the MOE.” An MOE official from Benadir and Galmudug stated that “the relationship between the MOE and schools is good. They meet and have discussions, they tell each other their challenges, and they reach common solutions.” Additionally, all teachers reported positive relationships between school leadership and the MOE. Very little additional qualitative information was provided.

Sustainability: As these positive relationships between the MOE and school management do not rely on the continued activities of EGEP, the sustainability of these positive relationships and their impact on improving girls' education is likely. However, as highlighted by one of the MOE officials above, the future of these relationships will depend on the political situation within the ministry. It is possible that with each new minister, relationships between the schools and ministry will shift. Thus, indicators under Output 3 are highly dependent on the political will of the day.

Output 4: Communities, mothers, and girls participate routinely and more forcefully in education policy, and in the planning, monitoring, and budgeting processes for their schools

Sub Indicators

- 4.1 Number of trained CECs establishing school development plans that have specific activities targeting girls
- 4.2 Number of scholarships provided as a result of Diaspora internship programme
- 4.3 Number of CECs with School Development Plans that are supported either through financial or in-kind contributions (including time)
- 4.4 Percentage of girls' clubs advocating for school needs through the CECs

Barriers

Girls' needs not included in School Development Plans: There is a lack of clear management plans to ensure CEC actions aimed at improving the school environment, and where these plans exist, the particular needs of girls are often not acknowledged or addressed. Consequently, the CEC approach to management and development of the school may not have the intended impact for girls. Girls are left out of the planning processes for their schools, and thus issues and challenges related to girls are not taken into account when schools design or budget for activities.

Activities

Training of CECs to implement SDPs (4.1; 4.3): EGEP trained CECs at the start of the project, and provided refresher training half way through the project. As part of the training approach, staff worked with CECs to support the development and ownership of school development plans (SDP) that include activities targeted at addressing the needs of girls.

Cash awards to CECs (4.1; 4.3): EGEP gives cash awards valued at \$2,500 to high performing CECs to spend toward implementation of their SDPs. At endline, 38 schools sampled had CECs receiving cash awards.

Promotion of interaction between girls' clubs and CECs (4.4): EGEP promoted girls' clubs, safe spaces in which girls can congregate and share ideas. Female mentors and teachers encourage girls to advocate for their needs through CECs. In turn, CECs are also encouraged to increasingly engage with and listen to the girls.

4.1 Number of trained CECs establishing school development plans that have specific activities targeting girls

Summary Findings

- The proportion of CECs with SDPs that had specific activities targeting girls was already high at midline (92%). This proportion increased to 99% at endline.

Methodology: This indicator is measured through the number of School Development Plans submitted to EGEP partners that have then been assessed as having successfully included activities targeting girls. The means of verification are the reports themselves, copies of which are all held by the EGEP consortium.

Findings: All CECs connected to target schools in all project areas have been trained, and the majority have now received refresher training/ongoing one-to-one support from staff. A key output of this process is the School Development Plan, which should demonstrate what the CECs have learned through their training and provides a plan that staff can use to follow up with the CEC at regular intervals. As displayed in Table 63 and Table 64 below, most CECs now have SDPs with interventions targeting girls. This represents considerable progress, as this indicator was only 25% overall by the end of the second year of the project and has jumped to 93% overall by midline and 99% at endline. On the basis of the low achievement against this indicator at the end of year 2, EGEP determined to provide additional one-to-one support and refresher training to the CECs, recognizing that literacy levels are so low that one-off training was not enough to produce genuine meaningful output. Consortium partners are now working closely in following up with the CECs regarding progress against their SDPs and the specific actions contained.

Table 63: Trained CECs that have developed School Development Plans with activities targeting girls at midline

Zone	Region	Number of CECs with SDPs including activities targeting girls	Percent of trained CECs developed SDPs including activities targeting girls
Somaliland	Maroodi Jeeh	37	100%
	Awdal	22	
	Sahil	22	
Puntland	Bari & Gardafu	29	94%
	Mudug	21	
	Nugal	25	
Benadir and Galmudug	Galmudug	14	71%
	Hiran	1	
	Banadir	10	
Total			92%

Table 64: Trained CECs that have developed School Development Plans with activities targeting girls at endline

No	Project area	# of Schools	# of trained CECs with SDPs	% SDPs
1	Puntland	81	79	98%
2	Somaliland	81	81	100%
3	Benadir and Galmudug	35	35	100%
Total for all project areas		197	195	99%

Qualitative support: While qualitative evidence indicates that all CECs have established school development plans, none of the CEC respondents indicated that any component of those development plans focused on implementing girl-specific activities. In fact, all CEC qualitative data across all project areas indicates that these development plans only focus almost entirely on civil works activities to improve the physical infrastructure of the schools.

Sustainability: The School Development Plans are developed and owned by the CECs themselves. Due to low literacy among CEC members, the development process took time and involved many face-to-face sessions with EGEP staff. This intensive engagement process will potentially have ensured that the knowledge gained through the activity will be sustained and that the CECs will genuinely feel that the plan is a document to follow and act upon. EGEP ongoing monitoring has observed CECs taking increasing actions to support girls in school and to generally improve the school environment. Such activities are taking place of the CEC members' own accord, a positive sign for future sustainability.

4.2 Number of scholarships provided as a result of Diaspora internship programme

This indicator relates to activities to be conducted by a local partner, The African Future (TAF). The partnership between EGEP and TAF ended prematurely for contractual reasons, and the indicator was not achieved.

4.3 Number of CECs with School Development Plans that are supported either through financial or in-kind contributions (including time)

Summary Findings

- The proportion of CECs with SDPs that are supported through financial or in-kind contributions increased from 32% to 47% from midline to endline.
- The proportion nearly doubled in Benadir and Galmudug to 89% of all CECs with SDPs and more than doubled in Somaliland up to 33% of all CECs with SDPs.

Methodology: This indicator is measured through recording the number of School Development Plans that have been received by EGEP partners and have been assessed by the partner and respective MOE with activities containing a strong community contribution component, be it through time or resources, and consequently being awarded a match-funding grant.

Findings: From midline to endline, the proportion of CECs with SDPs that were supported by financial or in-kind contributions increased from 32% to 47%. The largest increases were seen in Benadir and Galmudug (from 52% to 89%) and Somaliland (from 15% to 33%), while Puntland saw a slight decrease (from 44% to 42%) over the same period (Table 65 and Table 66). Achievement of this indicator shows that the CECs and schools are demonstrating motivation and improvement and taking ownership of the action plans, including importantly considering ways in which they themselves can contribute. Examples include SDPs being funded for which the financial contribution will provide the materials for a school fence and the community members themselves will provide the voluntary labor to construct the fence. Upon the school awards, EGEP partners carry out follow-ups and monitoring visits to schools to make sure schools are using the grants for the activities outlined as proposed.

Table 65: Number of CECs with School Development Plans that are supported through contributions at midline

Zone	Region	# CECs established SDPs	# CECs awarded	% awarded
Somaliland	Maroodi Jeeh	37	6	15%
	Awdal	22	3	
	Sahil	22	3	
Puntland	Bari & Gardafu	29	15	44%
	Mudug	21	8	
	Nugal	25	10	
Benadir and Galmudug	Galmudug	14	7	52%
	Hiran	1	0	
	Bendir	10	6	
Total		181	58	32%

Regression finding: Schools in rural and drought-affected areas that receive matching cash grant awards for their CECs to implement SDPs are significantly associated with higher learning scores for girls, compared to girls in schools in those areas that did not receive awards.

Qualitative support: All CEC KIs indicated an effort to fundraise for the development plans among their communities. For example, one CEC member in Somaliland shared that the CEC “maintained new chairs for the school by collecting money from parents. And we also asked and received support from an NGO to provide sporting equipment.” Another Somaliland CEC member indicated that “fundraising comes from the community, business owners, parents, and organizations. First, the CEC has a meeting to determine what they want to achieve and how much money is needed. Then, the members go to community members and business and explain the objectives. The members ask for support in terms of money and also material.” A Puntland CEC member added that “the money is used for many purposes. It is used to renovate the schools, but also to support poor people and the school staff.” Additionally, qualitative evidence suggests that CEC members themselves dedicate large amounts of their time toward implementing the school development plans as well as finding solutions to any problems that may arise, both for the school at large and also for individual students and families. As a CEC member from Puntland

explained, “we participate in the construction and maintenance of the school.”

Sustainability: Between midline and endline, CECs have played a critical role in the support and implementation of school development plans. The proportion of schools receiving cash contributions from CECs decreased from 30% to 20% between baseline and midline, and the proportion of schools receiving in-kind (non-cash) contributions stayed the same between the two periods at 22%. With regard to the cash contributions, it is possible that the current drought situation has limited the ability of CECs to sustain and increase this component between midline and endline as many communities are facing additional challenges. School development plans are critical for improving girls’ academic outcomes, particularly when they incorporate girl-targeted programming, include support of girls’ clubs, and focus on civil works such as girls’ latrines. To that end, sustaining a school’s ability to implement its SDP will be critical for post-EGEP programming, and CECs are the most logical entity to continue SDP support. Twenty-three percent of schools (24/106) currently receive cash, non-cash, or both contributions from CECs; it will be critical that this proportion is increased in the near future.

Qualitatively, it is evident that CECs across all project areas have taken ownership of raising support for the needs of schools. This internal ownership and the previous success of their fundraising efforts indicates that sustainability is possible. Further, CECs seem to be relying more heavily on internal sources such as local businesses and individual community members. This indicates a certain independence from organizational support, such as that from EGEP, indicating a chance of sustaining the necessary financial support to implement the school development plans. For example, when asked if the money comes from NGOs to support the school development plans, a CEC member from Puntland stated that “mostly [the CEC] strongly concentrates on the community. Sometimes we concentrate specifically on the community’s businesspeople.” Given the finding that girls’ clubs are more likely to succeed and girls are happier in school when they have access to female mentors (teachers, CECs), ensuring that CECs include a female voice in fundraising and SOP implementation will be critical for the inclusion and success of girl-centered activities at school in the future.

4.4 Percentage of girls’ clubs advocating for school needs through the CECs

Summary Findings

- The proportion of schools where girls’ clubs and CECs interact fell from 71% to 58% between midline and endline, most drastically in Benadir and Galmudug.

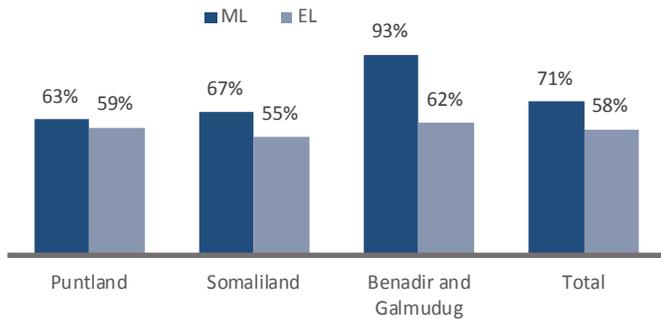
Methodology: This indicator is measured quantitatively using several questions from the school-based survey that center on the existence of girls’ clubs, their activities, and interaction with CECs. It is triangulated heavily with qualitative data from girls’ focus groups and CEC KIs. This indicator was not included at baseline, though it is assumed that the baseline value was zero, as the girls’ clubs had not yet been established, and the girls’ club leaders and teacher mentors had not yet been trained.

Findings: On average, 58% of girls’ clubs interact with CECs across all project areas, down from 71% at midline. There were decreases in this indicator in each project area between the two data collection periods, though none was as drastic as in Benadir and Galmudug, which dropped from 93% of schools with a girls’ club at midline to 62% at endline.

Table 66: Number of CECs with School Development Plans that are supported through contributions at endline

Zone	Region	#Schools	# of trained CECs with SDPs	% SDPs	# CECs with SDPs supported	% Supported	Remarks
Puntland	Nugal	25	25	31%	10	40%	Darwish is awarded twice but counted as 1 here
	Bari	26	26	32%	12	46%	
	Gardafu	3	3	4%	3	100%	
	Mudug	27	25	31%	8	32%	
Total for Puntland		81	79	98%	33	42%	
Somaliland	Maroodi Jeeh	37	37	46%	15	41%	
	Awdal	22	22	27%	6	27%	
	Sahil	22	22	27%	6	27%	
Total for Somaliland		81	81	100%	27	33%	
Benadir and Galmudug (B&G)	Mogadishu	20	20	57%	16	80%	
	Galkacyo	7	7	20%	7	100%	
	Galgadud	7	7	20%	7	100%	
	Hiran	1	1	3%	1	100%	
Total for Benadir and Galmudug		35	35	100%	31	89%	
Grand Total		197	195	99%	91	47%	

Figure 51: Proportion of schools with girls' clubs that interact with CECs



Qualitative support: Qualitative data at endline suggests that relationships between CECs and girls' clubs have strengthened. Across all project areas, all CEC respondents and girls' FGDs indicated that the CECs and girls' clubs work together to find solutions to challenges. As one Somaliland CEC member shared, "we try to discuss and raise questions about what is preventing girls from progressing or improving, and we ask ourselves if we could work together to reach solutions." A Puntland CEC member also added that the CEC meets "with the girls and tells the girls that they are equal to boys and that they are important. The girls are encouraged to become presidents and doctors. They are also encouraged not to get married fast and to first finish education." Additionally, a girl student from Somaliland shared that the girls "talk with the CECs about any challenges that girls are facing, including any family problems." Additionally, qualitative evidence suggests that having female members of CECs has been highly beneficial for the girls, particularly in advocating for girl-specific needs. For example, one male CEC member in Somaliland shared that "women

play an important role in the CEC. If there were no women in the CEC it would be impossible to achieve anything. Mostly, the girls share their needs with female members of the CEC because that is more comfortable for them. Later on, female members of the CEC will share the needs of the girls with the entire CEC, and we will work together to find solutions."

We note the large drop in the proportion of schools in B&G with girls' clubs advocating through CECs. SI hypothesizes that this is most likely due to the worsening security situation between midline and endline. The tension, both in relation to the election and conflict in Galmudug, severely limited EGEP staff movement, a fact which may have detrimentally affected this indicator as some schools still require EGEP support to facilitate meetings between the CECs and girls' clubs. It is also likely that after-school activities in general, and particularly those involving children, will not have been operating so frequently given that parents may prefer children to go directly home after school for safety reasons. Additionally, EGEP local staff believe that schools, CECs, and community members in general may not have prioritized these activities, and their attention may have been focused on other larger events, such as the elections in B&G.

Sustainability: As a result of the positive and independent nature of these relationships, it appears the interaction and problem solving of the girls' clubs and CECs will be sustainable. In addition, all CEC KIs indicated that CECs are working to establish means to step in and take over some of the EGEP initiatives and assistance. Most notably, several CEC members discussed working toward finding ways to cover school and uniform fees for marginalized girls.

2.4.1.1 Other interventions

Mobile libraries

Findings: Girls from one FGD in Somaliland were familiar with mobile libraries and indicated that they think the intervention helped with reading and learning in general. Additionally, the mobile library enables girls to gauge their reading levels and provides the use of school materials such as pens. In general, mobile libraries may result in learning improvements, however considering the extremely small sample size during the evaluation (only three respondents in one FGD were able to respond about mobile libraries), we cannot make definitive statements about the intervention. Quantitative analysis found significant negative associations between girls' learning scores at schools that received mobile libraries compared to girls' learning scores at schools that did not. This does not necessarily indicate that the intervention is not working, but rather that schools receiving the intervention may have been low-performing in nature with girls who on average have low learning scores. An analysis of changes in learning scores across more than one data collection period would help to clarify the findings behind this intervention.

Accelerated Learning Program (ALP)

Some girls drop out of school, particularly those who get married early, and young mothers. Though these girls might be able to eventually return to school, by the time that they do they will have fallen behind their peers in learning and worry that they would be put in a class with younger children, a source of potential embarrassment. Girls who had dropped out of school reported to EGEP that this was a significant barrier to them re-enrolling in school at a later date. Additionally, some out of school adolescent girls have never been to formal school. Realistically, they may not be likely to start primary school at such a late age. Basic numeracy and literacy skills would nonetheless potentially benefit them in their everyday lives. However, outside the formal school system, there are a lack of facilities through which they can access related courses.

“**We would also like to support the other families who have more children in the house to get like the supports like we did.**”
—Puntland mother

To address this reality, EGEP implemented a discreet Accelerated Learning Program (ALP) course of classes in Puntland and Benadir and Galmudug, providing basic literacy and numeracy skills to out of school girls. The aim was that this would enable some of the girls to re-enroll in formal schooling at the end of the course, and, for those that had never been to school, the aim was that the numeracy and literacy skills gained would help them in their daily lives even if they did not enroll in school. The course of classes was provided by teachers from the EGEP target schools, making use of the school facilities outside formal school hours of operation.

Findings: After completion of ALP courses, out of school girls in Puntland reported wanting to return to mainstream schools. This is considered a positive finding, since the goal of the ALP program is to increase girls' confidence to return to school, particularly through increasing their learning scores so that they can be placed among peers close to their age. According to EGEP monitoring data, 46% of girls who completed the ALP in Puntland have since re-enrolled in formal school. In Benadir and Galmudug, the course started later and has only recently ended. The intention is for some of the girls to re-enroll in the new academic year beginning August 2017. The eagerness of these drop-out girls to reenroll can be found in qualitative feedback: all ALP girls in FGDs reported a strong desire to re-

turn to school. However, some suggested that teachers would not let them return. As one 18-year-old OOSG explained, “we learned a lot from those [ALP] classes, and now they are closed. If you re-open again we would keep learning.” Further, a 13-year-old OOSG explained, “if the teachers would allow me, I would go back and start my lessons again. But the teacher does not accept us, and says ‘this is not a sea anyone can come in and out of, go back and stay at your home.’ If the teacher accepts me I am ready to go back.” This suggests that in some cases, further work needs to be done with the schools to encourage them to allow girls to re-enroll.

Aside from Puntland, OOSG attending ALP classes indicated a desire to re-enroll in mainstream schools but are unable to because of financial barriers. Several ALP girls across all project areas indicated increased learning. For example, an ALP B&G girl stated, “I have benefited many things [from ALP], especially reading and math.” Additionally, another B&G girl explained that “non-formal education has been good and is better than no education at all ... I dropped out because of financial conditions facing me affecting my family. My parents cannot afford to pay school fees.”

While not all girls who participate in the ALP program are dropouts, girls in ALP FGDs indicated two reasons why some girls drop out of school. First and most frequently cited were financial barriers. For example, a female student in Benadir and Galmudug shared: “Based on the financial situation, my parents cannot afford to pay my school fees. Since they cannot afford to send all of us, they send my brothers, and I stay home with my mother.” Similarly, a Puntland ALP girl shared that her mother “is a widow and we are poor. For that reason, I left the school to work for her and help her keep the children.” Another Puntland ALP student shared a similar story in which her mother told her, “we cannot find our basic needs like food. So please leave school and go to work.” Second, aside from the financial barriers, some girls indicated that either the teachers had left the school, and so the school closed, or that the teachers and school were so poorly operated that they felt the education was not worth the money. It is important to note here that the ALP students are not drop-outs from EGEP target schools but other nearby schools. As one of the female ALP students in B&G shared: “It is because of the teachers that we have left school. They do not teach in a good way. They come and write and then leave the school. How can we understand if they are not teaching us?” Similarly, another female ALP student in B&G stated: “If the teachers change, I will come back to school. The current teachers do not complete the full class periods. They leave early. Nobody explains to you the lessons.”

2.4.2 Findings: Contextual factors and unintended effects

According to qualitative evidence, several contextual factors appear to have influenced the impact of several of the EGEP interventions. One such factor is the employment situation in Puntland, Somaliland, and Benadir and Galmudug. High unemployment rates have made financial instability an enormous barrier for many families across all three project areas. As one father shared, “when the father is trying to bring food to his family and yet there are school fees and other demands still awaiting him, and he is unemployed, he will be forced to choose which child can go to school.” Fathers in Somaliland also frequently indicated that governmental changes in the sea port have negatively affected the job industry and therefore financial stability for many members of the

Somaliland communities. This has made affording school-related fees even more challenging for many fathers. One father stated that the men “used to get a lot of benefits from working in the sea port. But now that situation has changed because the government has taken the port and given it to big businesses and big ships.” Another Somaliland father added that “no one listens to the poor people. They said that the port is for the government now, so keep silent or be arrested.” While the port situation is unique to Somaliland, uncertainty in employment appears to have strong implications on enrollment across all three project areas.

Though not discussed in depth, several respondents across all three project areas indicated that both the drought situation and conflict situations in Puntland, Somaliland, and Benadir and Galmudug pose barriers to attendance. Regarding drought, all respondent types indicated that this barrier is most salient for pastoralist families, as the drought forces those families to move more frequently, reducing attendance in school. Additionally, the drought has increased food insecurity, which has forced many families to rely on their children to assist with seeking out sustenance. Regarding conflict situations, these were mentioned as a barrier to safety on the way to schools. Situations such as car bombs on the roads can negatively impact attendance, though

“The girls pave the way [for] the difficult issues [facing] them, they have contributed money among themselves and now they are strong girls [and] have ambition and desire to continue their education, but [this] wasn’t [happening] in the previous year.”

—Somaliland teacher

such situations were not discussed in depth. EGEP reports that conflict and security causes additional challenges to implementation in certain areas, most notably in Benadir and Galmudug where Al Shabab attacks are a frequent occurrence, as well as areas of Puntland including North Galkayo (which faces repeated clan conflict) and Qandala (occupied by ISIS at the time this report was written). These conflict situations limit staff access to geographic areas which reduces the possibility for regular onsite monitoring and causes frequent delays to implementation of activities.

Political changes were also identified as a factor influencing EGEP outcomes, most specifically in terms of MOE policies and interaction with schools. As governmental changes occur, such as the appointment of new leaders to the ministry, shifts in policy affect the relationship between the MOE and schools. As a new president has just been elected, it is likely that changes will occur in the near future, though it is unclear whether these changes will have a positive or negative impact on the progress made by EGEP. This was indicated by several of the MoE officials who completed interviews.

A contextual factor that has a significant impact on effectiveness of the program is the low capacity of the state to support or fund key public services. In a place with a barely functioning economy and tax system to fund an education system, progress can be slow in terms of ensuring sustainability of interventions. In many areas, teachers are not regularly paid and schools do not receive material and financial support from the respective ministries. They are

oftentimes fully reliant on communities and NGOs or UN agencies as the respective ministries themselves do not necessarily have the resources to distribute to the schools. Actors can advocate at the federal and state levels for increased resources to be apportioned to education, however, it must be acknowledged that the pool of money being distributed across departments is relatively small. There is a limit to how much can be done at the project-level to affect the significant systemic change needed. The support of donors such as DFID is critical as they may consider alternate avenues of support and can use their access to internal high-level fora to advocate for improvements across sectors.

Though minimal, qualitative evidence did highlight unintended effects of EGEP interventions as well. For example, in Somaliland, one father indicated that ADRA interventions may have caused conflict within communities. He stated, “we receive some resource like solar lamps and school fees, but this makes conflicts. The agency makes conflicts in the community because people who really need help are not receiving any. The agency makes the conflicts but then the agency people are only here once in the year, so the community is left to deal with it.” Additionally, community members fear that boys have become marginalized, particularly impoverished boys, because of the lack of attention given to boys throughout EGEP interventions. This is discussed more in depth in the gender equality section of this report.

Similarly, some mothers and fathers have indicated that the support received during EGEP has caused some challenges for families internally. This is mostly due to not all children in a home receiving support and therefore gaining access to education. It is also due to an increased burden on families to provide school-related materials (and their related costs) for more of their enrolled children. For example, one father in Somaliland shared, “I have a lot of girls, and I think ADRA has caused me problems. Five of them study in school, and all of them need uniforms and other supplies. I don’t have work, and I honestly can’t afford that, so it causes problems in my home.” Another father added that “before ADRA came our situation was okay. But they have caused many problems for us. I have one daughter and I can’t handle her needs. ADRA isn’t helping.” SI believes that these types of responses to EGEP programming are more in response to the negative financial situation of families and less so the programming of EGEP. It is understandable that as the demand among communities for girls to be educated increases, the financial burden on households to provide for school-related materials will increase as well.

An encouraging, unexpected, and positive finding at endline was a very apparent increase in the frequency of girls indicating a desire to put off marriage until after they had completed their education. This was a marked departure from qualitative findings at midline where, because of financial, religious, and cultural pressures, girls indicated they would honor their families’ wishes to marry over their own personal desires to advance in school. At endline, in all girls’ FGDs across project areas, girls discussed their right to choose their own spouses in time and to complete their education first.

Surprisingly, SI found a profound motivation at the community level to help those girls who are most in need. Across all FGDs and KIs, respondents indicated that communities now have a deep desire to carry on education-related efforts to improve access to and quality of girls’ education. Communities felt encouraged and equipped across all three project areas to carry out those efforts on their own. CECs and teachers reported working hard to reach OOSG and eliminate the barriers they face. Girl students themselves indicated a desire to work together to help the most marginalized girls in communities.

Given the relative weakness of state-run services, most of the education service delivery is undertaken by NGOs and private actors across the country. For the purpose of standardization and harmonization of approaches and interventions, NGOs established the Education Sector Coordination (ESC) mechanism, a platform for policy and strategic level discussion which include the MOEs, UN agencies, donors, and NGOs. There are more than 30 local and international NGOs directly engaged in education service delivery across the country. While qualitative and quantitative evidence of the EGEP evaluation did not yield relevant findings on the role of the (non-EGEP) NGO and humanitarian sector in education programming, it is noteworthy to mention this relatively complex and non-traditional environment in which education services are funded and delivered throughout the country.

2.4.3 Findings: Gender equality

At endline, qualitative information overwhelmingly suggests that communities desire girls to have equal access to education as boys. According to a Puntland CEC member, “it is a girl’s right to be educated equally as the boys.” As a Somaliland teacher highlighted, “previously girls were not involved in the education sector. Par-

boys and girls. This is highlighted by a quote from a CEC member in Puntland who stated that “an educated girl will benefit the community. I have learned that if I need anything, my daughters are the ones who will bring it to me.” Similarly, a Somaliland father stated that “educated girls will be able to do more for her parents and her family. She will feed her family and her parents whatever she has, so she is a benefit.”

Additionally, as at midline, mothers, fathers, and CEC members stressed the importance of not forgetting the boys. Widespread concern was shared that impoverished boys are now becoming marginalized because they are not receiving bursaries or other support. For example, a Somaliland mother explained that “girls always have support, but the boys do not. When the agencies visit, they say they care about the girls, but it is like there is no one who cares about the boys.” Additionally, one Puntland mother stated that “education is very important for boys because it is dangerous if the boys do not study. He may join a gang or rob people’s property or chew qat.” Community members fear that boys are being forgotten and that this will become evident in an increase in poor behavior, such as substance abuse.

“...as it has been said, ‘an educated girls equivalent to an educated nation.’ Society’s backbone are the girls.”
—Puntland CEC member

ents used to reject their daughters and not send them to school. It seems that situation has changed. Now, girls are motivated by the community to go to school.” A Puntland mother added, “before we used to say, let the girls cook the rice and let the boys study. But this organization has brought us a good thing, and now we send the girls to school too. Girls have become free now.” This includes parents’ aspirations for their daughters to progress even through university levels. As one Puntland mother shared, “Me, I want her to go all the way through university, unless she decides for herself that she doesn’t want to.” This statement highlights a critical shift in ideology, not only in terms of parental aspirations for girls’ education but also regarding beliefs around girls’ rights to autonomy.

Additionally, it is evident that communities have not only realized the unique needs of girls but are working to cater to those needs. For example, mothers, fathers, and CEC members are working together to ensure that schools have adequate and private latrines for girls. Further, girls have reported being treated equally within classrooms, and both teachers and girls indicated that girl students’ confidence levels within the classroom have increased. For example, girls are becoming less shy to answer questions in class. Across all project areas, girl students also indicated that for the most part, boys support the girls in school, and vice versa. Quantitative data supports these findings, particularly around latrines and girl-centered teaching.

While gender equality has improved substantially from midline to endline, it is important to consider the nuanced support for girls’ education within communities. All mothers and fathers FGDs indicate that support for girls’ education is largely based on this newfound understanding that educated girls will better support the family. This is drastically different from parental reasoning behind supporting boys’ education, which is reported often as revolving around education as a tool for keeping boys out of trouble. This highlights the fact that, while communities are working to establish equal access to education for girls, older generations’ desires for girls’ education still reflect an unequal societal standard between

Qualitative data strongly supports an improved and further improving situation regarding gender equality. An analysis of girls’ learning scores shows that they are on par with boys in reading and slightly lagging behind boys in math. Given a cultural context where girls typically have an extracurricular workload higher than boys and receive worse treatment in school, this finding is encouraging. When it came to how boys view girls’ education, 75% of caregivers at endline expressed that boys had become more supportive of girls’ education in the past year.

One of the key ways the project has been working to enable girls to have a stronger voice in relation to the direction of their education, is through supporting increased engagement between the Girls’ Clubs and CECs. Qualitative data at endline suggests that relationships between CECs and girls’ clubs have strengthened. Across all project areas, all CEC respondents and girls’ FGDs indicated that the CECs and girls’ clubs work together to find solutions to challenges. CECs are key decision makers in school management issues and this approach has ensured girls have increased access and influence in this process.

The extent to which EGEP programming has been gender transformative is unclear. At endline, girls continued to spend a large amount of time on daily household chores (2.8 hours on average, and as high as 4.2 hours in B&G). Further, some qualitative evidence at endline among mothers and fathers indicated that if a household is financially strapped, a boy may oftentimes be enrolled in school before a girl (the exception being in the case of bursaries specifically for girls). While girls’ clubs are on the rise in schools, qualitative evidence showed that girls more than boys are expected to volunteer their time towards school development activities (in one case, this included washing floors), while boys anecdotally spent their free time playing sports and being with friends. To be sure, support for girls’ education and the knowledge that educating girls is important has improved dramatically and sustainably among communities, yet cultural barriers remain to achieving full gender equity.

2.4.4 Findings: Innovation

Innovation is built in at various stages of the EGEP project. Some approaches are innovative particularly in terms of their implementation in the setting of a fragile state. Provocative approaches have empowered girls through creativity, introduced them to their Somali peers from the diaspora in the United States and Europe, incorporated oral traditions into language arts programs, and introduced sustainability in school feeding programs. Oftentimes innovations were borne out of the necessity of introducing interventions in thoughtful and creative ways appropriate to a fragile state.

Key innovations in interventions and implementation may be found in the following areas:

Girls' Clubs: Girls' clubs have proved a fertile ground for innovation. In Benadir and Galmudug, CISP implemented a language arts program that includes storytelling and poetry in acknowledgment of the strong oral culture throughout the country. In all three project areas, girls have had the opportunity to experiment with a range of video activities as they create messages conveying the importance of girls' education. They develop and write video scripts and produce and film the actual video. The films are about the importance of girls going to school and the challenges they face in doing so. The films are being used as motivational pieces for sharing with peers and as advocacy tools for sharing with the CECs and the MoE. EGEP believes it to be an effective approach; the creative process itself is empowering, and the projects build girls' confidence and generate enthusiastic engagement.

Diaspora intern program: In partnership with The African Future in Puntland, Somaliland, Puntland, and B&G diaspora girls living in Kenya, the United States, and Europe have been invited to the country to spend time with their peers in Girls' Clubs in Puntland. The "interns" attend the schools and develop close relationships with the girls.

Teacher Mentoring: Female teacher mentors are trained to work with the Girls' Clubs and the wider female population in the schools. One helpful approach was the decision to train the Girls' Club Leaders (who are girls themselves, not teachers) with the teacher mentors. The pairing was judged a success; mentors in training were able to talk with the girls directly and hear first-hand what challenges they faced and what kind of support they needed.

Training teacher mentors and the Girls' Club leaders together raised self-confidence for both girls and teachers; it gave girls a chance to have their say in the management of the school and in other areas, improving their psychosocial wellbeing.

These innovations appear to have paid off. The existence of girls' clubs among schools is on the rise, in 64% of all schools at endline, up from 55% at midline. Endline results show that psychosocial wellbeing of girls rose by 17% between baseline and endline, a highly encouraging finding.

School management: Ensuring sustainability of programs is a primary goal for EGEP. Part of the approach to sustainability is

to work with school leaders so that they can maintain and continue innovations and programs introduced by EGEP. A good example of this approach is a pilot supplementary school-feeding program across the zones. The project approach utilizes a direct alternative model of school feeding implemented without the 'supplementary' component.

Additionally, school development plans across the zones are being funded where they demonstrate a significant component of community contribution through time, money, or in-kind contributions. In Puntland, a pilot program offers conditional cash grants to schools to start their own sustainable businesses to generate funds for the schools. These innovative initiatives are discussed more fully in the sustainability section of the report.

Bursary support: The EGEP approach to the provision of bursary support is innovative in two ways. First, it is conditional: continued support is dependent on girls maintaining a high level of attendance. The schools are therefore providing monthly reports on the attendance of bursary girls. This approach is atypical in the country, as girls would not usually be monitored so closely in this sense.

The approach is more effective than the standard alternative of unconditional support for a few reasons. It provides an incentive

for a girl to retain a high level of attendance. Secondly, it guards against corruption and nepotism in a context where this typically presents a challenge. For instance, head teachers and others are not able to replace

girls with their own relatives as the monitoring system will catch this.

The results amongst bursary-supported girls are very encouraging. The approach has been judged as successful as the majority of girls in the bursary program (93%) were retained in school and EGEP monitoring records show their ongoing attendance has remained high. This achievement is particularly encouraging considering the girls selected for bursary support are designated severely marginalized and therefore facing arguably greater challenges than their peers.

The second way in which the approach is innovative is that it is being implemented through two different mechanisms/interventions in different areas, creating the opportunity for some form of comparison. In Puntland and Benadir and Galmudug, the bursary support is being provided through payment of school fees directly to the school. In Somaliland, in the absence of school fees, conditional cash grants are being provided to families to help meet the costs of sending a girl to school. In Somaliland, this approach has the added value of providing families with the opportunity to make their own decisions in terms of expenditure.

Integrated Qoranic Schooling: EGEP had originally planned an innovative intervention integrating Qoranic teachers into formal primary schools in Benadir and Galmudug. This plan was seen as an adaptation to the widespread expectation that girls and boys will attend Qoranic school before beginning their formal educa-

“ If [it] stops the support of [ADRA] for the girls education project we will cover it ... by asking [for] help from the government ... but it will never stop their education support. And we are not worried for these girls because of lack of money to study. We will collaborate as teachers and CECs if that happens and we will support the girls. ”

—CEC member

tion. EGEP planned to use lessons from the ‘integrated schooling’ approach practiced in some parts of Puntland as a new approach in Benadir and Galmudug. Several meetings and negotiations with federal-level Ministry of Education and the Ministry of Religious Affairs personnel failed to reach a consensus on a plan of action. When it became apparent that the issue had the potential to become politically contentious and possibly jeopardize the position of RI and CISP, the plan was abandoned.

2.5 How sustainable are any changes the project has led to?

2.5.1 How likely is it that the project’s benefits will be sustained?

EGEP must ensure that the gains that the project has made in the past 3 years are sustained once EGEP ceases. To that end, SI conducted qualitative data collection in FGDs and KIs to help determine the most impactful factors for improving key outcomes, why or why not beneficiaries and stakeholders believe gains will be sustained in the short- and long-term, and what can be done to ensure that the institutional, human, and physical infrastructure and knowhow stay in place so that girls and their communities can benefit from EGEP programming into the future.

The vast majority of qualitative information regarding sustainability focused on one issue: the need for financial support to ensure the continued positive impact of many of the EGEP interventions. Most notably, provision of bursaries is indicated as an instrumental factor in ensuring enrollment and retention for marginalized girls. Without continued financial support, across the board, respondents indicated that the improvements in enrollment and retention that have occurred throughout EGEP will likely see a decline. To sustain financial interventions such as bursary support, EGEP has worked with CECs to build their capacity to support girls with school fees after EGEP finishes. While less than a quarter of schools report that CECs support them in this endeavor, qualitative and quantitative support linking CECs to successful fund-raising efforts bodes well for CECs’ future role in sustaining this intervention.

The provision of sanitary kits was cited frequently as a critical component for improving attendance and learning. Several respondents of varying types indicated that many marginalized girls are unable to purchase their own sanitary materials. Qualitative evidence suggests that knowledge of menstrual hygiene management is critical as girls transition to puberty, particularly in a context in which menstruation is highly associated with shame. The sustainability of improvements in attendance and learning that are attributed to the provision of sanitary kits will not only be linked to the continued availability of the kits but also to the continued implementation of a concerted behavior change campaign around MHM.

Mothers, fathers, girls, and CEC members frequently indicated that provision of school uniforms has assisted in enrollment, attendance, psychosocial wellbeing, and learning. Many parents indicated that without the receipt of a uniform, they would have been unable to afford a uniform at all, and their daughters would like remain out of school as a result. The purchasing of uniforms emerged as a major financial impediment for families; the positive impact of uniform provision on critical outcomes will likely be difficult to sustain without continued financial support for these school-related materials, particularly through fundraising from CECs.

The noted positive effects of latrines and other civil works on attendance, learning, and psychosocial wellbeing is expected to

be sustainable in the short term. However, several factors may pose challenges for long-term sustainability. Maintenance, refurbishment, and upkeep of civil works will be integral in the long term. A lack of funds, tools, materials, and know-how to accomplish this may limit continued improvement and/or sustainability of learning, attendance, and psychosocial wellbeing. When asked about sustainability, respondents from every single FGD and KI indicated that financial barriers preventing construction and maintenance of civil works, including latrines, will make sustainability of the progress made in terms of enrollment, retention, attendance, and learning incredibly challenging. EGEP is working with CECs to build their capacity around management of school-related construction; however, quantitative data suggests that less than 10% of schools are receiving cash or non-cash contributions for this issue. It is imperative that CECs or other community-based entities plan for future maintenance of key civil works in order to sustain the educational gains they are associated with.

While financial factors pose critical challenges to sustainability of the progress seen throughout EGEP, the impact of awareness raising and behavior change communication will ensure that community support for girls’ education is lasting. Across all FGDs and KIs, when asked about sustainability, respondents indicated that, while financial barriers will be challenging, communities now have a deep desire to carry on these efforts to improve access to and quality of girls’ education. Awareness-raising efforts carried out throughout EGEP—radio messaging in urban areas in particular—have encouraged and equipped community members across all three project areas to carry out those efforts on their own. Awareness raising messaging in rural areas has proven less conclusive. However, qualitatively, SI finds that CECs and teachers are working tirelessly to reach OOSG and eliminate the barriers they face. Girl students themselves are working together to help those most critically marginalized girls in communities. Qualitative evidence suggests that the incredible shift in community behaviors and ideology regarding girls’ education will be sustained and pushed forward by the communities themselves.

Invested groups at the community level such as the CECs and girls’ clubs will continue to work together to overcome barriers that may pose a threat to improvements in enrollment, attendance, learning, and retention. Respondents of all types and across all three project areas discussed a desire to see equal and attainable access to girls’ education reach all corners of the country. This desire will drive the effort to overcome even the most difficult of barriers and ensure sustainability of gains in girls’ educational outcomes. Political will is an important aspect of sustainability as it relates to MOE support of girls’ education initiatives. EGEP can build the capacity and knowledge of MOE staff to focus on girl-centered initiatives, but a simple change of administration has the potential to erase any work that EGEP has done. Over the course of the project, EGEP’s work with MOE staff, particularly Gender Focal Points, has produced an environment at the MOE that appears to be more knowledgeable of and motivated toward improving girls’ education. To that end, EGEP supported MOE to partake in UN trainings that focus on routine school visits to build a sustainable culture around monitoring. While visits of MOE officials to schools has not necessarily improved from midline to endline, the proportion of schools receiving feedback after a visit has. The school-MOE dialogue, particularly with REOs, begun by EGEP is a first and positive step in developing relationships between the community and government that will continue to be self-sustaining into the future.

Quantitative evidence shows strong, statistically significant positive associations between non-EGEP feeding programs and learn-

ing scores, particularly in certain marginalized areas. To be clear, this does not indicate that EGEP feeding programs are ineffective; EGEP feeding programs may well be located within the lowest performing schools, therefore biasing regression findings. Considering that school feeding was found to be highly associated with increases in attendance and enrollment, continuing to make strategic partnerships with non-EGEP school feeding programs run by WFP will allow for sustained and effective school feeding programs, ensuring that girls can keep learning and attending school.

Quantitative evidence shows that a lack of light/electricity is a major impediment for a girl being able to do her school work, as expressed by 36% of caregivers at endline. Solar lamps appear to be one of most impactful programs of EGEP, and girls are continuing to use solar lamps long after receiving them. Four out of five girls who receive a lamp use it in some way, and over 70% use it to do their homework. Further, over 40% of girls who received a lamp between baseline and midline were using it at endline, a fact that bodes well for sustainability. In order to ensure that learning gains from solar lamps continue in the future, distribution and maintenance of solar lamps will need to be taken into account. Currently, 8% of girls who received a solar lamp report that it is not functioning. Over time, that proportion will grow, and without tools, material, and know-how to upkeep the lamps, improvements in learning outcomes, particularly for rural girls, may not be sustained.

2.5.2 To what extent has the project leveraged additional investment to sustain its activities?

EGEP does not have match-funding as part of its contractual arrangement with DFID. Nonetheless, extensive funding has been secured from other sources to further support the objectives of the project, ensuring that the project benefits are spread beyond the EGEP-target schools. The lessons identified through the strong evaluation component of the project have been particularly useful in ensuring the consortium has the data to demonstrate, firstly, the extensive need, and secondly what approaches are successful in meeting the need, and that therefore should be continued and potentially expanded.

Over the course of the project, the following grants were secured by the consortium for promoting girls' education in Somaliland, Puntland, and Benadir and Galmudug:

- EUR 4,425,280 'Strengthening Equity, Access and Quality Education', funded by Norad
- EUR 400,000 'Expanded Education', funded by the European Union;
- USD 300,000 'Provision of education to IDPs', funded by UNOCHA
- USD 600,000 'Inclusive Education in Post Conflict Somalia' funded by Norad
- USD 199,500 'Educate a Child' funded by UNICEF
- EUR 2,436,941 'Elmidoon Enhanced Action' funded by EU
- USD 259,905 'Improved access to Education and WASH services for drought affected students and teachers in Bari, Puntland' funded by UNOCHA
- USD 299,916 'Improved access to Education and WASH services for drought affected students and teachers in Nugal, Puntland' funded by UNOCHA
- USD 300,000, 'Supporting Emergency Education in Kis-mayo' funded by UNOCHA
- USD 54,169 'Girls' Learning Education Enhancements' funded by UNICEF

These grants are for activities focused on girls and boys, though all have a greater focus on girls than boys in recognition of the greater needs of girls in education in the given context. The figures reported in Outcome 4 of the annexed Logframe represent two thirds of the actual grant totals, or approximately the portion of target beneficiaries of the grant money that are girls.

Additionally, in terms of in-kind support, ADRA International was particularly impressed with the success of the solar lamps initiative in EGEP and so provided match-funding from unrestricted organizational funds. This amounted to about USD 50,000 and ensured the procurement of an additional 800 solar lamps for the program.

In addition to working to advocate for additional funds from donors, a significant focus of the project has been working to build the capacity of CECs and part of that process has been training and encouraging them to increasingly provide in-kind and financial support to schools. CECs are demonstrating motivation and improvement in terms of considering ways in which they themselves can contribute their time and funds to implementation of school development plans. Qualitatively, it is evident that CECs across all project areas have taken ownership of raising support for the needs of schools. This internal ownership and the previous success of their fundraising efforts seems to indicate that sustainability is possible. Further, CECs appear to be relying more heavily on local sources for funds, such as local businesses and individual community members. This indicates a certain independence from organizational support, such as that of EGEP, and bodes well for sustaining the necessary financial support to implement the school development plans. The proportion of CECs with SDPs that are supported through financial or in-kind contributions increased from 32% to 47% from midline to endline, an encouraging finding.

Project area disaggregation

Puntland

Households and cohort girls: Average demographic statistics of households and caregivers of girls in Puntland are for the most part centered between the two extremes of Somaliland and B&G. Among all project areas, households in Puntland are found most often in IDP camps (19%), caregivers are the most satisfied with toilets at a girls' school (91%), and households have the highest access to electricity (63%). Sixty-five percent of caregivers are literate, 14% have at least some secondary education, and households are 75% urban. Qualitative data suggests that more communities in Puntland are pastoralist and nomadic in nature compared to the other project areas. Ten percent of cohort girls in Puntland were orphans, higher than any other project area. Twenty-six percent of girls at endline stated that they went to school hungry all or most days of the week. In late 2016, ISIS-related conflict in Qandala and inter-clan conflict in North Galkayo negatively affected data collection of the endline evaluation.

“In the past the community didn't believe in the girls education and they think that the girls education doesn't have any quality and [girls] can't complete the education, but in the last years they start to believe in the girls education and now they know the importance of [it].”

—Puntland teacher

Schools: The quality of schools increased substantially from baseline to endline in Puntland, where 86% had cement floors at endline, up from just 18% at baseline. The average number of teachers increased from 7.3 to 11.8, separate toilets for gender increased from 71% to 92%, and the number of toilets increased from 1.5 to 2.1. Schools with incentives for teachers increased from 12% to 49%. Eighty-eight percent of schools provided sanitary kits, and 70% of schools provided solar lamps at endline. Schools with feeding programs decreased from 83% to 33%.

Outcome-level findings: Girls in Puntland missed their literacy endline target by more than 0.5 points out of 10, but exactly met their numeracy endline target. Girls' attendance rose by 2.8%, as measured by headcounts, between midline and endline, and by a total of 6.2% between baseline and endline. Attendance among bursary and non-bursary girls changed by similar amounts. The average days of school missed in the last two weeks for a girl at endline was 0.87 days, the lowest of all project areas. IDP and conflict-affected girls had the highest above-average number of days missed in the past two weeks.

At endline, Puntland had the highest enrollment rate of girls in all project areas, at an average of 90.7% of girls in a household enrolled in school, nearly equivalent to the rate of boys' enrollment in the project area. According to EGEP enrollment figures, from baseline to endline, girls' enrollment in Puntland increased overall by 7.7%, the most positive increase of all project zones.

Solar lamps: Six in ten girls who received a solar lamp in Puntland used it to do homework at night at endline. Girls in Puntland who receive solar lamps have the highest numeracy and literacy scores of all girls who receive solar lamps.

Civil works: When compared to the other project areas, girls in Puntland feel significantly more comfortable using latrines at school (73% at endline, compared to 55% in Somaliland and 53% in B&G).

Girl-centered teaching and psychosocial wellbeing: The proportion of schools in Puntland with teachers who use girl-centered teaching methods was, along with Somaliland, the highest at endline (43%). A teacher using girl-centered teaching techniques in Puntland is

as likely to be non-EGEP trained as EGEP-trained, which indicates that EGEP-trained teachers have caught up to their already-trained counterparts.

Of all project areas, psychosocial wellbeing in Puntland was the lowest at endline (10.3/12.0), though not significantly lower than the average across project areas (10.6). However, Puntland and B&G saw the highest positive changes between baseline and endline in the proportion of girls who are less unhappy at school.

MOE monitoring and interaction: At endline among all project areas, Puntland had the highest proportion of schools receiving a MOE monitoring visit in the past year (75%), though this indicator had been as high as 88% at midline.

Schools in Puntland are more likely than schools in other project areas to have engaged with the MOE in the past year (62%), though the project area also experienced the largest decrease in this indicator from midline to endline (87% to 62%). Interaction with the MOE and schools in Puntland is most likely to be done via a one-on-one meeting between a head teacher and the REO.

Conclusion

Girls' clubs: Schools in Puntland are most likely to have a girls' club (80%) and most likely to have a girl participate in a girls' club (25% of girls) compared to schools in other project areas. Fifty-nine percent of schools with girls' clubs in Puntland cite that girls' clubs interact with CECs, which is about the national average.

What appears to be working in Puntland and why: Bivariate regression analysis on the 10-question learning test found that girls in Puntland who receive solar lamps, girls at schools that have an EGEP-feeding program, girls at schools that have a girls' club, and girls at schools that have a civil works program are associated with higher average learning scores compared to schools and girls in Puntland that do not have those interventions.

Girls in Puntland score significantly above the overall mean in literacy and numeracy, but experienced the smallest improvements from ML to EL among all project areas. We hypothesize that Puntland's scores are due to a relatively high level of non-government run schools in the sample (43% are private or a combination of public-private), indicating potentially better resourced and funded schools and supplies, infrastructure, and teachers. It also may be due to higher than average number of schools benefiting from civil works (38%, and an intervention that was associated with higher learning scores), and the fact that 57% of all feeding programs (also associated with higher learning scores) were found in Puntland schools. Drought is still somewhat existent in Puntland (though to a lesser degree than Somaliland) and Puntland is the most displaced and pastoral of all project areas, facts which may have led to the low increases in scores from ML to EL. Girls in Puntland have the highest attendance among all girls nation-wide (0.87 days missed in the past two weeks), significantly better than Somaliland's 1.42 and B&G's 1.28 days. These findings are probably due to a number of interacting factors. For one, at endline, only 30% of schools in Puntland were rural, 30% of schools were classified as drought-affected, and no schools were conflict-affected (mostly due to the dropping of schools in North Galkayo due to physical insecurity and replacing in Bosaso and Garowe). These three factors – rurality, conflict, and drought – are associated with the largest quantities of missed days of school, and Puntland's relatively low levels of each probably contribute to its high attendance rates.

Somaliland

Households and cohort girls: Households in Somaliland are the most rural (65%), least literate (47% of HOH), and least educated (11% having secondary education or higher). They have the least difficulty in affording to send girls to school (51%), and girls spend the least amount of average time per day on chores (2.1 hours). Girls in Somaliland are the most affected by hunger: 56% cited that they go to school hungry all or most days of the week, compared to 37% of girls in B&G and 26% in Puntland. This indicator increased dramatically from just 10% of girls at midline. While there were no conflict-related issues in Somaliland, elections in early 2016 negatively affected some midline data collection activities.

Schools: Between baseline and endline, schools with only cement floors increased from 26% to 93%, the average number of teachers per school went from 8.3 to 13.3, female teachers per school increased from 2.2 to 4.8, separate toilets by gender at a school increased from 71% to 87%, and the number of latrines for girls per school jumped from 1.6 to 5.4. One hundred percent of schools in Somaliland distributed sanitary kits, and 95% distributed solar lamps at endline. Schools with feeding programs increased from 59% to 71% between baseline and endline.

“ *I am wishing that my daughter uses what she studies to develop herself.* ”

—Somaliland mother

Outcome-level findings: Girls in Somaliland fell the slightest bit short of their endline literacy targets (7.4/7.48) and fell 0.4 points short of their numeracy endline targets. Girls' attendance rose by 10.1%, as measured by headcounts, between midline and endline, and by a total of 15.7% between baseline and endline, the greatest positive change among all project areas. Attendance among bursary and non-bursary girls changed by similar amounts. The average days of school missed in the last two weeks for a girl at endline was 1.42 days, the highest of all project areas. Rural and drought-affected girls had the highest above average number of days missed in the last two weeks.

At endline, 85.4% of girls in a household in Somaliland were enrolled in school, significantly higher than the 81.9% of boys enrolled. According to EGEP enrollment figures, from baseline to endline, enrollment of girls in Somaliland decreased overall by 18%, the largest and the most negative change of all project zones.

Awareness-raising activities: Though rates of TV and radio ownership were the lowest in Somaliland (24% of households), a girl was just as likely to hear a radio message (27% of girls) as a girl B&G, where TV and radio ownership rates were nearly double those of Somaliland. Conversely, only 16% of caregivers heard a radio message on girls' education in Somaliland, compared to 81% of caregivers in B&G.

Bursaries: Girls receiving bursaries scored a small amount better than their non-bursary counterparts in Somaliland, making it the only project area that saw any difference between the two groups of girls in learning scores. This could be due to differences in methodology of the distribution of bursaries, as Somaliland households receive direct cash injections as opposed to paying of school fees in the other project areas.

Solar lamps: Somaliland had the largest proportions of girls receiving solar lamps since the beginning of the program (36% at endline) and using solar lamps to do their homework at night (31% at endline), as well as the highest usage rates of solar lamps to do homework at night specifically among girls who had received a solar lamp (78%). Girls who receive solar lamps in Somaliland had the highest percentage increase in both numeracy and reading scores from midline to endline, compared to other project areas.

Girl-centered teaching: The proportion of teachers using girl-centered teaching techniques decreased slightly from baseline to endline. By endline, EGEP-trained teachers were nearly as likely as non-EGEP trained teachers to use girl-centered teaching methods.

MOE interaction and monitoring: Somaliland was the only project area to experience progressive increases across the three time periods in the proportion of schools receiving an MOE monitoring visit in the past year. The project area saw the highest proportion of schools receiving feedback after an MOE visit (55%), compared to only 29% in Puntland and 17% in B&G.

Sixty percent of schools in Somaliland engaged with the MOE in the past year, though this is down 9 percentage points from the year prior. Interaction with the MOE and schools in Somaliland is most likely to be done via a group meeting with an MOE official and other head teachers or at a school level event, typically involving the REO.

Support of SDPs by CECs: Compared to all other project areas, Somaliland has the lowest proportion of schools at endline with SDPs that are supported through financial or in-kind contributions (33%).

Girls' clubs: Schools in Somaliland are much less likely to have a girls' club, compared to schools in other project areas (48% at endline), though the project area experienced the largest increase in schools with girls' clubs from midline to endline (up from 21%). Fifty-five percent of schools with girls' clubs cite that girls' clubs interact with CECs.

What appears to be working in Somaliland and why: Bivariate regression analysis on the 10-question learning test found that girls in Somaliland who receive solar lamps and schools that receive CEC awards are associated with higher average learning scores compared to schools and girls in Somaliland that do not have those interventions. Schools in Somaliland that receive civil works, have girls' clubs, and have teachers that use girl-centered teaching techniques have weak but positive associations with higher average learning scores compared to Somaliland schools without those interventions.

In a multiple regression model, girls in Somaliland are strongly associated with lower overall math and reading scores, lower attendance, and lower enrollment when compared to girls in Puntland and B&G.

Learning scores among cohort girls in Somaliland are consistently significantly lower than those in the other two project areas, and Somaliland has the highest number of average missed days per school in the past two weeks. We have several hypotheses for these findings. For one, SL is substantially more rural (65%) compared to PL (24%) and B&G (12%). Findings show that rural girls are more likely to have lower math and reading scores and more missed days of school. Further, girls in SL appear to have suffered the most from drought (56% girls go to school hungry every day or most of the time (Figure 42), and 49% of all sampled drought-affected schools were found in SL), a fact which further negatively

affects both learning scores and attendance. Perhaps most telling, all sampled schools in Somaliland are fully government-run, compared to 57% in PL and just 18% in B&G. While this means that PL and B&G schools are more likely to be private and thus require tuition payments, an obstacle which has constituted a significant barrier to girls' enrollment, it also means that they receive arguably better and more consistent funding as government spending on education is already relatively low. Due to this fact, Somaliland schools and their teachers are probably more under-resourced than their PL and B&G counterparts, contributing to detrimental school-level characteristics, such as increased teacher absences, lack of teaching materials, insufficient classrooms and other infrastructure, which further negatively affect girls' learning.

Benadir and Galmudug

Household and cohort girls: Households in B&G remain the most urban (88%), literate (66% of HOH), and educated (22% having secondary education or higher) of the three project areas, yet the poorest when it comes to the proportion of families reporting low cash flow (63%) and having the most difficulty in affording to send a girl to school (76%). The project area had the highest proportion of girls receiving help from a non-family member for school in the past year (20%). Girls in B&G spent the most time on chores (4.2 hours per day), twice that of girls in Somaliland. On average, this time spent on chores affected 22% of girls' ability to go to school and 26% of girls' ability to do schoolwork. The average girl in B&G first started school at 8.8 years of age, much older than the project average of 8.0 and the average in Somaliland at 7.5. Hunger affected girls in B&G: 37% cited that they go to school hungry all or most days of the week, up from 22% at midline. In 2016, Al Shabab-related violence and inter-clan warfare negatively affected data collection in Mogadishu and South Galkayo.

Schools: Between baseline and endline, girl dropouts per school increased dramatically from 9.1 to 20.2, while the number of boy dropouts increased substantially less, from 9.0 to 12.7. At endline, 18% of caregivers said that there was violence at a girl's school in the past year, three times higher than in any other project area. Schools with access to electricity dropped from 67% to 50%, though schools with cement floors only increased from 19% to 77%. The average number of teachers per school increased from 11.9 to 16.2, though the average number of female teachers and pupils per teacher stayed relatively the same.

The proportion of schools with gender separate toilets increased from 70% to 95%, and the average number of latrines for girls per school went from 2.9 to 4.0. Forty-three percent of schools provided sanitary kits, and 45% of schools provided solar lamps at endline. Schools with feeding programs decreased from 86% at baseline to 18% at endline.

Outcome-level findings: Girls in B&G exceeded both their literacy and numeracy endline targets, the only project area to exceed both. Girls' attendance declined by 5.6%, as measured by headcounts between midline and endline, but increased by a total of 4.7% between baseline and endline. Attendance among bursary and non-bursary girls changed by similar amounts. The average days of school missed in the past two weeks for a girl at endline was 1.28 days, slightly higher than the average across all project areas of 1.15 days. Rural, IDP, and non-conflict-affected girls had the highest above average number of days missed in the past two weeks.

At endline, B&G had the lowest enrollment rate of girls in all project areas at an average of 83.5% of girls in a household enrolled in school, though this was significantly higher than the 70% of boys enrolled. According to EGEP enrollment figures, from baseline to endline, enrollment of girls in B&G increased overall by 6%.

Awareness-raising activities: Caregivers in B&G were much more likely to have heard a radio message on girls' education compared to the other project areas (81% of caregivers), most likely because of higher than average radio or TV ownership rates (41% of all households), though a girl in B&G was not more likely to have heard radio messages than girls in other project areas.

School lamps: B&G had the smallest proportion of girls receiving solar lamps since the beginning of the project (13% at endline) and the smallest proportion of girls using solar lamps to do their homework at night (4% at endline), as well as the lowest usage rates of solar lamps to do homework at night specifically among girls who had received a solar lamp (50%). Of all girls receiving solar lamps throughout the country, girls in B&G were the only ones to see a decrease in numeracy scores between midline and endline.

Civil works: B&G saw the largest increase across all project areas from baseline to endline in the percentage of girls claiming that their school had functioning latrines (70% to 98%). However, the project area has the lowest proportion of girls across all project areas who are comfortable using latrines at school (53%).

Girls in B&G were the most likely to cite improvements in school from baseline to endline compared to other project areas, and did so most often for water availability, latrines, lessons/teachers, and fairness toward girls.

Girl-centered teaching and psychosocial wellbeing: The proportion of schools in B&G with teachers who use girl-centered teaching methods dropped from midline to endline, the only project area to have experienced a decrease in this indicator. The drop was large, from 59% of all schools at midline to just 38% at endline. However, a teacher using girl-centered teaching techniques in B&G was 50% more likely to be EGEP-trained than not; in the other project areas, the likelihood was nearly equal.

Girls in B&G saw the largest increase in psychosocial wellbeing scores from

baseline to endline compared to the other project areas and had the largest positive change in the proportion of girls who were less afraid to go to school. Along with Puntland, B&G saw the highest change in the proportion of girls who are less unhappy at school between baseline and endline.

MOE interaction and monitoring: From baseline to endline, the proportion of schools in B&G receiving an MOE monitoring visit decreased from 67% to 55%, the only project area to have experienced a negative change. Schools in B&G were the least likely of all project areas to have received feedback after an MOE visit (17% of schools at endline).

Schools in B&G are less likely than schools in other project areas to have engaged with the MOE in the past year (50%), down from 57% the year prior. Interaction with the MOE and schools in B&G is most likely to be done via a group meeting with an MOE official and other head teachers, and most often with officials from the Exam Board.

Financial support of SDPs: Compared to all other project areas, B&G has a much higher proportion of schools at endline with SDPs that are supported through financial or in-kind contributions (89% compared to 42% in Puntland and 33% in Somaliland).

Girls' clubs: B&G was the only project area to have experienced a decrease between midline and endline in the proportion of schools with girls' clubs (71% to 64%). However, of schools across all project areas that have a girls' club, those in B&G are most likely to cite that girls' clubs interact with CECs (62% of schools).

“*The educated girl is important to her family and she can help her community as well.*”

—*B&G mother*

What appears to be working in B&G and why: Bivariate regression analysis on the 10-question learning test found that schools in B&G that have a non-EGEP feeding program are associated with higher average learning scores compared to schools and girls in B&G that do not have that intervention. Bivariate regression on the 17-question learning test found that girls who receive solar lamps in B&G have a weak but positive association with higher average learning scores than girls in B&G who do not receive solar lamps.

Girls in B&G score the highest among all girls nationwide, though the influence of EGEP interventions on learning is unclear. The project area has lowest levels of drought (20% of sampled drought-affected schools) and rurality (8% of all sampled rural schools), the highest level of private or public-private run schools (82%), and the highest proportion of girls receiving tutoring (30%), all of which could potentially contribute to higher learning scores. Paradoxically, B&G has relatively low attendance (1.28 days missed in a two-week period, above the average of 1.15 days). Potential hypotheses could revolve around the effect of conflict on attendance (the project area records the highest levels of conflict-- 90% of all sampled conflict-affected schools are in B&G), and the fact that only 17% of sampled schools with school-feeding programs were in B&G even though 37% of girls in B&G go to school hungry every day or most days. Further, a significantly below average proportion of schools in B&G (43%) distributed sanitary kits at endline, and the project area has the lowest percentage of girls who are comfortable using latrines (53%). Quantitative and qualitative data indicate that the availability of sanitary kits and private latrines are large drivers of attendance and may play a role in explaining the attendance results in the project area. B&G was the only project area to register an increase in enrollment between BL and EL, potentially due to EGEP-awareness raising radio activities, relatively low levels of drought, and the fact that the average girl in B&G starts school an entire year or more later than girls in other project areas. Though 76% of households in B&G cite that it is difficult to afford to send a girl to school (the highest among all project areas), households may have overcome this financial barrier: B&G had the highest proportion among all project areas of girls receiving bursaries (31%) and girls receiving outside help to stay in school (20%).

Summary findings of outcome indicators at endline

Learning: Overall, cohort girls did not meet their reading and numeracy targets at endline. When disaggregated into grades, OOSG and Grade 3 girls exceeded their targets in numeracy but not literacy, and Grade 2 girls fell short of both literacy and numeracy targets. Among key sub-groups, broken out by grade, boys and girls did not score significantly different from each other. On literacy, conflict-affected girls scored the highest, and rural and drought-affected girls scored the lowest. On math, conflict-affected girls scored the highest, and girls in IDP camps scored the lowest. Ceiling effects on the 10-question learning test increased substantially across the three data collection periods to a high of 77% at endline. Ceiling effects play a major role in limiting our ability to accurately observe improvements in learning scores.

Attendance: Cohort girls' attendance rose across all three project areas on average between 4.2–4.7% from midline to endline, using headcounts and teachers' records. Attendance rose in Puntland and Somaliland but fell in Benadir and Galmudug. The average girl misses 1.2 days of school in a two-week period at endline.

Retention: Retention of girls in school was minimized at 82% of the ISG cohort. Chief among reasons for loss of a girl from the cohort was that she moved away in the previous year, accounting for just over half of cases. Nearly 3 in 10 lost cohort girls were unknown by the head teacher at school. Among all cohort OOSG at baseline who were successfully recontacted at midline and endline, only 25 of 371 OOSG, for a total enrollment rate of 93%. Though some natural enrollment of OOSG was expected, an analysis of baseline OOSG age at baseline showed little proof that this was the case.

Enrollment: According to EGEP enrollment data, enrollment had zero change from baseline to endline. Decreases were found in Puntland and Somaliland; however, Benadir and Galmudug saw a large increase in enrollment.

Explanation and interpretation

In order to explain these findings, SI looked at both quantitative and qualitative data. Bivariate and multivariate regression analysis was conducted on key outcomes using output interventions and control variables at the school, household, and project area levels in order to observe relationships between outputs and outcomes. Where possible, we conducted multiple regression analysis on the changes from baseline to midline to endline.

Decomposing the drivers of explained variation of outcomes

According to Shapley decomposition, EGEP output interventions explain between 17% and 35% of the variation in reading scores (depending on the 17- or 10-question test), with 19% of the variation in math scores, 38% of the variation in attendance measures, and 16% of the

variation in enrollment at endline (Figure 52). While the majority of variation in outcomes (learning, attendance, and enrollment) is explained by household, school, external/contextual, and project area factors outside of the influence of EGEP, these data show that output interventions still play an important role in determining key outcomes. Interventions that contribute the most to variation of learning scores are feeding programs (14% in of 10-question reading scores), sanitary kits (9% of math scores), and solar kits and civil works (7% of 10-question reading scores each). When it comes to attendance, the decomposition indicates that sanitary kits and school feeding programs accounts for 12% and 17% of variation, respectively. For enrollment, sanitary kits explain 6% of the variation. See Annex 11 for more information on the Shapley decomposition.

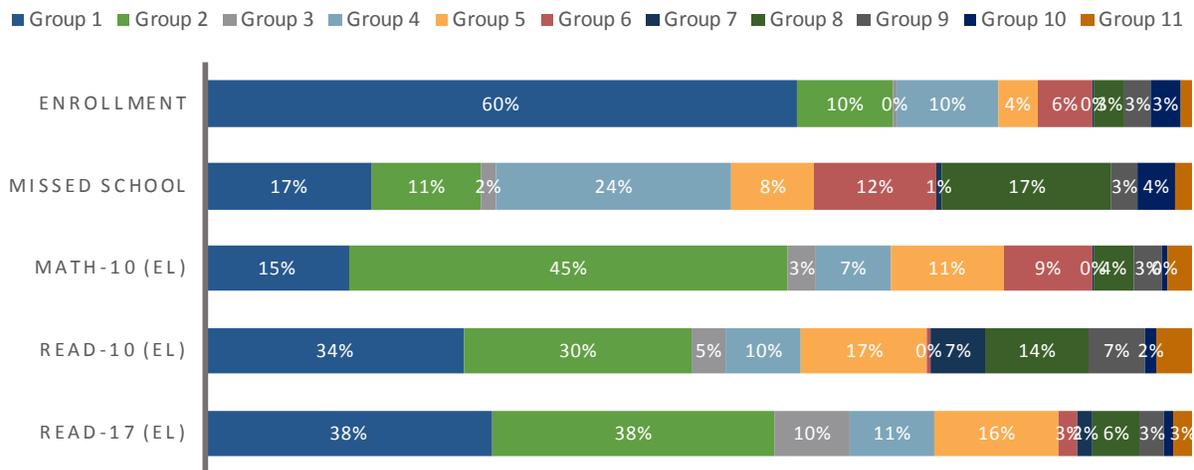
“ *In the past, no one was sending his daughters to the school, but now after we received the help from the NGO and from the school principals the obstacles disappear step by step.* ”
—*B&G father*

Table 67: Groups of the Shapley decomposition in Figure 52

Group	Variables
Group 1	Student's individual and household level characteristics
Group 2	Zone/Project areas
Group 3	Urban versus rural
Group 4	Conflict, drought-affected areas, and IDP camps
Group 5	Number of female teachers, number of pupils per teacher, SDP, Latrines
Group 6	Sanitary kit
Group 7	Solar lamp
Group 8	Feeding program (EGEP or non-EGEP)
Group 9	Civil works
Group 10	CEC award
Group 11	Participation in girls' club

Output 1

Figure 52: Shapley decomposition: breaking down the drivers of explained variance on outcome measures



Program radio broadcasts is the awareness raising activity that is reaching the most people, particularly in urban areas, with positive correlations with enrollment. Households with a caregiver who had seen or heard an awareness-raising message in the past year were associated with having more girls enrolled in school than households with a caregiver who had not heard or witnessed an activity. In rural areas, vehicle announcements and printed materials fare well. Radio programs appear to be reaching the most people in urban areas, where ownership of radios is highest. Where program radio is not penetrating, for instance in rural Somaliland where ownership of radios is low, enrollment is down, and where penetration is highest (Benadir and Galmudug), enrollment has increased substantially. Community support for girls' education is very high, and EGEP awareness-raising activities, particularly through radio, may be partly responsible. Qualitative data is consistent between midline and endline and paints a clear connection between radio activities and increased enrollment of girls. In drought affected areas, a girl of a caregiver who had heard a program on the radio on girls' education was significantly associated with higher learning scores compared to a girl whose caregiver had not heard a radio message. In general, given the large increases in community support for girls' education between BL and

EL and the fact that EGEP is the sole actor in the girls' education sphere in catchment areas sampled, we believe awareness-raising activities to have played a large and important role in improving community support for girls' education.

Girls who receive bursaries do not score significantly different from girls who do not receive bursaries. Girls who receive bursaries score slightly higher than girls who were OOSG at baseline and did not receive bursaries, though only at lower grades. As girls who were OOSG at baseline age, they quickly catch up to their bursary counterparts. There is initially a statistical difference in learning scores between a girl who was ISG and a girl who was OOSG when receiving a bursary (in favor of ISG girls), though these differences become insignificant as a girl ages. Attendance between girls who do and do not receive bursaries is comparable. Bursaries in the form of cash grants in Somaliland may have a small effect on girls' learning there. In Somaliland, girls who receive bursaries perform better than their non-bursary counterparts on the new 17-question literacy test. This finding is interesting given that the nature of bursaries in Somaliland is different than in Puntland and Benadir and Galmudug. In Somaliland, school is free, and bursaries come in the form of cash grants. At endline, qualitative data matched quantitative data; girls felt strongly that receiving a bur-

sary does not necessarily mean that one will have higher learning scores. They stated that it was the motivational level of the girl that mattered most. Bursaries were specifically cited in qualitative interviews as being essential for many girls, particularly in Puntland and Benadir and Galmudug, to be able to enroll in school.

Qualitative data suggests that sanitary kits have a positive significant association with girls' attendance in school. Quantitatively, one multiple regression model showed a positive correlation of sanitary kits with a girl's attendance, and a Shapley decomposition finds that among all output interventions, sanitary kits explain the most variation in math scores (9%), the most variation in enrollment measures (6%), and the second most variation in attendance (12%). Mothers, fathers, and CEC members support the claim that sanitary kits are helpful for attendance and, by extension, learning. Additionally, endline qualitative data suggests that girls are more open about talking about the need for sanitary kits and that having female teachers present has been critical in girls' comfort. Girls indicated that the methods of distributing the sanitary kits have improved, providing more privacy for the girls.

Provision of solar lamps to girls living in rural areas, drought, and conflict-affected areas has positive significant correlation with

learning scores compared to girls who did not receive solar lamps. In a Shapley decomposition, solar lamps are second among all output interventions in explaining the variation in reading scores (7%). Quantitative and qualitative data suggests that girls in rural areas share solar lamps to do their homework at night. Quantitative findings show that less than half of girls in urban areas who receive a solar lamp use it to do homework at night compared to over 80% of girls in rural areas. Qualitative data at endline suggests that provision of solar lamps was critical to girls' learning. Consistent with midline, all mother, father, and girl FGD respondents indicated that solar lamps are important to a girl's ability to complete homework, especially in light of household obligations that carry into the evening. Quantitative evidence also suggests that of those girls who use solar lamps, a substantial proportion had never received one and are therefore using lamps belonging to other girls. Qualitative evidence supported this finding, as girls said they often complete homework at homes of their neighbors who have solar lamps.

Output 2

Civil works construction in schools in rural, drought-affected, and IDP areas are significantly associated with higher learning scores compared to schools that did not receive civil works. The presence of girls' latrines at a school had a positive significant association with attendance. Overall, Shapley decomposition shows that civil works explain 7.5% of variation in reading scores. Girls claim that water availability and quality of latrines have increased markedly from baseline to endline in Benadir and Galmudug; however, there is little evidence of any impact on key outcomes in that project area. Qualitative findings show that latrines have markedly improved across all project areas. All FGD girl student respondents indicated functional and private latrines at their schools. Quantitative evidence shows girls' comfort in using latrines steadily increasing from midline to endline, a finding supported by qualitative data, where girls indicated comfort in using latrines, even during menstruation, which was a substantial improvement from qualitative findings at midline. CEC members, mothers, and fathers supported the girls' claims that latrines have improved and are satisfactory. Girls cite that an improved latrine leads to higher attendance owing to increased privacy at school and thus higher comfort.

There are more girls' clubs at endline compared to midline, and qualitative data suggests that they are contributing positively to empowerment of girls. In bivariate regression models, a school with a girls' club was associated with significantly higher average learning scores in rural and drought-affected areas compared to schools that did not have girls' clubs. Many more girls are active in girls' clubs and look forward to girls' clubs' activities on a weekly basis. At midline, a majority of girls seemed unaware of girls' clubs in FGD responses. This was not the case at endline, with extensive answers reported regarding both enjoyment of the club and explanations of the clubs' functioning. According to FGD responses, girls' clubs are creating a space for the students to work toward solving both school and community problems, as well as a place for the girls to bond and support each other. Qualitative evidence shows that girls' clubs are extra strong when there exists a female mentor/teacher at school who acts as an advisor to the club.

Marginalized teachers targeted by EGEP for training appear to have caught up to their already-trained peers in terms of teaching skills; however, this does not translate into increased use of girl-centered teaching methods. Schools with teachers who utilize girl-centered teaching techniques are significantly positively associated with higher learning scores, particularly in rural and drought-affected areas, compared to schools with teachers who do not use these techniques. EGEP-trained teachers use girl-cen-

tered teaching methods about as much as non-EGEP trained teachers, except in Benadir and Galmudug, where they use it more often. However, quantitative evidence suggests that the proportion of teachers using girl-centered methods did not increase from baseline to endline. In KIIs, teachers cited that they had had extensive training, though none were able to talk particularly about girl-centered teaching methods. In KIIs, teachers expressed a desire to attend more trainings, especially to help them learn more about how to teach girls. CECs expressed that a lack of funding for training and highly underpaid teachers undermine the work of increasing girl-centered teaching.

Quantitatively, EGEP-implemented school feeding programs appear to have no significant correlation on program outcomes. However, an interesting finding is that non-EGEP school feeding programs are significantly associated with higher learning scores for a wide variety of girls, compared to schools that had no feeding program, though the effect is strongest for rural and drought-affected schools. Non-EGEP school feeding programs also have significant positive association with attendance compared to schools

“It’s possible that mothers may send their children to the schools while they’re hungry, and we knew that hungry children will not study effectively and efficiently.”

—B&G mother

that had no feeding program. EGEP-implemented feeding programs show little effect on outcomes even though they are overwhelmingly more likely to be managed by CECs than non-EGEP implemented feeding programs. The proportion of girls who say they go to school hungry all or most of the time increased by 68% from midline to endline, most notably in Somaliland, where it increased more than five-fold. This quantitative data, coupled with qualitative data from mothers and fathers who cite the positive influence of feeding programs on girls' enrollment and attendance in school, suggests that feeding programs remain both essential and impactful. In several qualitative FGDs, feeding programs were cited as the number one reason parents send their children to school. In the Shapley decomposition model, feeding programs are responsible for between 6% and 14% of the explained variation on learning scores and 17% of the variation in attendance measures, the largest explainer of variation among all output interventions.

Qualitative findings suggest that positive psychosocial wellbeing of girls at school appears to be driven by accessibility of female figures at the school and improved privacy of latrines. Regression findings suggest that as a girl's psychosocial wellbeing surpasses a high score (10/12), the average days of school that she misses in the past two weeks drops substantially. Psychosocial wellbeing of girls increased between baseline and endline, mostly because of large improvements in girls stating that they were less unhappy and felt less afraid at school in Puntland and Benadir and Galmudug. A majority of girls reported that they are able to speak openly to teachers, principals, and CEC members if they have a problem. In girls' FGDs, participants said they had friends at school and were happy to attend school to see those friends. A critical improvement from midline, at endline, when girls reported that they can be great leaders, their answers were not followed by limitations based on societal or religious standards.

Output 3

MOE gender focal points have retained important general lessons from EGEP trainings on girls' education, though monitoring visits to schools by MOE officials did not substantially increase between baseline and endline and interactions between schools and MOE decreased over the same period. Schools receiving feedback after monitoring visits improved between midline and endline, to nearly 40%. About three in five schools interacted with MOE officials between midline and endline; nearly three quarters of these did so through the REO. Relationships between MOE and schools were cited as positive at endline, though still highly dependent upon the political will of the minister in power. Among almost all disaggregations of schools (urban, drought-affected, and IDP), a visit from an MOE official in the past year was significantly associated with lower average learning scores. This may indicate that MOE officials are visiting the most underperforming schools, a potentially positive finding.

Output 4

Matching cash grant awards to CECs to implement their SDPs are significantly associated with higher learning scores for girls in schools in rural and drought-affected areas, compared to girls in schools that did not receive awards. Though EGEP-collected data demonstrates that 99% of schools have SDPs that focus on girl-centered activities, CEC members in KIIs cited that SDPs focus almost exclusively on civil works construction at school. Unsurprisingly, civil works and CEC awards appear correlated, and both have significant positive effects on key outcomes.

Though the number of girls' clubs increased from midline to endline, the proportion that interact with CECs has declined, most notably in Benadir and Galmudug. Most critically, the inclusion of female members in CECs has, however, had highly positive effects on girls' comfort levels at school, according to qualitative data. Qualitative data suggests that the relationship between CECs and girls' clubs remains strong. Qualitative data suggests that CECs are playing a much more involved role in the school than before, often fundraising on their own in the community and investing their time in school improvements. CECs that have female members have stronger ties to girls' clubs, as girls feel comfortable confiding in female members of CECs.

Other interventions and findings

Mobile libraries appear to have no positive quantitative impact on key program outcomes. Qualitatively, girls indicate a positive effect on learning, though the sample size (one FGD) was too small to make larger generalizations. **Female mentors** were not specifically cited by girls in any FGDs and KIIs, though the inclusion of more female members of authority (CECs, teachers, etc.) has made a very apparent and large impact on girls' psychosocial wellbeing at school. Qualitative evidence from two FGDs of girls in **ALP classes** suggests that these interventions were well received by girls and that there is a high desire to reenroll in school following the completion of classes. Girls in these classes expressed having learned much and would enroll again were it not for financial barriers. Forty-six percent of girls who went through ALP classes are now enrolled in school.

Barriers and effects on marginalized populations

Grouped together, drought, conflict, and IDP status are powerful external factors that affect learning outcomes for girls. Shapley decomposition shows that these three factors alone explain between 7-10% of the variation in learning scores, and 24% of the variation in attendance measures, and 10% of the variation in enrollment measures. In many regression models, they were statistically significant factors.

Drought: Girls affected by drought are significantly associated with, on average, more days of missed school in the past two weeks and lower enrollment in school compared to girls not affected by drought. These girls are associated with fewer points scored on the 17-question literacy test, though the finding was not significant. Though girls affected by drought score fewer points on average than girls who are not affected by drought, improvements in overall 10-question learning test scores from midline to endline were similar in both groups. Civil works, CEC awards, solar lamps, girls' clubs, radio awareness messages, girl-centered teaching, and non-EGEP feeding programs are all associated with positive, statistically significant impacts on girls' learning scores in drought-affected areas compared to schools, girls, or households in drought-affected areas that do not receive those interventions.

Conflict: Qualitative findings suggest that girls in conflict areas are often times sometimes not sent to school for fear of danger. Not only does conflict thus affect their attendance and learning, but it also affects their psychosocial wellbeing. Girls who live in conflict areas miss on average slightly more days of school than

girls who do not live in these areas, though the finding is not statistically significant. Girls in conflict areas score on average more points on learning tests than any other subgroup of marginalized girls, though the finding is not statistically significant. When it came to midline to endline improvements in learning scores, non-conflict and conflict-affected girls did not significantly differ. Solar lamps have significant positive effects on learning scores of girls in conflict areas.

IDP: Girls living in IDP camps miss significantly more days of school in the past two weeks than girls not in IDP camps and are significantly less likely to be enrolled in school compared to girls who are not in IDP camps. Girls in IDP camps score on average fewer points on learning tests than their non-IDP counterparts, though the differences are not significant. Improvements in learning scores from baseline to endline have been similar among the two groups. Civil works construction has strong positive significant effects on learning scores of IDP girls, compared to schools that did not receive civil works construction.

Orphan: Findings at endline suggest that no matter the large burdens that orphans face, all segments of the community (CECs, girls' clubs, teachers, etc.) have banded together to help orphans. Differences in learning scores for orphans and non-orphans are not significant. Orphans miss fewer days of school in the past two weeks than both girls who have one or both parents at home. Non-EGEP feeding programs have a small but statistically significant impact on orphans' learning scores compared to schools that received no feeding program.

“*My daughter is [an] orphan and she didn't study, but now the NGO pays her school fee. ...I hope that she will complete her education to the university level, because as a mother I can't afford to buy her education tools like the books and pens, so I hope they help us more so I can send all the children to the schools.*”

—*B&G mother*

Rural: Girls in rural areas still face barriers such as poor roads and time walking to school. Girls in pastoralist communities, particularly in Puntland, suffer academically because of frequent displacements that are often exacerbated by drought. Girls in rural areas miss more days of school than those in urban areas, though the finding was not significant. On average, girls in rural areas score lower on learning tests than girls in rural areas, though the finding was not significant. From baseline to endline, both groups of girls improved their learning scores at similar rates. Non-EGEP school feeding programs, girls' clubs, and girl-centered teaching are associated with a positive significant effect on learning scores of rural girls compared to schools that did not have those interventions. CEC awards appear to be associated with a positive significant effect on scores on the 17-question reading test in urban schools.

Other: According to qualitative data, there are specific types of girls who face larger barriers to enrollment compared to their peers. The eldest girl in a family is often kept out of school, as she is responsible for household chores. Girls living with grandparents or older relatives are often discouraged from going to school so they can care for their family members. Early marriage and adolescent motherhood were cited as major barriers to enrollment, though they have declined in importance compared to midline. In fact, at endline, girls more than ever feel strongly about being able to choose a husband and exercise their rights to education, even in the face of strong societal and religious expectations. Parents still send their sons to school first, and daughters are still expected to work at home per traditional cultural values, though this is improving. The more girls there are in a household, the less likely they are all to be enrolled, a significant finding in all regression models on enrollment.

Sustainability

A small number of CECs are helping to support girls to pay their school fees. Above all, financial support is critical for sustainability and to ensure the continued positive impact of most of the EGEP interventions. Most notably, provision of bursaries and sanitary kits were indicated in FGDs as instrumental factors in ensuring enrollment, retention, and attendance for marginalized girls. Without continued financial support for these interventions, across the board, respondents indicated that the improvements in enrollment, retention, and attendance that have occurred throughout EGEP will likely see a decline. One in four schools at endline was receiving support from CECs to help pay girls' school fees. In several KIIs, CECs talked about trying to find ways to step in and manage funding of key programs after EGEP ceases, particularly around uniforms and school fees.

Construction of critical civil works (classrooms and latrines) has completed in all project areas, and the average school has twice as many latrines at endline as it had at baseline. Of schools where CECs give non-cash contributions, 20% of non-cash contributions are in the form of maintenance on civil works. These works will continue to play a role in improving or maintaining girls' educational outcomes in the short term. However, maintenance of physical infrastructure and civil works interventions will be critical for long-term sustainability. Construction or refurbishment of latrines and classrooms, water sources, and even distribution of solar lamps all

require some amount of knowledge and physical resources (tools, materials, etc.) to ensure their upkeep when they eventually break down. This is especially true in a country beset by physical insecurity and poverty.

Over 60% of school feeding programs are managed by CECs. This proportion increases to over 70% for EGEP-managed school feeding programs specifically. Continued provision of food at school is a critical intervention to increase attendance and improve learning. Hunger remains a chronic and cyclical issue in the Horn of Africa. This reality, combined with high poverty levels, means that many girls go to school hungry each day. Continued partnerships with WFP and other humanitarian organizations to support and implement feeding programs will not only motivate more caregivers to send girls to school, but it will also keep girls healthy and allow them to do better in school.

Girls who receive solar lamps use them and continue to do so years after receiving them. Over 80% of girls who receive a solar lamp use it in some way, 70% use it to do homework, and over 40% of girls who received lamps between baseline and midline are still using them at endline. Furthermore, 10% of girls who do not receive a lamp are able to access one to do homework. A lack of light will continue to be a problem for girls: 36% of caregivers noted that this was a major impediment for a girl to do her schoolwork. Ensuring a consistent supply of light, particularly in rural areas, will go a long way to sustaining girls' learning scores. Solar lamps remain the only output intervention of EGEP to attain significant positive effects across the board on an outcome. Lamps are used most often by rural girls, who share them among their peers and who reap significant benefits on learning from their use. Given the respectively large extracurricular work burden on rural girls, it is critical to ensure that they have a constant source of light at night by which they can study.

“ Good changes happened and girls got knowledge, and they also got welcoming and they left whatever challenge they used to face. Before we used to say to the girls ‘cook the rice and let the boys study,’ we also used to send the girls to the kitchen in order to cook for the family. ...But [EGEP] brought us good thing and I wish them good from Allah. ”

—Puntland mother

Gender Focal Points at the various MOEs appear to be more knowledgeable of and motivated toward improving girls' education. Political will is an important aspect of sustainability as it relates to MOE support of girls' education initiatives. The current close relationships between communities and MOE officials could be easily dissolved with a simple change of administration. The school-MOE dialogue begun by EGEP is a first and positive step in developing relationships between the community and government that will continue to be self-sustaining into the future.

Communities overwhelmingly express strong academic aspirations for their girls, particularly to go to university. They also express a deep desire to carry on efforts to improve access to and quality of girls' education. Awareness raising activities have succeeded in solidifying the idea of the importance of girls' education in communities. Efforts carried out by EGEP, particularly radio messaging in urban area, have encouraged and equipped community members across all three project areas with the knowledge and tools to carry out those efforts on their own.

Nearly one in four CECs is supporting school development plans through cash and/or non-cash contributions. Qualitative data suggests that CECs and teachers are working tirelessly to reach OOSG and eliminate the barriers they face. Girl students themselves are

working together to help those most critically marginalized girls in communities. Community ownership of girls' education initiatives will help overcome individual barriers. CECs and girls' clubs will continue to work together to overcome the financial barriers that may pose a threat to improvements in enrollment, attendance, learning, and retention.

Several factors limit us from making definitive statements about which EGEP interventions work across the board. For one, unobservable characteristics vary largely from project area to project area, and these characteristics explain the most variation in key outcome measurements. What works in Somaliland may not work in B&G and vice versa. Secondly, the lack of a counterfactual or control group precludes us from establishing definitive causation between EGEP interventions and observed changes in outcomes. All of our findings, even statistically significant ones, imply association or correlation between interventions and outcomes and should not be interpreted as implying that one leads to the other. Lastly, the effect of external factors, in particular drought, conflict, and displacement, play a major role in affecting the project's key outcomes and may overshadow any effects from EGEP interventions. This last point is especially critical, particularly when attempting to define which or how EGEP interventions can be improved and/or scaled up, as the effect of EGEP interventions will be limited in the face of overwhelming external influences. That being said, given the large amounts of quantitative and qualitative data collected at endline and our efforts to triangulate among various sources, we have identified what appear to be the most critical interventions or combinations of interventions for improving girls' educational outcomes and in what context they might reach the highest number of girls. Improving learning scores among the largest quantities of girls will be especially important for future programming that focuses its goal on reaching learning score targets, particularly in light of the fact that overall and among most sub-groups, EGEP cohort girls did not exceed their learning targets at midline or endline.

Feeding programs and sanitary kit distribution together account for 30% of variation in attendance measurements and appear to have the largest impact when carried out together in rural and/or drought-affected, and to a lesser extent IDP, areas. Hunger is a worrisome reality across all project areas. The presence of a feeding program at school is associated with higher gains in learning and attendance across project areas than almost all other interventions. Feeding programs explain the most variation in all major program outcomes (both 10 and 17-question literacy scores, numeracy scores, and attendance), and are second only to sanitary kits in explaining the variation in enrollment. In Puntland, even the potentially disastrous combination of drought and displacement, two factors which negatively affect attendance, is overcome by the effect of school feeding alone. Sanitary kit distribution played a larger role on attendance than previously thought, accounting for over 12% of the explained variation in the attendance measure, and cited as extremely influential in almost all girls' FGDs. Combined with a feeding program, the two interventions account for 30% of the explained variation in at-

tendance and could be continued in tandem in future programming.

A combination of radio messaging and financial support to girls to enrol in school appears to drive gains in enrollment, particularly in urban areas where population density and access to radios are highest. Financial barriers remain as probably the largest obstacle to enrolling girls in school. This assertion is backed up by evidence showing that the more girls there are in a household, the lower the odds of a girl being enrolled, as well as consistent findings on bursaries from FGDs. Financial support in the form of bursaries or direct help to a girl from outside of her family play important roles in limiting the effect of financial barriers. Follow-on work would do well to continue promotion of girls' education through mass media in high density areas while ensuring to provide methods to overcome households' financial barriers in enrolling girls.

Functional, private latrines for girls combined with the presence of female mentors and/or female CEC members appears to have a compounded effect on girls' psychosocial wellbeing, and therefore attendance and learning. A multiple regression model found latrines associated with higher attendance; further, a girls' level of comfort in using latrines may contribute substantially to attendance rates. Qualitative evidence from FGDs and KIIs strongly suggests that when there is a female community member (a female mentor or a female CEC member, for example) present at a school to advise and liaise with girls and girls' clubs, psychosocial wellbeing is higher. High psychosocial wellbeing is strongly associated with lower days of school missed in a two-week period. Ensuring not only that latrines for girls exist but that they are maintained and functioning will be essential for follow-on programming.

Of all observable external factors, drought and displacement appear to have the largest effects on key program outcomes; follow-on projects may get the best value for money by targeting drought-affected and displaced populations of girls. Conflict had non-significant negative effects on learning and attendance, but not on enrollment. B&G has the highest levels of conflict, yet the highest learning scores and enrollment. We find that conflict may have become ubiquitous in nature; while conflict was found to occasionally result in the shutting down of schools for periods of time, they typically reopened within a few days. Only small proportions of households indicated that it was unsafe for a girl to go to school, and the negative effects on attendance and learning caused by conflict appear to be overcome with financial interventions. Future programming looking for the greatest impact for money should look to girls who suffer the most and for whom interventions have the strongest positive effects—those who are drought-affected and displaced.

Recommendations

Recommendations to EGEP/Relief International

Recommendation	Supporting evidence	Assumptions
<p>Continue to use radio for awareness messaging in urban areas. For rural populations, use vehicles and printed materials as well as local networks of trusted community members, such as teachers and CECs, to help raise awareness. Include financial support interventions (such as bursaries) alongside media campaigns to ensure there are funds for enrollment of girls.</p>	<p>Only 37% of caregivers country-wide had witnessed or heard an awareness-raising event at endline; among those who had, their girls were more likely than not to be enrolled in school. In urban settings, among caregivers hearing messages, 81% were through the radio. In Somaliland, which is 65% rural, no one medium of awareness raising reached more than 22% of caregivers (posters, billboards, and vehicle announcement were the highest). Radio and TV ownership is low in rural areas, and there are few if any radio stations that broadcast to these areas. Quantitative evidence suggests that community support for girls' education in the past three years has increased dramatically, to the point that communities are working together to ensure that all girls can go to school. Teachers and CECs are more involved than ever in identifying the most vulnerable girls, particularly orphans, and advocating for their enrollment in school. Financial barriers to enrollment appear to be overcome by bursaries and other outside assistance.</p>	<p>Teachers and CEC members have the time and resources to conduct personal activities on behalf of schools. Support for girls' education remains high and does not encounter large cultural or religious barriers after EGEP ceases. In urban areas, financial support for radio programs continues. Funding exists (either through programming or outside support) for households to be able to afford to send girls to school.</p>
<p>Ensure that rural girls have access to functioning, consistent sources of light, such as solar lamps.</p>	<p>Rural girls use solar lamps at more than double the rate of urban girls. Rural girls with solar lamps were associated with significantly higher average reading scores than rural girls who did not have solar lamps. Shapley decomposition suggests that solar lamps are one of the stronger interventions explaining variation in learning scores. Qualitative and quantitative evidence shows that girls in rural areas share solar lamps among themselves. Qualitative data suggests that it is an essential intervention for allowing girls to study at night. Over 40% of girls who received a solar lamp between baseline and midline were still using it at endline.</p>	<p>Financial resources exist to purchase and distribute solar lamps after EGEP ceases. The population has access to tools, materials, and know-how to maintain and fix solar lamps. Reasonable criteria for distribution is used so as not to bring about ill will in communities. Girls will continue to share solar lamps with girls who did not receive one. Solar lamps are not unreasonably co-opted by families for other purposes such as cooking (a finding at midline).</p>
<p>Maintain bursary support so that funds are available in households to pay for girls to go to school, particularly for households in Puntland and B&G.</p>	<p>Though at endline bursaries were not significantly associated with above average learning scores or attendance, qualitative evidence strongly suggests that if bursaries were taken away, the poorest families would be required to remove their children from school. Bursaries are essential in particular for paying school fees in PL and B&G.</p>	<p>There is continued financial support to give bursaries. Community and within-household divisions are not strained by those who do and do not get bursaries. CECs are involved in deciding the recipients of bursary support as means of fair disbursement. The economic situation for families does not change dramatically due to exterior factors.</p>
<p>Consider adding holistic livelihood and income-generating activities/interventions where appropriate.</p>	<p>Many households lament the loss of a girl's labor in the home when she is sent to school. Often, girls are held back to take care of the home while a parent is out searching for work. In most FGDs with parents and girls, the removal of any sort of financial support was considered a death blow to sustainability of projects.</p>	<p>Implementers are flexible and open to integrating holistic livelihoods or income-generating activities into their programming. Interventions are context and culturally specific and appropriate. Interventions do not cause ill will within the community among members who get them and those who do not. The economic situation of households does not change drastically because of outside factors. Households spend new income on education-related expenses.</p>

<p>Maintain distribution of sanitary kits alongside MHM behavior change communication campaigns.</p>	<p>Sanitary kits were cited in most qualitative events as being an integral intervention for girls' attendance at school. Shapley decomposition shows sanitary kits as explaining over 12% of variation in the attendance measure, second only to feeding programs. Qualitative findings suggest that current knowledge around MHM remains an important aspect in ensuring that girls continue to go to school when menstruating.</p>	<p>Communities and community leaders are open to programming around sensitive topics. Programs involve local female figures of authority who are willing and able to work on MHM topics. Girls feel comfortable attending programs and discussing the topic. Girls feel comfortable using sanitary kits. Sanitary kits remain available and easily accessible for girls.</p>
<p>Assess the barriers that prevent teachers from using girl-centered techniques.</p>	<p>Less than half of teachers at EGEP schools are using girl-centered techniques in class. From baseline to endline, the proportion of teachers using girl-centered teaching methods did not increase even as many were trained in extensive two-year programs. Qualitative evidence suggests teachers are woefully underpaid, and this may have an effect on their teaching.</p>	<p>Trainings can be standardized and accurately assessed across project areas. Teachers have the motivation to use new techniques and knowledge in class. Teachers are not so overly burdened with other obstacles to teaching, such as low pay or lack of materials, that they are unable to implement girl-centered techniques. There exists funding and/or political will at the MOE to incentivize better teaching.</p>
<p>Ensure that there are sufficient, functioning, and appropriate latrines for rural, drought-affected, and IDP girls. Maintain CEC awards so that there are funds available for latrine maintenance.</p>	<p>Civil works construction and CEC awards (which mostly focus on civil works construction) were strongly positive and significantly associated with higher average learning scores among IDP, drought-affected, and rural populations. Qualitative evidence suggests that this is mostly due to the availability of girls' latrines, particularly those with added privacy. The availability of these latrines helps girls feel more comfortable and increases attendance at school. Thirty-eight percent of girls at endline were uncomfortable using latrines, and this may have contributed to lower attendance rates.</p>	<p>Funding, materials, tools, and know-how are present and available to ensure sustained upkeep of latrines. CECs are involved in the sustainability plan for these civil works. Female figures of authority and/or girls are consulted in latrine design and upkeep.</p>

Recommendations to CECs/local grantee organizations

Recommendation	Evidence	Assumptions
<p>Focus fundraising efforts on tuition fees and school uniforms.</p>	<p>Financial barriers remain the largest obstacles to sustainability of the majority of EGEP interventions. All girls in the three project areas are defined as marginalized by EGEP, and financial issues plague households' abilities to send their girls to school. Households will lose critical bursary support from EGEP once the project finishes. At endline, uniforms emerged as one of the largest expenses that families have for school. Girls in PL and B&G, where school is not free, would benefit most from bursaries for school fees.</p>	<p>CECs/grantee organizations have continued financial support to give bursaries or pay for school uniforms. Community and within-household divisions are not strained by those who do and do not get financial support. CECs are involved in deciding the recipients of bursary support as means of fair disbursement.</p>
<p>School feeding programs should be continued and/or scaled up. CECs should continue to manage school feeding programs, particularly in Somaliland in order to ensure their sustainability.</p>	<p>Provision of food at school was cited in many qualitative events as the number one reason parents send girls to school. The presence of a school feeding program explains the most variation in nearly all key outcome measures. Hunger remains extremely high in all three project areas, but most acutely so in Somaliland.</p>	<p>CECs or government agencies can form partnerships with UN agencies or other humanitarian bodies to support appropriate and consistent food programs. CECs have the time and financial resources to dedicate to managing school feeding programs.</p>
<p>Expand membership of females in CECs.</p>	<p>At endline, girls felt more comfortable at school, leading to higher attendance. Qualitative evidence suggests that the bulk of this improvement comes in the form of increased privacy in latrines and the presence of female figures of authority (teachers, CEC members) with whom girls can interact. CECs cite that when they have a female member, they are more easily able to interact with and advocate on behalf of girls.</p>	<p>Women in the community are available and willing to participate in CECs and do not experience pushback from males or others in the community. Girls continue to have confidence in dealing with female figures of authority and can continue to assemble and advocate for their issues through girls' clubs.</p>
<p>Support schools to continue and strengthen sanitary kit distribution programs, particularly by utilizing trusted female figures of authority in the community. Standardize methodology for distribution of sanitary kits at the school level.</p>	<p>Levels of shame and embarrassment remain high around this issue of menstruation. Girls feel more comfortable in the presence of female mentors. Distribution of sanitary kits differs across schools and may prevent many girls from being able to access kits.</p>	<p>Communities and community leaders are open to programming around sensitive topics such as menstruation. Programs involve local female figures of authority who are willing and able to work on MHM topics. Girls feel comfortable attending programs and discussing the topic. Girls feel comfortable obtaining and using sanitary kits. Sanitary kits remain available and easily accessible for girls.</p>
<p>Enlist CEC members and teachers to encourage enrollment of girls, particularly among rural populations that are hard to reach.</p>	<p>Quantitative evidence suggests that community support for girls' education in the past three years has increased dramatically, to the point that communities are working together to ensure that all girls can go to school. Teachers and CECs are more involved than ever in identifying the most vulnerable girls, particularly orphans, and advocating for their enrollment in school. Quantitative evidence suggests rural populations are hard to access with awareness-raising messages.</p>	<p>Teachers and CEC members have the time and resources to conduct personal activities on behalf of schools. Support for girls' education remains high and does not encounter large cultural or religious barriers after EGEP ceases.</p>
<p>CECs should play an active role in maintaining and raising funds for latrines.</p>	<p>At endline, girls felt more comfortable at school, leading to higher attendance. Qualitative evidence suggests that this is mostly due to the availability and enhanced privacy of girls' latrines. A school with a functioning girls' latrine was significantly associated with higher attendance in a regression model.</p>	<p>CECs remain motivated to set aside funding for upkeep of latrines. Materials, tools, and know-how are present and available to ensure sustained upkeep of latrines. Female figures of authority and/or girls are consulted in latrine design and upkeep.</p>

<p>Promote and support girls' clubs at schools, particularly by head teachers and CECs. Female mentors and/or female CEC members should act as advisors for girls' clubs.</p>	<p>Though there was little mention of girls' clubs at midline, girls in FGDs at endline spoke highly of the impact of these clubs on their happiness and ability to advocate for themselves at school. The number of schools with girls' clubs increased from midline to endline and nearly doubled in Somaliland. Qualitative data suggests that girls' clubs that have access to female CEC members appear to be extra effective in their advocacy efforts. Only 6 in 10 schools with girls' clubs report interactions between girls' clubs and CECs.</p>	<p>Girls continue to receive support and encouragement in forming clubs at school. Head teachers are active in setting aside a "safe space" for girls to meet and discuss their issues. CECs are willing and able to meet with girls' clubs on a regular basis. CECs continue to recruit female members who actively engage with and advise girls' clubs.</p>
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Recommendations to DFID and other donors

Recommendation	Evidence	Assumptions
<p>Advocate to WFP to expand/scale up their school feeding programs, particularly in drought-affected areas.</p>	<p>Quantitative evidence showed that feeding programs explain the largest portion of variation in attendance compared to any other intervention. Models show positive significant associations between non-EGEP (WFP-only) feeding programs and both attendance and learning, particularly for drought-affected populations. Hunger is high in all project areas, and in many qualitative events, school feeding programs were cited as the number one reason why parents send their children to school. Given the drought in early 2017, school feeding programs will continue to play a pivotal role in the daily lives of girls in the project area.</p>	<p>WFP has available financial and human resources and political will to expand and/or partner into other schools. Cyclical weather patterns and famine in the Horn of Africa continue as they have historically. Note: The effectiveness of WFP feeding programs does not indicate that EGEP feeding programs are not successful. Further investigation is needed into the characteristics of the schools that receive these feeding programs.</p>
<p>Advocate at the MOE level for increased support of gender-specific interventions at schools. This could include monitoring of girl-centered activities and incentives for good teaching.</p>	<p>Monitoring of girl-centered activities and teaching at schools by the MOE is relatively low. Teachers frequently cite low salaries and financial issues as major barriers to teaching. MOE KIs suggest that GFPs are young, motivated, and willing to play a larger role at the school level. Upcoming elections and the respective changes in public employees at the MOE could result in losses to progress made on girl-centered issues at the MOE level.</p>	<p>DFID and MOE can maintain cordial relations before and after new elections. DFID has relationships in place to effectively advocate at the government level. MOE is willing and financially able to support increased activities around girl-centered interventions. Financial resources exist for teacher incentives and they are enough to overcome other barriers (cultural, societal, religious, etc.) to girl-centered teaching.</p>
<p>Incentivize and advocate at the MOE level for the promotion of public-private partnerships between the MOE and public institutions and/or NGOs for funding of schools.</p>	<p>Public expenditures on education remain very low, potentially affecting teaching quality, teacher availability, school infrastructure, and school resources. The differences in proportion of publicly-funded schools in SL versus privately-funded schools in B&G may explain some of the large discrepancies in teaching indicators and learning scores between the two project areas.</p>	<p>MOE has the human resources, the technical knowledge, and the will to pursue and manage public-private partnership agreements. NGOs and private institutions exist who are willing to partner with MOE. Reduction in funding burden results in higher quality teaching and generally more positive school-level indicators.</p>