

A SUMMARY OF KEY PATTERNS IN THE JORDANIAN  
EDUCATION SYSTEM BY SCHOOL TYPE, GENDER AND  
REGION

A report by the University of Sussex as part of the research project ‘*Assessment of Education Strategies and Interventions Adopted in Jordan as a Response to the Syrian Crisis*’. This report was produced under the Evidence-Driven Results in Learning (EDRiL) initiative, which is a partnership between the Government of Jordan’s Ministry of Education (MoE), Queen Rania Foundation for Education (QRF), the UK Government (FCDO) and Global Affairs Canada. The overall aims of the study and research questions are set out below in Box 1. This is the first of a series of working papers for the research project. The report was written by [Dr Marcos Delprato](#), Dr Linda Morrice and Saja Al-Nahi.

**Four working papers have been produced as part of this project:**

Working paper one: Delprato, M. Morrice, L. and Al-Nahi, S. (2020) *A Summary of Key Patterns in the Jordanian Education System by School Type, Gender and Region*. Centre for International Education, University of Sussex, Brighton, UK.

Working paper two: Younes, M., and Morrice, L. (2019) *The Education of Syrian Refugees in Jordan: Issues of Access and Quality. A review of policies and initiatives (2012-2018)*. Centre for International Education, University of Sussex, UK.

Working paper three: Younes, M., and Morrice, L. (2019) *The Education of Syrian Refugees in Jordan: Summary of demand-side constraints and interventions*. Centre for International Education, University of Sussex, UK.

Working paper four: Salem, H. and Morrice, L. (2019) *A Review of Social Cohesion Initiatives and Challenges with a Focus on Jordan and Education*. Centre for International Education, University of Sussex, UK.

All project publications are available at: <http://www.sussex.ac.uk/education/cie/projects/current>

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## BOX 1. OVERALL AIM OF THE STUDY AND RESEARCH QUESTIONS

The aim of the study was to assess how educational interventions introduced in Jordan as a response to the Syrian crisis have been an effective way to ensure equitable access to quality formal and non-formal education for refugee children, and resulted in learning and social cohesion for all. This broad aim was broken down into the following research questions:

1. How do Jordanian and Syrian students' learning outcomes vary between camp settings, second shift schools and host community schools?
2. How are teachers and school leaders supported to provide access and equality and social cohesion for Syrian refugees?
3. What are the teaching and learning processes which effectively promote access, equality and social cohesion for Syrian refugees?
4. What formal and non-formal education and protection strategies are effective in building acceptance and improving social cohesion between refugee and host populations?

**Research question one** is addressed by working paper one, *A Summary of Key Patterns in the Jordanian Education System by School Type, Gender and Region*. The report drew on quantitative evidence from the Education Management Information System (EMIS) and the Early Grade Reading Assessment (EGRA) and Early Grade Maths Assessment (EGMA) results (2016/2017), to summarise key patterns in the education system and assess learning across different types of MoE schools.

**Research questions two and three** were addressed by a number of working papers. Working paper two, *The Education of Syrian Refugees in Jordan: Issues of Access and Quality. A review of policies and initiatives*, focused on issues of access and quality, and provided an overview of past and latest policies regarding the education of refugees in Jordan. Working paper three, *The Education of Syrian Refugees in Jordan: Summary of demand-side constraints and interventions*, provided a review of barriers and challenges Syrian families and their children face accessing formal education. A fourth working paper, *A Review of Social Cohesion Initiatives and Challenges with a Focus on Jordan and Education*, provided in-depth analysis of the range of Ministry of Education (MoE) initiatives to promote social cohesion. The report identified lack of data on assessment of social cohesion and effectiveness of initiatives as key challenges.

**Research questions 3 and four** were addressed by working paper four and the final report, *Learning and Social Cohesion in Schools in Jordan*. The empirical phase of the study assessed social cohesion across MoE school types and the effectiveness of interventions designed to promote cohesion.

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## EXECUTIVE SUMMARY

**Overview:** This report is concerned with Ministry of Education (MoE) run public schools. Drawing on quantitative evidence from the EMIS (2016/2017) and EGRA/EGMA (2017/2018) the report highlights findings across test performance and student resources in their home and school environments.

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### **KEY FINDING 1: STUDENTS IN SECOND SHIFT AND CAMP SCHOOLS MISS OUT THE MOST IN EARLY YEARS EDUCATION**

Data on family and student characteristics indicate that students in camp and second shift schools faced disadvantages in the early years when compared students at regular and host community schools. Critically, students in regular and host community schools were more likely to have reported attending preschool prior to schooling at the basic level (grades 1-10), at a rate of 86% and 68% respectively. In contrast, the rate of reported preschool attendance at second shift Syrian schools and camp schools was 31% and 43%, respectively. Additionally, on average students in regular and host community schools reported starting basic school at a younger age than those in second shift and camp schools, and had lower rates of repetition and absenteeism.

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### **KEY FINDING 2: MEAN PERFORMANCE ON THE EGRA WAS LOWER THAN MEAN PERFORMANCE ON THE EGMA ACROSS ALL SCHOOL TYPES**

Data from the Early Grade Assessments in Math and Reading (EGRA/EGMA- 2017/2018) indicate that at all school types, students achieved lower percentages of correct answers on the EGRA than they achieved on the EGMA. The mean percentage of correct answers on the EGRA ranged from 19% to 41% across all school types, while mean percentage of correct answers on the EGMA ranged from 61% to 67%. This gap between performance on reading and math was narrowest at host community schools (26%), followed by regular schools (27%). Second shift and camp schools had the greatest gap, at 37% and 42% respectively. The gender gap on the EGRA was greatest at host community schools, with boys scoring 9 percentage points fewer than girls. Across all other school types, females achieved average scores 1 to 4 percentage points greater than boys.

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### **KEY FINDING 3: EGRA AND EGMA PERFORMANCE WAS LOWEST AT CAMP SCHOOLS**

Students at camp schools had the lowest average scores across all school types on both the EGRA and EGMA. A comparison of data between school types showed that students at host community schools scored the best on the EGRA test, followed by students at regular schools, which scored 2 fewer percentage points. The lowest performance was observed at camp schools, where students scored 10 percentage points fewer than students at second shift schools, and 20 to 22 percentage points fewer than students in regular and host community schools. The same trend holds for performance on the EGMA, with students at camp schools scoring 5 to 6 percentage points fewer than other school types. Compounding this, girls in camp schools scored 18 percentage points fewer than boys on the EGMA. The differences in scores by gender across all other school types were marginal for the EGMA and in line with data from the 2018 PISA results.

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### **KEY FINDING 4: STUDENTS IN REGULAR AND HOST COMMUNITY SCHOOLS REPORTED HIGHER LEVELS OF ENGAGEMENT IN READING ACTIVITIES IN HOME AND SCHOOL ENVIRONMENTS**

While family inputs related to children learning (identified through parental literacy levels and help with homework) were strong across the board, there were lower levels of family support reported for activities related to reading in camp schools. Students in regular, host community and Syrian second schools were more likely to report that someone in their home read to them, when compared to students in camp schools. In addition to this, students in camp and second shift schools were also less likely than students in regular and host community schools to report reading at school or borrowing books from the library.

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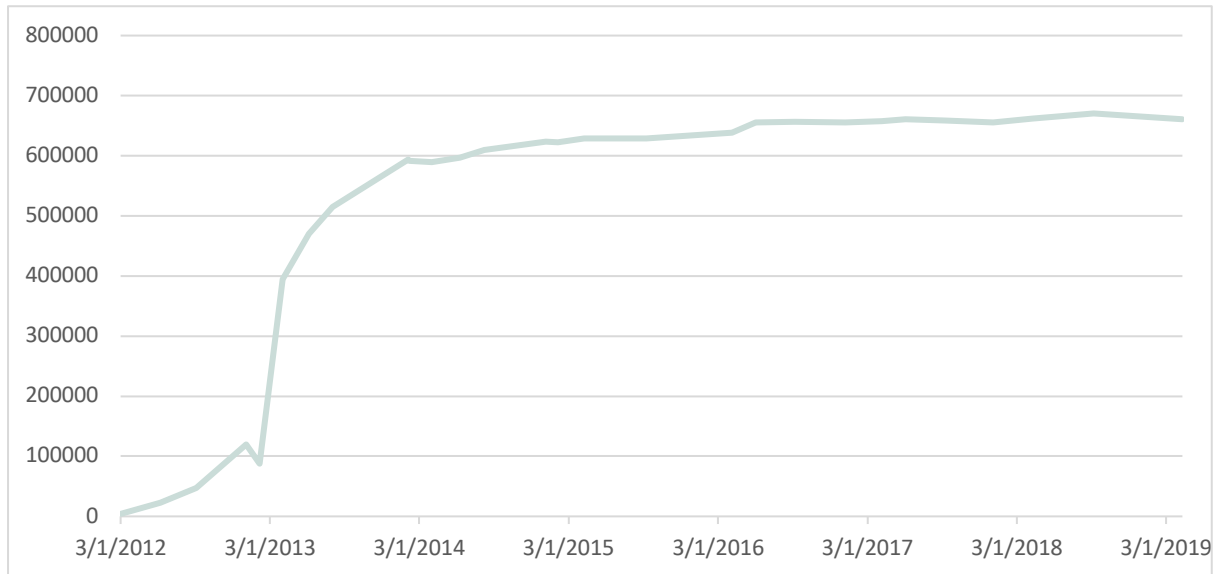
***KEY FINDING 5: EMIS DATA SHOWED THE AVERAGE NUMBER OF STUDENTS IN THE HIGHER GRADE LEVELS (GRADES 7-10) IS LOWER AT SYRIAN SECOND SHIFT AND CAMP SCHOOLS. IT ALSO INDICATES A PRONOUNCED ABSENCE OF SYRIAN SECOND SHIFT SCHOOLS, PARTICULARLY IN RURAL AREAS***

Education Management Information Systems (EMIS) data (2016/2017) showed the average number of students in the higher grade levels (grades 7-10) is lower at Syrian second shift and camp schools. While this data is cross-sectional and no inferences on enrolment can be drawn, further research is essential to explore whether a lower number of students in camp and second shift secondary schools indicates higher levels of drop out. EMIS data also indicate a pronounced absence of Syrian second shift schools at secondary level when compared to basic level, particularly in rural areas.

## INTRODUCTION

According to the 2015 Jordanian national census, Syrians represented 13.2% of Jordanian's overall population<sup>1</sup>. Figure 1 depicts the number of Syrians with United Nations High Commissioner for Refugees (UNHCR) registered refugee status in Jordan and is taken from the UNHCR data portal. The graph highlights the large influx that took place in 2013 and how numbers have remained relatively stable between 2014-2019.

Figure 1: Total number of registered Syrian refugees in Jordan over time<sup>2</sup>



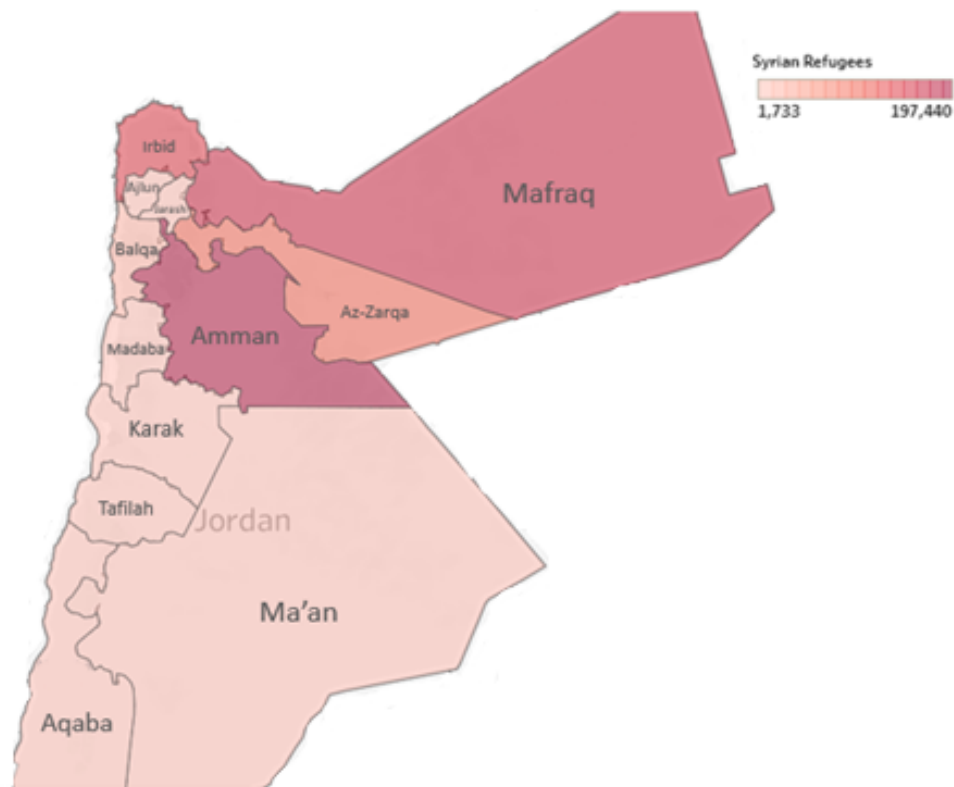
There were 672,578 UNHCR registered Syrian refugees in Jordan. 79% of those registered refugees (516,000) are living in rural and urban communities outside of refugee camps. The remaining 21% are settled in camps, either in Za'atari, Azraq or Emirati Jordanian Camp (EJC). Figure 2 represents the most recent (2019) UNHCR data on the registered Syrian refugee population in Jordan showing the highest concentration of refugees in central and northern governorates.

Figure 2: UNHCR-registered Syrian refugees in Jordan, by governorate in 2019

<sup>1</sup> Younes and Morrice (2019) *The Education of Syrian Refugees in Jordan: Issues of Access and Quality. A review of policies and initiatives.*

<sup>2</sup> Figure adapted from UNHCR Operational Portal Syrian Response. Retrieved from <https://data2.unhcr.org/en/situations/syria>





In 2019, over one-third of the Syrian refugee population in Jordan was of school-age. UNHCR data indicates an uneven distribution across the age ranges, with almost 45% of Syrians aged between 5 and 11, and just under 28% aged between 12 and 18<sup>3</sup>. Syrian refugee students have been integrated into regular schools, as well as to camp and second shift schools created to absorb the numbers of Syrian refugees in Jordan.

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#### DISTRIBUTION OF MINISTRY OF EDUCATION RUN SCHOOLS IN JORDAN

Education Management Information Systems (EMIS) data showed that camp schools were in the northern governorate of Mafraq and the central governorate of Zarqa. Second shift and host community schools were near evenly distributed between the northern and central regions and were more likely to be concentrated in urban areas. EMIS data indicated that the northern and central governorates of Al Mafraq, Amman, Irbid and Zarqa had the highest number of host community and second shift Syrian schools, both at basic and secondary levels. This data suggests that schools are distributed in areas where the majority of the registered Syrian refugee population in Jordan are located (Figure 2).

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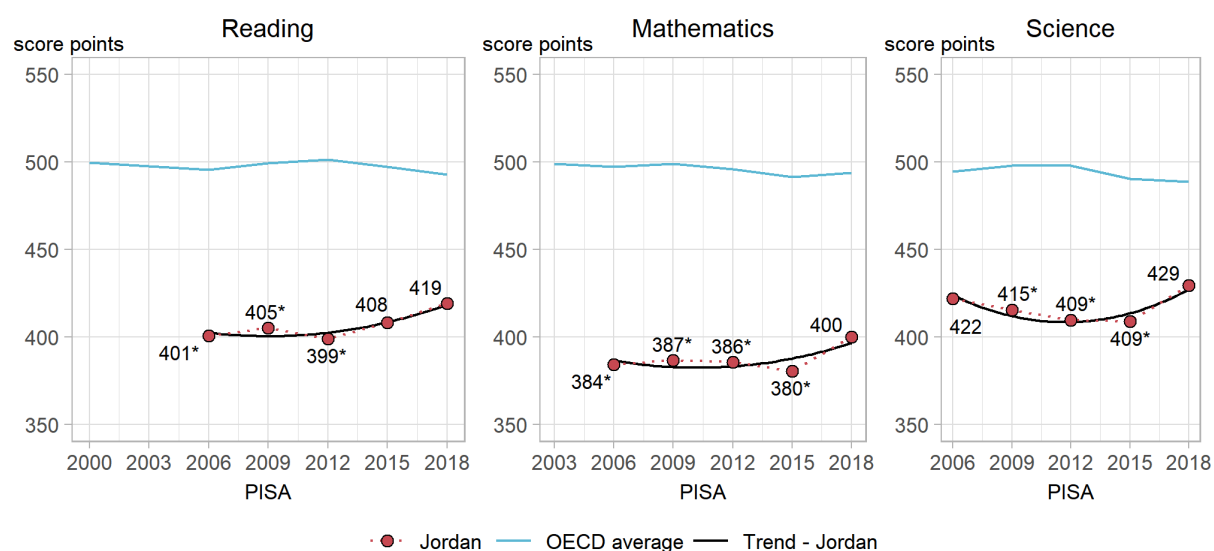
#### INTERNATIONAL DATA ON LEARNING OUTCOMES FOR JORDANIAN AND SYRIAN STUDENTS

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<sup>3</sup> UNHCR Portal. Syrian response. Retrieved: <https://data2.unhcr.org/en/situations/syria/location/36>

Results from the Programme for International Student Assessment (PISA)<sup>4</sup> from 2018 indicate that mean performance in reading, maths and science has continued to improve since 2012, and that the gap with the OECD average performance has reduced (Table 1). This is despite the Syrian refugee crisis in Jordan.

Table 1. Trends in performance in reading, maths and science (PISA)



Notes: \* indicates mean-performance estimates that are statistically significantly above or below PISA 2018 estimates for Jordan. The blue line indicates the average mean performance across OECD countries with valid data in all PISA assessments. The red dotted line indicates mean performance in Jordan. The black line represents a trend line for Jordan (line of best fit)<sup>5</sup>.

In line with all countries and economies which participated in PISA 2018, females in Jordan outperformed boys in reading (by 51 score points compared to OECD's average of a 30 score point difference between genders), and science (by 29 score points compared to OECD average of just two score points). In Jordan females scored similar to boys in maths (across OECD countries boys outperformed females by five score points).

The PISA data show that 12% of students in 2018 had an immigrant background, however, this is not broken down by nationality, and it is therefore not possible to compare the performance between Syrian and Jordanian students. The enrolment of 15-year-olds in grade 7 and above, and represented by the PISA samples, has remained close to the levels in 2012, whereas the overall population of 15-year-olds in Jordan has increased by more than 25% over the same period, largely as a result of the

<sup>4</sup> Programme for International Student Assessment 2018 is a triennial survey of 15-year-old students that assesses the extent to which they have acquired the key knowledge and skills essential for full participation in society. Data presented has been retrieved from: [https://www.oecd.org/pisa/publications/PISA2018\\_CN\\_JOR.pdf](https://www.oecd.org/pisa/publications/PISA2018_CN_JOR.pdf)

<sup>5</sup> Source: [https://www.oecd.org/pisa/publications/PISA2018\\_CN\\_JOR.pdf](https://www.oecd.org/pisa/publications/PISA2018_CN_JOR.pdf)

influx of Syrian refugees. The stable enrolment rate during this period indicates that high numbers of refugee children may not be enrolled in grade 7, and may not be captured by the PISA survey.

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## THIS REPORT

This report is concerned with Ministry of Education (MoE) run public schools. It summarises key patterns in the education system and assesses learning across different types of MoE schools based on available data. The report is in two parts; part one draws on the EMIS<sup>6</sup> dataset to explore the distribution of schools in Jordan by type, location and level (basic or secondary), and school ownership. It also looks at enrolment across grades by student gender and school type. The second part of the report provides an analysis of the EGRA<sup>7</sup> and EGMA<sup>8</sup> learning data for a sub-set of 239 MoE schools. The merging of the EMIS and EGRA/EGMA datasets allowed a comparison between learning outcomes in grades 2 and 3. Section two provides a description of the learning outcomes in Arabic language and maths across school types and by gender. Section three of the report provides a comparison of student and family characteristics in different school types. The final section of the report provides a summary of the findings and challenges which includes identifying the gaps in the data. The largest gap is the lack of data on non-formal schools. Data useful for the next phase of the project is highlighted, along with information which would enable a strengthening of the analyses.

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<sup>6</sup> Education Management Information System (2016/2017)

<sup>7</sup> Early Grade Reading Assessment (2017/2018)

<sup>8</sup> Early Grade Mathematics Assessment (2017/2018)

## INTRODUCTION

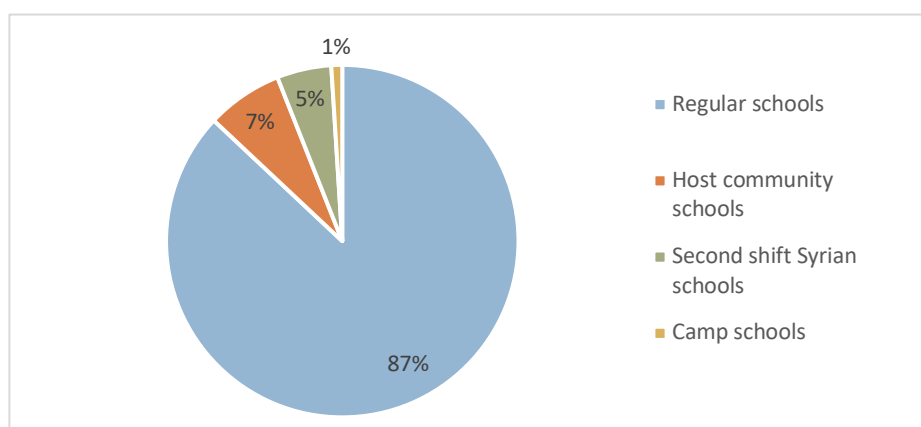
There is a total of 3,792 basic and secondary schools under the authority of the Ministry of Education (MoE) in Jordan. Data has been analysed using the following classification of school type:

- Regular schools: majority Jordanian students with less than 10% Syrian students
- Host community schools: mostly Jordanian students with between 10-50% Syrian students
- Second shift Syrian schools in the host community: Majority Syrian students
- Camp schools: Syrian students in Azraq and Zaatari camps

## 1.1 DISTRIBUTION OF SCHOOLS BY TYPE

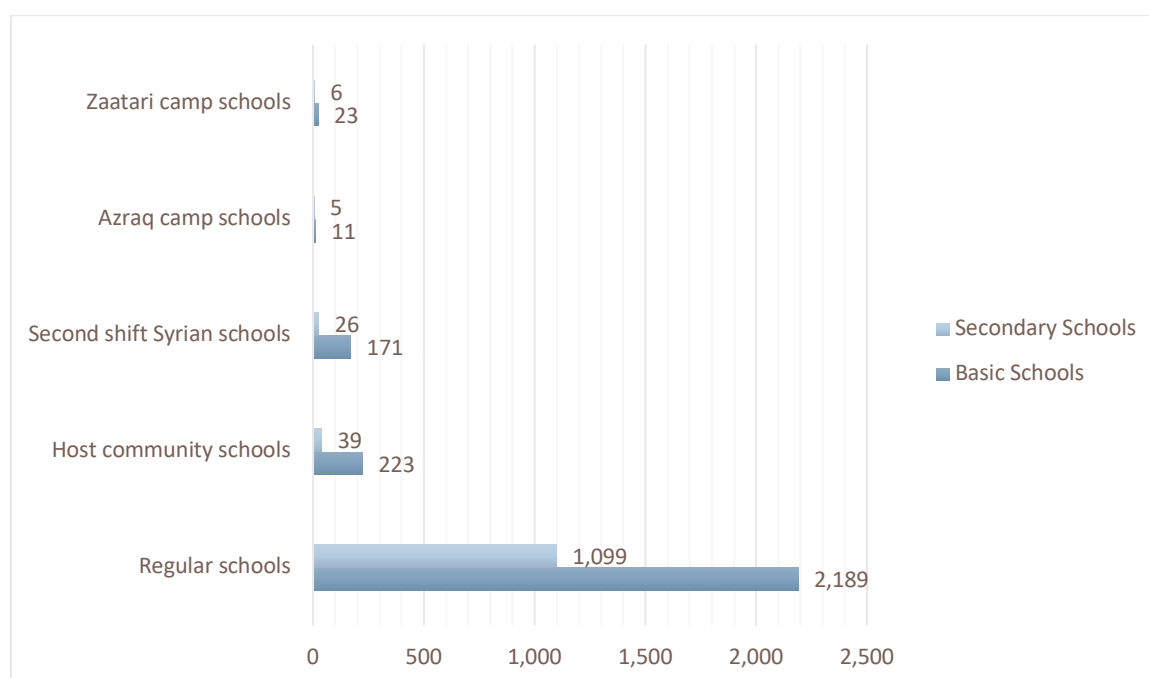
Figure 3 shows the distribution of schools by type. Almost nine out of ten schools (86.7% or 3,289 schools) were categorised as regular. Of the remaining schools, around 7% or 262 schools were host community schools. Of the schools where the majority population of students were Syrians, second shift types were the largest group (5.2% or 197 schools), whereas there were 45 camp schools (16 in Azraq and 29 in Zaatari).

Figure 3: Distribution of MoE schools by school type



Data were disaggregated by level of schooling served; basic level (schools that serve up to grade 10) and secondary level (schools that serve up to grades 11 or 12). The supply of secondary schools was highest for regular schools; where secondary schools made up 33% of regular MoE schools (Figure 4). Azraq and Zaatari camp schools had a larger proportion of secondary schools when compared to Syrian second shift and host community schools, with secondary schools making up 21% of Zaatari camp schools and 31% of Azraq schools. Host community and second shift schools had the lowest supply of secondary schools with 15% and 13% respectively. Additionally, a comparison of the number of basic and secondary schools across the two camps showed that there was more provision of basic education in the Zaatari camp than in the Azraq camp. This reflects the larger overall population in Za'atari (76,354) compared to Azraq (40,403). Interestingly, the number of secondary schools was similar in each camp. As such, Zaatari schools had a much higher mean number of students per school (905 students) compared to Azraq (532 students).

Figure 4: Number of basic and secondary schools by school type



The focus on expansion of school places to accommodate Syrian students has been on basic, but not secondary school<sup>9</sup>. This is expected as secondary education is not mandatory in Jordan, hence resources would have been allocated to increase access for students into mandatory education at the basic education level. However, the limited supply of secondary schools for Syrian students may indicate reduced supply of school places. This may lead to fewer options for Syrian students, which may consequently result in greater distance between home and school. Transportation costs and distance of secondary schools from student home is cited as a reason for dropout among Syrian students<sup>10</sup>.

## 1.2 DISTRIBUTION OF SCHOOLS BY LOCATION

Reflecting the higher population density in central and northern Jordan, most schools were in the central region (around 42%) and in the northern region (40%), and approximately only 18% in the southern region (Table 2).

Table 2. School distribution by region				
Region	Basic	Secondary	Total	%
Central	1,075	511	1,586	42%

<sup>9</sup> The World Bank (2020) Additional Financing - Jordan Education Reform Support Program-for-Results (P173091). Programme Information Documents. June 2020. Retrieved from: <http://documents.worldbank.org/curated/en/658371591596610166/pdf/Appraisal-Stage-Program-Information-Documents-PID-Additional-Financing-Jordan-Education-Reform-Support-Program-for-Results-P173091.pdf>

<sup>10</sup> World Bank (2017) International Bank for reconstruction and development programme appraisal document on a proposed loan in the amount of US \$200 million to the Hashemite Kingdom of Jordan for an education reform support programme- for-results. Retrieved from: <http://documents.worldbank.org/curated/en/731311512702123714/pdf/Jordan-Educ-Reform-121282-JO-PAD-11142017.pdf>. UNICEF (2018) My Needs, our Future: Baseline Study Report for Hajati Cash Transfer: (March 2018).

%	67.78	32.22		
North	1,052	473	1,525	40%
%	68.98	31.02		
South	490	191	681	18%
%	71.95	28.05		

The camp schools were located in the northern governorate of Mafraq (Zaatari camp) and the central governorate of Zarqa (Azraq camp). Similarly, 55% of second shift schools and 50% of host community schools were in the northern region. Just 2.5% of second shift and 11% of host community schools were in the South of Jordan (Table 3).

Table 3. School type and region			
School type	Central	North	South
Regular schools	1,385	1,256	647
Host community schools	102	131	29
Second shift Syrian schools	83	109	5
Azraq camp schools	16	0	0
Zaatari camp schools	0	29	0

The largest proportion of schools in Jordan was in Amman, Irbid, Al Maqraf and Zarqa, the governorates with the highest populations<sup>11</sup>. At both the basic and secondary level, approximately 20% of schools were in Amman, and 10% in Zarqa. The supply between basic and secondary (measured by number of schools) does not change much between basic and secondary across governorates (Table 4).

Table 4. Distribution of schools across governorates, in relation to total population in that governorate							
Governorate	population <sup>12</sup>	basic	secondary	total	basic %	secondary %	total %
Ajloun	176,080	78	47	125	2.98	4	3.3
Al Mafraq	549,948	370	148	518	14.14	12.6	13.66
Al Tafilah	96,291	93	29	122	3.55	2.47	3.22
Amman	4,007,526	543	278	821	20.75	23.66	21.65
Aqaba	188,160	42	28	70	1.6	2.38	1.85
Balqaa	491,709	160	94	254	6.11	8	6.7
Irbid	1,770,158	479	225	704	18.3	19.15	18.57
Jerash	237,059	125	53	178	4.78	4.51	4.69
Karak	316,629	206	92	298	7.87	7.83	7.86

<sup>11</sup> Based on 2015 census. Source Department of statistics, Jordan. <https://www.citypopulation.de/en/jordan/admin/>

<sup>12</sup> Ibid.

Maan	144,082	149	42	191	5.69	3.57	5.04
Madaba	189,192	93	38	131	3.55	3.23	3.45
Zarqa	1,364,878	279	101	380	10.66	8.6	10.02
Total	9,531,712	2,617	1,175	3,792	100	100	100

The northern and central governorates of Al Mafraq, Amman, Irbid and Zarqa have the highest number of host community and second shift Syrian schools, both at basic and secondary level (Table 5).

Table 5. Distribution of schools across governorates by school type						
Governorate		Regular schools	Host community schools	Second shift Syrian schools	Azraq camp schools	Zaatari camp schools
Ajloun	<b>total</b>	<b>114</b>	<b>8</b>	<b>3</b>	<b>0</b>	<b>0</b>
	basic	69	7	2	0	0
	secondary	45	1	1	0	0
Al Mafraq	<b>total</b>	<b>372</b>	<b>86</b>	<b>31</b>	<b>0</b>	<b>29</b>
	basic	251	66	30	0	23
	secondary	121	20	1	0	6
Al Tafilah	<b>total</b>	<b>121</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>
	basic	92	1	0	0	0
	secondary	29	0	0	0	0
Amman	<b>total</b>	<b>702</b>	<b>67</b>	<b>52</b>	<b>0</b>	<b>0</b>
	basic	439	58	46	0	0
	secondary	263	9	6	0	0
Aqaba	<b>total</b>	<b>68</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>
	basic	40	1	1	0	0
	secondary	28	0	0	0	0
Balqaa	<b>total</b>	<b>238</b>	<b>11</b>	<b>5</b>	<b>0</b>	<b>0</b>
	basic	144	11	5	0	0
	secondary	94	0	0	0	0
Irbid	<b>total</b>	<b>602</b>	<b>32</b>	<b>70</b>	<b>0</b>	<b>0</b>
	basic	398	26	55	0	0
	secondary	204	6	15	0	0
Jerash	<b>total</b>	<b>168</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>
	basic	115	5	5	0	0
	secondary	53	0	0	0	0
Karak	<b>total</b>	<b>283</b>	<b>14</b>	<b>1</b>	<b>0</b>	<b>0</b>
	basic	191	14	1	0	0
	secondary	92	0	0	0	0
Maan	<b>total</b>	<b>175</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>0</b>
	basic	134	12	3	0	0

Madaba	secondary	41	1	0	0	0
	<b>total</b>	<b>125</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>
Zarqa	basic	87	2	4	0	0
	secondary	38	0	0	0	0
	<b>total</b>	<b>320</b>	<b>22</b>	<b>22</b>	<b>16</b>	<b>0</b>
	basic	229	20	19	11	0
	secondary	91	2	3	5	0

Second shift schools were much more likely to be in urban areas where higher concentrations of Syrians were found (Table 6). At the secondary level in particular, the rural-urban gap in provision is large for second shift schools. In regular and host community schools, however, the provision of basic and secondary schools was larger in rural areas, especially for secondary host community schools.

Table 6. School type by urban or rural location				
School Type	Basic		Secondary	
	rural	urban	rural	Urban
Regular schools	1,203	986	558	541
Host community schools	126	97	26	13
Second shift Syrian schools	46	125	3	23
Azraq camp schools	4	7	4	1
Zaatari camp schools	23	0	6	0
Total	1,402	1,215	597	578

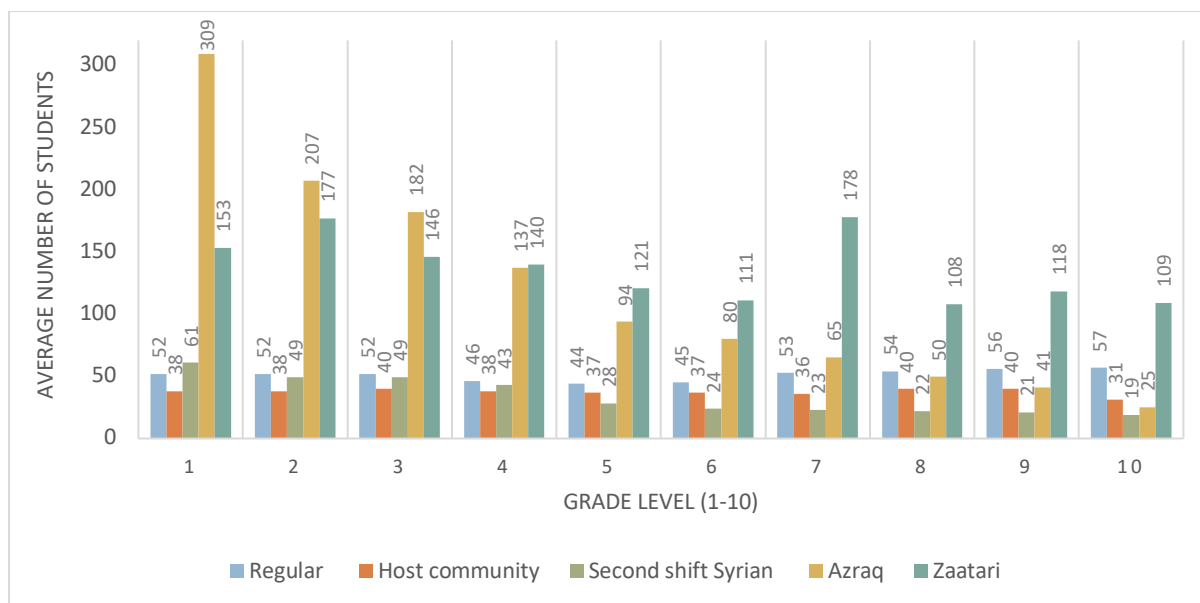
As aforementioned in the report, the limited supply of secondary schools for Syrian students may lead to reduced supply of school places, and potentially student dropout.<sup>13</sup> As Table 6 shows, the lower supply at secondary level is particularly pronounced in rural areas where there are much fewer Syrian second shift schools at the secondary level compared to urban areas. Meanwhile, this difference is not evidenced for regular schools. The lower supply of second shift secondary schools may be a consequence of lower population needs for Syrian second shift schools in rural environments, but it may also act as a limitation of access for students in rural locations.

### 1.3 AVERAGE DISTRIBUTION OF STUDENTS ACROSS GRADES BY GENDER AND SCHOOL TYPE

Figure 5: Average number of students across grades by school type

13 World Bank (2017) International Bank for reconstruction and development programme appraisal document on a proposed loan in the amount of US \$200 million to the Hashemite Kingdom of Jordan for an education reform support programme- for-results. Retrieved from: <http://documents.worldbank.org/curated/en/731311512702123714/pdf/Jordan-Educ-Reform-121282-JO-PAD-11142017.pdf>. UNICEF (2018) My Needs, our Future: Baseline Study Report for Hajati Cash Transfer: (March 2018).





The average number of students in camp – particularly Azraq – and second shift schools is lower for grades 7 to 10 when compared to earlier grades. Meanwhile, the average number of students is slightly lower in host community schools, and is slightly higher in regular schools (Figure 5). The greater average number of students in higher grade levels (7-10) compared to lower grade levels (1-6) in regular schools may be a result of the movement of students from private to public schools in Jordan.<sup>14</sup>

The lower average number of students in grades 7 to 10 among Syrian students requires further examination. It is not clear from this snapshot of EMIS data whether this observed difference is due to a lower number of UNHCR registered Syrian children aged 12 to 17, both in and outside of camps in Jordan, or whether it is due to student dropout. Digging deeper into UNHCR data,<sup>15</sup> it is evident that there are more Syrian refugee children in Jordan aged 5-11 than aged 12-18; 45% and 28%, respectively. This may contribute to the difference in average number of students across the different grade levels.

<sup>14</sup> Tabazah, S. (2018). Mass Shift of Students from Private to Public Schools ‘Great Strain’ on System. 13th Sept. 2018. The Jordan Times. Retrieved from: <https://jordantimes.com/news/local/mass-shift-students-private-public-schools-‘great-strain’-system>

<sup>15</sup> UNHCR Portal. Syrian response. Retrieved: <https://data2.unhcr.org/en/situations/syria/location/36>

## SECTION 2: ANALYSIS OF EARLY GRADE READING (EGRA) AND EARLY GRADE MATHEMATICS ASSESSMENT (EGMA)

### INTRODUCTION

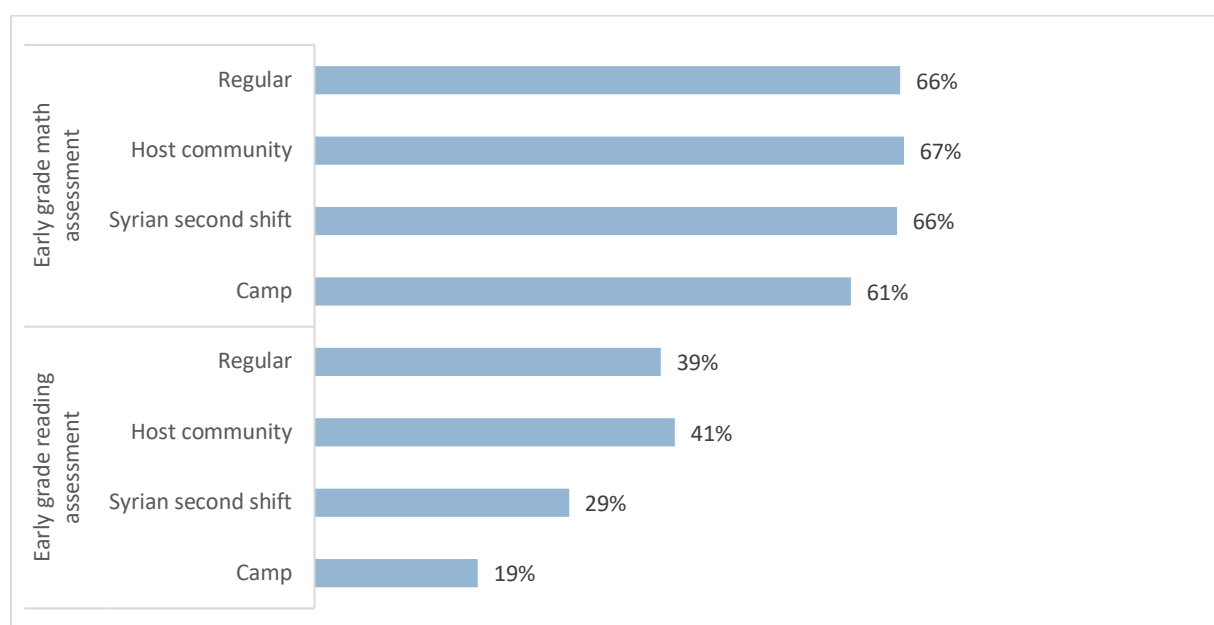
This section of the report is based on the 2017/2018 EGRA and EGMA data from grades 2 and 3 students, provided by the Ministry of Education (MoE). This dataset has been merged with the school level (EMIS) data and so represents a sub-sample of the MoE schools in Jordan. The number of MoE schools in the EMIS data analysed above was 3,792 schools; 239 of which had EGRA/EGMA learning data for grades 2 and 3 students. The 239 schools were assumed to be representative of the grades 2 and 3 student population in MoE schools in Jordan. Importantly, the merged dataset allowed a comparison between learning outcomes by school types.

The total working sample was N = 4750 students, 499 of these students attended non-regular schools (i.e., camp schools, second shift and host community schools), a student weighted average of 14.8% of the total sample)<sup>16</sup>. Of the three school types, 1% of grades 2 and 3 refugee students were in two camps. Seven percent of students were in second shift Syrian schools. More than 6% of the total students in grades 2 and 3 were in host community schools where there were both Syrian and Jordanian students.

### 2.1 LEARNING DIFFERENCES ACROSS SCHOOL TYPE AND GENDER

This section reviews the percentage of correct answers on the EGRA and EGMA tests by school type and gender. Figure 6 shows the breakdown of correct answers on both the EGRA and the EGMA tests, and Figure 7 shows the breakdown of correct answers on the EGRA and the EGMA by school type and gender.

Figure 6: Proportion of correct answers on the EGRA/EGMA test by school type



<sup>16</sup> All summary statistics are calculated using the sample student weights.

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## 2.2 COMPARISON OF EGRA AGAINST EGMA RESULTS

- Mean performance was higher on the EGMA than the EGRA across all school types. Students at regular and host community schools performed better on the EGRA than students at second shift and camp schools, but they were still well below their performance on the EGMA test.
- Students at host community schools, which has the smallest gap between the EGRA and EGMA among all school types, still scored 26 percentage points higher on their maths assessment than the reading assessment. Students at regular schools followed host community schools, with a gap of 27%.
- Second shift and camp schools had the greatest gap between scores on EGRA and EGMA, at 37% and 42% respectively. Camp schools were at an even greater disadvantage than other school types, as both the EGRA and EGMA average scores for camp schools fell well below that of other school types.

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## 2.3 COMPARISON OF EGRA BY SCHOOL TYPE

- A comparison of data between school types showed that students at regular schools and host community schools scored the best on the EGRA test, despite the gap in relation to their respective performance on the EGMA. Students at second shift schools scored 10-12 percentage points fewer than students at regular and host community schools.
- The lowest performance was observed at camp schools where students scored 10 percentage points fewer than students at second shift schools, and 20-22 percentage points fewer than students in regular and host community schools.

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## 2.4 COMPARISON OF EGMA BY SCHOOL TYPE

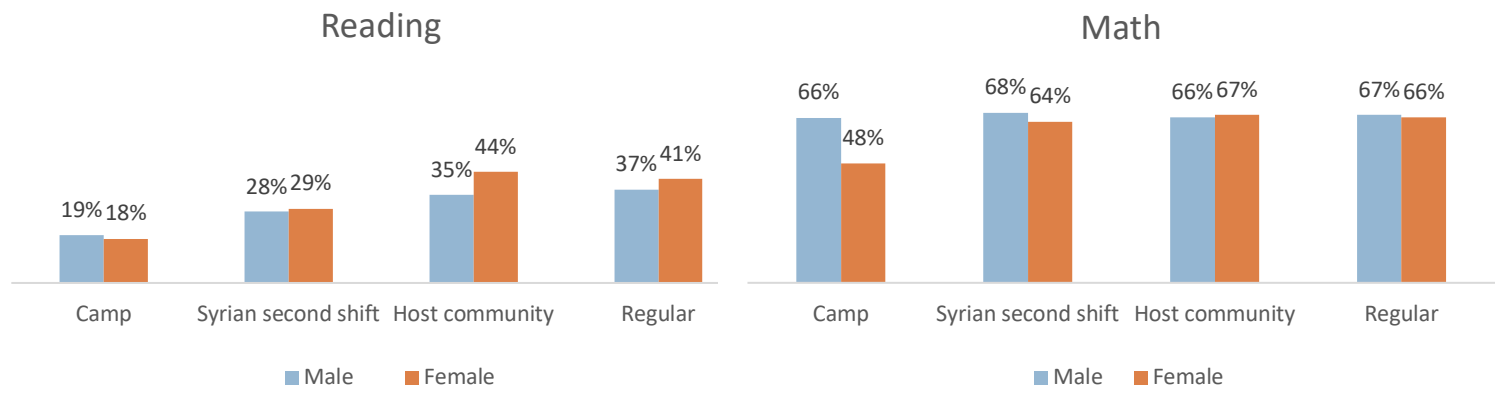
- A comparison of data between school types shows that there were marginal differences between regular, host community, second shift and camp schools on the EGMA. Nonetheless, the poorest performers on the EGMA were students in camp schools.
- Students at camp schools scored the lowest on the EGMA test, although the difference between camp schools and other school types on the EGMA is smaller than that observed on the EGRA. The next section highlights that the poor performance on the EGMA at camp schools may be in part due to lower test results among female students.

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## 2.5 COMPARISON OF MALE AND FEMALE PERFORMANCE IN EGRA AND EGMA TESTS

- Across all school types, a marginal difference holds between male and female performance in maths (4 percentage points or fewer), except at camp schools where the mean of correct answers for female students was 18 percentage points lower than male students. The EGMA disparity in performance between male and female students in camp schools is noteworthy as it is not seen at other school types.
- In contrast, on the EGRA, there is more gender parity in second shift and camp schools than host community schools (Figure 7).

Figure 7: Proportion of correct answers on the EGRA/EGMA by gender



## SECTION 3: DESCRIPTION OF BACKGROUND CHARACTERISTICS BY SCHOOL TYPE

### INTRODUCTION

The EGRA/EGMA dataset contained a wide array of student and family background information and information from questionnaires with teachers and school principals. In this section, differences in key variables by school type are presented. In particular, differences among students and family characteristics by school types are examined. The choice of variables relied on what are recognised as some of the common drivers of learning (i.e. preschool, rates of absenteeism, gender, parental input and wealth).

### 3.1 COMPARISON OF ABSENTEEISM AND GRADE REPETITION BY SCHOOL TYPE

Table 7 shows the mean values of absenteeism and grade repetition across the four school types. Based on average values for each school type, a comparison can be made in terms of whether there were specific disadvantages given by the context where learning takes place.

Table 7. Absenteeism and grade repetition by school type				
	Regular schools	Host community schools	Second shift Syrian schools	Camp schools
<i>Students</i>				
Students absent - g2, proportion	0.08	0.18	0.16	0.17
Students absent - g3, proportion	0.07	0.20	0.12	0.21
Class repeaters, proportion	0.03	0.01	0.05	0.05
Class arriving late, proportion	0.04	0.03	0.04	0.12

Note: (1) Absenteeism is measured by the proportion of students absent on the day of the interview in relation to the total number of students in the grade (questions 21 to 24 of school principal questionnaire).

A comparison of regular and host community schools against second shift and camp schools indicates that:

- Repetition was higher in camp and second shift schools (around 5%), and slightly lower in regular schools at 3%. Host community school students were the least likely to have repeated a grade, at 1%. While these differences may seem marginal, they may suggest that children in camp and second shift schools were more likely to struggle academically and be required to repeat grades.
- Reported absenteeism at camp, second shift and host-community schools was higher than that at regular schools. It would be useful to identify which students within host-community schools were more likely to be absent; the host community or refugee students.
- The above data could suggest higher rates of interrupted schooling, poorer attendance and a need for adequate remedial support in camp and second shift schools.

### 3.2 COMPARISON BY STUDENT AND FAMILY CHARACTERISTICS ACROSS SCHOOL TYPES

Table 8 shows the mean values of key student and family characteristics for grades 2 and 3 students by school type. Family support is recognised as an important factor in children’s learning<sup>17</sup>. The data was taken from student questionnaires in EGRA/EGMA. Based on these values, a comparison was made to highlight whether there were specific disadvantages for students attending different school types.

Table 8. Student and family characteristics by school type				
	Regular schools	Host community schools	Second shift Syrian schools	Camp schools
<i>Student</i>				
Girl	0.54	0.66	0.60	0.28
Age – grade 2	7.74	7.85	8.48	8.81
Age – grade 3	8.80	9.00	9.51	9.93
Preschool attendance	0.86	0.68	0.31	0.43
<i>Family</i>				
Mother can read	0.96	0.92	0.92	0.85
Father can read	0.95	0.95	0.94	0.92
Wealth index	0.09	-0.07	-0.47	-1.34
Wealth poor (=Q1)	0.20	0.31	0.54	0.96

Notes for Table 10: (1) Results were based on grades 2 and 3 pooled sample. (2) Help with reading or homework were based on the student’s questionnaire (question number 14 and 15): “Does someone at home help you with your homework when you need it?”, “During the week, does someone at home read to you? If yes, how often?”.

The comparison across school types indicates that:

- **Gender:** Camp schools had the lowest proportion of female students in grades 2 and 3.
- **Age:** Students in camp and second shift schools were older, on average, than students in regular and host community schools across grades 2 and 3.
- **Preschool:** Students in regular and host community schools were more likely to report attending pre-school than second shift and camp school students. Reports of attendance in regular and host community schools range are 86% and 68% respectively. Attendance among Syrian students in camp schools is 25 percentage points fewer than students in host community schools and 43 percentage points fewer than regular schools. Students in second shift schools had the lowest reported percentages of pre-school attendance.
- **Wealth:** Students from camp schools were more likely to come from disadvantaged backgrounds as shown by the lowest negative wealth index. Indeed, while 20% and 31% of students from regular and host community schools were categorized within the lowest quartile of the wealth index, students from second shift and camp schools were much more likely to be in the lowest wealth quartile (at 54% and 96%, respectively).

<sup>17</sup> Graham, H. R., Minhas, R. S., and Paxton, G. (2016). Learning problems in children of refugee background: A systematic review. *Pediatrics*, 137 (6): 1-15. DCSF (2008) *The Impact of parental Involvement on Children’s Education*, [7978-DCSF-Parental Involvement.indd](#)

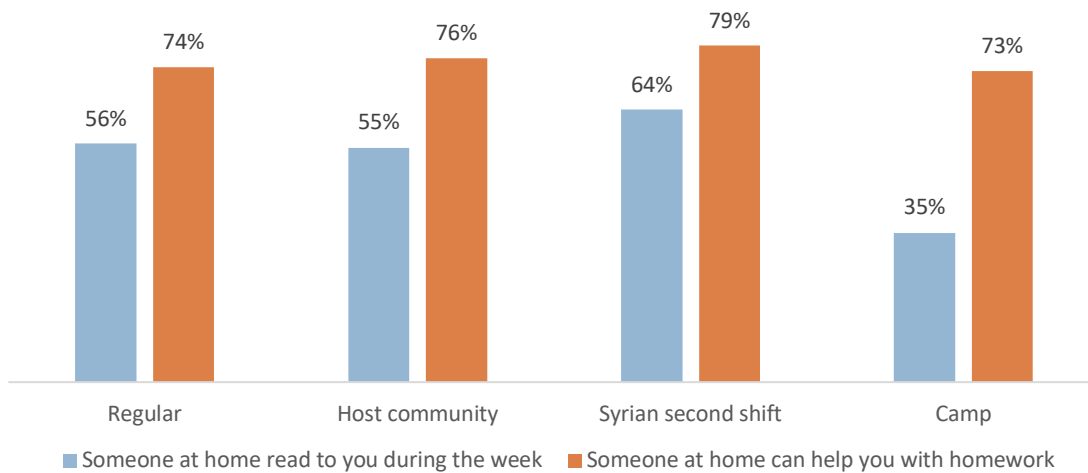
- **Parental literacy:** parental literacy rates were high and homogenous across the different school types.

In summary, a comparison of *student characteristics* between school types suggests two distinct groups – students in regular schools were growing up with more resources in the early years, followed quite closely by students in host community schools. The most disadvantaged students were those in camp schools. The next section looks at activities related to reading in school environments.

### 3.3 COMPARISON OF READING ACTIVITIES BY SCHOOL AND FAMILY CHARACTERSTICS

The EGRA results highlight a greater gap in reading across school types than is observed for math. In light of these findings this section disaggregated the findings on reading in both home environments and school environments.

Figure 8. Percentage of students who reported receiving support with reading and homework (from someone at home), by school type

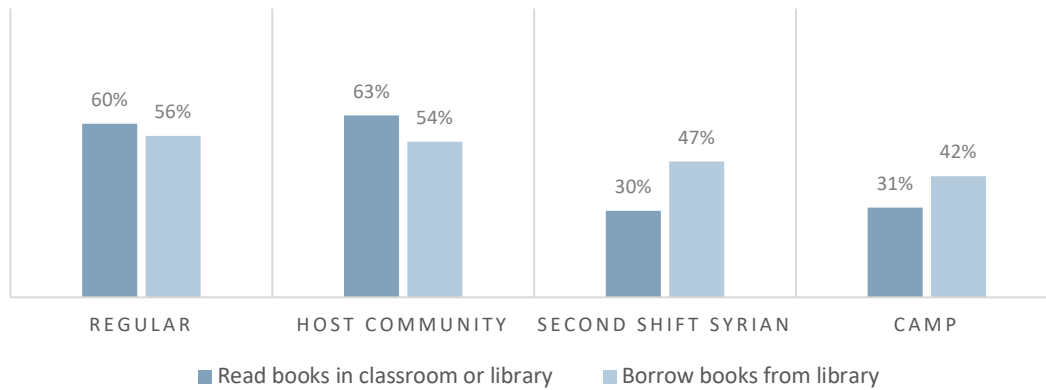


Notes: (1) Results were based on grades 2 and 3 pooled samples from the student’s questionnaire.

A comparison of family support with reading and homework across all school types indicates that:

- Students across all school types reported that they received support from their parents with homework, ranging from 74% to 79% across all school types (Figure 8). High levels of parental involvement in homework suggest that families offer support to students as it relates to completing educational activities set by schools, and are investing time toward their children’s education.
- Activities related to cultivating reading skills, such as someone reading to the child at home, were lower across all school types when compared to help with homework. This was particularly prominent at camp schools.
- The home environment is an important setting for the acquisition of literacy skills, particularly if students are receiving less support for reading in school environments, as appears to be the case Syrian second shift and camp schools (Figure 9).

Figure 9: Percentage of students who reported carrying out these activities at school, by school type



Notes: (1) Results were based on grades 2 and 3 pooled samples from the student's questionnaire.

### 3.4 COMPARISON OF SCHOOL CHARACTERISTICS AND READING BY SCHOOL TYPE

- Students in regular and host community schools were most likely to report having time to read books in the classroom or at the school library with a marginal difference between the two school types.
- Students in second shift schools were less likely to report having time to read books in the library than students in regular schools (by 30%) and host community schools (by 33%).
- Students at regular and host community schools were more likely to report being able to borrow books from the library, when compared to students at second shift or camp schools.
- Students at second shift schools were more likely to report being able to borrow books from the library at higher percentages than students at camp schools. However, reports of borrowing books were well below those of regular and host community school students.

Data on family and school support indicate that students in camp and second shift schools were less likely to receive as much support as students in host community and regular schools in developing their reading skills outside of the classroom setting. The opportunities to read are therefore limited for students in the early years at these school types.



## SUMMARY OF FINDING AND CHALLENGES

This report analysed data from the education management information systems (EMIS) and student performance as measured by the EGRA/EGMA dataset. Analysis of both datasets finds that students in second shift and camp schools face multifaceted challenges to learning in comparison to students at regular and host community schools. The data determined that students were faced with the greatest disparities in individual and school characteristics at second shift and camp schools. Factors such as starting school at a later age, not attending preschool, and higher rates of absenteeism among students in camp and second shift school are examples of learning disparities. These findings are in line with the broader research on displacement related challenges to education for refugees. The EMIS data indicates reduced supply of secondary school places at Syrian second shift schools which could impact Syrian students' opportunities to continue with their studies.

The EGRA/EGMA data on test performance indicates that students across all school types performed better on the maths assessment than on the reading assessment. A comparison of data between school types showed that students at regular schools and host community schools score the best on the EGRA test, and students at second shift schools scored 10-12 percentage points fewer than students at regular and host community schools. The lowest performance was observed at camp schools where students scored 10 percentage points fewer than students at second shift schools, and 20-22 percentage points fewer than students in regular and host community schools. Students at camp schools performed the most poorly in the reading assessment when compared to students at other school types. On the maths assessment there were only marginal differences between school types except camp schools. The data on the EGMA test also indicates that females and males scored similarly in maths except at camp schools.

The data on family characteristics still tells a hopeful story of refugee family support. Students at second shift and camp schools reported high levels of assistance with homework from their families. However, reported family support for activities related to reading was lower at camp schools than that reported at other school types. This may indicate a discrepancy between parental support for education and parental support for cultivating reading skills.

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### DATA GAPS AND CHALLENGES

The largest gap in this analysis is due to the absence of data on non-formal education. There is no information in the EMIS data set provided on these programs, or how these programs have potentially transitioned students into formal schooling in Jordan. This data would have been helpful in contextualising findings, particularly as they relate to gaps in learning and performance. In the absence of this data it has not been possible to provide an analysis of this school type. Additionally, it was not possible to locate quantitative data on over-aged students which would have been useful in identifying where schooling may have been interrupted in the student experience. Lastly, as previously stated in this report, the sample size of the EGRA and EGMA data was not large enough to enable a comparison between schools in Azraq and Zaatari camps.

The following data would enable a more comprehensive picture of the *learning landscape* for Syrian students in Jordan:

- Data tracking specific student enrolment per school type, to understand whether there is an issue of drop-out.

- Tawjihi results to provide an indication of achievement rates for Syrian students who continue their education to the end of secondary school phase.
- Pass rates per grade for Syrian students expressed as a percentage of the total absolute number of Syrian students in that grade (Common Results Framework Indicator 9).
- Data on net enrolment rates.

In order to refine the analyses related to recognised *drivers of learning*, the following data is necessary:

- A better indicator for measuring wealth at the household level in order to measure educational inequality. This requires variables relating to family assets and socio-economic background prior to Syrian families arriving in refugee camps or other host communities. Although a variable was created in this report, a more refined indicator would be possible with this prior information on socio-economic aspects of Syrian refugees.
- Relatedly, a finer definition of parental education and occupation (before leaving Syria) is needed. Additionally, demographic information of family composition (number of children, etc.) would be helpful in contextualising findings.
- Larger samples across school types are needed to enable estimations of learning effects by school setting.
- Data is needed on the timing of student arrival in the school and where they left off in education in order to better identify any gaps in education.

The summary of key patterns broken down by school type presented here complements the three other working papers developed as part of this project. Working paper two: *The Education of Syrian Refugees in Jordan: Issues of Access and Quality. Review of Policies and Initiatives* which analyses the supply-side issues of providing access to quality education for refugee children in Jordan. Working paper three, *The Education of Syrian Refugees in Jordan: Summary of Demand-side Constraints and Interventions*; and Working paper four, *A Review of Social Cohesion Initiatives and Challenges with a Focus on Jordan and Education*. The four working papers have informed the development of the final report, *Learning and Social Cohesion in Jordan*.