Patterns of primary and secondary school attendance in Sierra Leone

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1. Introduction
In recent years, much interest has been expressed in school attendance. Such interest has derived principally from the international community’s commitment to Education for All (EFA), a policy which promises all children access to basic education by the year 2015 (UNESCO 2000). The EFA agenda consists of six goals among which two have received paramount attention from scholars and national governments alike: (1) Universal Primary Education (UPE) and (2) equal gender parity in education. The goal of UPE aims to ensure that all children have access to a complete free compulsory primary education at the stipulated age while that for equal gender parity aims to eliminate gender disparities in school access and achievement at the primary and secondary educational levels. These two goals are the focus of the present paper.

Sierra Leone forms a suitable context for this research for a number of reasons. Firstly, there is limited up-to-date information on primary and secondary school attendance in the country. Secondly, since 2000, there has been a consistent decline in the country’s net attendance ratio (NAR) meaning that fewer children of the relevant age are attending the correct level of education (GoSL 2008; GoSL 2007). This deterioration is alarming because it has been concomitant with extensive efforts by the national government to stimulate school attendance. Lastly, and in relation to the former point, a decline in net attendance has meant that more children have become marginalised in the education system. A detailed analysis of school attendance is thus necessary in order to (1) understand current levels of school attendance in the country (2) explore the magnitude of the discrepancies which exist between social groups in access to schools. Such a focus is necessary to provide an up-to-date monitoring report on the country’s progress toward UPE and equal gender parity in education.

2. Education in Sierra Leone
The education system has a 6-3-3-4 structure: six years of primary education (classes 1-6), three years of junior secondary school (JSS, classes 7-9), three years of senior secondary school (SSS, classes 10-12), and four years of tertiary education (GoSL 2004). The official age at which children should attend primary school is between 6-11 years, for JSS it is 12-14 years and for SSS it is 15-17 years. Primary education and JSS constitute formal basic education. Basic education is tuition-free and compulsory in government assisted schools; senior secondary education is optional and is not free. At the end of class six, all children are required to take the National Primary School Examination in order to gain admission to JSS. The Basic Education Certificate Examination is taken at the end of JSS; students who perform well in this exam can be admitted to SSS conditional on whether they can afford the costs and have access to this tier of education.
3. Data
The 2008 Sierra Leone Demographic and Health Survey (SLDHS) and the 2003/04 Sierra Leone Integrated and Household Survey (SLIHS) are used to undertake this study. The SLDHS survey is the most recent survey to be conducted in the country and so contains the most up-to-date information on school attendance and demography of the national population. There were 14105 children aged 6-17 in the SLDHS: 8,074 were aged 6-11 years, 4,329 were aged 12-14 years, and 1,702 were aged 15-17 years. The SLIHS is used to explore changes in participation rates. The study population numbered 8081: 4,645 were aged 6-11 years, 1,846 were 12-14 years old, and 1,590 were 15-17 years old.

4. Analysis
Univariate and bivariate statistics were performed. The univariate analysis produced simple statistics namely frequencies for school attendance. The bivariate analysis followed two processes: producing cross-tabulations and performing chi-square tests. Cross-tabulations were used to understand the distribution of net attendance by background characteristic and to observe the relationship between net attendance and sex, household wealth, and area of residence; Pearson’s chi-squared test was then used to test the statistical significance of these relationships. All analysis was performed using STATA version 11. Sample weights were applied to all calculations in order to account for the sample design of the data sources.

A number of indicators were used to map patterns of school attendance. The proportion of children of official school going age who have ever attended school and the proportion of such children who were attending the correct level of education at the time of the survey (net attendance ratio, NAR) were used to study access to school. In addition to the NAR, the net intake rate in the first grade of primary school and the proportion of children who are enrolled in a grade that is commensurate to their age was estimated.

Parity indexes were constructed for the variables of interest to indicate the magnitude of difference between two groups. The standard measure of gender parity index (GPI) was used to illustrate the degree of equality between female and male school attendance. A GPI of 1 indicates equal parity between sexes; a GPI above 1 suggests that more girls than boys are attending school, and a GPI lower than 1 indicates that fewer girls than boys are in school. Parity indexes were also constructed for net attendance in rural and urban residence as well as for net attendance in the poorest and richest households.

5. Results
5.1. School attendance
Ever attendance at school increases with age. Children aged 6-11 have a significantly lower ever attendance (66.1%) than children aged 12-14 (74.6%) and 15-17 years old (77%); the difference between children aged 12-14 and 15-17 is not statistically significant. Few children who were attending school in 2008 were in the correct level of education: the NAR for primary education is 61.6% compared to 21% at JSS and 7.1% at SSS. These figures show a huge problem of over-age enrolment at primary and junior secondary education; the net intake in the first grade of primary school was 27.5% in 2008.
Ever attendance at school has deteriorated significantly for children aged 6-11 and 12-14 but has improved for 15-17 year olds since 2003/04. In 2003/04, 76.8% of 6-11 year olds and 79% of 12-14 year olds had ever attended school. By 2008, the level of participation among these age-groups had declined significantly to 66.1% and 74.6% respectively. The ever attendance rate among 15-17 year olds experienced an increase however from 67.3% to 77%. Between 2003/04 and 2008, the NAR for primary education declined from 74.6% to 61.6%. By comparison, the NAR for JSS almost doubled: from 12.1% to 21%; the increase for SSS is not statistically significant.

5.2. Correlates of net attendance
At all levels of education, there are significant differences in attendance between urban and rural residence, and the poorest and richest households. Also, on all background characteristics, differences between comparative groups become more polarised with an increase in level of education. For instance, girls aged 6-11 years are significantly more likely to be attending the correct level of education than boys. Once at JSS this trend is reversed so that net attendance for girls reduces to 81% of that found among boys; at SSS the difference between sexes is not statistically significant. Overall, children in rural areas and children living in the poorest households are consistently less likely to be attending the correct level of education; the disadvantage suffered by children from the poorest households is the most severe relative to those experienced by girls and rural children.

5.3. Equal access between sexes in school attendance
At primary education, there is no significant difference between sexes in net attendance in either area of residence or in the richest or poorest households. At JSS, no significant difference is observed in urban areas or among children in the poorest households. However, in rural areas and in the richest households, boys have a higher net attendance than girls: the female to male ratio in rural areas is 0.67 and 0.83 in the richest households. Girls in the richest households continue to have a lower net attendance rate than boys (14.1% compared to 24%) at SSS; they are also disadvantaged in urban areas as suggested by the parity index (0.66) at SSS. Among children in the poorest households, a child's sex does not significantly affect net attendance at any level of education. Similarly, there is no difference between sexes in rural areas in SSS attendance.

6. Discussion and conclusion
School attendance in Sierra Leone is positively associated with. However, few children attending school are enrolled at the correct level of education. Only 61.6% of children aged 6-11 are in primary education; the net attendance ratio declines markedly to 21% at JSS and 7.1% at SSS. Further, the proportion of young children attending school has declined significantly by almost 10 percentage points since 2003/04. Girls have a higher attendance at primary education but a lower attendance at junior secondary education. There are wide inequalities in school attendance between children living in urban and rural areas and between children from the poorest and richest households. These differences are more pronounced than that found between sexes.

A limitation of this research is that it only uses simple statistics to assess the impact of socio-demographic factors on school attendance. This does not inform of whether having
controlled for other factors, the effect of sex, residence, and household wealth would remain significant correlates of school attendance. A final limitation of the research is that it only focuses on access to school. While school access is a necessary prerequisite for UPE, it is not the sole component. One of the conditions for UPE is that children complete primary education at the correct age. Therefore, understanding children’s trajectory through school by looking at the dropout, repetition, and completion rates could add further benefit to this study.

**Bibliography**


GoSL (2004) The Education Act, 2004: Being an Act to reform the education system, including provision for pre-primary education, technical and vocational training, adult and non-formal education and the role of universities; and to provide for other related matters.