Inequality in the Quality of Education The Case of Kilimanjaro Region

By

Benson Otieno Ndiege

[MSc. (Economics), Mzumbe University] (2010)

## Abstract

This study examined inequality in the quality of education by focusing on the extent of performance differences between private and public schools and its socio-economic impact. It aimed at improving the on-going practices of education provision by examining factors that contribute to inequality in quality of education in secondary schools. Specifically, the study wanted to determine the effect of:

- Type of school on students' performance;
- Direct private costs on students' performance;
- Location of school on students' performance; and
- Students-teacher ratio on students' performance.

The study was done in Kilimanjaro region. The region is bordered to the north and east by Kenya, to the south by Tanga region, to the south-west by Manyara region, and to the west by Arusha region. Kilimanjaro region was chosen because it was among the regions, in Tanzania, which had many secondary schools (government, community, nongovernment, etc.).

The population studied was secondary schools, where heads of secondary schools and students were interviewed. The region had a total of 305 secondary schools, out of which 213 were public schools and 92 were private schools. The studied sample included 100 secondary schools (70 public schools and 30 private schools). At each school, the headmaster/mistress and one student were interviewed. Also 3 District Education Officers were interviewed.

The study used primary data which were both qualitative and quantitative. Primary data were collected through interviewing heads of schools, students and district educational officers. Information collected included the location of the schools (rural or urban), type of school (private or public), total costs of a school per year, policy environment, and Form Four national examinations results for the year 2008.

1

The data collected were analyzed using descriptive and inferential statistics. The data were summarized by Excel. The descriptive analyses were involved in computation of statistical means, standard deviations, graphs, frequency distributions and percentages. All quantitative analysis was performed using STATA programme - version 9. The estimated regression model was used in description of parameters and hypothesis testing.

Data presentation followed schools' characteristics. The study identified six of these characteristics which included school organisation, how to finance education, availability of resources, composition of students and teachers, and location of school.

By school organisation, the study viewed the distribution in terms of co-education and single sex education, day and boarding, to both rural and urban areas. The study found that most of the schools (88%) were co-education, 8% were girls' schools and 4% were boys' schools. Also, 90% of the co-education schools were in rural areas and only 10% were in urban areas.

With regard to boarding or day schools, the study revealed that 46% of all schools were day schools and 29% were day and boarding schools. Only 13% of secondary schools were boarding co-education schools, and 52% of all co-education schools were day schools. About 12% of secondary schools in Kilimanjaro region were single sex schools in which 6% were boarding girls schools, 3% were boarding boys schools, 2% were boarding and day girls schools, and 1% were boarding and day boys schools.

On number of teachers and students, the study established that while there were more than 92 students in each public school than in each private school, there were two more teachers in each private school than in each public school. For this matter, in average, a teacher in public schools had 13 more students as compared to a teacher in a private school.

Further, it was found that the enrolment in urban schools, on average, exceeded that of rural schools though there were a greater total number of students in rural schools than in urban schools. Besides, there were fewer teachers in rural schools than in urban schools. A teacher in a rural secondary school had four more students to serve as compared to a teacher in urban area.

Also, it was found that central government schools had higher rate of enrolment than community schools. Government schools enrolled students from all around the country. They

were boarding schools in which students were sure of meals and accommodation. On average, one central government school had 997 students, while one community secondary school had 488 students. Similarly, a central government school had 38 teachers while a community secondary school had only 14 teachers. This implied that a teacher in a community school had 12 more students to serve than a teacher in a central government secondary school.

On libraries and laboratories, it was found out that 72% of community secondary schools did not have libraries, and 47% had no laboratories at all. Also, only 21% of these schools had three laboratories for chemistry, physics and biology, and 32% of community secondary schools had one or two laboratories.

In private secondary schools, more than 63% of the schools had three laboratories. Only 7% of private secondary schools had no laboratory at all. Furthermore, 83% of all schools had libraries. With regard to district differences, the study established that Moshi Urban appeared to have better performance with 45% in average. Rombo district was the second with 37%, and the least performance of 17% was in Same district. It also appeared that more students were enrolled in urban schools than in rural schools though the total number of students in rural schools in the region was four times larger than in urban schools.

Furthermore, on average, the number of teachers was bigger in Moshi urban district than in any other district in Kilimanjaro region. This indicated that there were more teachers in urban schools than in rural schools.

Concerning performance in the districts, there was high coefficient correlation between performance and the average number of students, and the average number of teachers. The correlation between performance and number of teachers across the districts was 0.86. This indicated that the higher the number of teachers, the better the performance. Similarly, the correlation coefficient between performance and the number of students was 0.73 indicating that the schools with large number of students were having good performance.

Also, performance was higher in single sex schools than in co-education schools. On average, the performance in single sex schools was 66% while that of co-education schools was 26%. All community secondary schools were co-education while single sex schools were either private or central government secondary schools. Meanwhile, girls' schools showed better

performance than boys' and coeducation schools. Furthermore, day schools were performing more poorly than boarding schools. On average, the performance of boarding schools was 57%, day and boarding schools was 27% and day schools the performance was 22%. Since 46% of the schools in Kilimanjaro region were day schools, 99% of community secondary schools were day schools.

With regard to performance between private and public schools, the study showed that private schools were, on average, better than public secondary schools. The performance in private secondary schools was 51% and that of public schools was 23%. Further, private schools had a better student-teacher ratio than public secondary schools. Also, all private schools had higher direct private costs than public schools. This justified the superiority of private schools to public schools in performance.

On rural and urban schools, the study showed that performance of rural schools was 29%, while that of urban schools was 47%. Also, enrolment in urban schools was higher than that of rural schools. In addition, on average, there were four more students to one teacher in rural schools than in urban schools.

Following the above findings, the study made the following recommendations:

- Since there are higher costs in private schools which make the minority to attend them, and low cost in public schools which attract the majority, the Government should give more priority to community schools which serve about 80% of Tanzanian peasants. Teaching and learning environment should be improved, but also, community schools should be boarding for all sex.
- There is need for the Government to intervene in the cost paid in private schools to protect poor consumers. To accomplish this, the Government should form partnership with private schools in the provision of education whereby the subsidies in the education sector should be for both private and public schools so that the Government can set and control the maximum price charged by the private sector.
- The Government should give incentives to teachers who are working in rural areas so that more teachers may move from urban to rural areas where about 89% of secondary schools are located.