

## The Effect of Expanding Access of Day Secondary Schools: Evidence from Kenya

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### Abstract

Countries the world over have established mechanisms to enhance access to education across levels. This is universally themed upon diverse indices of socio-political, economic, national and geographical boundaries as much as expansion to the realm of ability and inclusionism. An amalgated dimension has emerged of providing for equitable opportunities in education in disregard of family's social class or income level distributions. In Kenya, emphasis on access to secondary education is well spelt in policy documents. Despite the novel measures of enhancing access to secondary education, gaps have arisen showing levels of wastage from the primary level to secondary levels. There is skewed distribution of schools and thus expanding the existing schools is one measure but the need to establish day schools become an uncontestable mechanism of addressing the problem. This study conducted an evaluation of the effect of enhancing access to education through establishing day schools. It was based on a sample of 17 secondary schools in four counties of Kenya, with an estimated total population of 4250 students. Also, thirty-six parents who were accessible were interviewed for the study. The survey data analyzed revealed significant enrollment over a period of three years with respective improvement on test scores by 0.61 standard deviations. Remarkable enrollment was evidenced by 32 percentage points and also identifiable gender gap and disparity eliminated by 57 percentage points as much as near gender ratio balance (GRB) of .47: .53 for girls and boys respectively. It also attested to reduced distance taken by pupils when schools are situated to proximity of their homes. The study recommends increased expansion of day schools in Kenya and other developing countries at large.

**Key words:** *access, day secondary schools, transition*

### Literature Review

Transition from primary to secondary schools is a paramount target for developing countries. Access to primary education has been a focus for such countries in essence for achieving the Universal Primary Education (UPE). Access and transition are both crucial to the achievement of the Millennium Development Goal (MDG) No. 2 target of ensuring that by 2015 children

everywhere will be able to complete a full course of primary schooling. On the other hand, Goal No. 3 aims at promoting gender equality and empowers girls through eliminating gender disparity in primary and secondary education by the same year (United Nations, 2000). The average net enrollment ratio for primary education increased from 78 in 1990 to 83 in 2000 but this is envisaged to accelerate by 2015 and also increase the net primary enrollment ratio (NER) in equal measure (UNICEF, 2001).

The distribution of educational opportunity plays a key role in shaping human development prospects. Within countries, governments and people increasingly recognize that unequal opportunities for education are linked to inequalities in income, health and wider life chances. And what is true within countries is true also between countries. Large global disparities in education reinforce the extreme divides between rich and poor nations in income, health and other aspects of human development. The full extent of the gulf in opportunities for education is not widely appreciated. Education is a universal human right. However, enjoyment of that right is heavily conditioned by the lottery of birth and inherited circumstances. Opportunities for education are heavily influenced by where one is born and by other factors over which children have no control, including parental income, gender, and ethnicity. From a global perspective, being born in a developing country is a strong indicator for reduced opportunity. School attainment, measured in terms of the average number of years or grade reached in education, is one (admittedly limited) measure of global inequality. While almost all member countries of the Organization for Economic Co-operation and Development (OECD) have achieved universal school attainment to grade 9, most countries in developing regions are far from this position. Age-specific school attendance pyramids that plot the distribution of age and grades graphically illustrate the contrast in average life-chances for education associated with being born in the OECD countries or in Sub-Saharan Africa. By age 7, almost all children in the OECD countries are in primary school, compared with 40% for Sub-Saharan Africa. At age 16, over 80% of the population of the OECD countries is in secondary school while one-quarter of sub-Saharan Africa's population is still in primary school. Four years later, at age 20, around 30% of the OECD population is in post-secondary education. The figure for sub-Saharan Africa is 2%. Stark as they are, these figures tell only part of the story (UNESCO, 2009).

According to the Kenya Economic Survey 2010, school enrollment in both public and private schools increased by 2.3% from 8.6 million in 2008 to 8.8 million in 2009. The gross enrollment rate (GER) rose from 109.8% in 2008 to 110% in the year 2009. Conversely, the net enrollment rate (NER) rose slightly from 92.5% in 2008 to 92.9% in 2009. There has been a consistent improvement of NER from 2005 to 2009. The gross enrollment ratio for boys is quite higher than that of girls, standing at 112.8% while for girls was 112.2% in 2009. Enrollment, retention, completion and progression rates are a major challenge and a concern of the millennium goal on education. The Primary Completion Rate (PCR) improved from 83.2% in 2008 to 97.8% in 2009, indicating reduction of wastage in the education system.

Access to secondary education has also been enshrined in policy documents in view of emergent global concepts. This is against the backdrop of disparaging constructs of social inequality and gender inequities as quite prevalent in Sub-Saharan Africa. The enrollment ratios are used as indicators of human development for different levels of schooling especially the primary and secondary enrollment ratios. The net effect of these disparities is maintenance of the vicious cycle of poverty among other myriad negative effects. It is understood that the focus of education is about

enhancing individual and societal development. This can only be achieved if governments provide such opportunities to the populace (read school going children). There is particular acuteness in rural areas as evidenced by global trends (UN, 2008). Schools are often scarce in rural areas where income levels are relatively low due to reliance on peasant economies or unemployment factors. They are almost inaccessible for many families and even when accessible children may have to travel long distances – sometimes walking as much as 10 kilometres – to attend schools (Kristiansena&Pratiknob, 2006; Adele, 2008). The prominent categories of schools are either day or boarding schools, public or private. These are also differentiated along gender lines as single-gender schools or mixed-gender schools. The schools exhibit attendant resources such as qualified teachers, availability of classrooms, and general school infrastructures among others. Public schools get their financing from government funds. They admit all students who live within or outside the borders of their districts through academic meritocracy or other factors such as parental interests, government admission quota or extraneous factors. The baseline is that the private schools are established on entrepreneurial model, aiming to maximize profits and reduced costs of operations. However, some private schools offer scholarships to their students especially those who exhibit remarkable talents in sports, arts, theatre and drama or academic excellence. It therefore emerges that not so many parents and guardians can afford the relative exorbitant fees in some schools. This paper will therefore explore the influence of expanding day schools on enrollment and cost factors to households.

### **Research Design**

To assess the influence of expanding day schools on enrollment, a survey design was adapted. Surveys were conducted at the end of school year of 2012 and then in February of 2013 when new cohorts of Form One students are admitted in secondary schools in Kenya. The researchers designed the survey to fulfill three objectives - to establish the impact of day schools on enrolment, to explore the effect of gender balance on enrolment, and to evaluate the effect of reduced cost of schooling especially among the poor households on enrolment. Information on socio-demographic characteristics that would not change as a result of the treatment was collected, providing variables that could be used to compare the treatment and control groups to assess whether the randomization did indeed create comparable research groups. To assess the attitudes of parents towards school attendance, a module was administered to selected parents that asked questions about their preferences for children's school attendance. Finally, as primary outcome variables, parents were asked about their children's school enrollment.

To help match the data across survey periods, information was collected that would allow identify the households that took children to day schools. This included the name of the head of the household. The 2012 survey also contained a series of questions asking the household survey respondent about their preferences regarding their children's education. In each case, the questions were asked separately of boys and girls in order to compare the responses for each gender. Interviews were conducted to gather data on learner characteristics, name of school attended, amount of fees charged per year, among other core variables. In the schools surveyed, data on the enrolment was also collected and analyzed for consistency with the data got from respective education offices in counties and field officers mandated on educational matters by the government. The information provided in those interviews was consistent with the information provided in the surveys.

### Sample Size

The survey was administered by a team of six research assistants engaged for the study. The team comprised three men and three women achieving a gender balance. The goal in each case was to survey the target schools. In total 17 schools were surveyed and they had a total student population of 4,250. These schools are spread in four counties of Kenya namely Nyeri, Murang'a, UasinGishu and Laikipia. Table 2 shows the distribution of schools involved in the study.

Table 2:

County	Number of Schools	Students Enrollment
Nyeri	7	1450
Murang'a	5	1200
UasinGishu	3	970
Laikipia	2	630
Total	17	4250

The sample was selected purposively from a list of schools so as to cater for heterogeneous characteristics such as type of school and its location (either in rural-rural or rural/peri-urban). The sample also included 36 parents of some of the children who were easily accessible for interviewing. Their rich data provides a basis for the paper's understanding.

### The Context of Education in Kenya

Education is a major concern of human societies. It transcends the mere acquisition of knowledge and skills hence a development of an individual who is transformed with the ability to understand and manipulate this world (Otunga, Odeo&Barasa, 2011). This conceptualization premises that children are exposed to three dimensions to help them acquire education – formal, informal, and non-formal. The formal dimension, known to be planned, organized and systematic, is often associated with institutions such as schools. The informal dimension is entrenched as life long process with attendant agents of socialization including the mass media, peer groups and religious institutions. The non formal dimension is a framework of learning outside the school though organized and planned. It is these dimensions that help to impart the knowledge, skills and values to the learner (Sifuna&Otiende, 2004).

Education has the potential to equip people with the skills, attitudes and norms needed to hold governments to account, to challenge autocracy and to assess policies that affect their lives. At an individual level, education is a crucial determinant of whether people have the capabilities – the literacy, the confidence, and the attitudes – that they need to participate in the society. As a concrete example, when poor and marginalized people are educated, they are often more likely to participate in meetings of local political bodies and devolved bodies managing education, health and water resources.

The Government of Kenya has undertaken many reforms addressed to the education sector. These reforms target both the overall goals of the national Economic Recovery Strategy, as set out by the Government in its policy documents and international commitments. These documents include the Millenium Development Goals (MDGs), the Education for All (EFA), The Vision 2030 and The Session Paper No.1 of 2005 among others. The MDGs are a set of numerical and time-bound targets that express key elements of human development. They include halving income-poverty and

hunger; achieving universal primary education and gender equality; reducing under-five mortality by two-thirds and maternal mortality by three quarters; reversing the spread of HIV/AIDS; and halving the proportion of people without access to safe water. These targets are to be achieved by 2015, from their level in 1990 (UNESCO, 2006).

The overarching vision is to enhance provision of quality and relevant education which will contribute significantly to the economic and national development. The articulation of education in Kenya is that it is developed within the context of a globally competitive quality education system, which is responsive to the educational needs of Kenyans and even the labour requirements and also provide a competitive basis in the expanding global economy. Three major strategic thrusts are proposed: first, to expand access to educational opportunities at all levels, especially the basic education. Secondly, to improve the quality of education, and finally to provide an institutional framework and expand capacities for effective delivery and management of education. Expansion of education is therefore a key thrust of the Government. The establishment of day-secondary schools will be a step to realization of this goal

### **Effects of Expanded Access to Day Secondary Schools**

There are multiplier benefits of the expanded access to day-schools. Among the most studied include narrowing gender gaps between boys and girls on access to education, reduced costs of schooling for households, increased enrolment, and improved academic performance. This paper will critically assess the impact of the above variables.

#### **a) Narrowed Gender Gaps**

Literature has been replete with gender issues as they impact on education (Lavy, 2008; Chiappori, Iyigun & Weiss, 2009; Becker, et al, 2010). There is remarkable almost gender balance on access to education in developed countries. Pekkarinen (2012) has found out that female educational attainment has surpassed, or is about to surpass, male educational attainment in most industrialized countries. Many governments have not given sufficient weight to policies aimed at overcoming inequalities in education. Setting time bound 'equity targets' aimed at reducing disparities based on wealth, gender, language and other markers for disadvantage, and carefully monitoring progress, would help to focus political attention. At the same time, education planning has to put far higher priority on pro-poor public spending and the development of incentives targeted at the poorest and most disadvantaged (UNESCO, 2009). Women are in clear majority among secondary school graduates and are enrolled in tertiary education in huge numbers. Recent trends are likely to prove that gender gap in educational attainment will keep on widening in favor of women in the future. It is contrary in developing countries like Kenya where school enrollment at primary, secondary and tertiary levels is skewed against the girls. UNESCO (2009) finds that the value for female school enrollment, secondary, (% net) in Kenya was 48.45 as of 2009. The enrollment reached a maximum value of 48.45 in 2009 and a minimum value of 32.98 in 2000. This is contrasted to the male (% net) in Kenya which was 51.59 as of 2009. This indicator reached a maximum value of 51.59 in 2009 and a minimum value of 33.48 in 2000, after a period of nine years. It therefore attests to the fact that gender parity on school enrollment is yet to be reached in Kenya. Day schools could tremendously reduce this gender gap to an appreciable level of 33%. Lavy & Schlosser (2011) suggest that single-sex schooling would exacerbate gender differences in attainment rather than reduce them. Day schools which are mostly for both genders would rather increase this attainment.

### b) Reduced Costs of Schooling

The cost of providing education has plummeted in recent years. Education consumes 55% of a country's GDP. The shrinking economies have impacted on the rising cost of living in the world. Financing of education is a challenge to the government, parents and communities. Identifying sustainable financing options will maximize on cost-effectiveness in resource utilization. Feasible financing options would therefore include increasing secondary education revenue and fiscal allocation on non-salary expenditures. Cost reduction measures should target the expansion of quality day schools and efficient utilization of teachers. Most households in Kenya live on a measly £400 p.a factoring the average household budget which constitutes food, rent, health, and clothing and even education costs. This impacts on extra costs to the much strained and drained families, reducing the returns to education.

In focus, proximity of schools can help reduce the cost burden of parents and children. It can minimize wastage that arises when learners are not able to progress to the next levels due to diminished opportunities. The delivery of secondary education in Kenya has been marked by numerous challenges, some of which have culminated in wastage. This wastage has resulted from non-enrollment, declining retention and completion rates, grade repetition and dropout in schools. These forms of wastage will hamper the attainment of EFA goals which the government targets to meet by the year 2015 (Gachungi, 2011).

There is noted imbalance in the distribution of schools. The distribution is dense in urban areas and counties which have higher income endowment. The Human Poverty Index (HPI) reflects the extent of deprivation in countries, concentrating on a composite index that measures deprivation in the three essential elements of human life: longevity, knowledge and a decent standard of living. For developing countries, we can measure its relativity in education through the formula:

$$\bullet \text{ HPI-1} = \left[ \frac{1}{3} (P_1^\alpha + P_2^\alpha + P_3^\alpha) \right]^{\frac{1}{\alpha}}$$

$P_1$ : Probability at birth of not surviving to age 40 (times 100)

$P_2$ : Adult illiteracy rate

$P_3$ : Unweighted average of population without sustainable access to an improved water source and children under weight for age

$\alpha$ : 3

'Poor' counties have low resource endowment and therefore low level of school enrollment especially at secondary level. They also exhibit low HPI. There is need to embrace education as a tool that will reduce poverty levels among households out of realizing its social and economic transformative powers. To address the disparity, cost effective schools can be started by the parents, communities and the government. Community-based schools are on the principle that the community is the consumer, manager and owner of such schools. It is estimable that land, a scarce resource, can be vouched for such facility. Most of the land to house such schools is available on trust of local county governance and/or authorities. Resources to establish the schools could be sourced from the central government, donor funding or local funds mobilization campaigns.



The Task Force on the Re-alignment of the Education Sector to Vision 2030 and the Constitution of Kenya (2010) recommends that Government continue reducing the cost of education to households through the provision of teachers, teaching and learning materials and grants to schools to cover operational and maintenance expenses under the Free Primary Education (FPE) and Free Day Secondary Education (FDSE) policy; capitation grants be allocated to learners in Early Childhood Development Education (ECDE), primary, secondary, special needs education, adult education and not-for-profit non-formal schools that meet set criteria; that Technical, Industrial, Vocational and Entrepreneurship Training (TIVET) be brought into mainstream education so that the students can benefit from mainstream financing and enhanced skills development. The Task Force called for the diversification and institutionalization of university education (funding sources to include government grants, education bond and loans), private sector, development partners, scholarships, bursaries, financial institutions, income generating activities and philanthropy; encouragement of local, regional and international public private partnerships in financing education and for investment in teacher professional development.

### **c) Increased Enrolment**

Education is a centerpiece of the Kenyan Government's Vision 2030—its ambitious plan to transform Kenya into a middle-income country by 2030. Free Primary Education and Free Day Secondary Education are part of this vision, and have produced a dramatic response. Since 2003, primary school enrollment has increased by nearly 3 million pupils (a 46% increase), while the number of schools grew by 7,000 (a 38% increase). Free Day Secondary Education has produced equally dramatic effects: enrollment more than doubled between 2003 and 2009. Nevertheless, close to one million children still remain out of primary school. And only one in four youth of official secondary-school age are enrolled in secondary school. In addition are major issues of the quality of education. Unfortunately, educational quality has not kept pace with quantity. The dramatic rise in enrollment has further stressed Kenya's inadequate teaching force and physical infrastructure. For example, the primary school pupil-teacher ratio has increased from 34:1 in 2002 to 45:1 in 2008, with ratios as high as 62:1 in North Eastern Province. Around 500,000 leave school each year. Over the last six years, the Kenyan economy has generated only 150,000 jobs in total, leaving hundreds of thousands of youth without opportunities for formal employment (USAID, 2012).

### **Summary of Findings**

Expanding access to day scholars has a dual function - increased enrollment and improved academic performance. The principal purpose of establishing the new schools is to expose more children to the official Kenyan curriculum. We first analyze the effects of the expansion of day schools on children's enrollment in schools teaching the formal government curriculum. Secondly, we disaggregate those changes in enrollment to assess the enrollment rates of children in the individual types of schools. Finally, we assess the differences in students' test scores using the tests administered in both survey rounds.

Secondary education completes the provision of basic education that began at the primary level, and aims at laying the foundations for lifelong learning and human development, by offering more subject- or skill-oriented instruction using more specialized teachers. The enrollment in secondary schools (% gross) in Kenya was 60.17 in 2009 according to a World Bank report published in 2010. Gross enrollment ratio is the ratio of total enrollment, regardless of age, to the population of the age

group that officially corresponds to the level of education shown. Figure 1 shows the gross trend in enrollment ratio in secondary education in Kenya.

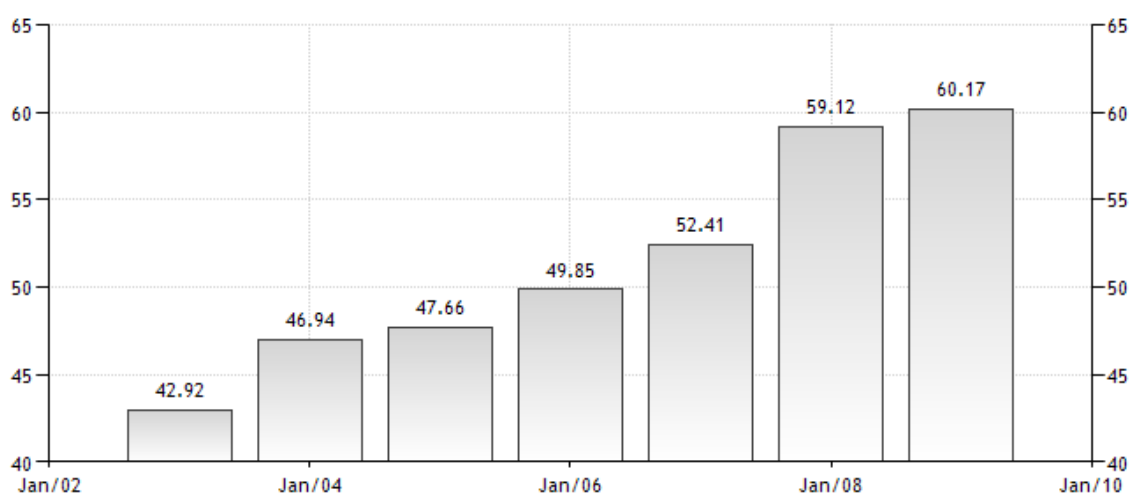


Figure 1: School Enrollment:Secondary (% gross) in Kenya  
Source: World Bank (2010)

Equally, there has been a tremendous increase in school enrolment in both genders. An appreciable level of 95 percentage points was recorded in 2009 for girls who enrolled in primary and secondary schools (See Table 1). This can be attributed to the significant government policies especially the FPE and FSE policies instituted since 2002 in Kenya. Day schools have contributed highly to the attainment of these rates.

Table 1: Enrollment Trends in Kenya (2008-2009)

Index	2009	2008
Ratio of female to male primary enrollment (%) in Kenya	98.5	97.9
Ratio of girls to boys in primary and secondary education (%) in Kenya	95.1	95.8
Ratio of female to male secondary enrollment (%) in Kenya	87.5	91.6
Ratio of female to male tertiary enrollment (%) in Kenya		
School enrollment; preprimary (% gross) in Kenya	48.4	47.7
School enrollment; preprimary; female (% gross) in Kenya	47	46.6
School enrollment; preprimary; male (% gross) in Kenya	49.8	48.8
Primary education; pupils in Kenya	6687510	6868810
Primary education; pupils (% female) in Kenya	49.4	49.2

Source: World Bank (2010)



### **Conclusion and Recommendations**

This paper has explored the effects of expanding access of day secondary schools on learners in Kenya. It has indicated that there is increased learner enrollment, reduced cost of schooling and significant gender ratio balance in school enrollment. Owing to the fact that most households are able to afford the relatively manageable school fees coupled with government subsidies, parents opt for these schools unlike the boarding schools where fees charged is higher. In boarding schools too, the cost of maintenance of the children is equally higher as parents are charged extra fees and other ancillary costs by the school therefore increasing the relative education cost. It is also argued that access of education to girls is achieved especially for the poor households. Girl education is vital as the society front for equal opportunities across the gender. The multiplier effect of educating women cannot be overemphasized.

In view of the above, the researchers recommend:

- a) Governments to expand classroom capacities in the day schools for them to absorb even a higher enrollment of students.
- b) Provision of facilities and teaching/learning resources so as to enhance on quality education. Students will have a competitive edge with their colleagues in the boarding schools.
- c) Sensitization of communities to own up these schools.
- d) Emphasis on the boy/girl child education. Unfortunately, the boy child has been eclipsed in recent years.

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