

Early Labour Market Transitions of Women in Low-Income African Countries

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**A Descriptive Analysis of Education Outcomes, Fertility Decisions and
Labour Market Outcomes of Youths in Kenya**

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Abstract

In this paper, we present a descriptive analysis of education, fertility/marriage, and labour market outcomes of youths aged 6 to 25 years in Kenya. The analysis is based on the Kenya Demographic and Health Survey for 2003 and 2008/9 as well as the 2005/6 Kenya Integrated Household Budget Survey. The analysis suggests that women generally have less favourable education outcomes (attendance and attainment) relative to men irrespective of age, area of residence, and wealth status. On the other hand, women from rural areas and poor households have more unfavourable education, fertility/marriage, and labour market outcomes compared with their counterparts from urban areas and wealthier households. Additionally, women from rural areas and poor households are more likely to drop out of school early, get married early, have children at a younger age, and bear more children than their urban and richer counterparts. Moreover, women from rural areas and/or poor households are more likely to show less favourable labour market outcomes compared with men in similar circumstances. The analysis in this paper sets the stage for further analytical and qualitative work seeking to investigate the links between education outcomes, fertility/marriage, and labour market outcomes among the Kenyan youth.

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1. Introduction

Poverty and unemployment are major problems afflicting Kenya. In 2013, over 40% of the country's population, which was estimated at about 44 million, was living in absolute poverty (World Bank, 2013). At the same time, 35% of the population was youthful (15 to 34 years) with about 21% belonging to the 15 to 24 years' age category, while more than 43% were children below 15 years of age. The bulging youthful population in Kenya presents both challenges and opportunities. The youth, for instance, face difficult economic circumstances, which make the transition from school to the labour market rather complicated. This problem contributes to high rates of unemployment.

The unemployment rates among the youth are much higher than for the rest of the Kenyan population. In 2005/06, the levels of unemployment among youths aged 15-19 and 20-24 years were 25% and 24% respectively compared with only 12.7% for those in the 15-64 years working-age group. In 2009, open unemployment levels declined to about 8.6%, but remained high at about 15.8 and 13.1% among youths in the 15-19 and 20-24 years' age groups respectively (Munga & Onsomu, 2014). World Bank estimates further indicate that the level of youth unemployment in Kenya, as a percentage of total labour force, was about 17% between 2011 and 2014. The problem of youth unemployment is a major concern because skills depreciation and low earnings last the entire working life of an individual.

Several factors impede the transition from school to the labour market among the youth. First, some youths have inadequate or inappropriate skills. Kaane (2014) has estimated that over one million young people enter the labour market annually, some of whom have no skills (school dropouts and those with no college education). As a result, job vacancies exist alongside youth unemployment (Kaane, 2014). Second, the growth in job opportunities has failed to keep pace with the rising numbers of young entrants to the labour market. For instance, an estimated 155,000 youths in Kenya join the labour market annually after completing their courses at the university or technical and vocational education and training (TVET) institutions. This number requires that well over one million new jobs are created annually to absorb the youths entering the labour market.

Conspicuous gender disparities exist in labour market opportunities and outcomes in Africa (African Development Bank, 2005). For instance, women in Kenya, compared with men, are less

likely to participate in the labour force irrespective of the employment sector or industry. The proportion of females in wage employment is estimated at 37% compared with 63% for males. In addition, working women dominate in the low-earning sectors and activities such as household, human health, and social work, while men control the transport, mining and quarrying, and building and construction sectors (Republic of Kenya, 2015). Women are, therefore, disadvantaged not only in terms of participation rates, but also gender wage differentials.

Labour disparities are also evident among the youth. The KIHBS labour force analytic report (Republic of Kenya, 2008) estimated that 11.3% of males and 14.3% of females aged 15-19 years were unemployed. Similarly, among young people aged 20-24 years, 22.4% of males and 27.7% of females were unemployed. Kenya's employment challenge is regarded as a severe problem among youths below 25 years (United Nations Development Programme [UNDP], 2013). This situation suggests that fresh graduates (aged 22-24 years) have major difficulties finding jobs and are likely to join the large pool of people lacking employment unless they proceed for further education. Most of the youth at this point end up as home makers, some take up informal sector activities, while others simply remain inactive (UNDP, 2013).

The subject of early labour market transitions of young women, compared with men, has not received much attention in studies of the Kenyan labour market. Unemployment could be attributed to a mismatch between jobs and skills, but it is also important to understand why youths leave school early and opt for non-existent labour market prospects or even opportunities that are unsuitable for their needs. It is also vital to understand how issues of marriage and fertility perhaps contribute to decisions about early market transition among the youth. In related studies, Vuluku et al. (2013) focused on gender decomposition in unemployment for all age cohorts, while Escudero and Mourelo (2013) focused on youth unemployment. None of the studies, however, examined the youth with respect to prospects of marriage and family formation as they relate to education and labour market experiences. This paper addresses the identified gap based on a descriptive analysis of these outcomes in Kenya. The paper sets the stage for further multivariate and empirical analysis of the relationship between fertility, marriage, and education on one hand and early labour market transition on the other hand.

The paper is organised as follows: section 2 describes the data sources, section 3 examines educational attendance and attainment, and section 4 describes patterns of marriage and fertility as they relate to education. Section 5 examines the labour market experiences of young women (compared with young men). The final section contains the conclusions.

2. Sources of Data

The data used in this paper were drawn from datasets of the Kenya Demographic and Health Survey (KDHS) and the Kenya Integrated Household Budget Survey (KIHBS). Three rounds of the KDHS datasets were used: KDHS 2003 (April – September 2003), KDHS 2008/9 (November 2008–February 2009) and KDHS 2014. The 2003 KDHS sampled 8,195 women aged 15-49 years and 3,578 men aged 15-54 years. Similarly, the 2008/9 KDHS sampled 8,444 women aged 15-49 years and 3,465 men aged 15-54 years. The sample points were selected from a national master sample maintained by the Kenya National Bureau of Statistics under the fourth National Sample Survey and Evaluation Programme (NASSEP-IV). The study selected 400 clusters (129 urban and 271 rural). Subsequently, households were selected from the identified clusters through a listing exercise. The 2014 KDHS sampled 31,079 women aged 15-49 years and 12,819 men aged 15-54 years. The sample was selected from 995 rural and 617 urban cluster areas. The sampling design was based on NASSEP-V frame. The KIHBS data were collected using NASSEP-IV frame, with a sample of 13,430 households drawn from 1,430 clusters.

The demographic and health surveys collected information on fertility levels, marriage, and age at first birth. The surveys also obtained information on the following factors: sexual activity, fertility preferences, awareness and use of family planning methods, breastfeeding practices, nutritional status of women and young children, childhood and maternal mortality, and maternal and child health. They also covered awareness and behaviour targeting HIV AIDS and other STIs, malaria and use of mosquito nets, domestic violence, and HIV testing of adults. In addition, information was collected on educational attendance. The survey further asked respondents about their employment status and occupation. The KIHBS collected information on different modules related to household welfare including schooling, labour market outcomes, and fertility.

3. School Attendance, Enrolment and Attainment

Enrolment and Attendance

Kenya has a three-tier education system (Republic of Kenya, 2015). Children below 6 years attend early childhood care and development classes. The first tier in the education system is basic education, which consists of primary schooling for those aged 6-13 years. The second tier covers secondary education, which caters for 14-18 year-olds. The age groups in the first two tiers may overlap, however, due to late enrolment and repeating of grades. Those who do not proceed to secondary education have the option of enrolling in vocational training institutions. The third level

in the education hierarchy comprises tertiary education for those above 18 years and includes university education, technical and vocational training, and certificate and diploma courses.

Table 1 presents data on the distribution of youths who had never attended school classified by age group, gender, socio-economic characteristics, and area of residence for the period between 2003 and 2014. According to the data, non-attendance of school declined with age irrespective of gender, area of residence, and wealth status. In 2003, the proportion of boys and girls aged 6-12 years who never attended school was the same at 32%. In 2008/9 and 2014, the situation improved for girls in this age group compared with boys, but some improvement was also observed for boys in 2014. More significant gender differentials were observed for youths aged 13-18 years, with more girls than boys not having ever attended school during the period 2003-2014. In the 19 to 25 years' age group, women were clearly disadvantaged in terms of school attendance. The observation in the latter case probably reflects early labour market transition or early marriage/fertility decisions, which prevent women from pursuing higher education.

The trends for not attending school observed for the full sample were also reflected in areas of residence and wealth groups. Thus, irrespective of gender, and holding all other factors constant, children residing in rural areas were less likely to attend school compared with their counterparts in urban areas. Similarly, holding all other factors constant, children from poor households were more likely to miss opportunities to attend school relative to their richer counterparts. For instance, 53% of boys and 58% of girls aged 6-12 years from the poorest 20% of all households had never attended school in 2003. In the same year, the corresponding proportions of children of the same age group who had never attended school from the richest 20% of all households were 23% for boys and 21% for girls. The disparities in proportions of those who had never attended school by area of residence and wealth status have implications for differentials in labour market opportunities for the youth. Thus, youths from rural areas and those from poorer households are more likely to remain unemployed; alternatively, there is a higher likelihood of this group taking on menial jobs or transitioning earlier into marriage. The contrast would apply for youths from urban areas and those from less poor households who would have better prospects in the labour market.

Table 1: Proportion of youths who never attended school by age group, gender, area of residence and wealth status (2003-2014)

	6-12 years						13-18 years						19-25 years					
	2003		2008/9		2014		2003		2008/9		2014		2003		2008/9		2014	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Full sample	32.23	31.57	31.03	27.55	28.62	26.30	9.28	12.48	4.08	7.66	4.10	5.14	5.94	9.22	4.02	9.33	5.24	10.68
Urban	28.77	27.15	24.54	18.68	30.08	28.42	7.38	10.36	3.46	5.15	4.97	5.74	3.75	5.92	1.79	5.06	6.67	14.28
Rural	33.18	32.87	32.42	29.62	24.83	20.91	9.80	13.21	4.21	8.34	2.02	3.82	7.28	11.47	5.08	12.85	3.05	5.56
Poorest	52.98	57.57	47.95	45.66	44.02	44.21	25.76	36.04	11.35	22.77	11.29	15.99	20.06	34.70	13.65	34.04	17.34	36.98
Richest	22.67	20.88	20.85	16.04	15.18	13.71	5.39	6.26	1.69	3.08	0.97	1.60	4.15	3.53	1.55	3.34	1.59	2.65

Source: Authors' construction based on DHS data.

Table 2: Educational attendance by age group and gender (2003-2014)

	6-12 years						13-18 years						19-25 years					
	2003		2008/9		2014		2003		2008/9		2014		2003		2008/9		2014	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
pre-school	14.13	13.31	17.05	14.50	17.39	14.61	0.24	0.18	0.09	0.05	0.08	0.04	0.29	0.00	0.00	0.00	0.00	0.07
Primary	85.81	86.60	82.84	85.36	82.52	85.30	84.26	80.92	80.55	79.25	69.56	64.29	31.09	23.12	29.05	19.84	16.67	10.09
Secondary	0.03	0.06	0.08	0.00	0.09	0.09	15.12	18.43	19.32	20.40	29.99	35.11	40.18	34.68	55.57	46.74	56.33	53.28
Higher	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.47	0.13	0.30	0.34	0.56	28.15	41.04	15.37	32.90	27.01	36.56
Missing	0.03	0.03	0.03	0.14	0.01	0.01	0.00	0.00	0.00	0.00	0.02		0.29	1.16	0.00	0.52	0.00	0.00
Sample size	3291	3104	3549	3510	15695	15261	2103	1698	2267	2010	9804	8946	341	173	592	383	2244	1507

Source: Authors' construction based on DHS data.

Table 2 presents data on current level of education being attended by gender and age group. In Kenya, children are expected to enroll in pre-school at the age of three years after which they enter primary school at six years. Children transition from primary to secondary school at the age of 13-14 years, with some variations caused by late entry and repeating of grades. It is, therefore, expected that most of the 6-12 year-olds would be in primary school, while the largest proportion of children aged 13-18 years would be in secondary school. The data show that 13% to 17% of children aged 6-12 years had either dropped out of school or had not completed pre-school in the three survey years, while virtually all children older than 13 years had completed that level of schooling. In 2003, the school attendance of boys and girls aged 6-12 years was almost at par.

Marked gender differentials in education attendance were observed for the 13-18 year-olds in 2003. For instance, the proportion of boys attending primary school exceeded that of girls by 4%. Conversely, the proportion of girls attending secondary school was higher than that of boys at this level by 3% in the same year, with this difference becoming quite significant in 2014. Generally, the gender differentials in current level educational being attended for this age group persisted into 2008/9 and 2014.

Relative to their male counterparts, women aged 19 to 25 years were clearly disadvantaged (except at higher education levels) in terms of the level of education they were attending in 2003 and 2008/9. Significantly, more boys than girls were attending secondary school during this period. In contrast, more girls than boys were attending higher education with the differences observed being especially significant among those aged 19-25 years. The latter observation could, perhaps, be attributed to the fact that girls mature faster than boys and are more likely to transition earlier to higher education.

The data on current level of education also revealed significant improvement over time across age groups for youths above 12 years of age. For example, among those attending primary school aged 13-18 years, the proportion of males dropped from 84% in 2003 to 70% in 2014, while the proportion of females at this level of schooling dropped from 81% to 64% over the same period. Similarly, the proportion of males attending secondary school aged 13-18 years increased from 15% in 2003 to 30% in 2014, while the proportion of females attending school at the same level rose from 18% to 35% between 2003 and 2014 respectively. Among the youths aged 19-25 years, the proportion of boys attending primary school fell from 31% in 2003 to 17% in 2014; the corresponding decline for girls was from 23% to 10%. Correspondingly, secondary school attendance for youths aged 19-25 years rose sharply from 40% to 56% among the males and from 35% to 53% among the females over the same period. The proportions of those attending higher

education dropped marginally. These statistics indicate that more youths are completing their schooling earlier and transiting into the labour market in a trend that has obvious implications if the rate of job creation does not match the rising rate of labour supply.

The data further suggest that some boys and girls could have been in the “wrong” grade. A very high proportion (over 80% in 2003) of those aged 13-18 years were still in primary school when, ideally, they should have been making the transition/or should have transitioned to secondary school already. Similarly, under normal circumstances those aged 19-25 years should have been attending tertiary education. According to the statistics obtained, 20% - 31% of youths aged 19-25 years were attending primary school in 2003 and 2008/9 respectively, although the proportion had dropped to about 15% in 2014. The category of young people attending school in the wrong grade consisted of more boys than girls. This outcome points to delayed school entry and/or grade repetition.

The data contained in Tables 1 and 2 reflect the patterns of school enrolment in Kenya. The data from both the household survey and population census indicate that gender differences in school enrolment and attendance were highest among the 16-20 and 21-24 years’ age groups (Table 3). This pattern probably reflects gender differences in the age of transition from school to the labour market. The gender gap has, nonetheless, been reducing (Figures 1 and 2) over the years leading to substantial gains in overall enrolment rates. An interesting observation is that gender differentials in school attendance (based on the population census) are more pronounced from the age of 14 years onwards with girls showing much lower attendance levels than boys (Table 4). This pattern suggests earlier labour market transition for girls compared with boys, if other factors are held constant.

Table 3: Gender differences in school enrolment and attendance by age group (1993 – 2008)

Current age	Percentage of the population enrolled in school				Percentage of the population who attended school			
	1993		1998		2003		2008	
	Male	Female	Male	Female	Male	Female	Male	Female
6-10	85.3	82.8	82	82.5	89.4	89.2	91.3	91.3
11-15	89.4	87.4	89.9	86.9	90.4	88.3	95.4	95
6-15	87.1	84.8	85.7	84.6	89.9	88.8	93.1	93
16-20	52.2	35.6	46.8	35.4	51.3	36.9	72.7	57.1
21-24	12.4	5.9	8.5	3.7	10.6	3.8	26.9	10.6

Source: KNBS et al., 2010; CBS et al., 2004; NCPD et al., 1994; 1999

Table 4: Percentage of the population attending school (based on Census data)

1989			1999			2009		
Current age	Male	Female	Current age	Male	Female	Current age	Male	Female
6-9 years	64.22	64.99	5+	50.0	50.8	3-5 years	49.4	51.7
10-14 years	87.44	85.55	6-13 years	80.4	80.1	6-13 years	82.5	83.4
15-19 years	70.37	56.08	14-17 years	70.6	65.8	14-17 years	40.8	39.7
20-24 years	20.82	9.75	18-24 years	26.6	17.2			

Source: KNBS, 2010; CBS, 2002; 1996

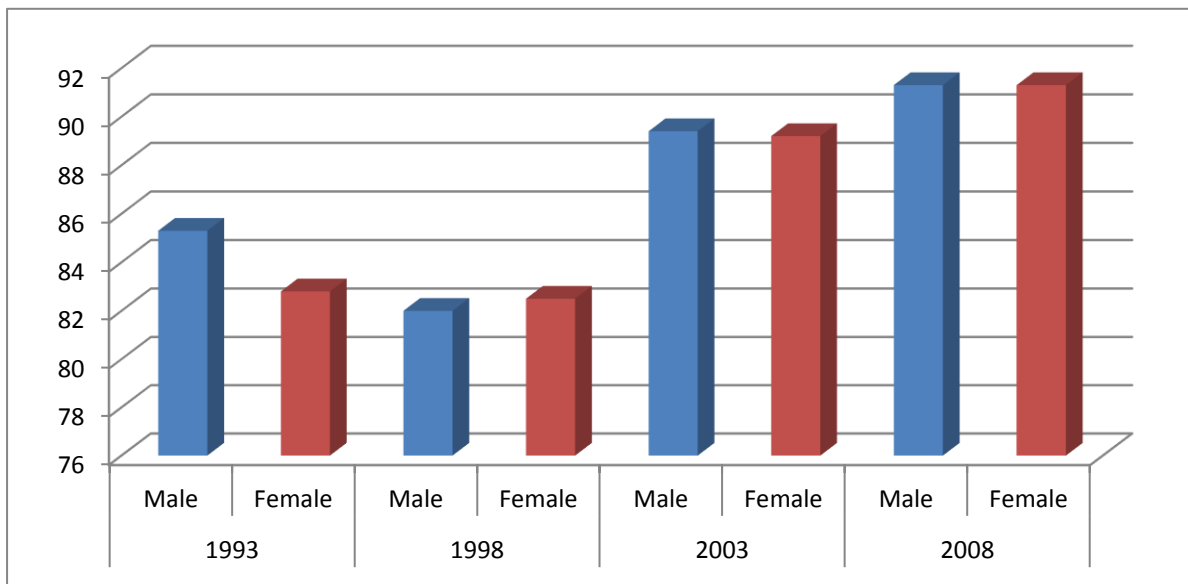


Figure 1: Gender differences in enrolment of 6-10 year-olds (percentage)

Source: KNBS et al., 2010; CBS et al., 2004; NCPD et al., 1994; 1999

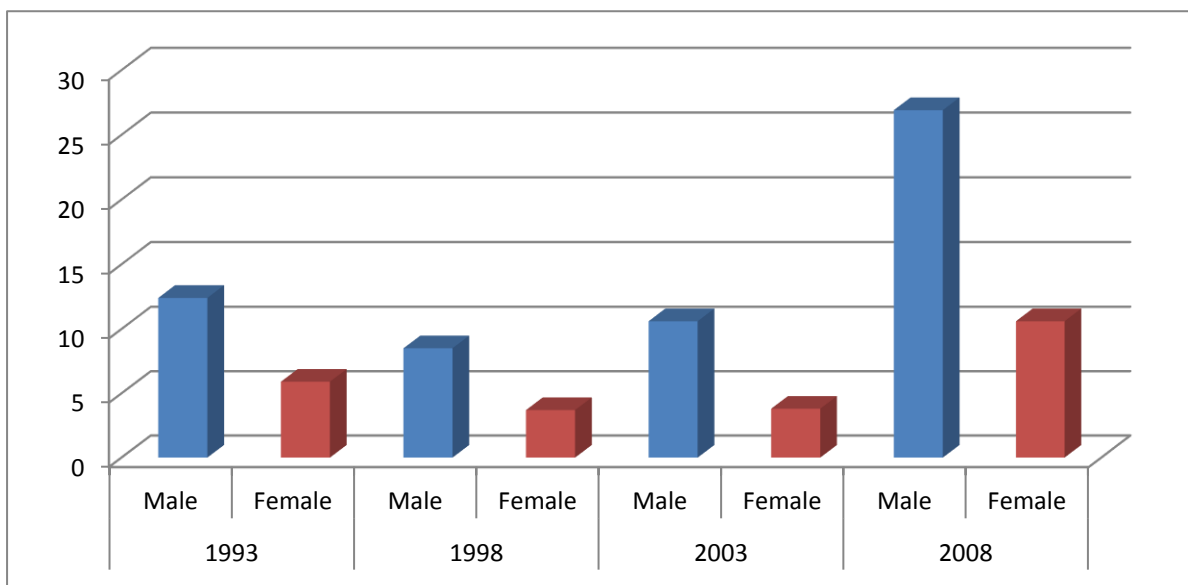


Figure 2: Gender differences in enrolment of 21-24 year-olds (percentage)

Source: Authors' construction based on KNBS et al., 2010; CBS et al., 2004; NCPD et al., 1994; 1999

The foregoing analysis focused on school attendance and enrolment by age and gender. In this section, we go further and disaggregate school attendance by area of residence and wealth groups. It is expected that differences in area of residence and wealth would have implications on schooling opportunities and outcomes and subsequently on labour market outcomes for the youth later in life.

Table 5 presents results of the analysis of data on current level of education being attended by area of residence for the period 2003-2014. The results are consistent with those obtained with the overall sample. However, the results also indicate that a relatively smaller proportion of urban children and youths were attending pre-school, or had no formal education, compared with those in the rural areas or even the overall sample. Additionally, girls had a higher rate of educational attendance and were more represented in secondary and higher education levels than boys irrespective of area of residence. Gender differences in education attendance at the primary, secondary, and higher education levels seemed to have been quite pronounced for the 19-25 years age category irrespective of area of residence in all survey years. Consistent with the analysis for the full sample, more women (aged 19-25 years) seemed to have been attending higher education than their male counterparts, especially in urban areas. These results suggest that the free education policy and the persistent campaign in favour of the girl child in Kenya may be bearing fruit, especially in terms of closing the gender gap in school enrolment. Even so, the results expose the need to also pay attention to the boy child who is likely to be marginalised when it comes to schooling outcomes.

Table 6 presents data on educational attendance by age group and gender for children from the poorest and richest households. The data imply the existence of wide disparities in school attendance by children from the poorest and richest groups. For instance, between 20% and 25% of children aged 6-12 years from the poorest households did not attend school or were otherwise in pre-school compared with only 9% to 12% of children from the richest households. In addition, slightly more girls than boys of this age group from both rich and poor households attended primary school. Among the poorest households, more boys than girls in the 13-18 years' age group attended secondary school in 2003 and 2008/9, but in 2014 the situation was reversed in favour of girls including those from the richest households. In 2014, there were pronounced gender disparities in attendance in favour of females for youths aged 19-25 years.

Relative to children from the poorest households, a significantly higher proportion of children from the richest households attended higher education. Similarly, among the richest households, there was a consistent trend indicating that a greater proportion of young women attended higher education than their male counterparts. In fact, over 68% of young women from the richest households attended higher education during 2003 and 2008/9. Among the poorest households, only a small percentage of young men were attending higher education in 2003 and 2008/9, and

virtually no women could be found at this level. In 2014, however, there was a marked increase in the proportion of young women attending higher education both from the poorest and richest households. The results in this section suggest that relative to their counterparts from richer households, women from the poorest households drop out of school earlier and probably transition earlier into marriage and/or labour markets.

Educational Attainment

Understanding the dynamics of educational attainment among the youth is important because attendance and enrolment alone will not tell us much about attainment, which is likely to have a more direct implication on labour market opportunities and outcomes. Most jobs require some level of education and hence higher educational attainment increases one's probability of securing a job. On the contrary, early dropout from school increases the vulnerability of the youth and pushes them into early marriage, early fertility outcomes and/or unemployment, and low-paying informal labour market opportunities. These factors could have adverse implications on career and welfare outcomes.

Table 7 presents results of the analysis of educational attainment by age group and gender. There were no apparent gender differences in educational attainment, including variations over time, for children aged 6-12 years. In contrast, within the older age groups, a consistent pattern was discernible showing that a higher proportion of girls had no formal education compared with boys, while on the other hand a higher proportion of girls had completed secondary education. For instance, there was a consistently higher number of girls than boys aged 13-18 years who had completed secondary and higher education for the three survey years. Table 7 also shows that although no clear pattern was evident in 2003 within the lower age groups, more women than men aged 19 to 25 years had primary education or no education at all in 2008/9. In comparison, more men than women in the higher age group completed higher education in 2014, thus widening the gap from near parity between the two groups in the previous years. This gap is likely to contribute towards earlier family and labour market transition for girls.

Overall, the statistics suggest that the proportion of youths with low levels of education declined between 2003 and 2014, while the proportion of those with secondary and higher education rose, implying improved educational attainment in Kenya over the last decade. The achievement probably reflects improvement in education policies in the country. In spite of evidence of the apparent improvement in educational attainment over time, high rates of non-completion of education were also revealed together with the fact that a high number of students were attending classes at levels that were not commensurate with their age.

In urban areas, girls aged 13 years and above were less likely to attend school than boys, all other factors being constant (Table 8). Incidentally, once they were enrolled in school, girls had a higher likelihood of attaining some level of primary education, or even completing primary school, than boys in the same age group. In contrast, there was a higher likelihood of boys completing secondary and higher education compared with girls, suggesting a reversal in the gender gap against girls in the attainment of higher education. Although the patterns described here were not consistent across the three databases and age groups, the trends observed for urban areas were consistent with those obtained with the full sample (Table 7). The statistics also indicated that relative to their urban counterparts, a higher proportion of rural children did not attain any level of education. In addition, girls aged 6-12 years were more likely to attain some level of education compared with their male counterparts irrespective of area of residence. The gender disparities in educational attainment seemed to increase with age among rural children, with girls' educational attainment being significantly lower than that of boys from 13 years of age onwards.

Table 5: Proportion currently attending School by age group, gender, and area of residence (2003-2014)

	6-12 years						13-18 years						19-25 years					
	2003		2008/9		2014		2003		2008/9		2014		2003		2008/9		2014	
Urban	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No education	9.94	11.64	12.87	10.73	14.61	11.55	0.24	0.00	0.00	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Primary	89.92	88.09	86.68	89.12	85.23	88.29	67.54	64.57	62.34	67.20	61.72	54.62	10.48	4.48	15.49	5.34	9.32	6.27
Secondary	0.14	0.14	0.30	0.00	0.16	0.16	30.57	34.00	36.92	31.45	37.66	44.06	27.42	13.43	40.85	30.53	45.34	38.50
Higher	0.00	0.00	0.00	0.00	0.00	0.00	1.66	1.43	0.75	1.34	0.51	1.29	62.10	82.09	43.66	62.60	45.34	55.23
Missing	0.00	0.14	0.15	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	1.53	0.00	0.00
Sample size	724	739	668	708	4463	4476	422	350	401	372	2934	2719	124	67	142	131	783	574
Rural	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No education	15.31	13.83	18.01	15.45	18.49	15.87	0.24	0.22	0.00	0.06	0.10	0.05	0.46	0.00	0.00	0.00	0.00	0.11
Primary	84.65	86.13	81.95	84.40	81.44	84.05	88.46	85.16	84.46	81.99	72.91	68.51	42.86	34.91	33.33	27.38	20.60	12.43
Secondary	0.00	0.04	0.03	0.00	0.06	0.06	11.24	14.39	15.54	17.89	26.71	31.20	47.47	48.11	60.22	55.16	62.22	62.38
Higher	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.22	0.00	0.06	0.26	0.24	8.76	15.09	6.44	17.46	17.18	25.08
Missing	0.04	0.00	0.00	0.14	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.46	1.88	0.00	0.00	0.00	0.00
Sample size	2567	2365	2881	2802	11232	10785	1681	1348	1866	1638	6870	6227	217	106	450	252	1461	933

Source: Authors' construction based on DHS data.

Table 6: Educational attendance by age group and gender for poorest and richest groups (2003-2014)

	6-12 years						13-18 years						19-25 years					
	2003		2008/9		2014		2003		2008/9		2014		2003		2008/9		2014	
Poorest	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No educ.	20.37	22.88	23.75	20.23	25.03	23.31	0.50	0.00	0.00	0.23	0.15	0.05	2.08	0.00	0.00	0.00	0.00	0.53
Primary	79.63	77.12	76.25	79.42	74.91	76.67	93.80	94.55	92.44	93.20	85.38	84.00	64.58	46.15	55.46	64.71	36.40	25.79
Secondary	0.00	0.00	0.00	0.00	0.06	0.02	5.71	5.45	7.56	6.58	14.36	15.90	29.17	46.15	42.02	35.29	56.07	65.25
Higher	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.05	4.17	0.00	2.52	0.00	7.53	8.42
Missing	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	0.00	0.00	0.00	0.00
Sample size	697	555	922	860	4739	4338	403	275	542	441	2681	2019	48	13	119	34	478	190
Richest	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No educ.	8.84	8.52	12.16	9.75	9.28	7.37	0.00	0.69	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Primary	90.99	91.32	87.48	90.08	90.66	92.40	60.00	58.62	56.70	59.73	42.91	38.69	9.09	2.86	10.26	2.19	2.99	1.10
Secondary	0.17	0.16	0.18	0.00	0.06	0.23	38.13	38.62	42.68	38.26	56.21	59.05	22.31	12.86	36.75	28.47	36.32	26.37
Higher	0.00	0.00	0.00	0.00	0.00	0.00	1.88	2.07	0.62	2.01	0.88	2.18	67.77	82.86	52.99	68.61	60.70	72.53
Missing	0.00	0.00	0.18	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	1.43	0.00	0.73	0.00	0.00
Sample size	588	622	551	595	1638	1710	320	290	321	298	1135	1238	121	70	117	137	402	364

Source: Authors' construction based on DHS data.

Table 7: Educational attainment by age group and gender (2003-2014)

Year	6-12 years						13-18 years						19-25 years					
	2003		2008/9		2014		2003		2008/9		2014		2003		2008/9		2014	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
No educ.	32.23	31.57	31.03	27.55	28.61	26.29	9.28	12.48	4.08	7.66	4.09	5.12	7.75	11.28	5.41	13.42	5.83	11.91
Incomplete primary	67.50	68.13	68.57	71.81	71.28	73.60	70.42	62.42	65.51	59.86	63.77	57.23	27.16	25.07	22.93	24.27	19.41	19.10
Primary	0.05	0.00	0.17	0.46	0.03	0.04	8.21	11.76	13.53	15.36	6.03	7.36	24.97	28.27	24.75	24.35	18.85	21.57
Incomplete secondary	0.00	0.06	0.10	0.00	0.06	0.06	10.24	11.19	14.34	14.22	24.29	27.85	10.91	9.75	15.37	10.86	20.74	17.46
Secondary	0.00	0.00	0.00	0.00	0.02	0.01	1.39	1.71	2.31	2.55	1.46	2.05	21.35	18.13	21.97	17.99	22.06	18.29
Higher	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.27	0.12	0.20	0.33	0.39	7.33	7.24	9.33	9.00	13.10	11.69
Missing	0.21	0.25	0.12	0.18	0.01	0.01	0.36	0.19	0.12	0.16	0.03	0.00	0.55	0.27	0.24	0.12	0.01	0.00
Sample size	3785	3630	4012	3945	17307	16816	2803	2637	2601	2546	11303	10712	2375	2625	2089	2579	7825	8802

Source: Authors' construction based on DHS data.

Table 8: Educational attainment by age group, gender and area of residence (2003-2014)

Age group	6-12 years						13-18 years						19-25 years					
	2003		2008/9		2014		2003		2008/9		2014		2003		2008/9		2014	
Year	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Urban																		
No education	28.77	27.15	24.54	18.68	24.79	20.90	7.38	10.36	3.46	5.15	2.01	3.80	5.41	7.32	2.83	7.13	3.05	6.58
Incomplete primary	71.11	72.36	74.61	79.70	74.96	78.97	55.74	47.63	44.71	46.51	56.96	47.82	15.34	14.55	11.33	15.60	13.03	13.70
Primary	0.12	0.00	0.28	1.34	0.10	0.02	13.93	21.75	17.93	22.06	7.71	9.94	25.50	28.08	22.50	24.59	18.97	22.12
Incomplete secondary	0.00	0.12	0.28	0.00	0.10	0.11	18.03	15.68	26.78	18.57	30.55	33.78	10.49	10.05	13.11	9.81	17.60	15.54
Secondary	0.00	0.00	0.00	0.00	0.04	0.00	3.93	3.85	6.26	6.99	2.22	3.83	29.25	25.45	29.21	24.79	28.34	24.25
Higher	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.44	0.65	0.74	0.48	0.83	13.80	13.99	20.72	17.98	19.00	17.81
Missing	0.00	0.36	0.28	0.26	0.00	0.00	0.66	0.30	0.22	0.00	0.06	0.00	0.22	0.57	0.30	0.10	0.00	0.00
Sample size	810	825	705	744	4805	4737	610	676	463	544	3332	3369	906	1065	671	968	3147	3649
Rural																		
No education	33.18	32.87	32.42	29.62	30.08	28.40	9.80	13.21	4.21	8.34	4.96	5.72	9.19	13.97	6.63	17.19	7.70	15.68
Incomplete primary	66.52	66.88	67.28	69.98	69.86	71.50	74.51	67.52	70.02	63.49	66.62	61.56	34.45	32.24	28.42	29.48	23.71	22.92
Primary	0.03	0.00	0.15	0.25	0.01	0.04	6.61	8.31	12.58	13.54	5.33	6.17	24.64	28.40	25.81	24.21	18.77	21.19
Incomplete secondary	0.00	0.04	0.06	0.00	0.04	0.04	8.07	9.64	11.65	13.04	21.68	25.13	11.16	9.55	16.43	11.48	17.83	14.07
Secondary	0.00	0.00	0.00	0.00	0.01	0.01	0.68	0.97	1.45	1.35	1.14	1.24	16.47	13.14	18.55	13.90	9.13	7.32
Higher	0.00	0.00	0.00	0.00	0.01	0.00	0.05	0.20	0.00	0.05	0.26	0.19	3.34	2.63	3.95	3.60	0.00	0.00
Missing	0.27	0.21	0.09	0.16	0.01	0.01	0.27	0.15	0.09	0.20	0.01	0.00	0.75	0.06	0.21	0.12	0.02	0.00
Sample size	2975	2805	3307	3202	12502	12079	2193	1961	2138	2002	7971	7343	1469	1560	1418	1611	4678	5153

Source: Authors' construction based on DHS data.

Table 9: Educational attainment, by age group and gender for poorest and richest groups (2003 – 2014)

Age group	6-12 years						13-18 year						19-25 years					
	2003		2008/9		2014		2003		2008/9		2014		2003		2008/9		2014	
Year	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Poorest																		
No educ/pre-sch.	52.98	57.57	48.72	45.66	44.01	44.19	25.00	36.30	11.35	22.77	11.26	15.89	26.21	39.33	18.66	46.60	19.60	39.89
Incomplete primary	46.83	42.09	80.75	54.17	55.91	55.77	65.48	56.51	75.34	66.77	73.01	67.60	39.81	35.98	37.88	30.61	32.46	28.57
Primary	0.00	0.00	0.53	0.00	0.05	0.00	5.21	3.42	7.26	6.46	3.97	5.32	16.50	17.99	20.33	14.89	16.37	16.10
Incomplete Secondary	0.00	0.00	0.00	0.00	0.02	0.02	3.57	3.25	5.30	3.23	10.93	10.68	4.85	4.60	13.93	5.32	17.62	9.96
Secondary	0.00	0.00	0.00	0.00	0.02	0.02	0.60	0.51	0.45	0.46	0.71	0.47	10.19	1.67	7.80	2.13	10.08	4.28
Higher	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.04	1.46	0.00	1.11	0.21	3.85	1.21
Missing	0.20	0.34	0.00	0.17	0.00	0.00	0.15	0.00	0.30	0.31	0.00	0.00	0.97	0.42	0.28	0.21	0.00	0.00
Sample size	1008	879	1245	1174	6060	5650	621	530	661	650	3375	2781	329	366	359	470	1765	1988
Richest																		
No educ/pre-sch.	22.67	20.88	20.85	16.04	15.17	13.77	5.43	6.06	1.69	3.08	0.97	1.60	5.03	3.54	2.06	4.89	1.53	3.18
Incomplete primary	77.17	78.82	78.09	82.16	84.66	86.00	44.57	39.25	40.17	36.73	40.53	34.97	12.01	12.24	8.08	11.90	5.89	6.41
Primary	0.00	0.00	0.53	1.47	0.12	0.06	14.49	27.13	18.54	27.25	5.73	8.91	24.84	27.29	22.68	25.25	12.01	16.67
Incomplete secondary	0.00	0.15	0.18	0.00	0.00	0.17	22.64	17.89	30.62	22.51	48.67	46.68	10.06	7.96	11.00	10.12	15.61	13.55
Secondary	0.00	0.00	0.00	0.00	0.06	0.00	10.87	7.94	8.43	9.24	3.38	6.45	29.06	29.50	32.47	26.92	32.13	29.65
Higher	0.00	0.00	0.00	0.00	0.00	0.00	0.91	1.59	0.56	1.18	0.73	1.40	18.83	18.88	23.71	20.69	32.82	30.55
Missing	0.16	0.15	0.36	0.32	0.00	0.00	1.08	0.14	0.00	0.00	0.00	0.00	0.16	0.29	0.00	0.22	0.00	0.00
Sample size	622	661	566	611	1688	1757	464	559	356	422	1241	1504	867	991	582	899	1307	1794

Source: Authors' construction based on DHS data.

Table 9 presents data on educational attainment for the poorest and richest groups by gender and age groups for the three survey years. In 2003, fifty-three percent of boys aged 6-12 years from poor households had no education or they were in pre-school. This proportion had gone down to 44% by 2014. Among the richest households, only 23% of boys aged 6-12 years had either no education or were attending pre-school in 2003, but this proportion had dropped to about 15% in 2014. Thus, compared with their counterparts from the richest households, children from the poorest households were less likely to attain any level of education, notwithstanding age and gender. The gender disparities in educational attainment were more pronounced within the poorest groups than the richer groups. Relative to their richer counterparts, girls from the poorest households were less likely to go to school and attain any meaningful level of education compared with poor boys.

4. Fertility Outcomes and Marriage Decisions

The analysis in the previous section highlighted the existence of obvious gender differentials in spite of high educational enrolment rates and favourable levels of school attendance in Kenya. The apparent gender bias against women in terms of educational enrolment and attendance may probably be linked to circumstances like early fertility outcomes and marriage decisions. This section presents results of the analysis of women’s fertility outcomes and marriage decisions in Kenya by age groups over time. First, we observe that the median age at first birth in Kenya was about 19 years between 1989 and 1993 (Table 10). Thereafter, the average age at first birth rose to about 20 years between 1998 and 2014. Other than for the 45-49 years’ age group in 1989 and 1998, there is little variation in median age at first birth across different age groups.

Table 10: Median age of women at first birth by age group (1989 to 2014)

Age group	Median age of first birth					
	1989	1993	1998	2003	2008	2014
25-29	18.7	19.3	19.6	20.1	19.8	20.3
30-34	18.2	19.0	19.5	19.6	19.7	20.2
35-39	18.6	19.0	19.3	19.9	20.2	20.5
40-44	18.6	19.0	18.9	19.4	20.1	20.2
45-49	19.7	19.3	19.9	19.3	19.5	19.9

Source: KNBS et al., 2010; 2014; CBS et al., 2004; NCPD et al., 1994; 1999

Table 11 shows average number of children, average age at first birth, and average age of first marriage for three periods, 2003, 2008/9 and 2014. In the three survey years, higher educational

attainment was associated with decreased average fertility, higher age at first birth, and higher age of first marriage. The data also show that age at first birth declined slightly between 2003 and 2014, but the variation was insignificant. The data suggest that education had an important impact on women's fertility decisions.

The average number of children was lower for women in urban areas compared with those in rural areas. In contrast, average age at first birth and average age of first marriage were slightly higher in urban than in rural areas; the variations were insignificant save for average age of first marriage in 2008/9 which differed by one year between the two groups. The average number of children was lower for women from the higher wealth quintiles. In contrast, age at first birth and age of first marriage increased with wealth quintiles. The results, therefore, suggest that wealth affects fertility decisions, with women from richer households being in a better position to delay their fertility decisions and thus have a smaller number of children compared with their poorer counterparts.

Table 11: Fertility decisions by level of education, area of residence and wealth quintile

	Average number of children			Average age at first birth			Average age of first marriage		
	2003	2008/9	2014	2003	2008/9	2014	2003	2008/9	2014
Education									
No education	4.61	4.31	4.38	18.34	18.40	18.93	16.98	17.21	17.47
Primary	2.64	2.85	3.02	18.46	18.41	18.68	18.36	18.26	18.44
Secondary	1.89	1.76	1.65	20.55	20.48	20.37	20.81	20.72	20.44
Higher	1.56	1.36	1.47	23.48	23.89	23.22	23.08	23.51	22.95
Area									
Urban	1.96	1.79	2.18	19.94	20.29	19.92	19.70	20.23	19.68
Rural	3.06	3.06	3.00	18.87	18.81	19.14	18.50	18.44	18.71
Wealth quintile									
Poorest	3.99	3.66	3.60	18.20	18.22	18.70	17.21	17.40	17.66
Poorer	3.21	3.01	3.00	18.64	18.52	18.73	18.51	18.31	18.59
Middle	2.93	2.89	2.68	18.73	18.82	19.04	18.65	18.53	19.00
Richer	2.50	2.45	2.23	19.38	19.29	19.82	19.18	19.24	19.76
Richest	1.72	1.63	1.73	20.36	20.76	21.21	20.16	20.72	20.92
Sample size	8195	8444	31079	5865	6102	23245	5729	5904	22504

Source: Authors' construction based on DHS data.

Table 12 presents the average number of children by mother's age group and other characteristics. The data show that fertility increases with age of the mother at all levels of education, wealth

quintiles, and area of residence. The fertility level among those with no education or those who had only primary education was significantly higher than for those with higher levels of education. There was no significant variation in the average number of children borne by women of the various age groups across the survey years suggesting that average fertility rates may have remained relatively constant over the last decade.

The fertility level was much higher in rural areas than in urban areas across all age groups except the 12-15 years' category in 2008/9. Furthermore, the fertility level in the poorest wealth quintile was more than twice the fertility level of the richest quintile. On average, fertility levels declined between 2003 and 2008/9.

Table 12: Average number of children by mothers' age group, education, area of residence and wealth quintile

	2003			2008/9			2014		
	12-15	16-20	21-25	12-15	16-20	21-25	12-15	16-20	21-25
Education									
No education	0.12	0.82	2.57	0.07	0.70	2.49	0.03	0.70	2.47
Primary	0.02	0.45	1.93	0.02	0.43	1.71	0.02	0.47	1.89
Secondary	0.00	0.13	0.94	0.02	0.17	0.90	0.02	0.16	1.02
Higher	0.00	0.09	0.29	0.00	0.03	0.27	0.00	0.11	0.45
Residence									
Urban	0.01	0.36	1.05	0.04	0.32	1.06	0.02	0.30	1.21
Rural	0.02	0.38	1.91	0.02	0.42	1.72	0.02	0.35	1.76
Wealth quintile									
Poorest	0.05	0.60	2.56	0.03	0.60	2.42	0.02	0.50	2.30
Poorer	0.02	0.36	2.03	0.05	0.44	1.93	0.04	0.36	1.83
Middle	0.00	0.27	1.76	0.00	0.39	1.59	0.01	0.30	1.48
Richer	0.00	0.35	1.47	0.01	0.31	1.29	0.00	0.26	1.16
Richest	0.02	0.28	0.91	0.05	0.28	0.92	0.00	0.17	0.81
Sample size	328	1843	1688	342	1895	1598	1370	5933	5450

Source: Authors' construction based on DHS data.

The distribution of marital status of the youth indicates that more women than men were married, but the difference narrowed with age. Furthermore, the incidence of early marriages for women fell significantly between 1989 and 2009 (Table 13).

Table 13: Proportion of married youths by age group and sex (1989-2009)

Age Group	1989		2009	
	Male	Female	Male	Female
15-19	2.1	18.8	3.2	15.4
19-24	20	61.2	19.7	55.7
25-29	60.3	76.7	56.5	74.2

Source: Republic of Kenya (2013).

5. Labour Market Characteristics

The available survey data lack explicit information on the first job taken up individuals. An examination of the possible occupations of new labour market entrants (15-19 years and 20-24 years) was, however, used to capture gender differences in occupational distribution. In 1998 and 2003, young women aged 15-24 years were employed predominantly in sales and service jobs, household and domestic service, and agricultural work. In 2008, women in this age bracket dominated the agricultural, professional, technical, and managerial jobs. In the case of men, two factors can be highlighted concerning first job activities. First, a smaller percentage of those in the 15-24 years' age bracket was reported to be working compared with their women counterparts during 2003 and 2008. Second, most of the young men in this age category were employed to do unskilled manual and agricultural work. The proportion of men aged 15-24 years engaged in professional/technical and managerial occupations also rose considerably between 2003 and 2008, probably suggesting growth in job opportunities in these sectors (Tables 14-16).

Table 14: Occupational distribution of women aged 15-49 years employed in the twelve months preceding the survey (1998)

Age	Professional /Technical/ managerial	Sales and services	Skilled manual	Unskilled manual	Household & domestic service	Agricultural	Sample size
15-19	0.6	17.8	4.8	2.6	32.1	42.0	413
20-24	12.2	25.2	5.0	1.5	11.5	44.5	763
25-29	15.1	26.2	5.4	2.6	5.7	45.0	836
30-34	15.7	27.9	5.3	3.4	3.4	44.0	653
35-39	12.1	26.4	4.5	4.7	4.7	50.6	670
40-44	12.3	23.9	1.7	1.6	1.6	59.2	440

45-49	10.1	21.0	2.8	5.3	5.3	58.7	311
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NCPD et al., 1999

Table 15: Occupational distribution of women aged 15-49 years employed in the twelve months preceding the survey (2003)

Current Age	Professional /technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agricult ural	Samp le size
Females								
15-19	1.9	0.1	20.1	0	6.5	24.6	46.6	587
20-24	1.6	1.6	25.9	0	11.2	12.7	44.3	1001
25-29	7.4	2.8	26	0.1	8.9	8.2	46.4	960
30-34	7.4	2.5	31	0.2	5.8	4.7	48.2	838
35-39	7.7	2.6	28.7	0.1	6.7	3.8	49.9	681
40-44	9.6	3.2	26.3	0.1	4.9	1.9	54.1	617
45-49	8.3	2.7	24	0.5	4.4	1.5	58.6	390
Males								
15-19	0.6	1.1	9.3	4.9	17.1	7.5	58.6	244
20-24	4.7	1.7	21.9	4.1	23.9	5	37.2	537
25-29	8.0	1.1	22.6	5.6	21.1	3.1	38.4	482
30-34	10.6	0	17.3	4.9	21.8	3.2	40.9	400
35-39	10.8	0.9	16.5	6.3	27.2	0.9	37.4	388
40-44	18.4	2.4	13.8	5.3	21.5	0.8	37.8	301
45-49	13.6	0.8	13.1	1.4	16.1	1.7	53.3	188

CBS et al., 2004

Table 16: Occupational distribution of women aged 15-49 years employed in the twelve months preceding the survey (2008)

Current age	Professional /technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agricultural	Sample size
Females								
15-19	12.9	0.4	11.2	6.6	3	14.6	49.9	371
20-24	31.5	2.2	16	6.9	1.4	10.3	31.4	931
25-29	29.4	3.6	13.6	8.8	2.9	7.9	33.3	1014
30-34	34.0	1.4	13.5	4.8	3.2	3.4	39.5	889
35-39	31.7	3.3	12.8	4.4	2.7	4.6	39.8	659
40-44	36.8	1.7	8.2	4	2.5	6.1	40.7	618
45-49	27.9	1.2	8.9	4	1.8	3.8	52.5	449
Males								
15-19	2.8	0	5.5	3.3	9.7	2.3	56.6	495
20-24	15.6	0.3	10.9	9.4	13.7	2.9	44.2	565
25-29	24.5	1	13.5	8.5	18.5	4.6	29.5	474
30-34	22.3	1.3	7.8	14	20.1	2.6	31.9	451
35-39	31.9	2.2	7.5	7.8	18.9	1.5	30.3	341
40-44	25.0	1.5	10.7	9.1	15.1	2.2	36.5	305

Source: KNBS et al., 2010

This paper further examined time allocation patterns and employment types by gender, age group, area of residence, and poverty status for persons aged 6-25 years. Table 17 presents youth activity status by age group. A large proportion of those aged 6-18 years were still in school. The proportion of young persons still in school in rural areas was lower than in urban areas. A large proportion of those aged 19-25 years were either working or inactive; the proportion of males in both categories was higher compared with that of females. Further, a larger proportion of young persons in non-poor households were still in school compared with those from poor households. This observation supports earlier descriptive statistics on school attendance and grade attainment for these groups. Similarly, the data show that the level of inactivity was higher for youths from poor households relative to those from non-poor households. The proportion of working youths among the 19-25 year-olds was higher in non-poor households compared with poor households.

Table 17: Activity status by age group, gender, area of residence and poverty status (2005/6)

Age group	6-12		13-18		19-25	
Gender	Male	Female	Male	Female	Male	Female
Still in school	79	77	71	67	25	17
In school but working	4	2	6	4	2	1
Working	5	4	17	13	54	38
Inactive	14	14	10	9	20	14
Total	6365	6279	5028	5025	4214	4423
Residence	Rural	Urban	Rural	Urban	Rural	Urban
Still in school	75.0	87.4	68.2	71.5	22	17
In school but working	3.7	1.0	6.0	1.8	2	1
Working	5.9	1.1	16.7	10.3	47	43
Inactive	15.6	10.0	8.7	10.8	15	21
Total	9516	3128	7531	2522	5616	3021
Poverty status	Poor	Non-poor	Poor	Non-poor	Poor	Non-poor
Still in school	74	83	67	71	19	21
In school but working	3	3	5	5	2	2
Working	5	4	15	15	44	47
Inactive	18	10	11	7	20	14
Total	6893	5749	5550	4497	3861	4774

Source: Authors' construction based on KIHBS data

Table 18 contains a breakdown of data on employment types by sex, area of residence and poverty status. The majority of those aged 6-25 years were engaged as unpaid family workers, but the incidence of unpaid family work decreased with age. The largest proportion of paid employees was found in the 19-25 years' age group, implying that the chances of finding paid employment increased with age. The incidence of apprenticeship was very low, which means limited opportunities for skills formation among school leavers. The incidence of child labour in paid employment and own account workers among the 6-12 years' age group was another issue of concern. This age group also constituted the largest proportion of unpaid family workers.

The incidence of various types of employment was associated with urban-rural and gender differentials. For example, the incidence of paid employment was higher in urban areas than in rural areas and also among males than females. Contrastingly, the incidence of own account workers was higher in rural areas than urban areas and similarly among females than males.

In terms of poverty status of the household, the incidence of paid employment was higher among the non-poor households relative to the poor households. On the other hand, the incidence of own account work was higher among the poor households than the non-poor ones. The category of own account had the highest proportion of youths across all age groups.

Table 18: Employment type by age group, gender, area of residence, and poverty status (2005/6)

Age group	6-12		13-18		19-25	
Gender	Male	Female	Male	Female	Male	Female
Paid employee	1.95	2.76	21.49	22.27	39.11	28.09
Working employer	0.00	0.34	0.56	0.00	0.99	1.04
Own account worker	13.41	14.48	11.36	14.43	21.01	28.21
Unpaid family worker	77.32	73.45	62.25	60.36	36.11	39.83
Apprentice	0.00	0.69	1.11	0.84	0.90	0.81
Other	4.15	3.45	1.11	0.84	1.33	1.16
Not stated	3.17	4.83	2.12	1.26	0.56	0.87
Total	100	100	100	100	100	100
Sample size	410	290	898	714	2,332	1,730
Area of residence	Rural	Urban	Rural	Urban	Rural	Urban
Paid employee	2.13	4.55	15.02	54.29	23.86	56.32
Working employer	0.15	0.00	0.23	0.71	0.44	2.2
Own account worker	14.33	6.82	12.99	11.43	24.37	23.47
Unpaid family worker	75.46	79.55	68.62	27.14	48.74	14.76
Apprentice	0.30	0.00	0.23	4.64	0.47	1.67
Other	3.96	2.27	1.20	0.00	1.35	1.06
Not stated	3.66	6.82	1.73	1.79	0.77	0.53
Total	100	100	100	100	100	100
Sample size	656	44	1,332	280	2,741	1,321
Poverty status	Poor	Non-poor	poor	Non-poor	Poor	Non-poor
Paid employee	1.49	3.38	14.13	31.56	25.27	41.42
Working employer	0.00	0.34	0.33	0.28	0.57	1.35
Own account worker	16.83	9.80	16.57	7.85	24.87	23.47
Unpaid family worker	73.76	78.38	65.41	56.38	45.94	31.38
Apprentice	0.25	0.34	1.22	0.7	0.85	0.87
Other	4.70	2.70	0.89	1.12	1.65	0.96
Not stated	2.97	5.07	1.45	2.10	0.85	0.56
Total	100	100	100	100	100	100
Sample size	404	296	899	713	1,761	2,301

Source: Authors' construction based on KIHBS data

Table 19 shows the types of employer in Kenya for those aged 6-25 years. The statistics indicate that employment was provided by individual employers and other sources. The “other” source of employment was most probably the informal sector. The largest gender differentials by type of employer were most pronounced for the 19-25 (probably because this is the key age group at which the youths may enter formal labour markets) years age group and the rural-urban areas for all age groups.

Table 19: Main employer by age group, gender, area of residence and poverty status (2005/6)

Age group	6-12		13-18		19-25	
	Male	Female	Male	Female	Male	Female
Private sector company	0.71	1	1.82	1.59	6.03	4.34
Individual	12.14	12.29	32.33	28.19	39.16	29.93
Local Authority	0	0.33	0	0.49	0.16	0.14
Central Government	0	0	0	0	0.9	0.27
Teachers' Service Commission	0	0	0	0.12	0.08	0.14
Majority control by GOK	0	0	0.21	0	0.33	0.05
International organisations	0	0	0.11	0.12	0.12	0.14
State-owned enterprise	0	0	0	0.12	0.37	0.36
NGOs	0.24	0.33	0	0.25	0.41	0.59
Other	83.33	80.07	63.38	67.65	51.55	63.07
Not stated	3.57	5.98	2.14	1.47	0.9	0.99
Total	100	100	100	100	100	100
	420	301	934	816	2,454	2,212
Area of residence	Rural	Urban	Rural	Urban	Rural	Urban
Private sector company	0.9	0	1.45	2.94	3.28	9.39
Individual	12.09	7	24.58	57.84	27.69	49.9
Local Authority	0.15	0	0.21	0.33	0.13	0.2
Central Government	0	0	0	0	0.25	1.34
Teachers' Service Commission	0	0	0	0.33	0.06	0.2
Majority control by GOK	0	0	0	0.65	0.28	0
International organisations	0	0	0.14	0	0.09	0.2
State-owned enterprise	0	0	0	0.33	0.35	0.4
NGOs	0.15	1	0.14	0	0.44	0.6
Other	82.39	39	71.81	34.97	66.58	36.62
Not stated	4.33	4	1.66	2.61	0.85	1.14
Total	100	100	100	100	100	100
Sample size	670	51	1,444	306	3,175	1,491

Poverty status	Poor	Non-poor	Poor	Non-poor	Poor	Non-poor
Private sector company	1.46	10.61	2.67	0.51	2.62	7.16
Individual	13.41	0.32	23.35	39.2	30.63	37.86
Local Authority	0	0	0	0.51	0.05	0.22
Central Government	0	0	0	0	0.45	0.71
Teachers' Service Commission	0	0	0	0.13	0.1	0.11
Majority control by GOK	0	0	0	0.26	0.15	0.22
International organisations	0	0	0.21	0	0.05	0.19
State-owned enterprise	0	0	0	0.13	0.25	0.45
NGOs	0.24	0.32	0.1	0.13	0.4	0.56
Other	81.46	82.64	72.12	56.94	64.08	51.77
Not stated	3.41	6.11	1.54	2.19	1.21	0.75
Total	100	100	100	100	100	100
Sample size	410	311	972	778	1,985	2,681

Source: Authors' construction based on KIHBS data

6. Conclusion

This paper has presented a descriptive analysis of education outcomes, fertility characteristics, marriage decisions, and labour market transitions as they relate to young people aged 6 to 25 years in Kenya. The analysis was based mainly on the Demographic and Health surveys of 2003 and 2008/9 and the 2005/6 Kenya Integrated Household Budget Survey datasets. The analysis is a primer to further analytical and qualitative work on the relationship between schooling outcomes, fertility and/or marriage decisions, and early labour market transitions in Kenya.

A number of issues have emerged from the descriptive analysis as follows:

(i) School attendance of young boys and girls (aged 6-12 years) was almost at par in 2003 and 2008/9, but marked gender differentials in favour of boys were observed among those aged 13-18 years. Relative to men, women aged 19-25 years were clearly disadvantaged in terms of school attendance. These patterns probably reflect early labour market transition or early marriage/fertility decisions, which impede women from pursuing higher education compared with men. The results further suggest that if other factors were held constant, girls were less likely to enroll in secondary school compared with boys.

(ii) Children from the rural areas were less likely to attend school compared with urban children, irrespective of gender, if all other factors were held constant. Similarly, children from poor households were hardly likely to attend school compared with their richer counterparts.

(iii) Some youths were attending school at much lower grades than they should have been, probably due to delayed school entry and/or repeating of grades.

(iv) The statistics on educational attainment supported those for attendance whereby girls had lower educational attainment than boys, *ceteris paribus*. Relative to their urban counterparts, a higher proportion of rural children either never attended or never completed any grade in school. Further, children from the poorest households were less likely to attain some level of education compared with children from rich households irrespective of age and gender.

(v) Average fertility and age at first birth decreased with increase in educational attainment, while age at first marriage increased with educational attainment probably implying that education had an impact on women's fertility decisions.

(vi) The fertility level was much higher for women in rural areas compared with those in urban areas for all youths above 15 years of age in 2003 and 2008/9. Additionally, women from richer households were in a better position to delay their fertility decisions and thus have fewer children relative to their poorer counterparts when all other factors were held constant.

(vii) Labour market statistics indicated that a higher proportion of youths below 19 years of age from poor households were engaged in non-paid activities (own account work) compared with those from non-poor households. Similarly, the level of inactivity was higher among youths from poor households relative to those from non-poor households. There were few opportunities for apprenticeship and a high incidence of child labour in paid employment and own account workers within the 6-12 years' age group.

References

- Central Bureau of Statistics (CBS), Ministry of Health (MOH) and ORC Macro. (2004). *Kenya demographic and health survey 2003*. Calverton, Maryland: CHS, MOH, and ORC Macro.
- Central Bureau of Statistics (CBS). (2002). *Kenya 1999 population and housing census: Volume III Analytical report on education*. Nairobi: CBS.
- Central Bureau of Statistics (CBS). (1996). *Kenya 1989 population and housing census: Volume III Analytical report on education*. Nairobi: CBS.
- Escudero, V., & Mourelo, L. E. (2013). *Understanding the drivers of the youth labour market in Kenya*. ILO Research Paper Series No. 8. Geneva: ILO.
- Kaane, H. L. (2014). *Kenya country report for the 2014 ministerial conference on youth employment*. Abidjan, Côte d'Ivoire, 21-23 July, 2014.
- Kenya National Bureau of Statistics (KNBS) & ICF Macro. (2014). *Kenya demographic and health survey 2008-9*. Calverton, Maryland: KNBS and ICF Macro.
- Kenya National Bureau of Statistics (KNBS) and ICF Macro. (2010). *Kenya demographic and health survey 2008-9*. Calverton, Maryland: KNBS and ICF Macro.
- Kenya National Bureau of Statistics (KNBS). (2010). *Kenya 2009 population and housing census: Volume II Population and Household Distribution by Socio-Economic Characteristics*. Nairobi: KNBS.

- Munga, B., & E. Onsomu (2014). *State of youth unemployment in Kenya*. Retrieved on 29th June 2016 from <http://www.brookings.edu/blogs/africa-in-focus/posts/2014/08/21-state-of-youth-unemployment-kenya-munga>
- National Council for Population and Development (NCPD), Central Bureau of Statistics (CBS) and Macro International Inc. (MI). (1999). *Kenya demographic and health survey 1998*. Calverton, Maryland: NCPD, CBS, and MI.
- National Council for Population and Development (NCPD), Central Bureau of Statistics (CBS) and Macro International Inc. (MI). (1994). *Kenya demographic and health survey 1993*. Calverton, Maryland: NCPD, CBS and MI.
- Republic of Kenya (2015). *Economic Survey, 2015*. Kenya National Bureau of Statistics. Nairobi: Government Printers.
- Republic of Kenya (2013). *Kenya population situation analysis. United Nations Population Fund (UNFPA)*. Nairobi: Kenya and National Council for Population and Development.
- Republic of Kenya (2008). *2005-06 Kenya Integrated Household Budget Survey: Labour force analytical report*: Kenya National Bureau of Statistics. Nairobi: Government Printer.
- United Nations Development Programme (UNDP) (2013). *Kenya's youth employment challenge*. Discussion paper. New York: UNDP
- Vuluku, G., Wambugu, A. and Moyi, E. (2013). Unemployment and underemployment in Kenya: A gender gap analysis. *Economics*. 2(2): 7-16.