



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Orphaned children's school attendance in Kenya

Andreas Wigren
Bachelor thesis in economics (15 hp)
Department of Economics

Supervisor: Heather Congdon Fors

Abstract: This paper aims to investigate how school attendance differs for orphan children living at orphanages and orphan children living in the family based care called “Kinship care” in Nairobi, Kenya. The data was retrieved through qualitative interviews with 55 orphan children in Nairobi during a five weeks period in April and May 2016. The answers from the two groups of children are analysed with economic theory to see which group has the best possibilities to get a high human capital. The children living at orphanages have higher school attendance, better access to textbooks outside school and school uniforms in better condition and do therefor have better possibilities to gain a high human capital. The lack of money is often an underlying reason that orphans living with family members miss school. Orphanages do not have the same economic restrains as relatives that take on orphans. One example of a children institution that supported family homes was encountered. This solution was equal to living at the orphanage regarding school attendance.

Keywords: Human Capital, Education, Kenya, Orphans

1. Introduction	1
1.2. Aim.....	1
1.3 Methodology	2
1.3.1 Methodology discussion.....	2
2. A general background.....	4
2.1 About Kenya	4
2.2 The situation for children in Kenya.....	4
2.3 Definitions	6
3. Theoretical background.....	7
3.1 Education and macroeconomics	7
3.2 Education and microeconomics	8
3.3 Education and developing countries.....	9
3.4 Education and orphans.....	10
4. Data presentation	12
4.1 How the data was collected.....	13
4.2 Results	15
4.2.1 School attendance.....	16
4.2.2 Distance to school	19
4.2.3 School uniform.....	20
4.2.4 Homework.....	21
4.2.5 Feeling about school.....	23
5. Discussion	24
5.1 The reasons orphans do not attend school.....	24
5.2 Inequality among the orphans	25
5.3 Further research.....	26
6. Summary	27
Sources.....	28
Appendix 1	31
Appendix 2	32
Appendix 3	33

1. Introduction

Kenya is a country with almost half of its population under 18 years old. In fact the median age in Kenya is 19.3 years. At the same time Kenya's real GDP has grown with an average of five percentages per year the last years. Kenya has a growing middle class and is the economic and transport hub of East Africa. Especially important as transport hub is Kenya to its landlocked neighbours. But more problematic is that 40 per cent of the population is official unemployed and corruption is holding the economy back. (CIA 2016)

The consequence of this is a divided society, where one part of the population is getting richer fast whilst the other part is stuck working for a small payment in for example agriculture (like 75 per cent of the labour force) or are unemployed. The country is held back from greater economic development by the corruption, the bad infrastructure and the divided society. A general investment in human capital through a good general primary education would not only raise the competence and future possibilities for the lower classes in the society but also in the future can lead to lower corruption which could lead to more investments in for example infrastructure.

One of the most vulnerable groups in the society is the orphans. Kenya has over two million orphan children. Most of these children grow up in poor conditions; some even live on the street. This paper will compare school attendance for this vulnerable group (orphans) and focus on those living in family homes and those living at orphanages. These two living situations are probably the most common for orphans not living on the street in Kenya (UNICEF, 2016:a).

1.2. Aim

The aim of this thesis is to investigate how school attendance differs for orphan children living at institutions and orphan children living in the family based care called "Kinship care" in Nairobi, Kenya. As part of this aim, this paper seeks to answer two questions connected to the aim. The first question is what the main reasons are for orphan children in family based care and institutions, not to attend school? The second question is what the main limitations are for the orphan children to attend and do their work in school? This is only a small study of

the situation for orphans living close to Nairobi and therefore the results from this paper are just an introduction to the topic.

1.3 Methodology

This paper compares economic theory on human capital with emphasize on education with data on orphans school attendance collected in Nairobi, Kenya. The data was collected at five different places in Nairobi 2016 through survey interviews. The dataset consist of 55 observations of orphans living at institutions or at family homes. The questions asked in the survey can be found in “Appendix 1”. There is a map over Nairobi in “Appendix 2” showing the different locations where the data has been collected.

1.3.1 Methodology discussion

The data in this paper has been collected through qualitative interviews. The general difficulties with this method include balancing between a normal conversation and still getting qualitative data out from the source and being true to the message of the source when interpreting the results. The weakness of the method is in the problem of getting a clear and correct data. There are many moments where the right message can get lost. In this paper, this was solved using questions with fewer answering alternatives when introducing new themes. But there can still be misinterpreted information since the subjects can have understood the question wrong. It can be difficult to formulate the questions so that they are easy for the subject to understand and also objective. The strength of the method is that it is easy for the subject to explain itself and it gives in that way a chance for both questioner as respondent to explain themselves when needed. In that way, qualitative interviews are a useful way to collect data from the society.

Most of the interviewed children were between 12 and 14 years old because that was the most convenient when I did not always have access to somebody translating the questions and answers. The interviews has been translated when someone younger than 10 years old has been interviewed, since they did not understand or could express themselves good enough in English. Translations were needed at the first children institution and at the second school At the children institution a young man who had grown up at the orphanage and still lived there translated and at the school one of the employees from the first children institution translated.

When someone translated the interview, I asked extra questions and re-formulated myself more to be sure that they understood me correctly and that I understood the answers as they were meant. There is always a risk when someone is translating that the shades of the language disappear as well as that the contact between the interviewer and the interviewee gets weaker but this should be minimized in this case thanks to many static questions, control questions from the interviewer and that the people translating did a good job trying to get the true meaning of the words through in both directions. There was never any visual expression from the children that implied that they could have said something else than the translator.

The sample was chosen by a network selection where I used the contacts I had and the contacts I obtained during the visit to get to places where I could conduct the interviews. I constantly tried to be as specific as possible about which children I needed to talk to, which gender, age group and how they lived when I was at a location to do interviews. But this was not always possible for me to control, which can be seen in the difference in number of children living in different conditions. This may be a shortage of the sample. Since the interviews were conducted either at a children institution or at a school there might be a chance that I missed the children that did not attend school at all, especially those living with family members. I tried to reach one individual like that but she and her grandmother had moved without informing my contacts about it and could thus not be reached at that day. Excluding this group from the sample is a smaller problem since the result would only get stronger if they were included. Maybe the biggest loss is that their reasons why they are not in school are not included.

Another aspect is that the interviews were conducted at different locations. There is risks that this have affected the results but there is no visual pattern in the result and although most children interviewed at schools are living with family members their answers are consistent with those interviewed elsewhere. The same is true for the children living at orphanages. Then it is maybe more problematic with those children who has been chosen to answer the questions but do not want to be there and get interviewed. With those children I had to repeat the questions and sometimes rephrase so that they would give some answer. Hopefully they as well as the rest have been truthful about their situation and their answers. If there had been more time and good possibilities a solutions could have been to observe these children for some time to get a more thorough picture of their lives and answers. This was unfortunately not possible.

2. A general background

Here follows a general background over Kenya as a country, the situation for children in Kenya and some definitions for the paper are presented.

2.1 About Kenya

Kenya is a country in East Africa with border to Somalia, Ethiopia and South Sudan in the north, Uganda in the west and Tanzania in the south. East of Kenya is a coast to the Indian Ocean. Nairobi is the capital city of Kenya. (CIA 2016)

Kenya has a population of 45.5 million out of which 21.5 million are children under age 18 (UNICEF, 2016a). The population grows with one million people each year. The economy in Kenya grew with 4.9 per cent the first quarter of 2015 in comparison to 4.7 per cent the first quarter of 2014. According to the World Bank, the development challenges for Kenya are the poverty and inequality and also the external and internal shocks of the vulnerable economy (The World Bank, 2016).

In the Human Development Index (HDI) Kenya is categorized as a low human development country with a HDI value of 0.548 calculated from, for example, a life expectancy at birth of 61.6 years, 6.3 years mean of schooling and a Gross National Income (GNI) per capita of 2762 USD. Kenya is one of the 50 poorest countries in the world. (UNDP, 2016)

Kenya has a school system with an eight years primary education, from that the children are six years old until they are fourteen. This education is free and not compulsory. If a student fail one year of education he or she can repeat that year. Most primary schools are state owned (Classbase, 2016). The primary school enrolment ratio for females is 84.5 per cent and for male 83.5 per cent. The primary school net attendance ratio for male students is 72.5 per cent and for female 75 per cent (UNICEF, 2016b).

2.2 The situation for children in Kenya

According to UNICEF (2016a) approximately 2.4 million children are orphans in Kenya, of whom 50 per cent have become orphans due to HIV. About 60 per cent of the children under five years old were registered from birth. The amount of children between five and fourteen

years old engaged in child labour is 26 per cent (UNICEF, 2016a). Between 30 to 45 per cent out of the 2.4 million orphans end up at children institutions (orphanages) in comparison with the estimated 200 000 to 300 000 children living and working on the street. The children living on the street is particularly vulnerable to child trafficking, lack of education and other basic services. (UNICEF, 2016a).

The sections 58 and 59 in the Children's act (National council for law reporting, 2001) of Kenya define the charitable children institution as:

"... a home or institution which has been established by a person, corporate or unincorporate, a religious organisation or a non-governmental organisation and has been granted approval by the Council to manage a programme for the care, protection, rehabilitation or control of children." (National council for law reporting, 2001:33)

The Charitable Children's Institutions Regulations (Kenya Gazette Supplement, 2005) is the law that regulates the Charitable Children Institutions in Kenya. It states that any person that intends to operate an institution shall apply for registration to the Council. In the seventh regulation it states that the administering authority also known as a person or body registered to run an institution shall make proper provision for the holistic care, education and supervision. The administering authority shall also, according to point number eight, before providing accommodation to a child conduct a written plan for the child, including how on a day basis he will be cared for, the arrangement for his healthcare and education amongst others. This plan shall be reviewed annually. (Kenya Gazette Supplement, 2005)

The National Standards for best Practices in Charitable Children's Institutions (Republic of Kenya and UNICEF, 2013) states that the children institutions should ensure the children access to Early Childhood Development education although it is not free in Kenya. All children should also be given the same opportunities to primary education regardless of the child's sex, religion, tribe, health condition or the child's academic performance.

Children are considered as orphans if they have lost both or one parent. A majority of the orphans, in the world, live with a surviving relative (UNICEF 2016c). According to the republic of Kenya about 64 per cent of the children zero to fourteen years old, are living with both their parents. About 20.5 per cent live with only their mothers, 2.4 per cent live with

only their fathers and the rest live without parental care. Orphans most often live where they have the possibilities to live. For some this means staying with only one parent, some move in with another relative, some live at an orphanage and some move out on the street. Annually 150-216 children are reported as being lost in Nairobi. Many of these children have moved to the streets. (Republic of Kenya, 2014:3-5)

The traditional response from communities in Kenya to orphans has been to place them with extended family or community members. This is known as kinship care. With weakening family structures and changing socio-economic patterns in a developing society this kinship care is under threat. The Republic of Kenya would like fewer children in orphanages since they consider that institutional care has a negative impact on the emotional, cognitive, social and intellectual development of a child. Kinship care is also much more cost efficient than orphanages since family homes do not generally get some financial help when taking on another child. (Ibid, 2014:3-5)

2.3 Definitions

In this paper an orphanage is called a children institution (CI), which is the name I most encountered in Kenya for an orphanage. Children living with family members, in this paper, can still live with one of their parents since they are still considered as orphans as long as they are missing one parent. They can also live with another relative such as a sibling, an aunt or their grandparents.

3. Theoretical background

The theoretical background consists of economic theories on education as human capital and prior research on orphans and education in developing countries.

3.1 Education and macroeconomics

Romer (1989:273-274) presented in the 1980s how endogenous growth was possible from investments in human capital through education, since education is correlated with achievement and ability. This connection is especially clear in agricultural activity where inputs and outputs of the self-employed farmer can be measured directly. Agricultural productivity is thus positively correlated with the farmer's level of education. The level of literacy was used to explain the rate of investment. The initial level of literacy helps to explain the following rate of investment. The rate of investment then explains the subsequent rate of income growth of a country. This generates different levels of per capita income and different levels of growth of per capita income, where endogenous growth is possible from increasing the literacy of a people. (Ibid 1989:282-283)

In the augmented Solow model put forth by Mankiw, Romer and Weil (1992:418-420, 432-433) they restrict the human capital in the model to education based on cross-country data of 12 to 17 year olds enrolment to secondary school. Their results indicate that a higher savings rate leads to higher income in steady state. This will lead to a higher level of human capital in secondary school enrolment. In that way the savings rate of a country is connected to the average education level in the same country. But the school is also believed to have external benefits like increasing a nation's level of income. That is one reason why the state in most cases is the primary funder of the nation's schooling. The external benefits are varying between time and between countries because of the different qualities of education provided. Due to the diminishing return to factor inputs in the Solow model, the marginal return on investment in education is generally lower for those countries with a higher level of schooling. (Breton 2010:67-68, 78)

3.2 Education and microeconomics

The classical demographic transition theory says that when technology develops, new skills are needed. Therefore education becomes increasingly important as a society adopts new technologies and develops (Lee 2015:68). Becker (1960:212-214) added ideas of a return to education and the increase in cost of having children. He also developed ideas that fewer births were needed as child survival increased. In Becker's (1960:210-213, 235-236) earlier theory the utility of a couple was derived from their own consumption, number of surviving children and average quality of those children. Children provide psychic satisfaction to their parents over a longer time and could therefore be viewed as a consumer durable. But in some contexts children can be viewed as producer durables since they provide labour services. The wanted quantity and quality of children interact for a family so that the family then make their choices based on their income, their preferences, and the prices of parental and child goods.

Becker assumed that parents care about their number of surviving children instead of their number of births. Thus declining child mortality also declines the demand for children. This will have the effect of raising the quality of children whilst declining the quantity. In this way a mortality decline leads to a fertility decline over the fertility transition. Both quantity and quality of children was assumed to have positive income elasticities with their prices held constant but the demand for quality was assumed to rise more rapidly. (Becker 1991:154-156, 170-171, 199)

Becker and Barro (1989:498) extended this theory so that a parent's utility depends on the utility of their children. By investing in a child's human capital the child will have higher future earnings and higher adult utility. Parents have to choose whether to invest in their own utility, for example in their retirement, or in their children's utility, in their human capital. This level of investment is in steady-state related to the degree of altruism from the parents toward the children. Due to the trade-off between these investment possibilities, parents with lower income might have to invest less than their optimal amount, based on their altruism towards their children.

The return to education can also be measured as the increase in wages for a worker from the investment of extra years of education. Based on data from both developing and developed countries the average returns to education are 13.4 % per year for the first four years, 10.1 % per year for the next four years and 6.8 % per year for education after the first eight years in

school. The return to education varies over time and between countries. The return is generally higher in poor countries because skilled workers are rarer. (Barro & Lee 2016) The return from another year of education can vary from 5 % in developed countries to 29 % in developing countries. Some studies have also suggested that return to education is larger in Africa than in other regions (Kimenyi, Mwabu & Manda 2006:494).

A major aspect of human capital is its positive externalities. The existence of positive externalities means that raising the education part of human capital of one individual will not only generate higher earnings for that person but also higher earnings for other individuals. In a competitive economy, the workers are paid their marginal product. Increasing the average human capital, by for example increasing average years of education, increases the demand for skilled, more educated labour. (Ibid 2006:495)

3.3 Education and developing countries

Many economists and international organizations argue that investment in education should be a priority for developing countries. This based on the argument that an average higher level of education leads to economic growth. Education provides cognitive skills like literacy, numeracy, scientific knowledge and skills for advanced thinking. But schooling can also provide values and social skills that help the children, as they become adults. (Glewwe 2002:436-438) The cognitive skills provided by schooling leads, in almost every country, to higher incomes. This can be interpreted as that the knowledge provided in school is an important part of a person's human capital that earns a higher return on the labour market. (Ibid 2002:466)

One of the first studies on the relationship between cognitive skills and income in developing countries examined urban wage earners in Kenya and Tanzania. The authors write that already 1985 both Kenya and Tanzania had achieved almost universal primary school enrolment. The next step for mass education would thus be at the secondary education level. Education gives workers skills like literacy and numeracy that increase their productivity. Thus workers earn more after finished secondary education because of their higher level of cognitive achievement on average. (Boissiere, Knight & Sabot 1985:1016-1017,1028-1029)

Hanushek and Woessmann (2008:657-659) writes that cognitive skills have a strong effect on individual earnings as well as on economic growth. Both the individual and the society gain from having more skills. But for a country to be able to grow there also have to be well-functioning economic institutions like labour and product markets and property rights. To participate in international markets is also important for economic development. But allowing for these other factors, cognitive skills still play an important role for economic development. Although many developing countries have high enrolment in their schools, the children do not gain cognitive skills. A number of countries have less than 10 per cent currently reaching the lowest numeracy and literacy levels. Policies have to start focus on the quality of the schools rather than the quantity to be able to provide the students with the right skills. But to increase the students' cognitive skills all people involved in the education process has to face the right incentives so that they act to increase student knowledge.

Although quality is very important, quantity is not unimportant. Glick and Sahn (2009:188) shows with their research in Senegal that quantity of schooling was important to acquire life skills and academic knowledge. They also show that having a higher level of resources in the household have a modest or statistically insignificant benefit for the student's performance. It does although have an effect on the schooling duration and through that on the cognitive skills learnt. Therefore keeping children from less fortunate backgrounds enrolled and kept in school will not only close the schooling gap but also the gap in cognitive skills between children from different socio-economic backgrounds.

3.4 Education and orphans

Brigitte Zimmerman (2005) has made a qualitative interview study comparing the living situation for orphans at orphanages and in foster homes in Malawi. The study shows that the orphans are better off in orphanages regarding to the dimensions of lodging, health care, food quantity and variety, clothing, and school supplies. Other advantages, discovered among the children at orphanages compared to the foster homes, were that they were more "efficient in providing care and at exchanging information with other organizations. They are also easier to replicate for use in other areas than are community-based programs" (ibid. 2005:881-882).

Coneus, Mühlenweg and Stichnoth (2014:642) identify the educational and health effects of orphanhood in sub-Saharan Africa. They conclude statistically significant results that orphans

lag behind in education compared to non-orphaned children, growing up under identical living conditions, in nine out of eleven sub-Saharan countries. The highest point estimates are for the countries Kenya, Lesotho and Rwanda where it equals about one-third of a year of education. This difference comes from different treatment from caregivers who tend to favor their biological children. (ibid 2014:653, 659)

Emily Smith-Greenaway and Jessica Heckert (2013:1167) studied the implications of orphanage in sub-Saharan Africa. They did this by examining if living in an area with a high concentration of orphans is associated with children's likelihood of school enrolment. Their results shows, that in the communities with a high population of orphans in eastern Africa, the children are less likely to be enrolled in school and have lower output from their school.

4. Data presentation

The data was collected over a five weeks period in April and May 2016. (The data can be found in Appendix 3.) A series of interviews in different parts of Nairobi were conducted at two types of institutions and 5 institutions in total (see appendix 2 for a map over locations). The two types of visited organisations were orphanages and schools. In addition to that, I visited one umbrella organisation that is a network for institutions in Kenya that have contact with charitable children and organize different educations for people working with charitable children in Kenya. The umbrella organization head quarter was located at the same place as the first children home I visited. I also visited a social workers office on the boarder to a slum area. This visit was to get a greater understanding of the situation for children that miss one or two parents. Although making interviews with children were not possible at the social workers office, I was able to talk to the social workers about orphans living with family members that do not attend school at all. They expressed how these children are seen as a big burden on the society and the safety-risk for the community since they often rob people. During this visit I also got to witness how the social workers handle children who do not attend school.

<i>Institution name</i>	<i>Institution type</i>	<i>Orphan caregivers/ Teachers</i>	<i>Other employees</i>	<i>Number of children</i>	<i>Age range of children</i>	<i>Owner/financer</i>
<i>Nuru Africa (CI1)</i>	<i>Orphanage</i>	<i>2</i>	<i>2</i>	<i>25</i>	<i>5 to 18</i>	<i>Donations</i>
<i>Nyumbani Home (CI2)</i>	<i>Orphanage</i>	<i>13</i>	<i>21</i>	<i>124</i>	<i>0 to 25</i>	<i>Donations</i>
<i>Kanjeru Primary School (PS1)</i>	<i>School</i>	<i>17</i>	<i>.</i>	<i>600</i>	<i>.</i>	<i>Public school & school fees</i>
<i>Kwa Njenga Primary School (PS2)</i>	<i>School</i>	<i>25</i>	<i>9</i>	<i>2000</i>	<i>.</i>	<i>Public school & school fees</i>
<i>Love School (PS3)</i>	<i>School</i>	<i>20</i>	<i>2</i>	<i>400</i>	<i>3 to 14</i>	<i>Donations</i>

Table 4.1 Summary of visited institutions in Nairobi.

An orphanage is a group residence for children with paid Kenyan caregivers. The caregivers can have individual duties but should as a group clean, cook, supervise assignments from school and settle inter-child disputes.

4.1 How the data was collected

I visited two orphanages in conducting this research. The first orphanage or children institution (CI1) was a small (25-35 children) institution in the area of Kikuyu in the outer parts of Nairobi. At CI1 eleven interviews were conducted, out of whom eight live at the institution and the other three live in the nearby society. The second children institution (CI2) was a specialized institution on children with HIV. This institution had 124 children and 34 employees. At CI2 eight interviews were conducted. Both children institutions had a library with the textbooks for all the subjects for all the years of primary school. They also seemed to have some kind of daily schedule for the children where their chores, going to school and doing their homework occupied a big part of their days. The second children institution was selected to contrast the first children institution. CI2 have many more children, is specialized on orphans with the disease AIDS, which is a major reason for being orphan in Kenya, and is located in a richer area of the city. The subjects for the interviews were randomly chosen by personal at the orphanages from my wishes of characteristics like gender and age. All the children at children institutions had access to a library at the children institution. At this library they could borrow all the textbooks they needed outside school for doing homework.

<i>Place</i>	<i>Observations</i>	<i>Girls</i>	<i>Boys</i>	<i>Living at institution</i>	<i>Living at family care</i>
<i>CI1</i>	<i>11</i>	<i>5</i>	<i>6</i>	<i>8</i>	<i>3</i>
<i>CI2</i>	<i>8</i>	<i>4</i>	<i>4</i>	<i>8</i>	<i>0</i>
<i>PS1</i>	<i>12</i>	<i>9</i>	<i>3</i>	<i>0</i>	<i>12</i>
<i>PS2</i>	<i>14</i>	<i>9</i>	<i>5</i>	<i>2</i>	<i>12</i>
<i>PS3</i>	<i>10</i>	<i>3</i>	<i>7</i>	<i>0</i>	<i>10</i>
<i>Total</i>	<i>55</i>	<i>30</i>	<i>25</i>	<i>18</i>	<i>37</i>

Table 4.2 Summary of the interviews.

I also visited three primary schools out of two were public schools and one were a private school financed by donations. All three schools seemed to have some kind of school fee but all made exceptions if they knew that the child's caregivers could not pay. All students at primary schools have to have a school uniform that is in the school colours. Public primary schools in Kenya should not have any school fee but caregivers have to pay for schoolbooks (textbooks) and school uniform. Sometimes caregivers have to pay a school fee in the public school for the school to be able to afford the salary of the teachers. Primary School 1 (PS1) was a public school with 600 students and 17 teachers in the outer parts of Nairobi. The school was located in a poor area and had one textbook per two to five students depending on class and subject. At PS1 I conducted twelve interviews. All interviews were with children living in kinship care.

Primary School 2 (PS2) was a public school located in a slum area in eastern Nairobi. This was according to the head teacher the only public school in this geographical area. This school had about 2000 students including a special class for children in need of extra help with learning. Several of the classes had over 80 students and some even more than 100 students. Like PS1 PS2 also had one textbook per two to five students depending on class and subject. At PS2 I conducted 14 interviews, 12 of these were with children living in kinship care and two living at children institutions.

Primary School 3 (PS3) was a private primary school located in a slum area. This school was mainly funded by private donations, prior from the US and now mainly from Sweden. At PS3 I conducted ten interviews with children living in kinship care. At PS3 I got to witness how the school gave parts of school uniforms to some of the children in a ceremony. Most of the children in the public primary schools had to share a textbook in school with one or two other students depending on subject and class. At PS3 only the teachers have a textbook. These textbooks belong to the school and the children are not allowed to take them home. Some students stay in school and use these textbooks to be able to do their homework.

The subjects for the interviews were randomly chosen by personal at the school from my wishes of characteristics like gender, living conditions and age. In all of these three schools I asked to talk to both orphans living with family members and orphans living at institutions but in all schools the result was that I mostly interviewed those living with family members. At all children institutions and schools the aim were to interview about ten to eleven subjects

but when they offered another amount of subjects I stretched my aim in both direction making the number of interviews varying at different places from eight to fourteen. There is a risk that my sample misses children from family homes that do not attend school regularly, and this might bias the results. I will return to this point in the results section.

4.2 Results

The presentation of the results is divided into four headings. These frame the differences in living conditions and possibilities for orphans in different living conditions. The two different groups of children are similar in age; the mean differs less than one year as can be seen from the table below.

<i>Age</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
<i>Family home</i>	<i>37</i>	<i>12.64</i>	<i>2.15</i>	<i>6</i>	<i>16</i>
<i>Children institution</i>	<i>18</i>	<i>12</i>	<i>3.01</i>	<i>6</i>	<i>16</i>
<i>Total</i>	<i>55</i>	<i>12.44</i>	<i>2.45</i>	<i>6</i>	<i>16</i>

Table 4.3 Age distributions among the interviewed children.

The children in both groups have also been living like they live now for a similar amount of time. Both groups and the total have a mean between six and seven years.

<i>Years in these living conditions</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
<i>Family home</i>	<i>37</i>	<i>6.8378</i>	<i>4.7347</i>	<i>1</i>	<i>15</i>
<i>Children institution</i>	<i>18</i>	<i>6.2778</i>	<i>4.4827</i>	<i>1</i>	<i>13</i>
<i>Total</i>	<i>55</i>	<i>6.6545</i>	<i>4.6197</i>	<i>1</i>	<i>15</i>

Table 4.4 Years in the current living conditions.

The two groups have also similar gender structure with slightly more female respondents.

<i>Females</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Family home</i>	<i>37</i>	<i>0.5405</i>	<i>0.5052</i>
<i>Children institution</i>	<i>18</i>	<i>0.5556</i>	<i>0.5113</i>
<i>Total</i>	<i>55</i>	<i>0.5454</i>	<i>0.5025</i>

Table 4.5 Gender distribution among the interviewed children.

4.2.1 School attendance

School attendance is strongly connected to health conditions in Kenya (as can be seen in table 4.8 below). But it is also connected to being able to pay the school fee, having a school uniform and the textbooks for the standard form. The school enrolment to primary school in Kenya is almost 100 per cent but that does not mean that the caregivers can afford the school fees or the basic attributes needed to participate in the schooling like a uniform and textbooks.

<i>Missed school same year as the interview</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Family home</i>	<i>37</i>	<i>0.7297</i>	<i>0.4502</i>
<i>Children institution</i>	<i>18</i>	<i>0.3889</i>	<i>0.5016</i>
<i>Total</i>	<i>55</i>	<i>0.6182</i>	<i>0.4903</i>

Table 4.6 School attendance as a binary variable. 1 = Missed school the same year as the interview, 0 = not missed school the same year as the interview.

Table 4.6 shows the mean values of a dummy variable for missing school the same year as the interview. The variable is 1 if the child had missed one or more schooldays and 0 if the child had no missed school days. Among the children living with family members more individuals had missed one or more school days the same year as the subjects were interviewed. Almost 62 per cent of the children had missed at least one school day, but among the children living at CI's that number was only close to 39 per cent compared to almost 73 per cent of the children living with family members. Even though this is not quantitative data, a linear probability regression model for "Missed school same year as the interview" as the dependent variable controlling for age and gender could show the tendency if missed school correlates

with family home or if other factors like age and gender differ significantly between the two groups. If children in family homes are much older on average for example then this could be driving the results in the table above. The model for the regression is thus:

$$\text{Missed school same year as the interview} = \beta\text{Age} + \beta\text{Female} + \beta\text{Family Home} + \varepsilon$$

Table 4.7 shows the results from this linear probability regression. These results cannot be interpreted as general because the sample size is so small. The coefficient for age has a p-value of 0.115 and the coefficient for female has a p-value of 0.873 and thus are they insignificant. Considered this, the data shows a tendency towards that living at an institution is better for the school attendance than living at a family home.

<i>Missed school same year as the interview</i>	<i>Age</i>	<i>Female</i>	<i>Family home</i>
	0.04 (0.03) ^{ns}	-0.02 (0.13) ^{ns}	0.31 (0.13)**

*Table 4.7 Coefficients (standard errors) after regression of “Missed school same year as the interview” as the dependent variable. ** means significance on 5% level & ns means no significance.*

Among the children living at CI’s the main reason for missing school was because of sickness. The main reason for missing school among the children living in kinship care was also that they were sick but many were also missing school days because of lack of school fee. No children at a CI missed school because of school fees. The other three unique reasons for children living with family members were that they had to work at home, attend a funeral and lack of school uniform. The unique reasons for missing school for the children living at CI’s were because of friends and to attend another class instead of school (cooking class). The boy that said he had skipped school to be with friends the week before the interview were asked many times to control for the truth. According to him he and some friends were at a shopping centre instead of being in school. This boy living at CI2 still took the school bus from and to the orphanage that day but spent the day in another way than in the school. Both groups also had individuals missing school days because of hospital check-ups.

<i>Reasons for missing school last time</i>	<i>Family member</i>	<i>Institution</i>	<i>Total</i>
<i>Sick</i>	<i>12</i>	<i>4</i>	<i>16</i>
<i>Did not pay school fee</i>	<i>7</i>	<i>0</i>	<i>7</i>
<i>Hospital check up</i>	<i>2</i>	<i>1</i>	<i>3</i>
<i>Working at home</i>	<i>3</i>	<i>0</i>	<i>3</i>
<i>At funeral</i>	<i>2</i>	<i>0</i>	<i>2</i>
<i>No uniform</i>	<i>1</i>	<i>0</i>	<i>1</i>
<i>Because of friends</i>	<i>0</i>	<i>1</i>	<i>1</i>
<i>Other classes</i>	<i>0</i>	<i>1</i>	<i>1</i>
<i>Total (per cent of total subjects in the group)</i>	<i>27 (72.97 %)</i>	<i>7 (38.89 %)</i>	<i>34 (61.82 %)</i>

Table 4.8 Reasons for missing school.

Regarding school fees 47 of the 55 children said that their school had a school fee. Out of these 85.11 per cent had paid their fees as can be seen in table 4.9. Since all children living at CI's had paid school fees from their institution all those lacking school fees are those living at family members. In fact, only 81 per cent of those living in kinship care had paid the school fees. All schools with fees did exceptions for individuals that they knew could not pay. But this did not include the Saturday school for later primary classes that cost extra. I noticed scepticism from the school officials towards the children before they were accepted as unable to pay. Many children had missed many days before being accepted as unable to pay. One child in kinship care had missed school earlier this year but was now supported with the school fee from CI1.

<i>Paid school fees</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Family home</i>	<i>37</i>	<i>0.8108</i>	<i>0.3971</i>
<i>Children institution</i>	<i>10</i>	<i>1</i>	<i>0</i>
<i>Total</i>	<i>47</i>	<i>0.8511</i>	<i>0.3599</i>

Table 4.9 Paid school fees as binary variable. 1 = paid school fee, 0 = not paid school fee.

4.2.2 Distance to school

Another difference between the two groups is the distance to school. Although no subject have said this to be the reason to miss school, the two groups have a large difference in mean value. At CI2 the children took a school bus to school. All the other children walked to school, some even walked for 120 minutes each day and one individual walked for 180 minutes. The girl who said she walked for 180 to school was asked several times to ensure that she meant 180 minutes each way. This girl was extreme in many answers as she helped her family several hours each day with both business tasks and chores in the household and she also tried to be in school a minimum of one hour before it started to do her homework. When I calculated her day she could maximum have seven hours of sleep each night if she were able to fall asleep immediately. There were also, as mentioned, some individuals who said that they walked 120 minutes one way to school. Also these subjects were asked several hours to make sure we understood each other correctly.

<i>Time to school</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
<i>Family home</i>	<i>37</i>	<i>33.22</i>	<i>37.30</i>	<i>1</i>	<i>180</i>
<i>Family home without outlier</i>	<i>36</i>	<i>29.14</i>	<i>28.25</i>	<i>1</i>	<i>120</i>
<i>Children institution</i>	<i>18</i>	<i>15.67</i>	<i>10.89</i>	<i>3</i>	<i>30</i>
<i>Total</i>	<i>55</i>	<i>27.47</i>	<i>32.15</i>	<i>1</i>	<i>180</i>

Table 4.10 Distance to school.

The children living with family members did not have the possibility to take a school bus to school. This might be one reason their transportation time is on average higher than the transportation time of the children living at CI's. This result also holds without the outlying respondent that walked 180 minutes each day. This were not a reason for any of my subjects to miss school but it shows a tendency that a life at a CI is more smooth than it has to be living with relatives.

4.2.3 School uniform

All children in Kenyan primary schools must have a school uniform in the school colours. If a student is not dressed for school in a uniform, he or she cannot participate in the education. The definition of having a school uniform here is having all parts of the uniform. All of the children at the institutions had school uniforms and most of them had a uniform in good condition. The situation is not as good among the children living with relatives. Although most of them have a uniform, some parts are often old or got big holes in them. Some even answered that the uniform that they were wearing was not their own, it was just borrowed.

<i>Have a school uniform</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Family home</i>	<i>37</i>	<i>0.9459</i>	<i>0.2292</i>
<i>Children institution</i>	<i>18</i>	<i>1</i>	<i>0</i>
<i>Total</i>	<i>55</i>	<i>0.9636</i>	<i>0.1889</i>

Table 4.11 School uniform as a binary variable. 1 = Have a school uniform, 0 = Do not have a school uniform.

Both children living at institutions and in families have sometimes too small items of clothing because they have grown faster than their caregivers have been able to provide them with new parts of the uniform. The private primary school, which was financed by donations, tried to provide those students who lack some parts of the uniform with parts if they show that they take the school seriously. The public schools did not have such a system. Table 4.12 shows the summary statistics for the binary variable having a school uniform in good condition. The subjects have themselves answered weather their uniform was in good condition or not. At PS2 some individuals tried to answer that their uniforms were in good condition when they in

fact had big holes in their clothes. When confronted with this fact they sometimes looked at the mentioned flaw on their uniform and looked ashamed. After this their answer was changed to not having a uniform in good condition. The binary system for having a uniform in good condition has its flaw in that extreme cases are aggregated together with those just on the border to having a uniform in good condition. The positive with this binary system is that it would have been very difficult to set up and keep consequent with rules for a larger varying scale.

<i>School uniform in good condition</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Family home</i>	<i>37</i>	<i>0.2432</i>	<i>0.43</i>
<i>Children institution</i>	<i>18</i>	<i>0.8889</i>	<i>0.32</i>
<i>Total</i>	<i>55</i>	<i>0.4545</i>	<i>0.5025</i>

Table 4.12 School uniform in good condition as a binary variable. 1 = Have a school uniform in good condition, 0 = Do not have a school uniform in good condition.

Since most of the interviewed children have a school uniform but many say that their uniform is in bad condition, there might be a larger group of children that lack a uniform and do not attend school for that reason. Not having a uniform makes you miss school until you have a uniform, which could take a long time. Thus this might be a reason for not more individuals saying that they have missed school because of the uniform. This group might be missing and be a bias for the result.

4.2.4 Homework

To be able to do all homework students must have access to the textbooks for the subjects after school. For example in class eight there are at least five different books for different subjects. Since the textbooks used in school stays in school the students have to get access to books on their own. Some have enough money to buy one book, some books or all of them but most of them do not have enough money. Some students go home to a friend that has the book needed to do the homework and some stays in school after finishing to do the

homework. Others try to copy everything needed to do the homework in class from the board, the teacher or the textbook used in class. This is not a problem at a children institution where there is a library where the children can borrow all the textbooks needed to do their homework. The two children institutions visited in this paper have libraries like that and also have a schedule for the children's time outside school so that they do their homework and some chores.

If a child does not do the homework the teacher will punish him or her. Some have told in the interviews that they have to do the homework in class while the others move on to new things, others say that they may get detention or have to do the homework after school has ended. Many have also said that the teacher will hit them if they do not do their homework.

<i>Access to textbooks</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Family home</i>	<i>37</i>	<i>0.1351</i>	<i>0.3466</i>
<i>Children institution</i>	<i>18</i>	<i>1</i>	<i>0</i>
<i>Total</i>	<i>55</i>	<i>0.4182</i>	<i>0.4978</i>

Table 4.13 Access to textbooks outside of school as a binary variable. 1 = Have access to textbooks outside of school, 0 = Do not have access to textbooks outside school.

The main reasons for not doing the homework is not having access to the right textbooks outside of class. As can be seen in table 4.13 all children living at CI's have access to textbooks outside the school while only 13 per cent of the children living with family members have access to textbooks. Not having the textbooks will make it harder to do the homework and for some individuals lead to less school attendance to avoid punishments. This can be seen in the table below. The children at CI's have access to all textbooks and thus answers that they always do their homework. Most of the children living in family homes do not have access to textbooks and therefore answer that they do not always do their homework.

<i>Always do homework</i>	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Family home</i>	<i>37</i>	<i>0.4594</i>	<i>0.5052</i>
<i>Children institution</i>	<i>17</i>	<i>1</i>	<i>0</i>
<i>Total</i>	<i>54</i>	<i>0.6296</i>	<i>0.4874</i>

Table 4.14 Always do homework as a binary variable. 1 = Always do homework, 0 = Do not always do homework.

4.2.5 Feeling about school

Most of the answers to how the respondents felt about school were “good”. In those few cases the answer was negative those individuals already stuck out in their answers and it is thus visible from the tables above. Many more than just those with good school regularity answered that school was something positive. When asked this could not be explained why these feelings were so or they were explained by some future dream of what to become professionally. Having a translator seemed to have little influence on the subjects feeling about school since both positive and negative answers were collected.

5. Discussion

Here follows a discussion of the result in the light of the theoretical background.

5.1 The reasons orphans do not attend school

Both groups share the most common reason to miss school, being sick. In this way health and education are linked as human capital. Being sick can have a connection to the income of the household but it does not have to, in a sample as small as this. Children in both groups had also missed school because of hospital check-ups. Three reasons to miss school among the children living with family members are: not being able to pay their school fee, having to work at home and not having a school uniform. These three reasons are connected to the level of income in the household and do not appear as reasons to miss school for children living at CI's. The other reasons for missing school, except being sick, for children at CI's are because of being with friends instead and to attend other classes. These reasons suggest that the children choose themselves to miss school if they do not miss because they are sick. Two children living with family members had missed school because they had to attend a funeral for a relative. This is in the same way as having to stay home and work a reason to miss school based on cultural values and the family situation. One explanation for the children at CI's not having to miss school because of funerals is that those children do not have as many relatives.

Children living at CI's are probably on average living with a higher standard than those living with family members. This seems like a likely explanation to all the reasons above to miss school except the funerals. Thus putting an orphan at a CI is in itself an investment in human capital. The perspective of Glick & Sahn (2009) says that the income of the household is insignificant for the child's performance in school but affects the schooling's duration. On average those with more resources, being able to attend school, will have a higher output and will take a larger part of creating the country's endogenous growth. To keep more children for a longer period in school their living conditions have to be better. For orphans this could, according to the results in this paper, be assured by having them live at CI's. The same result could also be reached if resources were provided to the families taking care of the orphans. During the data collection a solution close to this was encountered at CI1. This CI was supporting more children than those living at the CI with both their school fee and giving them the opportunity to borrow textbooks for homework.

In the light of the extended demographic transition theory the situation can be interpreted as that the CI's never have to choose between investing in the future (the children) and themselves because the whole purpose of the CI is to invest in the children. That is the utility of the CI. The children living with family members are more exposed to this risk as can be seen in the data where for example three children missed school because they had to work and one individual missed school because of lacking a school uniform. In many cases the future (the children) are the priority of the household but as a family has to choose between the present and the future sometimes the investment in the present will be made causing the investment in the future to be missing. The highest utility for a family with a very limited amount of money can thus be to invest in the present, such as getting money for food.

5.2 Inequality among the orphans

Children are more likely to having to stay home and work if they live with relatives. They are in other words more seen as a producer durable compared with those living at CI's. As stated by The World Bank (2016) poverty and inequality threatens the economic development in Kenya. Those orphan children living in the poorest family homes are a part of this threat, as they have to be seen more as a producer durable than a consumer durable. This problem can for example be seen in the demographic transition theory. As Kenya develops new skills are needed, skills that the poorest individuals have been able to learn. The return to investments in education is on average high in developing countries. Thus when the average human capital in Kenya increases, the demand for skilled educated labour will increase, leaving those uneducated behind. Those individuals attending school do learn the wanted cognitive skills that give them higher individual earnings that contribute to the country's economic growth. Those individuals not attending schools will not learn the wanted cognitive skills and thus not get higher individual earnings and contribute to the country's economic growth. To break this circle of poverty, possibilities for staying in school can be improved for those most exposed in the society as suggested above. Orphans is one such exposed group that could be helped a lot with gaining access to textbooks outside school and having the costs of school like school uniform and school fee, reduced. These costs could in the long run be covered for the society by the high marginal return to education in Kenya, due to the low average education level as stated by Breton (2010) earlier. Glewwe (2002) also urged that investments in education should be a priority with the argument that increasing the average level of education leads to economic growth. These investments could be done by the government as implied in some of

the sources mentioned above but could also be applied on the micro level by a private school or another organization financed by donations. Organisations trying to make investments by decreasing the costs of schooling can be found in the data. CI1 paid more school fees and let children borrow books and PS3 handed out school uniforms. Like Zimmerman's (2005) research the orphans living at CI's are the ones better off. They are provided with enough possibilities and resources to gain a higher human capital. Similar investments made possible for all charitable children in Kenya would increase the average human capital and thus lead to economic growth.

5.3 Further research

A good way to continue this research would be enhancing it, interviewing many more orphans in a quantitative research. This would give more useful data that could be analysed in more ways. Another interesting enhancement is to include questions about hygiene like Zimmerman (2009) since this is closely linked to both sickness and thus school attendance.

Further research where the same orphan children are followed from children to adults would give an even more honest and reliable picture of the relationship between the vulnerable group of orphans and economic growth through human capital. If the same individuals are followed it would be possible to see more clearly what made the difference for some individuals taking them out of poverty.

6. Summary

This paper compares the school attendance for orphans living with family members and orphans living at children institutions (orphanages). In total 55 children were interviewed during a five-week period 2016. The results of the interviews conducted in Nairobi, Kenya, show how orphans with different possibilities gain different school attendance and thus different human capital. Those living with family members attend school with a lower frequency than those living at CI's in this paper. Many reasons for children living with family members not to attend school are connected to lack of money. These reasons are that they have to work in the home, do not have a complete school uniform or did not pay school fee. Both groups have individuals missing school because of diseases. Orphans are a vulnerable group in the society and Kenya, as a country would benefit if orphans attended school like other children. One example of a children institution that supported family homes was encountered. This solution was equal to living at the orphanage regarding school attendance.

Sources

- Barro, R.J. & Becker, G.S. (1989), "Fertility Choice in a Model of Economic Growth". *Econometrica (1986-1998)*, vol. 57, no. 2, pp. 481.
- Barro, R.J. & Lee, J.W. (2016), "Education Attainment for Population Aged 25 and Over" <http://barrolee.com/> (available 2016-08-29)
- Becker, G. S. (1960) "An economic analysis of fertility", *Demographic and Economic Change in Developed Countries*, pp. 209–240. National Bureau of Economic Research, Princeton, NJ: Princeton University Press.
- Becker, G. S. (1991) "A Treatise on the Family", 2nd ed. Cambridge, MA: Harvard University Press.
- Boissiere, M., Knight, J. B., & Sabot, R. H.. (1985). "Earnings, Schooling, Ability and Cognitive Skills". *The American Economic Review*, 75(5), 1016–1030.
- Breton, T.R. (2010), "Schooling and national income: how large are the externalities?" *Education Economics*, vol. 18, no. 1, pp. 67-92.
- CIA (2016). *The World Factbook: Kenya* <https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html> (available 2016-04-27)
- Classbase (2016). *Education system in Kenya*, publishing. <http://www.classbase.com/countries/Kenya/Education-System> (available 2016-02-12).
- Coneus, K., Mühlenweg, A.M. & Stichnoth, H. (2014), "Orphans at risk in sub-Saharan Africa: evidence on educational and health outcomes", *Review of Economics of the Household*, vol. 12, no. 4, pp. 641-662.
- Glewwe, P.. (2002). "Schools and Skills in Developing Countries: Education Policies and Socioeconomic Outcomes". *Journal of Economic Literature*, 40(2), 436–482.
- Glick, P. & Sahn, D.E. (2009), "Cognitive skills among children in Senegal: Disentangling the roles of schooling and family background", *Economics of Education Review*, vol. 28, no. 2, pp. 178-188.

- Hanushek, E.A. & Woessmann, L. (2008), "The Role of Cognitive Skills in Economic Development", *Journal of Economic Literature*, vol. 46, no. 3, pp. 607-668.
- Kenya Gazette Supplement (2005). "*The Children (Charitable children's institutions) regulations*". No. 89, Kenya.
- Kimenyi, M.S., Mwabu, G. & Manda, D.K. (2006), "Human Capital Externalities and Private Returns to Education in Kenya", *Eastern Economic Journal*, vol. 32, no. 3, pp. 493-513.
- Lee, R. (2015), "BECKER AND THE DEMOGRAPHIC TRANSITION", *Journal of Demographic Economics*, vol. 81, no. 1, pp. 67-74.
- Mankiw, N.G., Romer, D. & Weil, D.N. (1992), "A contribution to the Empirics of Economic Growth", *The Quarterly Journal of Economics*, vol. 107, no 2, pp. 407-437.
- National council for law reporting (2001). *Laws of Kenya: "Children's act"*. Kenya laws reports. Chapter 141, Kenya.
- Republic of Kenya (2014). "*Guidelines for the alternative family care of children in Kenya*". Kenya.
- Republic of Kenya and UNICEF (2013). "*National standards for best practices in Charitable Children Institutions*". Kenya.
- Romer, P.M. (1990), "Human capital and growth: Theory and evidence", *Carnegie-Rochester Conference Series on Public Policy*, vol. 32, pp. 251-286.
- Smith-Greenway, E. & Heckert, J. (2013). "Does the orphan disadvantage "spill over"?: an analysis of whether living in an area with a higher concentration of orphans is associated with children's school enrollment in sub-Saharan Africa", *Demographic Research*, vol. 28, pp. 1167.
- UNDP (2016). Table 1: Human Development Index and its components, publishing.
<http://hdr.undp.org/en/composite/HDI> (available 2016-02-06).
- UNICEF (2016a). *Country statistics: Kenya*, publishing.
<http://data.unicef.org/countries/KEN.html> (available 2016-02-06).
- UNICEF (2016b). *Kenya: statistics*, publishing.

http://www.unicef.org/infobycountry/kenya_statistics.html#117 (available 2016-02-12).

UNICEF (2016c). *Orphans*.

http://www.unicef.org/media/media_45279.html (available 2016-04-27).

The World Bank (2016). *Overview*, publishing.

<http://www.worldbank.org/en/country/kenya/overview> (available 2016-02-06).

Zimmerman, B. (2005) "Orphan Living Situations in Malawi: A Comparison of Orphanages and Foster Homes: 1", *Review of Policy Research*, vol. 22, no. 6, pp. 881.

Appendix 1

Questions asked to the orphans:

Are you female or male?

How old are you?

How do you live?/Do you live at a family home or an institution?

How long have you lived there?

Do you go to school?

How many days do you go to school each week?

Do you go to a private or public school?

Did someone pay your school fees for this term (if your school have school fees)?

Who paid?

How do you get to school?

How far is your school?/How long time does it take for you to get to school?

When was the last time you missed a day in school?

Why did you miss school that day? (What did you do instead?)

Who made the decision to have you miss school?

Do you have any chores/work tasks where you live?

What are they?

How much time do they take?

Do you have a school uniform?

Is it in good condition or bad condition?/Is it old or new?

Do you have access to schoolbooks/textbooks for the standard/form you are in now?

Do you get homework/assignments from the school?

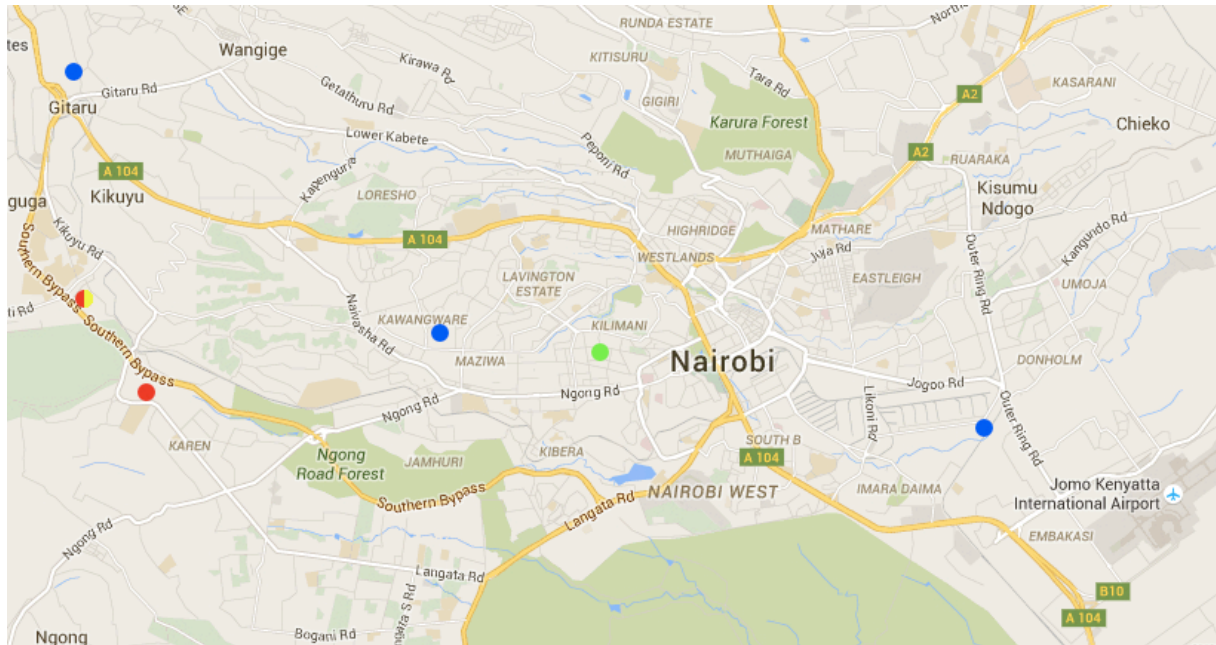
Do you do your homework/assignments? Why/Why not?

How do you feel when you think of school?

Why?

Appendix 2

Nairobi map¹:



Explanations to the map:

Blue dots = Primary schools

Red dots = Children institutions

Yellow dot = Umbrella organisation

Green dot = Social workers office

¹ Map retrieved from maps.google.com (available 2016-06-08)

Appendix 3

The data: (1 = yes for binary variables.)

Place of q	Observation	female	Institution	Family home	Age	Years in this living	Days at school per week	public school	Have School fee	Paid school fee	Who paid	Family has a source of income	Time to school (min)	Transportation to school
CI1	1	1	1	1	0	15	1	5	1	1	1 Institution	.	5	walk
CI1	2	1	1	1	0	7	1	5	1	1	1 Institution	.	3	walk
CI1	3	1	1	1	0	7	1	5	1	1	1 Institution	.	3	walk
CI1	4	0	1	1	0	8	4	5	1	1	1 Institution	.	3	walk
CI1	5	1	1	1	0	6	1	5	1	1	1 Institution	.	5	walk
CI1	6	0	1	1	0	16	2	5	1	1	1 Institution	.	5	walk
CI1	7	0	1	1	0	13	6	5	1	1	1 Institution	.	5	walk
CI1	8	0	1	1	0	12	6	5	1	1	1 Institution	.	3	walk
CI1	9	1	0	1	1	6	6	5	1	1	1 Institution	1	5	walk
CI1	10	0	0	1	1	7	7	5	1	1	1 Institution	1	6	walk
CI1	11	0	0	1	1	15	15	5	1	1	1 Institution	1	5	walk
CI2	12	0	1	1	0	13	10	5	1	0	0 .	.	25	bus
CI2	13	1	1	1	0	13	4	5	1	0	0 .	.	25	bus
CI2	14	0	1	1	0	13	13	5	1	0	0 .	.	25	bus
CI2	15	1	1	1	0	13	13	5	1	0	0 .	.	25	bus
CI2	16	0	1	1	0	12	4	5	1	0	0 .	.	25	bus
CI2	17	1	1	1	0	13	10	6	1	0	0 .	.	25	bus
CI2	18	0	1	1	0	13	13	5	1	0	0 .	.	25	bus
CI2	19	1	1	1	0	12	12	5	1	0	0 .	.	25	bus
PS1	20	1	0	1	1	12	12	5	1	1	1 Family member	1	30	walk
PS1	21	1	0	1	1	12	4	5	1	1	1 Chairman in local	1	45	walk
PS1	22	1	0	1	1	14	3	6	1	1	1 Chairman in local	1	2	walk
PS1	23	1	0	1	1	12	2	4	1	1	1 Family member	1	180	walk
PS1	24	1	0	1	1	14	13	6	1	1	1 Family member	1	10	walk
PS1	25	1	0	1	1	14	4	6	1	1	1 Family member	1	20	walk
PS1	26	1	0	1	1	14	2	5	1	1	1 Family member	1	120	walk
PS1	27	1	0	1	1	13	3	6	1	1	1 Family member	1	30	walk
PS1	28	1	0	1	1	12	11	5	1	1	1 Family member	1	10	walk
PS1	29	0	0	1	1	11	2	4	1	1	1 Family member	1	30	walk
PS1	30	0	0	1	1	13	10	5	1	1	1 Family member	1	60	walk
PS1	31	0	0	1	1	16	5	5	1	1	1 Family member	1	30	walk
PS2	32	0	0	1	1	12	3	5	1	1	1 Family member	1	32	walk
PS2	33	1	1	1	0	14	6	5	1	1	1 Institution	1	30	walk
PS2	34	0	0	1	1	13	1	5	1	1	0 no one	1	5	walk
PS2	35	1	1	1	0	16	6	5	1	1	1 Institution	1	20	walk
PS2	36	1	0	1	1	12	2	5	1	1	0 no one	1	60	walk
PS2	37	1	0	1	1	15	2	5	1	1	1 Family member	1	30	walk
PS2	38	1	0	1	1	13	10	5	1	1	1 Family member	1	120	walk
PS2	39	0	0	1	1	11	5	5	1	1	1 Family member	1	30	walk
PS2	40	0	0	1	1	10	2	5	1	1	1 Family member	1	1	walk
PS2	41	1	0	1	1	12	5	5	1	1	1 Family member	1	30	walk
PS2	42	1	0	1	1	8	8	3	1	1	0 no one (head teac	1	10	walk
PS2	43	0	0	1	1	12	12	5	1	1	1 Family member	1	10	walk
PS2	44	1	0	1	1	13	13	5	1	1	1 Family member	1	20	walk
PS2	45	1	0	1	1	13	13	5	1	1	1 Family member	1	20	walk
PS3	46	1	0	1	1	14	2	5	0	1	0 no one	1	10	walk
PS3	47	1	0	1	1	14	14	6	0	1	1 Family member	1	30	walk
PS3	48	0	0	1	1	14	5	4	0	1	1 Family member	1	15	walk
PS3	49	0	0	1	1	14	7	4	0	1	0 no one	1	10	walk
PS3	50	0	0	1	1	14	2	5	0	1	1 Family member	1	60	walk
PS3	51	0	0	1	1	13	13	3	0	1	0 no one	0	30	walk
PS3	52	0	0	1	1	15	15	5	0	1	0 no one	0	40	walk
PS3	53	0	0	1	1	14	14	5	0	1	1 Family member	1	20	walk
PS3	54	0	0	1	1	12	4	6	0	1	1 Family member	1	60	walk
PS3	55	1	0	1	1	15	2	3	0	1	1 Family member	1	3	walk

Place of q	Observation	Last time miss school	Missed school this year	Reason for missing school	Decisiontaker	Chores time per day (hours)	School uniform (SU) =1	SU in good condition =1	Access to textbooks outside school
CI1	1	don't remember	0	.	.	3	1	1	1
CI1	2	no	0	.	.	1	1	1	1
CI1	3	no	0	.	.	1	1	1	1
CI1	4	no	0	.	.	1	1	1	1
CI1	5	no	0	.	.	1	1	1	1
CI1	6	no	0	.	.	1	1	1	1
CI1	7	no	0	.	.	1	1	1	1
CI1	8	no	0	.	.	1	1	1	1
CI1	9	no	0	.	.	1	1	0	0
CI1	10	no	0	.	.	0	1	0	0
CI1	11	this semester	1	lack school fees	school	1	1	0	0
CI2	12	last week	1	sick	teacher	1	1	1	1
CI2	13	this month	1	Attended cooking class inst	institution	1	1	1	1
CI2	14	this year	1	sick	institution	1	1	0	1
CI2	15	no	0	.	.	1	1	1	1
CI2	16	last week	1	because of friends	self	2	1	1	1
CI2	17	last year	1	hospital check up	.	1	1	1	1
CI2	18	last week	1	sick	self	1	1	1	1
CI2	19	no	0	.	.	1	1	1	1
PS1	20	last year	0	sick	self	1	1	1	0
PS1	21	last week	1	lack school fees	Mother was not a	1	1	0	0
PS1	22	one month ago	1	sick	Mother	2	1	0	1
PS1	23	Friday lat week	1	sick	self	2	1	0	0
PS1	24	last week	1	lack school fees	sister decided	3	1	0	1
PS1	25	Friday last week	1	hospital visit	Mother	1	1	0	0
PS1	26	last week	1	lack school fees	grandmother deci	2	1	0	0
PS1	27	last year	0	sick	.	1	1	1	1
PS1	28	january	1	sick	grandfather	1	1	0	1
PS1	29	Thursday & Friday last week	1	at hospital	mother	0	1	1	1
PS1	30	Thursday last week	1	sick	self	4	1	0	0
PS1	31	Can't remember	0	.	.	1	1	1	0
PS2	32	January	1	Sick	teacher	0	1	0	0
PS2	33	last term	1	sick	self	2	1	1	1
PS2	34	don't remember missing	0	.	.	1	1	0	0
PS2	35	Can't remember	0	.	.	0	1	0	1
PS2	36	two years ago missed whole term	0	no one paid school fee	.	2	0	0	0
PS2	37	Tuesday last term	1	sick	Aunt	1	1	1	0
PS2	38	Last month	1	sick	Aunt	5	0	0	0
PS2	39	last week	1	was at grandmother, plant	Grandmother	1	1	0	0
PS2	40	Yesterday	1	sick	mother	3	1	0	0
PS2	41	last term	1	accident, pierced nail in fo	.	1	1	1	0
PS2	42	february	1	Siebling sick, had to take ca	mother	1	1	0	0
PS2	43	two month ago	1	Maternal grandmother die	Other grandmoth	1	1	1	0
PS2	44	Yesterday	1	Worked home	Aunt	1	1	0	0
PS2	45	never missed school	0	.	.	1	1	0	0
PS3	46	last week	1	At hospital to see dead aur	Father	1	1	1	0
PS3	47	This year	1	Sick	Mother	0	1	0	0
PS3	48	Saturday last week	1	sick	Mother	1	1	0	0
PS3	49	last month	1	because of school fees	School administra	1	1	0	0
PS3	50	I have not missed	0	.	.	1	1	0	0
PS3	51	Two weeks ago	1	lack school fees	School administra	3	1	0	0
PS3	52	february	1	No uniform	Mother	1	1	0	0
PS3	53	Not missed a day this year	0	.	.	1	1	0	0
PS3	54	Yesterday on Monday	1	missing school fees	My aunt	1	1	1	0
PS3	55	last week	1	sick	sister	2	1	0	0

Place of q	Observation	Do you do your homework?
C11	1	always
C11	2	normaly do
C11	3	do it
C11	4	yes, want to understand
C11	5	no homework yet
C11	6	do it
C11	7	do it
C11	8	do all homework
C11	9	do it, but forget sometime
C11	10	Yes I do it
C11	11	Yes do it but not always because I don't have textbook & because of having to do work at home
C12	12	Yes do it
C12	13	do it
C12	14	always do it
C12	15	Do it always
C12	16	always do it
C12	17	do it always otherwise punished with work in school
C12	18	yes
C12	19	Always doit because othervise I won't get it
PS1	20	do it to achieve
PS1	21	Always, sometimes I don't have textbooks at home, then I do homework in school.
PS1	22	Sometimes do homework, I sometimes can't because of lack of light.
PS1	23	Do not always do homework, miss textbooks.
PS1	24	Don't always do homework because of lack of textbooks. Don't have time to do them because of a lot of work at home.
PS1	25	Sometimes don't do because of lack of school books, sometimes do it at school.
PS1	26	Always find a way to do homework. Many times I do my homework at school.
PS1	27	Do homework at breaks.
PS1	28	Do homework in school
PS1	29	Do it 3 minutes per day.
PS1	30	Never missed a homework, go to neighbour and do them.
PS1	31	Always do homework, borrow textbook from friend.
PS2	32	Always do homework
PS2	33	Do homeworks
PS2	34	Only do homework sometimes due to textbook problems.
PS2	35	Do homework because I have to.
PS2	36	Sometimes don't do homework because lack of books.
PS2	37	Do homework by copying the teacher.
PS2	38	Always do homework. Come early to school to do them.
PS2	39	Sometimes not do homework when I work
PS2	40	Can't do homework always because no books.
PS2	41	Sometimes don't do homework because of lack of books.
PS2	42	don't do homework
PS2	43	mostly do homework, try to borrow books.
PS2	44	Don't always do homework because of lack of books.
PS2	45	Don't always do homework because of lack of books.
PS3	46	Do homework sometimes, when in school on break.
PS3	47	Sometimes do homework because of no school books.
PS3	48	Sometimes don't do homework. I don't have the textbook for the homework.
PS3	49	Normally I do all homeworks in school.
PS3	50	I miss to do homework because of the textbook. Sometimes I do.
PS3	51	Copy homework at school and do them at home.
PS3	52	Sometimes I have to copy for doing homework but sometimes I can't do it.
PS3	53	Yes I do homework. You can assist someone to give you a textbook so you can do it.
PS3	54	Do homework with help from friends textbook.
PS3	55	Yes do homework

Always do homework =	1	Feeling about school
	1	nice, I can help my parents & neighbours if I go to school
	1	good, want to learn
	1	like it
	1	good, because I read in school
		good to read, study and play there
	1	feel good, because its my life
	1	like reading, reading is your life
	1	like school, because I read, want to become a doctor so must read
	0	I feel good
	1	Feeling good about school, dream about buying an airplane
	0	Feel good, we are being taught there
	1	like school
	1	Good, it is fun there
	1	good, because I'm going to study
	1	Happy because I'm going to learn
	1	Good, greating my friends and the teacher
	1	Sometimes bored, no play at school
	1	Good, feel happy in school
	1	Good, because I have friends at school
	1	Feel good because I want to achieve what I want
	1	Good, have to work hard so I can help my mom.
	0	Good, because when I grow up I want to be a good teacher.
	0	Sometimes I feel all bad. I don't know how it is supposed to go.
	0	Bad, sometimes I think of my mother.
	0	Trying so I can help my mother in the future.
	1	Good, because like me it was impossible to get to school.
	1	Well, because I love my studies, because it can help me help my family.
	1	Good
	1	Don't feel something
	1	When I do more work I am going to help others.
	1	Good, because education can change your life.
	1	Good, education is the key of life.
	1	Great to achieve for the future.
	0	Good, I want to learn so I can help my family.
	1	Good, I like school.
	0	I feel happy because learning is our future.
	1	Good, because helps when you learn more.
	1	It's okay.
	0	Good when I come to school I read my things.
	0	Good, education will help my family.
	0	Good, wants to help the family.
	0	Sometimes I feel like I don't want to come to school because of the way I appear in front of the other children. Feel ashamed.
	0	love school
	0	Feel good, because I like reading.
	0	Feel like I should learn and accomplish.
	0	Good, because our teacher teach us good, last school had bad teachers.
	0	Fine, because when I come to school I can grow up with a talent.
	0	The stress of my mother of when and how she is gonna pay the school fees.
	1	Happy to be with my friends at school.
	0	I haven't felt very well because I don't have something that I can use to read.
	1	I feel good to go to school everytime. Feel bad when I'm at home.
	0	Very great, because I dropped out last year and now I get the chance to repeat again.
	1	Feel nice, because I am reading very much.
	1	Good, because school is important.
	1	Good, we have very good teachers.