Livestock or the pen: Is education a route out of poverty for pastoralists?

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Livestock or the pen: Is education a route out of poverty for pastoralists?

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Introduction

Samburu pastoralists remain one of the poorest and most marginalized groups in Kenya. Recurrent shocks including frequent droughts and growing insecurity due to cattle raiding and banditry have exacerbated poverty and inequality among the Samburu. Rising human populations, decreasing access to land, and stagnant livestock numbers are leading to lower per capita livestock holdings, forcing pastoralists to explore other options (Little etal. 2001; Adriansen 2006). Poorer pastoralists are most disadvantaged as they lose social standing and networks and have difficulty continuing with a pastoral lifestyle. Consequently, many Samburu have experienced chronic poverty for years in the past.

Like any pastoralist group, the Samburu rely heavily on inheritance of livestock for the intergenerational transmission of wealth. Traditional norms and practices of inheritance enable most sons to establish independent households, although inheritance varies among sons depending on family structures and relationships. Daughters and widows rely heavily on their husband’s or husband’s family’s livestock. While pastoralists are often thought of as egalitarian in wealth and power (Salzmann 1999), there is recent evidence of growing wealth and income inequality including among Samburu (Lesorogol 2008a, 2008b). Amid these changes, many poorer households are investing in formal education as a means to overcome poverty by building the capabilities of their children.
for employment outside the pastoral sector. Many Samburu express the belief that “the pen is stronger than the spear” signaling education and employment as alternatives to pastoralism. While inheritance and other forms of livestock redistribution have potential to reduce poverty, formal education is an important alternative. However, there is little empirical evidence regarding the intergenerational transmission of poverty through livestock inheritance or the possibility of overcoming poverty through education for pastoralists.

Using quantitative and qualitative research methods and building on Lesorogol’s long term research among the Samburu, we investigate these patterns of change by analyzing current trends in livestock inheritance and whether formal education in fact is a route out of poverty for Samburu pastoralist households. Our quantitative analyses indicate that both father’s wealth and son’s inheritance are positively associated with son’s current wealth, but that father’s wealth moderates the affect of inheritance on son’s wealth. Thus, while poverty and wealth may be passed along intergenerationally, there is not a simple linear relationship between the two. Our qualitative findings assist in interpreting why this is the case, both illuminating how Samburu people think about and practice livestock inheritance as well as the advantages of being part of a wealthy family. Regression analysis also suggests that formal education brings positive financial returns in the form of increased income. Education, however, is not significantly associated with wealth. These results are consistent with qualitative findings that many Samburu are investing in education of the next generation and believe that it brings about many benefits.

Research questions
Two primary research questions motivate this study:

1. Do current patterns of livestock inheritance demonstrate intergenerational transmission of wealth and poverty for a random sample of Samburu households? More specifically, is a man’s father’s wealth and/or the number of livestock he inherited from his parents positively associated with his current wealth?
2. What are the patterns of and returns on formal education in terms of income and wealth for poorer and wealthier households? Do individuals with more years of formal education have higher incomes or levels of wealth?

By addressing these two questions, we will have a better idea of the effects both of livestock inheritance and education on the current wealth status of households. This analysis will help reveal to what extent education serves as an alternative to livestock to build wealth and to move out of poverty.

**Research design and methods**

For question one, we used our existing random sample of 200 Samburu households to investigate patterns of inheritance and whether wealth and poverty are transmitted intergenerationally. The household sample consists of 200 households randomly identified from lists of households that were registered in the process of adjudicating group land titles in the 1970s (updated in the 1990s—the sample was selected from the updated lists). These households are drawn from two Samburu communities. One hundred reside in Mbaringon where communal land tenure (in the form of a group ranch with title granted to all resident households) remains in force. The other one hundred households are in Siambu (about 40 km away from Mbaringon) where land was privatized among 240 resident households in the late 1980s. Each household received a virtually equally sized parcel of land of about 23 acres in size. Thus, although the two communities are culturally very similar, they do differ in terms of their property rights to land and the change in land tenure has implications for livelihood strategies (e.g. more participation in cultivation on private land), household well-being, and social relations (explored in Lesorogol 2008a, 2008b). While these differences are important to consider, we also note that in terms of household well-being indicators such as income and wealth, there were no statistically significant differences found in mean values between the two communities in the last survey conducted in 2005. Both communities exhibit considerable levels of wealth inequality. For example, the wealthiest quintile in both Siambu and Mbaringon own more than fifty percent of the livestock wealth while the poorest quintile in each place own less than five percent.
In order to investigate intergenerational transmission of wealth, we added questions to the current survey instrument that has been conducted with this sample in 2000 and 2005. The current survey includes information on demographic characteristics (age, gender, marital status), wealth (livestock by type and number), land ownership (in Siambu only), income (from multiple sources), educational attainment, employment status, expenditures (weekly and annual), livestock sales, crop production and sales, milk production, and 24-hour food intake. The husband and/or wife is interviewed for each survey household, although given the focus on inheritance in this survey, we encouraged men to participate and the majority of respondents were men. Since most wealth is transmitted from father to son (often through the mother who has a caretaker role over her children’s livestock) we interviewed men regarding their inheritance. Transfers of livestock do not occur at one point in time for Samburu. Rather, fathers give gifts of livestock to their sons at many points, especially during significant social transitions such as birth, initiation into warriorhood, and at marriage. Most transfers occur pre-mortem, although a father’s remaining livestock generally go to his oldest son upon his death. By then, most men will have divested most of their wealth already.

In order to best capture information on livestock inheritance we asked male respondents about the size of their herd when they married (the total herd size minus what was paid to the wife’s family for bridewealth). This is a point at which most young men would be at a high point in terms of inheritance, since they require livestock to pay bridewealth to the wife’s family as well set up an independent household. Since this is a signal event in a person’s life, men are likely to have good recall of their situation at that time. In addition, their wives will likely also recall these amounts since they were involved in the events and received most of the livestock to use for their household needs. We also asked respondents (both spouses) about their father’s wealth at this point in time as well as an overall assessment of their father’s wealth. (See Appendix A for Survey Questions on inheritance).
The qualitative portion of the study consisted of in-depth interviews with sixteen respondents to further illuminate the strategies and decision-making behind both livestock inheritance and pursuit of education and employment. We selected four father-son pairs from the random sample to interview about inheritance practices and educational experiences in their natal families as well as their current plans for inheritance and education. In all cases, the father was part of our sample and we interviewed him and, separately, one of his sons. The other interviews were conducted with a cross-section of men and women who have been involved in Lesorogol’s ongoing research. These individuals are also part of the random household sample, and in addition were included in a smaller, stratified (along lines of wealth, income, and age) sub-sample of 30 households among whom we have conducted recent research on land use and household economics. Availability of individuals for interview during our field work was an additional criterion for selection. The interviews focused on the norms and values attributed to both inheritance and education and how respondents believed each of these had affected their current well-being and that of their families.

**Qualitative analysis: The value of livestock inheritance and formal education**

**Brief Ethnographic Background**

Most Samburu people reside in northern Kenya, primarily in Samburu district (recently divided into three districts\(^1\)). Exact figures for the population are difficult to find, but there are probably between 150,000 and 200,000 Samburu in Kenya. They are closely related ethnically to the better known Maasai with whom they share language, history, and most customs. The Samburu remained in northern Kenya during the Maasai migrations several hundred years ago as the Maasai proper continued moving south to their current location in southern Kenya and northern Tanzania. Like the Maasai, Samburu rely heavily on livestock herding for their livelihood, both through the consumption of livestock products (milk much more than meat) and through livestock sales that generate income to purchase food, clothing, and other necessities. In addition

\(^1\) For convenience, we will refer to Samburu district rather than the three districts throughout the paper. This recent change in administrative units also seems likely to be rescinded by the new constitution that was passed in August 2010 in which local governments are defined as the original 47 districts in Kenya, one of which is Samburu.
to cows, sheep and goats (and some camels, especially in the lowland areas), many Samburu engage in trade in other commodities such as timber, firewood, charcoal, hides and skins, tobacco, sugar, and alcohol and some work for pay in both the formal and informal economic sectors.

Samburu district comprises both lowland and highland areas. About two-thirds of the area is lowland with annual average rainfall between 200-400 mm. and vegetation dominated by shrubs and trees with relatively little grass. The other third is the higher elevation Lorroki plateau (over 1200 meters) with rainfall averaging between 400-1000mm in which grassland and forest dominates. In addition, there are three mountain ranges that punctuate the lowland landscape and provide dry season reserve grazing areas. This study was conducted among two Samburu communities, Siambu and Mbaringon, both of which are located in the highland area, about forty kilometers apart. Although most Samburu are close to pure pastoralists in that they practice little or no farming, some communities have become more involved in cultivation, especially over the last twenty years. This is the case in the Siambu community located in one of the wettest and highest elevation areas of the highlands and where land that had been managed communally was privatized in the late 1980s. Since then, about two-thirds of households in Siambu have begun to practice farming in addition to keeping livestock. In addition, about one-third of Siambu households lease out part of their privately owned land to commercial wheat and barley farmers. Mbaringon, in contrast, remains a communally managed group ranch in which land title is held by a group of resident households, and relatively few people grow crops on a regular basis, although some do so opportunistically in a year of good rainfall (like 2010).

Samburu social organization revolves around patrilineages, clans, and larger sections of related clans. Homesteads are organized around related men, generally fathers and their married sons, or brothers, although there is considerable variation in this pattern and a trend toward smaller settlements. These kinship structures are cross-cut by a male age-grade system in which all boys are initiated into a named age-set upon their initiation (in their teens) into warriorhood. Each age-set passes through the age-grades
of warrior, junior elder, firestick elder, and senior elder in fourteen year cycles. Women do not have a comparable system, but are associated with the age-set of their husbands. Polygyny is common and often considered an ideal as it is a sign of success and wealth. Since household labor is the core of herding labor, a large household is often necessary to support a large herd. Household labor is also supplemented by combining herds and sharing/borrowing herders with relatives, as well as—more recently—hiring herders.

As noted above, Samburu district is one of the poorest in Kenya and is part of the larger northern Kenya region composed primarily of a range of pastoralist groups who are often in competition for natural resources and livestock. Many Samburu express the feeling that they are becoming poorer over time, especially due to the continuing impacts of recurrent drought, livestock diseases, and the rise of organized and lethal cattle raiding from neighboring groups. Their perceptions are borne out in research that shows steadily rising population with fairly static livestock populations that fluctuate with drought cycles (Fumagalli 1977, Lesorogol 2008a). Although Samburu people often attribute poverty to forces such as drought and disease that are largely beyond their control, they also consider individuals to some degree responsible for their own wealth or poverty. Someone who herds his animals diligently and resists the urge to consume his livestock (by selling or eating them) will not be blamed for disaster-induced poverty while someone who is negligent of his herds or “eats” them will be. Even in such cases, though, Samburu people appreciate the complex array of risks in their environment that influence individual wealth and poverty. We will return to a discussion of these below.

Next, we turn to the qualitative findings from this project to explore the meaning and operation of livestock inheritance among Samburu.

The Basic Pattern of Inheritance among Samburu

There is a clear norm for livestock inheritance (njungu in Samburu) that all informants agreed upon: the oldest son inherits from the father and the youngest son from the mother. In more precise terms this means that when a man dies, his remaining livestock are passed on to his oldest surviving son. In addition to inheriting the
livestock, this son also inherits, in many ways, the role of the father as the head of the family. This means that he takes on many of the responsibilities and obligations that his father had when he was alive. For example, this son will now be responsible for organizing initiation ceremonies and helping negotiate marriages for his unmarried younger siblings. At their weddings and initiation ceremonies he will assume the ritual roles that his father would have played. He will also be liable to pay off any outstanding debts that his father incurred as well as collecting credits that were owed to his father. Many eldest sons also receive their father's personal possessions such as his herding stick and fly whisk. Thus, inheritance is not merely a transfer of material goods from one generation to another, but it signifies a transfer of authority and caretaking as well. In fact, the material transfer of livestock may be relatively minor compared to the other responsibilities that the eldest son is expected to assume. The reason for this is that many men have few livestock left in their possession by the time they die. Most of their livestock have already been transferred to their sons (as discussed below) or remain in their wife/wives’ allocated herd(s) that she has use rights over and which she can transfer to her sons. Since most wives are considerably younger than their husbands (usually at least 10 years younger) they will generally outlive them and will require livestock for their daily needs after the husband’s death. Thus, a wife retains the livestock in her allocated herd after her husband’s death and is expected to provision herself and her dependent children from this herd to the extent possible.

When people say that the youngest son inherits from his mother, they are referring to the special relationship that youngest sons have with their mothers. This son is expected to take care of his mother in her old age, once all her children have married she will remain close to the youngest son's household and he is expected to provide food and other resources when she is no longer able to meet her needs more independently. When she dies, the youngest son receives what remains in her allocated herd, which, as in the case of fathers, is likely to be fairly small since she will have passed many livestock on to her sons during her lifetime. Her daughters and other female family members may receive her personal possessions.
This general pattern of inheritance reflects the patrilineal and patrilocal character of Samburu society. The patrilineal descent pattern means that descent is reckoned through the male line and, accordingly, property also moves through the male line, primarily from fathers to sons, but other men—particularly from the same patriline (lineage or clan)—can and often do contribute to young men’s herds. This is especially the case when young men are preparing to marry, a point at which they need to assemble adequate bridewealth to formalize the marriage. Patrilocality refers to the common practice of fathers and sons residing in the same settlement, meaning that women who marry into the family also physically move away from their father’s settlement to that of the husband and his father (and brothers). Those living in one settlement frequently combine their livestock for daily herding in order to form joint herds that are easier to manage and to take advantage of economies of scale in herding. This settlement pattern is compatible, then, with the notion of retaining livestock among the men of the patriline while women move to the husband’s patriline and do not generally take livestock from their father’s settlement. This is not to argue that this is the universal or only possible pattern possible among Samburu, but it is the norm.

In addition, the pattern of inheritance described here is consistent with the idea of the “house-property complex” (Hakansson 1989, Oboler 1994) described for a number of East African societies referring to the sub-division of property among the houses within a household. Specifically, in polygynous families, each wife has a house and a herd—the allocated herd that she receives initially from her husband at marriage and which continues to grow (and decline) over time. She has rights to use these animals and also to transfer them to her sons, thus forming the nucleus of the son’s herd. Her rights, however, are limited in that she cannot sell or give away the livestock in her herd beyond the household without the husband’s consent. Scholars have noted that the “house-property complex” often reveals the efforts to equalize wealth and well-being across households as well as the conflicts that may develop among wives who are sometimes in competition for household resources. Another aspect of this concept is the way in which house property is distributed among sons. My impression from the
interviews is that while there is a general feeling that all sons are worthy of receiving wealth both from fathers and mothers, parents use discretion in dividing their resources depending on the characteristics of their sons. One way of thinking about this, perhaps, is that while distributions of livestock wealth should be equitable, they are not necessarily equal. The “house-property” notion also underscores the role that bargaining may play in inheritance, both inter-generationally (parents-children) and within generations (for example, among sons in a house or household) (Quisumbing 2007, Cooper 2008).

**Pre-mortem Transfers of Wealth**

Many of the individuals interviewed, when asked what they had inherited from their fathers and mothers, replied ‘nothing’. These were either women or men who were not oldest or youngest sons but rather somewhere in the middle of the birth order. According to the definition of inheritance and the norms discussed above, they did not receive any inheritance. I knew, however, that virtually all men would have received wealth from their parents during their lifetimes, and I proceeded to ask them about what they had received through what scholars refer to as pre-mortem or intervivos inheritance. While everyone acknowledged that they had indeed received something from their parents while they were alive, there was a clear distinction between these transfers and inheritance itself. One of the key differences seems to be the associated roles and obligations that are attached to post-mortem inheritance that are absent in the pre-mortem case. It may be more accurate, then, to refer to these as pre-mortem transfers rather than inheritance, given the connotations of the term inheritance for Samburu people.

Pre-mortem transfers are gifts of livestock received by children at various life stages. The most important transitions include birth, initiation, and marriage. For boys, these gifts form the nucleus of their herd and are the basis for their future independent household. Girls may receive a few livestock from their parents, but these will usually

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2 Note that the root of *njungu* is *n-jung*, the last words spoken before death. Thus, the term is associated with the distribution of wealth at death.
remain in the family herd when they marry. In fact, the family herd will grow when girls are married due to the addition of bridewealth provided by her husband. These same animals are often used by her brothers to pay their own bridewealth. Some of the women and men interviewed emphasized that girls did not receive livestock and some of them felt that this was unfair (this response seemed to be more common among people with formal education), while others were more matter of fact, explaining that women were expected to leave their parent’s homestead and go to their husband’s where they would be provided with livestock for their needs. Women do return to their natal home after marriage (usually quite a few years later) to “take the house” (keyea nkaji). This entails receiving household goods such as milk calabashes, skins, pots, and so on but does not include livestock.

As noted above, pre-mortem distributions involve the discretion of parents in deciding how to distribute property among children. Several informants noted that education had some impact on these decisions. For example, the expenses of formal education (especially secondary level and above) may consume quite a bit of household wealth and therefore affect how wealth is distributed among children. In addition, a few informants noted that they did not feel that their educated children necessarily required livestock wealth. Reasons for this included that the educated child (generally but not always a son) had his own resources and was not in need or that he might value other resources, such as plots of land in town, over livestock. These comments suggest that as formal education and employment outside the pastoral sector spread, patterns of wealth distribution may also change.

Variations on the Norm
While all informants explained the normative pattern for livestock inheritance discussed above, and most were in favor of following it themselves, there were some variations in practice revealed in the interviews. One man in his early sixties, with no formal education, described how he has already specified and given out most of his wealth. He did so in order to maintain control over the process, saying that after he was dead he would not be able to express his wishes regarding his possessions. His was also an
interesting case because he was passing on wealth to all of his children, girls and boys, all of whom he had also sent to school. In addition, the property he was passing down was not restricted to livestock but included plots of land he had acquired in the town, money, and his share in the group ranch. He was one of the few informants who believed that urban land was rivaling livestock in value and thus included it among the property that he bequeathed to his children. [INSERT QUOTE]

Some of the younger, educated men interviewed also intend to distribute property among male and female children. One of these was the son of the man referred to above. He explained how his father had divided his wealth among all the children and said he agreed with this because he was treating them all with “equal rights”. Interestingly, he is the oldest son and, according to Samburu tradition, would rightfully inherit his father’s livestock when he dies. He pointed out that he was not unhappy that he would not inherit all his father’s remaining livestock and that he had not expected that to happen. He did, however, anticipate that he would take on his father’s role as head of the family including responsibilities to help his younger siblings and his mother and her co-wife. [INSERT QUOTE]

A few individuals discussed the issue of adult, unmarried daughters. While in the past, this was a virtually unknown status as all girls were married by their late teens, today there is a growing population of young adult women, almost always single mothers, who continue to live in their father’s or brother’s homestead. Those who discussed this group generally acknowledged that these women would need continuing support from their natal family in the form of livestock and, in the more agriculturally oriented Siambu community, land for farming as well. This support, however, generally seemed to fit under the category of pre-mortem transfers and use rights, not inheritance per se. That is, if the woman left the father’s or brother’s settlement she would not have rights to take the livestock with her. A number of these young women were observed trying to run small businesses such as selling sugar, tea, and other foodstuffs from their houses. In this way, they may develop an independent economic base while still remaining more or less dependent on their male relatives.
Men invariably appreciated the property they received from parents, either pre- or post-mortem. They pointed out that these livestock were the building blocks of their family livelihood and they recounted how they had multiplied over time and been essential to their well-being. Even when the number of livestock inherited was small, people emphasized how they had taken care of these animals so that they multiplied. Men noted that these gifts of livestock enabled them to pay brideprice, marry, and set up their household. Women were a little more equivocal. On the one hand, they appreciated the assistance they had received from their parents as far as supporting them while they were growing up. On the other hand, they also noted the gender differences in livestock gifts and inheritance and the fact that they were not allowed to take “their” livestock with them when they got married. These mixed feelings were also reflected in their plans for their own children such as the desire to send both boys and girls to school. Some women claimed, however, that they would continue the Samburu norm for livestock inheritance even as they understood how it privileged boys. Again, this should be viewed in the full context of the implications of inheritance in terms of roles and responsibilities and not just transfers of livestock.

Views on Education

*Decision-making regarding education*

Formal education began later in Samburu district (and the rest of northern Kenya) than in the more central parts of the country where the colonial regime focused its efforts in transforming and “modernizing” the population including introducing education in the early 1900s. In the 1950s, the colonial government began to promote education to some extent through agreements with Christian missionaries who built and ran the first schools. They met resistance from most Samburu people, however, who were not convinced of the value of education and showed little interest. The government responded by using administrative chiefs to force participation in education by requiring each family to send at least one son to school. While good data are hard to come by, this forced approach seems to have led to distinctive patterns of enrollment including the sons of chiefs (who were supposed to serve as examples to the others) and boys
from poorer families that had less need for herding labor and, as suggested by some informants, may have sent sons to school in order for them to be fed. Another stereotype about enrollment decisions that is common among Samburu (and again evidence is hard to find) is that boys who had some kind of physical deformity or were otherwise not good herders were chosen to go to school.

This historical context is important to bear in mind when interpreting interviews about education. Although the outward attitudes toward education have changed dramatically—confirmed by the universal approval of education by those interviewed for this study—such attitudes sometimes gloss over more ambivalent feelings about the effects of education. While this set of interviews focuses strongly on the instrumental benefits of education (e.g. employment, income, ability to care for self and family), there are also concerns about how formal education affects culture and social relations that are not reflected here (but see Lesorogol 2008c for a discussion of these kinds of concerns around female education).

Parallel to the interview questions regarding inheritance, the questions about education focused on the decision-making process—how did parents decide whether or not to send children to school, which children were chosen and why? For older informants (40-50s and older) their parents “did not understand” education and therefore did not send many children to school. They pointed out that their parents did not believe that there was any value to education and did not see a need for it. This was especially the case in wealthier families. If they had sufficient livestock, they did not perceive any advantage to education. [INSERT QUOTE] On the contrary, sending sons to school was a hardship, because it deprived the family of herding labor, particularly since older boys are the ones who herd livestock during dry seasons and droughts when they may migrate with the herds to cattle camps. For informants in this age group the assumption was that only boys were considered for enrollment in school. The idea that girls would go to school hardly registered at all with their parents. In fact, it is only after Kenya’s independence in 1963 that girls in this part of the country began to attend school in any numbers. A couple of informants also noted that boys who went to school in the ‘50s
often dropped out of school—they refused to go to school. They were not always sure of
the reasons behind these refusals, but it has been common in more recent years for
school boys to drop out around the time of their initiation into the warrior age-group.

The attractions of being a warrior may trump the value of education for some.
Among the younger informants, people in their thirties and forties, most had at least
one sibling who went to school. This reflects the trend toward increasing enrollments in
schools from the 1960s and especially in the 1970s and later. In some cases, only one
or two children in a family attended school while in a couple of cases most of the
children had gone to school. In every case, however, at least one child remained a
herder—either going to school for a few years and then being taken out to herd, or
being selected to be the herder at an early age. The years of educated completed in
these cases varied from a few years to completing primary school and a few cases of
siblings going on to secondary school.

When asked about their own intentions for their children, all informants said that they
would try to send all or most of their children to school. In a few cases of older
informants, they actually had sent all of their children to school and they described how
far each child had reached in school and some of the outcomes of education such as
employment, greater understanding and knowledge, and helping the family. A few
informants acknowledged that the need for herding labor was a constraint and that they
planned to retain at least one child at home to herd.

**Quantitative Analysis**

This section presents the results of quantitative analysis of the household level data
collected using the survey discussed above. We first outline the measures that were
used, then the data analysis plan, followed by presentation and interpretation of
regression analyses.
**Measures used in Quantitative Analysis**

**Demographic characteristics.** We collected information on age, household size, and years of education of the household head. Household size was converted to Active Adult Male Equivalents (AAME) in order to control for differences in household composition. To calculate AAME, we used the following formula: each adult male = 1; children 0-5 = .52; 6-10 = .85, 11-15 = .96; adult female = .86 (ILCA 1981).

**Son’s (respondent’s) current wealth.** This variable, measured in Tropical Livestock Units (TLU), is an aggregate of the livestock owned by a household multiplied by the relative exchange value of each type of livestock according to current market rates of exchange. Cattle, sheep, and goats were included in the measure with the following values: cow = 1; sheep or goat = .12.

**Son’s (respondent’s) inheritance at marriage.** This variable refers to the total number of cows, sheep, and goats that the respondent had received from his parents by the time of his marriage. Note that this includes both pre-mortem transfers as well as inherited animals (in the Samburu sense, discussed above). The total number of cows, sheep, and goats were converted to TLUs using the formula mentioned above.

**Father’s wealth:** This variable refers to the respondent’s father’s livestock holdings (cows, sheep, and goats) at the time of the son’s (respondents) marriage. As above, this total was converted to TLUs.

**Income:** Total household income included the following: sales of livestock, crops, and land (Siambu only); income from leasing land (Siambu only); income from non-livestock sources such as wage labor and trade; gifts and remittances.³

**Education of household head:** Respondents were asked the total number of years of formal education that they had completed.

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³ Recall that land in Siambu was privatized in the late 1980s. Thus, each household in the survey owns about 23 acres of land and individual owners have ability to buy, sell, and lease this land. In Mbaringon, land is collectively held in a group ranch and individuals do not have rights to buy, sell, or lease. Therefore, income from sales and leases of land are only possible and reported for Siambu.
Note that in the original analyses we included a dummy variable for community (Siambu and Mbaringon). However, as there was no significant result from this variable, we dropped it from the final analysis.

**Quantitative Data Analysis Plan**

**Research Question 1:** Do current patterns of livestock inheritance demonstrate intergenerational transmission of wealth and poverty for a random sample of Samburu households? More specifically, is a man's father's wealth and/or the number of livestock he inherited from his parents positively associated with his current wealth?

To address this question, we analyzed data using Stata 10 statistical package. Two statistical estimation techniques – Ordinary Least Squares (OLS) and Ordinal Logistic (OL) regression – were used to determine the impact of father's wealth and son's inheritance at marriage, on son's current wealth (total household wealth in TLUs), controlling for respondent's total household income, respondent's years of education, respondent's age, and household total AAME. The OLS estimation involved two nested models. In the first model, son's current wealth was regressed on the aforementioned set of independent variables. In the second model, an interaction term between father's wealth and son's inheritance was included as an additional predictor, because it is likely that father's wealth influences the amount of son's inheritance. By running the nested OLS models, it is possible to determine whether the interaction term significantly improves the OLS model fit.

The second estimation technique used was Ordinal Logistic regression in which the dependent variable, son's wealth, was converted into quintiles. Previous research with this sample has shown distinctive livelihood strategies across wealth quintiles. For example, households in wealthier quintiles rely more on livestock sales while poorer groups depend more on trade and wage labor for income. Thus it was reasonable to expect that the effects of inheritance and father's wealth might differ across quintiles. OL regression identifies potentially distinct effects of an independent variable across the conditional distribution of son's current wealth (here, quintiles). For example, OL can tell us if the independent variable has a significant and positive effect in the left tail of the
conditional distribution (i.e., the poorest quintile) and a significant and negative effect in
the right tail (i.e. the wealthiest quintile). Such differential effects are masked in
traditional OLS analysis, because the OLS coefficient estimates the average effect for
the entire distribution. Since the OLS coefficient estimates the average effect, this
coefficient might not be significantly different from zero in cases where different parts of
the distribution are affected differently.

Research Question 2: What are the patterns of and returns on formal education in terms
of income and wealth for poorer and wealthier households? Do individuals with more
years of formal education have higher incomes or levels of wealth?

To address the second research question, an OLS estimation technique was used to
develop a model in which current annual household income was regressed on years of
education of household head (respondent), controlling for current wealth of respondent,
AAME, and age of respondent. The objective of this model was to demonstrate the
possible effects of education on income.

There are many factors that might potentially affect a respondent’s wealth portfolio. The
independent variables that we were able to control for in all the models included age,
household total income, years of education of the household head, and household
AAME. Several of these factors could directly or indirectly affect current wealth. For
example, respondents who have more income are able to purchase livestock
independent of how much wealth their fathers had or how much wealth they inherited
from their father. It was hypothesized that having more income might lead to acquisition
of assets thus increasing wealth portfolios. Similarly, it was hypothesized that years of
education could mean that respondents had better jobs, potentially increasing income
and assets. Other factors that might influence the son’s current wealth include
respondent’s age and household AAME both of which may impact the use of resources
and investment margins.

Results: Quantitative

Description of the sample
The quantitative analysis is based on survey responses from 128 men, 68 from Siambu and 60 from Mbaringon. The average age of participants was 55 years. The youngest respondent was 33 years and the oldest was 85 years (see Table 1). Most respondents were married (n=126) while two were widowers. The average household size was 9 with the smallest household having 3 people and the largest 26 people. Over a quarter (34%) of the households surveyed were polygynous households. There were two single-parent households while one household had four wives. The average number of years spent in school was almost 3 years, but the majority of respondents (68%) had no formal education.

The average household Tropical Livestock Unit (TLU)\(^4\) was 15.93 (StDev=22.94). Respondents had an average annual household income of 99,331.72 Kenyan Shillings (KES) or 1,241 US dollars (USD) (StDev=104,890.2). One respondent reported no cash income at all while the median income was 69,980 KES (874 USD). The highest income was 687,800 KES (USD 8,597) and the second highest income was 398,000 KES (USD 4,975). Respondents’ fathers’ wealth (at the time of respondent’s marriage) in TLU averaged 158.58 (StDev=426.12). This figure ranged widely from zero to 4036. Respondents reported inheriting an average of 19.16 TLU from their parents (StDev=25.76). The inheritance also varied widely from zero to 144 TLUs.

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\(^4\) Tropical Livestock Unit which is calculated by attributing a relative value to different classes of livestock. For this analysis, we used current exchange values of sheep and goats to cattle. Thus, one cow=1.0 TLU while one sheep or goat=.12 TLU. We used the same rate for father’s wealth and livestock inherited even though actual exchange rates at those (various) times in the past were probably different.
Table 1: Descriptive characteristics of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>StDev</th>
<th>Range</th>
<th>Median</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Son’s current wealth in TLU</td>
<td>15.93</td>
<td>22.94</td>
<td>0 – 174.24</td>
<td>8.68</td>
<td>0</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father’s wealth in TLU</td>
<td>158.58</td>
<td>426.14</td>
<td>0 – 4036</td>
<td>92.92</td>
<td>0</td>
</tr>
<tr>
<td>Inheritance in TLU</td>
<td>19.16</td>
<td>25.76</td>
<td>0 – 144</td>
<td>8.92</td>
<td>0</td>
</tr>
<tr>
<td>Income (KES)</td>
<td>99,331.72</td>
<td>104,890.</td>
<td>0 – 687,800</td>
<td>69,98</td>
<td>16,800</td>
</tr>
<tr>
<td>Household size</td>
<td>9.27</td>
<td>3.89</td>
<td>3 – 26</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Age</td>
<td>55.22</td>
<td>12.03</td>
<td>33 – 85</td>
<td>53.90</td>
<td>47</td>
</tr>
<tr>
<td>Years of Education</td>
<td>1.95</td>
<td>3.84</td>
<td>0 – 18</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong># of Wives</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>83</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>35</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Community</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siambu</td>
<td>68</td>
<td>53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mbaringon</td>
<td>60</td>
<td>47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Formal Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>40</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>86</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Spearman’s correlation analyses reveal that son’s current wealth in TLUs is positively associated with father’s wealth ($\rho = .29; p = .002$), household income ($\rho = .36; p = .000$)
and Active Adult Male Equivalent\(^5\) (AAME) \((\rho=.27; \ p=.002)\), but inversely related to years of education \((\rho=-.24; \ p=.007)\) (see Table 2). Although these relationships are statistically significant, the magnitude of the correlations indicate moderate to weak relationships. Neither inheritance from father nor respondent’s age is associated with respondent’s wealth. The strongest relationship in the correlation matrix is the inverse relationship between years of education and age \((\rho=-.46; \ p=.000)\). Spearman’s correlation was used because some variables are skewed.

Table 2: Correlation matrix of variables

<table>
<thead>
<tr>
<th></th>
<th>Respondent’s Wealth in TLU</th>
<th>Inheritance in TLU</th>
<th>Father’s Wealth in TLU</th>
<th>Income</th>
<th>AAME</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inheritance in TLU</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father’s wealth in TLU</td>
<td>.29*</td>
<td>.36*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>.36*</td>
<td>.03</td>
<td>-.21**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAME</td>
<td>.27*</td>
<td>-.04</td>
<td>.09</td>
<td>.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.12</td>
<td>.31*</td>
<td>.91**</td>
<td>-.01</td>
<td>.18**</td>
<td></td>
</tr>
<tr>
<td>Years of Education</td>
<td>-.24*</td>
<td>-.26*</td>
<td>-.15</td>
<td>.04</td>
<td>-.17**</td>
<td>-.46*</td>
</tr>
</tbody>
</table>

\(^{*} p<.01, \ \ ^{**} p<.05\)

**Results**

The influence of inheritance and father’s wealth on son’s current wealth: OLS

Regression Result.

Table 3 presents results of both the OLS and OL models showing the coefficients and standard errors for each independent variable. Significant relationships are denoted with asterisks. The third column in Table 3 presents the coefficients and standard errors for the final OLS linear regression model. The results show that father’s wealth, income, AAME, and the interaction between father’s wealth and son’s inheritance were statistically significant at a 95% confidence interval. For one TLU increase in father’s wealth, son’s wealth in TLU increases by 0.2 %\(^6\), controlling for other variables in the

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\(^5\) Son’s wealth is log-transformed. Hence the final result is converted back to original wealth variable by using this formula: 100*(coefficient)%.
model ($b=0.002$, $p=0.028$). Income also significantly predicts son’s wealth. That is, as a son’s income increases by 1,000 KES (USD 13), his wealth in TLU increases by 4%, controlling for other variables in the model ($b=0.00004$, $p=0.028$). Also, son’s wealth increases by 9.2% when the household’s AAME goes up by one unit: ($b=0.092$, $p=0.005$), holding all other variables in the model constant. The interaction term of father’s wealth and son’s inheritance is statistically significant. The main effect of the father’s wealth is also statistically significant father’s wealth ($b=0.002$, $p=0.028$).

The influence of inheritance and father’s wealth on son’s current wealth quintile: Ordinal Logistic Regression Results.

The fifth column in Table 3 presents the coefficients and standard errors for the final OL regression model. The model predicts the probability of a respondent falling in the highest wealth quintile. Just as in the OLS model, income, AAME, and the interaction between father’s wealth and son’s inheritance were statistically significant predictors of the highest wealth quintile at a 95% confidence interval. In the OL model, the main effects of father’s wealth and son’s inheritance were not significant.

Table 3: OLS and Ordinal Logistic Regressions by Son’s Current Wealth

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Ordinary Least Squares</th>
<th>Quintiles by Son’s current Wealth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without interaction</td>
<td>With interaction</td>
</tr>
<tr>
<td></td>
<td>$b$(SE)</td>
<td>$b$(SE)</td>
</tr>
<tr>
<td>Inheritance in TLU</td>
<td>-.006(.001)</td>
<td>.007(.007)</td>
</tr>
<tr>
<td>Father’s wealth in TLU</td>
<td>.002(.001)</td>
<td>.002(.001)*</td>
</tr>
<tr>
<td>Covariates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>.000(.000)*</td>
<td>.000(.000)*</td>
</tr>
<tr>
<td>AAME</td>
<td>.064(.030)*</td>
<td>.092(.032)*</td>
</tr>
<tr>
<td>Age</td>
<td>.001(.009)</td>
<td>-.001(.009)</td>
</tr>
<tr>
<td>Years of Education</td>
<td>-.073(.028)*</td>
<td>-.063(.028)</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Interaction</td>
<td>-.000(.000)*</td>
<td>0.000(.000)*</td>
</tr>
</tbody>
</table>

**Model Fit**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>OLS</th>
<th>OL</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>F Statistic</em></td>
<td>6.635*</td>
<td>6.762*</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>.275</td>
<td>.312</td>
</tr>
<tr>
<td>LogLik</td>
<td>263.98</td>
<td>258.94</td>
</tr>
<tr>
<td>$X^2$</td>
<td>24.31*</td>
<td>29.35*</td>
</tr>
<tr>
<td>Deviance</td>
<td>263.98</td>
<td>258.94</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>.247</td>
<td>.290</td>
</tr>
</tbody>
</table>

*p<.05

**Model comparison**

A comparison of the OLS and OL regression models revealed that the models with the interaction term had better fit and more predictive power. The OLS model with the interaction term explains 31.2% of the variance in son’s wealth (Adjusted $R^2$=.312), while the model without the interaction term explains less of the variance (27.5%; Adjusted $R^2$=.275) in son’s wealth. Similarly, a comparison of the OL models revealed that the model with the interaction term has lower deviance (258.94) and therefore it is a better fit. That model also explains 29% of the variance in son’s wealth while the one without an interaction term explains less of the variance (24.7%). Hence, the two models with the interaction term (i.e. columns 3 and 4) are considered the final models.

**Education as an alternative pathway out of poverty: Ordinary Least Squares Result**

The model that assessed the effects of education on income yielded significant results and explained 25.6 % of the variance in income: $[F(4,117)=11.41, p<.0001, \text{Adjusted } R^2=25.6]$. As shown in Table 4, the parameter estimates of education ($b=4674.73, t=2.57, p=.011$) and son’s wealth ($b=2103.06, t=6.32, p<.0001$) were statistically significant. For every additional year that a respondent spends in school, his income increases by 4,674 KES (58 USD), holding all other variables in the model constant. Also, controlling for respondent’s years of education, age and AAME, a one TLU increase in the respondent’s current wealth is associated with a 2,103 KES (26 USD)
increase in income. The parameter estimates for age \( (b=-5.197, t=-.009, p=.993) \) and AAME \( (b=-200.85, t=-.09.32, p=.926) \) were not statistically significant.

Table 4: Multiple regression of income on years of education, son’s wealth, AAME, and age

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Parameter estimate ( b )</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of education</td>
<td>4674.72</td>
<td>2.57</td>
<td>.011</td>
</tr>
<tr>
<td>Son’s wealth</td>
<td>2103.06</td>
<td>6.32</td>
<td>.000</td>
</tr>
<tr>
<td>AAME</td>
<td>-200.85</td>
<td>-.09</td>
<td>.926</td>
</tr>
<tr>
<td>Age</td>
<td>-5.19</td>
<td>-.01</td>
<td>.993</td>
</tr>
</tbody>
</table>

\[ N=121, F(4,117) = 11.41, p<.0001, \text{Adjusted } R^2 = .256 \]

Discussion

**Effects of inheritance and father’s wealth on son’s current wealth**

The results from the OLS model that addresses the first part of research question 1, suggests that the effect of inheritance on son’s current wealth depends on the value of father’s wealth. The negative parameter estimate of the interaction term means that the less the father’s wealth, the weaker the effect of inheritance on son’s current wealth.

Also, the main effect of father’s wealth is statistically significant, suggesting that father’s wealth is a partial moderator in the relationship between sons’ wealth and their inheritance from their fathers. That is, father’s wealth independently predicts variance in son’s current wealth but also interacts with son’s inheritance to produce an effect on son’s current wealth. This confirms our hypothesis of the relationship of the effect of father’s wealth and son’s inheritance on son’s current wealth.

The results from the OL model are consistent with those of the OLS model in that the interaction of father’s wealth and son’s inheritance is statistically significant. However the main effects of the two variables suggest that neither father’s wealth or son’s inheritance are significant predictors of son’s current wealth. This implies that father’s wealth fully moderates the relationship between son’s inheritance and son’s wealth. As a full moderator, father’s wealth interacts with son’s inheritance to produce an effect on son’s wealth but father’s wealth is not linearly related to son’s wealth. The negative value of the interaction term implies that the lower the father’s wealth, the lesser the effect of inheritance on son’s wealth.
Although the results do not show a significant direct association between livestock inheritance and current wealth, they do suggest that father’s wealth is associated with son’s wealth. One way of interpreting these results is to consider the larger environment in which Samburu herders operate. This is an environment with a high degree of uncertainty and considerable risk. At the most basic level, rainfall is crucial to survival but it is highly erratic both temporally and spatially. While Samburu, like other pastoralists, have developed many strategies for coping with this uncertainty, many of these strategies, such as mobility, are heavily constrained in the current environment where access to land is much more limited than in the past while human populations continue to grow. Thus, the vulnerability to drought-induced livestock losses is high, most recently demonstrated by heavy losses—perhaps upward of fifty percent--incurred during the most recent drought of 2008-09. It will take years for households to recover from these losses, even with heavy rains in 2010. Given the boom-bust nature of pastoralism, it is perhaps not that surprising that the numbers of livestock inherited (post-mortem and pre-mortem) are not strongly associated with current wealth levels, because these levels are likely to fluctuate over time. Indeed, earlier research has shown that there is considerable mobility across wealth quintiles in this population even over a five-year period (Lesorogol 2008b). That study demonstrated that about half of all households in this sample had moved up or down at least one quintile between 2000 and 2005 (Lesorogol 2008b: 322). Thus, the lack of a strong association between numbers of livestock inherited and current wealth may not be very surprising.

On the other hand, there appears to be a positive relationship between father’s wealth and son’s wealth, and the inverse, father’s poverty and son’s poverty. While this finding seems somewhat contradictory to the lack of relationship between inheritance and current wealth, it may signal other dimensions of wealth beyond the material transfer of livestock. For example, there may be a social network advantage held by wealthier

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7 Access to land is limited for several reasons. One is the demarcation of district boundaries that began in the colonial period and continue to be elaborated in the present. These tend to cement ethnic boundaries and lead to increasing conflict over pastures in the border areas. Many prime grazing areas have been put off limits through transformation into national parks and game reserves, or gazetted forests where access is limited. Cattle raiding by neighboring ethnic groups over the last decade has led Samburu to avoid large areas of pasture that they used to frequent.
families. More specifically, such families tend to be large. With a large family, one has a larger network of agnatic (from the patrilineage) and affinal (the families of wives) kin. Having a large social network brings advantages, especially during difficult times like drought when livestock may need to be moved long distances. In such a situation, having relatives in the distant area may ease access to pasture. Following the drought, people need to rebuild their herds and the first group to be approached is generally members of one’s lineage. Again, having a large family is an advantage. Even during normal times, being part of a larger, wealthier family affords advantages by, for example, being able to combine herds to economize on herding labor and access better pastures that may be farther away from the home settlement. It may also be easier for a poorer member of a generally wealthy family to take up residence with a better off brother or cousin and gradually build up a herd by providing labor in exchange for livestock. While it is certainly the case that there are sons of wealthy men who have become very poor, and vice versa, the overall association of father’s and son’s wealth may indicate a kind of structural advantage that wealthier families enjoy. This interpretation is supported by the previous research on mobility that showed less mobility out of the richest and poorest quintiles compared to the middle ones. For example, in Mbaringon, about 50 percent of households had experienced mobility, but only 25-30 percent had moved out of the poorest quintile, while 35 percent moved out of the richest quintile (Lesorogol 2008b: 322). Some scholars have referred to this kind of phenomenon as a poverty trap, where below a certain threshold it is difficult to rise out of poverty (Lybbert et al 2004, Carter and Barrett 2006). The question raised here is the extent to which social relations influence the likelihood of falling into such traps.

**Effects of education on income and wealth**

One of the goals of this study is to try to determine the extent to which education provides an alternative pathway out of poverty for pastoralists. The regression analyses suggest, on the one hand, that years of formal education are not significantly associated with current wealth levels, but, on the other hand, more years of education is positively associated with current income. Thus, investments in formal education appear to have positive returns as far as income is concerned.
The quantitative results of the study are limited by the fact that the survey respondents are relatively old and, therefore, have relatively low educational attainment. In addition, the households were selected from rural areas of the district where employment opportunities are limited. Thus, it would not be surprising if people with more education have left these communities to seek better opportunities in other parts of the country. Indeed, we know that 15 percent of households in the sample do have family members (either fathers or older sons and daughters) who are employed and are non-resident. Given the growth in educational attainment among the younger generations (people in their 20s and 30s) it would be desirable to expand the sample to include more of this group to obtain more empirical evidence regarding the returns to education. Therefore, having found a positive relationship between years of education and income in this sample constitutes a conservative test of the hypothesis that education has positive returns.

It is also important to understand how people perceive of education, as it is these perceptions that influence decision-making around enrolling and withdrawing children from school. As noted above, informants in the interviews were universally positive about the value of education and most of them had committed to enrolling most or all of their children in school. Gender bias in enrollment seemed to be small in this group as both girls and boys were reported to be enrolled. People noted both instrumental and intrinsic values in education. In terms of instrumental values, they pointed out that education led to jobs, income, and the ability to be self-supporting as well as help one’s family. [INSERT QUOTE]. When asked whether there was still any value in education if the graduate (at whatever level) did not find a job (which is common) almost all informants said yes. Many of them pointed out that even without a job, an educated person had knowledge and skills that they could use, say, for self-employment. While this is still a fairly instrumental view, many informants also argued that education broadened one’s horizons and enabled one to understand and communicate with the wider world. The person with education would “know their way around” in the world—the implication was that they would be able to move beyond the limits of Samburu district and survive anywhere, be more “worldly-wise”. One informant felt that education
improved problem solving skills that could be used in a wide range of situations. Another person noted that education made a person “clever”.

Many saw education as a way out of poverty especially through employment. A number of the older informants pointed out that the poorer families who had sent sons to school in the early days of formal education had benefitted as those sons had become successful and rich. They named particular individuals from their age-sets as examples of success stories, noting that if they had been given the chance to go to school they would have been as successful (or more) than those men. These men communicated a certain amount of regret at not having had the chance to go to school. One man related how he had begged his father to send him to school, but it never happened. Even though he runs a successful business today, he wonders how different life would have been if he had gone to school. Others did not regret not having education even though they recognize its value, now. They argued that education does not replace one’s own intelligence and that they have used what they know to do well for themselves.

We asked informants if they thought that education is an alternative form of inheritance. Most said no, again reflecting the limitations on the concept of inheritance (njungu) which is tied closely to post-mortem inheritance and taking on paternal roles and responsibilities. Instead, several individuals included education among the things that parents can provide to children while they are alive. In this sense, education appears to be linked with pre-mortem transfers of livestock, reinforcing its investment nature. Along these lines, a couple of the younger informants (and also my research assistant) pointed out that they felt that providing their children with education was largely going to replace any livestock that they might give them. For them, education was the primary investment they could make for their children’s future.
Conclusion

Our results suggest that wealth begets wealth, but not simply through the intergenerational transfer of livestock. It may be that the broader advantages incurred through membership in a wealthier family, as well as luck and herding acumen are as important as the initial herd inherited from one’s parents. The moderating effect of father’s wealth on son’s inheritance suggests that, particularly for poorer families, it is more difficult to escape poverty through inheritance than it is for those from wealthier families to remain wealthy.

Formal education demonstrates a positive effect on income but not on wealth. Further investigation is required to understand the complex relationship between wealth and income, but these results do indicate that even the relatively modest amounts of formal education attained in this sample do have positive financial returns. It is clear from the interviews that many Samburu people are investing more in education, sending more children to school, and perceiving benefits to education. Observations of the educational system in Samburu district raise some concerns regarding the quality of education on offer as well as the prospects for gainful employment upon graduation. Kenya recently introduced free primary education and enrollments have jumped, including in the study communities. In addition, the World Food Programme operates a school feeding program in Samburu district providing another incentive to attendance. The downsides of these generally favorable policies are over-crowded classrooms, teacher shortage, low quality of education, and continued high drop out rates. These problems may pose a threat to the continued positive returns to education and more attention should be paid to quality and employment opportunities for graduates.
References: