



Livestock or the pen: The effects of inheritance and education on poverty among pastoralists

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What is Chronic Poverty?

The distinguishing feature of chronic poverty is extended duration in absolute poverty.

Therefore, chronically poor people always, or usually, live below a poverty line, which is normally defined in terms of a money indicator (e.g. consumption, income, etc.), but could also be defined in terms of wider or subjective aspects of deprivation.

This is different from the transitorily poor, who move in and out of poverty, or only occasionally fall below the poverty line.

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Abstract

Samburu pastoralists in northern Kenya experience chronic poverty and often express the belief that formal education may be an alternative route out of poverty. The roles of parental wealth, livestock inheritance and formal education in household wealth (measured in livestock holdings) and income are investigated using quantitative and qualitative research methods and building on our long-term research among the Samburu. Findings from qualitative interviews examine how livestock are passed from one generation to the next, illuminating the important role of *inter vivos* transfers of livestock in distributing wealth among sons, and the advantages of being part of a wealthy family for retaining and rebuilding herds. Interviews indicate that Samburu people are sending more children to school, with the belief that it constitutes one means to overcome poverty through employment and gains in skills and knowledge. Quantitative analyses indicate that parental wealth and primary education, but not amount of livestock inherited, are positively associated with household wealth status. While individuals with primary education have higher incomes on average than those with less education, the difference in income is not statistically significant. Thus, while livestock inheritance does not translate directly into greater wealth in the next generation, there do appear to be structural advantages to membership in a wealthier family.

Keywords: livestock inheritance, education, intergenerational transmission of poverty, household wealth.

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Executive Summary

Samburu pastoralists are one of the poorest and most marginalised groups in Kenya (CBS, 2003). Recurrent shocks, including frequent droughts and growing insecurity as a result of 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 (Adriansen, 2006; Little *et al.*, 2001). Poorer pastoralists are most disadvantaged, as they lose social standing and networks and have difficulty continuing with a pastoral lifestyle (Tache and Sjaastad, 2010).

While pastoralists are often thought of as egalitarian in terms of wealth and power (Salzmann, 1999), there is recent evidence of growing wealth and income inequality, including among the Samburu (Lesorogol, 2008a; 2008b). Amid these changes, many 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’, signalling education and employment as alternatives to pastoralism. While inheritance and other forms of livestock redistribution have the 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 (Borgerhoff Mulder *et al.*, 2010).

Using quantitative and qualitative research methods and building on Lesorogol’s long-term research among the Samburu, we analyse the association of current household wealth (measured in livestock holdings) and income with parental wealth, livestock inheritance and formal education in a sample of 128 Samburu households. This analysis indicates that parental wealth, but not the amount of livestock inherited, is positively associated with current household wealth status. Our qualitative findings assist in interpreting this finding by examining how livestock are passed from one generation to the next, illuminating the important role of *inter vivos* transfers of livestock in distributing wealth among sons, and the advantages of being part of a wealthy family for retaining and rebuilding herds.

Regarding education, while average income is higher among those with primary education, the difference is not statistically significant. Qualitative findings indicate that formal education has been available to the Samburu only for about 50 years but that, after an initial period of resistance, many Samburu are now investing in education of the next generation and believe that it brings about benefits, including enhanced knowledge, capability and financial security.

Our findings suggest that membership in a wealthier family may confer structural advantages on the next generation, manifested in greater levels of wealth. While it is not possible to demonstrate a significant effect of education on income in this sample, the qualitative



findings indicate an increasing willingness among parents to invest in the education of the next generation.

1 Introduction

Samburu pastoralists are one of the poorest and most marginalised groups in Kenya (CBS, 2003). Recurrent shocks, including frequent droughts and growing insecurity as a result of cattle raiding and banditry, have exacerbated poverty and inequality among them. 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 (Adriansen, 2006; Little *et al.*, 2001). Poorer pastoralists are the most disadvantaged, as they lose social standing and networks and have difficulty continuing with a pastoral lifestyle (Tache and Sjaastad, 2010).

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 on their husband's or husband's family's livestock. Meanwhile, although pastoralists are often thought of as egalitarian in terms of wealth and power (Salzmann, 1999), there is recent evidence of growing wealth and income inequality among the Samburu (Lesorogol, 2008a; 2008b). Amid these changes, many 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. Samburu people often express the belief that 'the pen is stronger than the spear', signalling education and employment as alternatives to pastoralism. While inheritance and other forms of livestock redistribution have the potential to reduce poverty, formal education is an important alternative.

However, there is little empirical evidence regarding the effects of livestock inheritance on the intergenerational transmission of poverty for pastoralists or the possibility of overcoming poverty through education. One recent study finds strong evidence of intergenerational transmission of wealth among several pastoralist groups (Borgerhoff-Mulder *et al.*, 2010). More work has been done addressing patterns of inheritance and schooling, particularly gender bias, in landed agricultural systems (Gray and Kevane, 1999; Lastarria-Cornhiel, 1997; Quisumbing *et al.*, 2004).

Using quantitative and qualitative research methods and building on Lesorogol's long-term research among the Samburu, we analyse the association of current household wealth (measured in livestock holdings) and income with parental wealth, livestock inheritance and formal education. We find that parental wealth but not amount of livestock inherited is positively associated with household wealth status. Qualitative findings assist in interpreting this by examining how livestock are passed from one generation to the next, highlighting the important role of *inter vivos* transfers of livestock in distributing wealth among sons and the advantages of being part of a wealthy family for retaining and rebuilding herds.



Regarding education, while average income is higher among those with primary education, the difference is not statistically significant. Primary education is also significantly associated with livestock wealth, but the direction of causality is unclear. Qualitative findings indicate that formal education has been available to the Samburu only for about 50 years, but also that, after an initial period of resistance, many Samburu are now investing in education of the next generation and believe it brings about benefits, including enhanced knowledge, capability and financial security.

Our findings provide evidence of intergenerational transmission of wealth and poverty, but suggest that this may operate more through the structural advantages of wealthier households rather than directly through livestock inheritance. While it is not possible to demonstrate a significant effect of education on income in this sample, the qualitative findings indicate an increasing willingness among parents to invest in the education of the next generation.

1.1 Research questions

We sought to understand practices of livestock inheritance, patterns of decision making regarding inheritance and the relationship between wealth, transfers of livestock and the households' economic status. In addition, we investigated attitudes towards formal education and how parents made decisions about sending children to school. We also analysed whether there were associations between formal education and current household livestock wealth and income. The following questions guided the study:

- (1) How are livestock passed from one generation to another?
- (2) What perceptions are there about the effects of livestock inheritance on household well-being?
- (3) How are decisions made about sending children to school?
- (4) What perceptions are there about the effects of education on household well-being?
- (5) What is the relationship between livestock inheritance (*inter vivos* and post-mortem) and son's current wealth?
- (6) What is the relationship between father's wealth and son's current wealth?
- (7) What is the relationship between education and current household wealth?
- (8) What is the relationship between current household income and education of the household head?

Questions 1–4 were pursued through a set of qualitative interviews, whereas Questions 5–8 were addressed using quantitative household survey data and regression analyses. The questions were designed to gain insights into patterns of livestock inheritance and formal



education, attitudes about how these affect household economic status and quantitative relationships among inheritance, education and household wealth and income.

1.2 Research design and methods

Data for the quantitative analyses come from our existing sample of 200 Samburu 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. The first 100 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 100 households are in Siambu (about 40 km away from Mbaringon), where land was privatised among 240 resident households in the late 1980s. Each household received a virtually equally sized parcel of land of about 23 acres. 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 it is important to consider these differences, we also note that, in terms of household economic indicators such as income and wealth, no statistically significant differences were found in mean values between the two communities in the last survey conducted (in 2005) (Lesorogol, 2008b). Both communities exhibit considerable levels of wealth inequality. For example, the wealthiest quintiles in both Siambu and Mbaringon own more than 50 percent of the livestock wealth, whereas the poorest quintile in each place owns less than 5 percent.

In order to investigate the intergenerational transmission of wealth, we added questions to the survey instrument, which was conducted with this sample in 2000 and 2005. The survey includes information on demographic characteristics (age, gender, marital status); wealth (livestock by type and number); land ownership (in Siambu only); cash income (from 25 different sources, including wage labour, trade, livestock and crop sales, land sales and rentals (Siambu only), remittances and gifts); educational attainment; employment status; expenditure (weekly and annual); crop production; milk production; and 24-hour food intake. The husband and/or wife were interviewed in each survey household although, given the focus on inheritance in this survey, the majority of respondents were men.¹

Since most wealth is transmitted from father to son (often through the mother, who plays a caretaker role in relation to her children's livestock), we asked men about their inheritance.

¹ There were four female-headed households in the sample (widows), which were excluded from the quantitative analysis because the focus of analysis was on livestock inheritance, which flows through the male line. Although women do play a role in transferring livestock to their sons, we were not able to obtain accurate information from widows on deceased husbands' livestock inheritance and their parental wealth.



Transfers of livestock do not occur at one point in time for the Samburu. Rather, fathers give gifts of livestock to their sons at many points, especially during significant social transitions such as at birth, initiation into warriorhood and marriage. Most transfers occur *inter vivos*, although a father's remaining livestock generally go to his oldest son on his death.² Barring cases of premature death, most men will have divested most of their wealth before they die.

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 bridewealth paid to the wife's family). This is a point at which most young men are at a high point in terms of inheritance, since they require livestock to pay bridewealth to the wife's family as well as to 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. We also asked respondents (both spouses) about their father's livestock holdings and household size when they (the respondents) married.

The qualitative portion of the study consisted of in-depth interviews with 16 respondents in June and July 2010 to further illuminate the strategies and decision making behind livestock inheritance and formal education. We selected four father-son pairs from the random sample to interview about inheritance practices and educational experiences in their natal family, 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 adult 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 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, with whom we have recently conducted research on land use and household economics. Availability of individuals for interview during our fieldwork was an additional criterion for selection.³ The interviews focused on the practices, norms and values attributed to inheritance and education, and how respondents believed each of these had affected their current well-being and that of their families.

2 In polygynous households, it is the eldest son of the first wife who inherits the father's remaining livestock at death. The youngest son of each wife is expected to inherit any livestock remaining in her allocated herd at her death (see below).

3 While a larger number of interviews would have been desirable, there was limited time available for the interviews for this project. However, the selection of interviewees was diverse in terms of age, gender and economic status. It would have been useful to interview more of the highly educated members of the sample (or their sons and daughters) for their perspectives on inheritance and education. Nevertheless, two of the four sons in the father-son pairs had university-level education and were at the high end of the education spectrum.

2 Qualitative analysis

2.1 Background to the Samburu

Most Samburu people reside in northern Kenya, primarily in Samburu district (recently divided into three districts).⁴ 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 to cows, sheep and goats (and some camels, especially in lowland areas), many Samburu engage in trade in other commodities, such as timber, firewood, charcoal, hides and skins, tobacco, sugar and alcohol. 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 of 200–400 mm and vegetation dominated by shrubs and trees, with relatively little grass. The other third is the higher-elevation Lorroki plateau (over 1,200 m), with rainfall averaging 400–1,000 mm and where grassland and forest dominate. In addition, three mountain ranges punctuate the lowland landscape and provide dry season reserve grazing areas. Although most Samburu practise little or no farming, some communities have become more involved in cultivation, especially over the past 20 years. This is the case in the Siambu community, located in one of the wettest and highest elevation areas of the highlands, where land that had been managed communally was privatised in the late 1980s. Since then, about two-thirds of households in Siambu have begun to practise 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. Relatively few people grow crops on a regular basis, although some do so opportunistically in a year of good rainfall (such as 2010).

Samburu social organisation revolves around patrilineages, clans and larger sections of related clans. Homesteads are organised around related men, generally fathers and their married sons, or brothers, although there is considerable variation in this pattern and a trend towards smaller settlements. These kinship structures are crosscut by a male age-grade

⁴ For convenience, we will refer to Samburu district rather than the three districts. This recent change in administrative units also seems likely to be rescinded by the new Constitution, passed in August 2010, in which local governments are defined as the original 47 districts in Kenya, one of which is Samburu.



system, whereby all boys are initiated into a named age-set on 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 14-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 labour is the core of herding labour, a large household is often necessary to support a large herd. Household labour 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 pastoralist groups that are often in competition for natural resources and livestock. Many Samburu express the feeling that they are becoming poorer over time, especially because of the continuing impacts of recurrent drought, livestock diseases and the rise of organised and lethal cattle raiding by neighbouring groups. Their perceptions are borne out in research that shows a 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 animals diligently and resists the urge to consume them (by selling or eating them) will not be blamed for disaster-induced poverty, whereas someone who is negligent 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. One result of living in an environment with high risk and uncertainty is shifts in livestock holdings over time. For example, earlier research with our sample shows considerable economic mobility across wealth and income quintiles over time (Lesorogol, 2008b). We return to a discussion of the influence of risk in Section 4. Next, we turn to the findings from this project to explore the meaning and operation of livestock inheritance among Samburu.

2.2 Inheritance among the Samburu

There is a clear norm for livestock inheritance (*njungu* in Samburu, from *a-jung*, meaning the last words spoken at death) on which all informants agreed: 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 the role of the father as the head of the family. This means he takes on many of the responsibilities and obligations his father had when he was alive. For example, this son will now be responsible for organising initiation ceremonies and helping negotiate marriages for his unmarried younger siblings. At their weddings and initiation ceremonies, he will assume the ritual roles his father would have played. He will also be liable to pay off any outstanding debts his father incurred, as well as collecting credits



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 also signifies a transfer of authority and caretaking as well. In fact, the material transfer of livestock may be relatively minor compared with the other responsibilities the eldest son is expected to assume. When a man dies in old age, most of his livestock have already been transferred to his sons (as discussed below) or remain in his wife/wives' allocated herd(s), which she has use rights over and which she can transfer to her sons. Since most wives are considerably younger than their husbands (usually by at least 10 years), they generally outlive them and 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 the youngest son inherits from his mother, they are referring to the special relationship 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. 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. Patrilineality means 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 formalise the marriage. Patrilocal refers to the common practice of fathers and sons residing in the same settlement, meaning 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, forming 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; women move to the husband's patriline and do not generally take livestock from their father's settlement.

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, which refers to the subdivision 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 that 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 a 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 note that the house-property complex often reveals efforts to equalise wealth and well-being across households as well as the conflicts that may develop among wives who may be in competition for household resources (Hakansson, 1989). Another aspect of this concept is the way house property is distributed among sons. Our impression from interviews is that, while there is a general feeling that all sons are worthy of receiving wealth, both from fathers and from mothers, parents use their 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) (Cooper, 2008; Quisumbing, 2007).

2.3 *Inter vivos* 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. As such, according to the definition of inheritance and the norms discussed above, they did not receive any inheritance. We knew, however, that virtually all men would have received wealth from their parents during their lifetime, and proceeded to ask what they had received through *inter vivos* transfers. While everyone acknowledged 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 seemed to be the associated roles and obligations attached to post-mortem inheritance, which are absent in the *inter vivos* case. It may be more accurate, then, to refer to these as *inter vivos* transfers rather than inheritance, given the connotations of the term 'inheritance' for the Samburu people.

The most important occasions for *inter vivos* transfers are life transitions such as 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 remain in the family herd when they marry. In fact, the family herd will grow when girls are married, owing to the addition of bridewealth her husband provides. These same animals are often used by her brothers to pay their own bridewealth. Some of the women and men interviewed emphasised that girls did not receive livestock. Some of them felt this was unfair (this response seemed more common among people with formal education); others were more matter of fact, explaining that women were expected to leave their parents' 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, *inter vivos* distributions involve the discretion of parents in deciding how to distribute property among children. Parents often take into consideration a son's characteristics, such as trustworthiness and reliability, as well as level of need. Mothers, knowing that a youngest son will play an important caretaking role in their old age, often appear to cultivate a particularly close relationship with that son, including making livestock transfers from her herd. 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 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.

2.4 Variations on the norm

While all informants explained the normative pattern for livestock inheritance discussed above, and most were in favour of following it themselves, interviews revealed some variations in practice. One man in his early 60s, with no formal education, described how he had 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 explained that he was trying to be equitable in passing property to his children and that he wanted each of them to have some form of property that would assist them in making a living:

'I have already done inheritance. I gave one son a plot. I gave another son from my second wife [...]some money. I gave land, I gave membership in the group ranch. I'm not waiting until I die, because after I die I don't know what they will do. I gave one daughter a plot. I gave each child something instead of waiting until I die when I can't say anything. I finished that – because I don't know when I will die [...] They know their livestock, each one knows their cows, sheep, goats [...] If you leave it to the oldest son he may take it all, so I have told each child what they will get.' (L.L. 7/2010)

This was one of the few informants who believed that urban land rivalled livestock in value and thus included it in the property he bequeathed to his children. His interest in urban property may stem from the fact that his homestead is close to a small town in which he owns a number of plots. His two wives operate small businesses in the town and one of his



sons is a primary school teacher living in the same town. Although he retains his pastoral settlement and livestock, the town is also an important source of livelihood for him.

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 in the paragraph above, the primary school teacher. He explained how his father had divided his wealth among all the children:

'I have seen that he has done well because at least he has tried to educate all of us, and to educate someone is to give us equal rights – from a boy to a girl child. He has given us education, sent us to school, so I have seen that I won't take things [inheritance] by myself, because I have education like the others so it's better for us to all divide [it].' (A.L. 7/2010)

Interestingly, he is the oldest son and, according to Samburu tradition, should rightfully inherit his father's livestock when the latter dies. Nevertheless, he was not unhappy that he would not inherit all his father's remaining livestock and said 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:

'If my father dies, I will take on the responsibilities of the head of household, for my mother and stepmother and younger siblings. If my younger siblings get married, I'll be like the father, I'll take the role of the father.' (A.L. 7/2010)

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 *inter vivos* 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 the right to take the livestock with her. A number of these young women were observed operating small businesses, such as selling sugar, tea and other foodstuffs, from their house. In this way, they may earn some income and reduce their dependence 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 emphasised how they had taken care of animals so 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 in terms of support 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 a desire to send both boys and girls to school. Some women claimed, however, that they would continue the Samburu norm for livestock inheritance, even though 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.

2.5 Views on 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 British colonial regime focused its efforts of transforming and ‘modernising’ 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, which were mostly boarding 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. Since schools were few and far between, this meant boys who went to school were separated from their families, often for months at a time (Lesorogol, 2008a). While good data are hard to come by, this forced approach seems to have led to distinctive patterns of enrolment, 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 labour and, as suggested by some informants, may have sent sons to school in order for them to be fed. Another stereotype about enrolment decisions common among the Samburu (and again evidence is hard to find) is that boys with some kind of physical deformity or who 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 outward attitudes towards 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 its effects. 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 in relation to 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 enrolled few children in school. These informants pointed out that their parents did not believe there was any value to education and did not see a need for it. One man in this age group who had sent all his children to school and was running a successful butchery business (even though he had no formal education himself) noted;

‘It’s just now that people see a meaning to education. Before, they saw no meaning – they said, just let them stay home and herd – herding had value. A long time ago, only the bad boys were sent to school, the ones they liked they had to herd. The oldest boy could not go to school.’ (A.L. 7/2010)

This was especially the case in wealthier families which, if they had sufficient livestock, did not perceive any advantage to education. On the contrary, sending sons to school was a hardship, because it deprived the family of herding labour, 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. The above informant’s comment that older boys were not sent to school may also refer to the role of the oldest son both as the father’s inheritor and as the one who would take on his responsibilities. It suggests that a strong relationship between oldest son and father is valued.

For informants in this age group, the assumption was that only boys were considered for enrolment in school. The idea that girls would go to school hardly registered with parents. In fact, it was 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 noted that boys who went to school in the 1950s often dropped out of – 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 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 30s and 40s, most had at least one sibling who had gone to school. This reflects the trend toward increasing enrolments in schools from the 1960s, and especially in the 1970s and later. In some cases, only one or two children in a family had attended school; 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. Years of education completed in these cases varied from a few years to completing primary school, with a few cases of siblings going on to secondary school.

When asked about their own intentions for their children, all informants said they would try to send all or most of their children to school. A few older informants actually had sent all of their children to school, and they described how far each child had reached 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 labour was a constraint, and that they planned to keep at least one child at home to herd. The man with the butchery business quoted above told us about three of his sons, all of whom had made it to higher education:

‘School is really good. My oldest son finished secondary, he joined a church, then he went to university and he finished. Now he’s working in a good job – I see he’s a person of importance. He doesn’t have any problems. He’s smart. He doesn’t have problems like we do [...] The next son went to secondary, but he didn’t pass well in his exams. He went to teachers’ college and he finished – he’s waiting to get a teaching job. I see that if he gets it, he’ll be able to take care of himself. The third one is in university now.’ (A.L. 7/2010)

Thus, the interviews reveal changing patterns over time in relation to decision making about school enrolment and a current trend towards greater confidence in formal education as a means of achieving success. The next section presents the quantitative analysis, which is followed by a discussion of the findings and a synthesis of the qualitative and quantitative results.

3 Quantitative analysis

This section presents the results of the quantitative analysis of the household-level data collected using the survey discussed above. We first outline the measures used, then the data analysis plan. We then present and interpret the multivariate results.

3.1 Measures used in the quantitative analysis

3.1.1 *Demographic characteristics*

These include, age, household size and years of education of the household head. In order to control for differences in household size and composition, household size was converted to Active Adult Male Equivalents (AAME). AAME is calculated based on the following ratio: each adult male=1; children 0–5 years=.52; 6–10 years=.85, 11–15 years=.96; adult female=.86 (ILCA, 1981).

3.1.2 *Son's wealth*

Son's wealth refers to a son's current number of livestock owned. This variable is measured in Tropical Livestock Units (TLU), 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. We used the same rate for father's wealth and livestock inherited, even though actual exchange rates at those (various) times in the past may have differed.

3.1.3 *Inheritance*

This variable refers to son's inheritance at marriage. The variable is an aggregate of the cows, sheep and goats sons received from their parents by the time of their marriage. Note that this includes both *inter vivos* and post-mortem transfers.

3.1.4 *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 (respondent's) marriage. As above, this was converted to TLUs.



3.1.5 *Income*

Total annual household income included sales of livestock, crops and land (Siambu only); income from leasing land (Siambu only); income from non-livestock sources such as wage labour and trade; and gifts and remittances.⁵

3.1.6 *Education of household head*

Respondents were asked the total number of years of formal education they had completed. In the analysis, this variable is categorised into three groups: no education, primary education (1–8 years) and beyond primary education (more than 8 years).

3.2 Quantitative data analysis plan

The quantitative analysis seeks to answer the following questions and their corresponding hypotheses:

(1) What is the relationship between livestock inheritance (*inter vivos* and post-mortem) and son's current wealth?

H₁: Sons who receive more inheritance will have more livestock.

(2) What is the relationship between father's wealth and son's current wealth?

H₂: Fathers who have more livestock will have sons with more livestock.

(3) What is the relationship between education and current household wealth?

H₃: People who have more education will have more livestock than those who have less education.

(4) What is the relationship between current household income and the level of education for head of household?

H₄: Heads of household with more education will earn more income than those who have less education.

The quantitative part of the study begins by using Ordinary Least Squares and Ordinal Logistic regression to examine the relationships between inheritance and son's wealth (Question 5, Hypothesis H₁; Inheritance Model; Table 2); father's wealth and son's current wealth (Question 6; Hypothesis H₂; Father's Wealth Model, Table 2); and education and current household income (Question 7; Hypothesis H₃). The Ordinary Least Squares regressions allow us to investigate son's wealth as a continuous variable, and the Ordinal Logistic Regression allows us to examine five wealth quintiles of son's livestock wealth. Our use of Ordinal Logistic regression is guided by previous research with this sample that

⁵ Recall that land in Siambu was privatised in the late 1980s. Thus, each household in the survey owns about 23 acres of land and individual owners have the ability to buy, sell and lease this land. In Mbaringon, land is held collectively in a group ranch, and individuals do not have rights to buy, sell or lease. Therefore, income from sales and leases of land are possible and reported only for Siambu.

demonstrated distinctive livelihood strategies across wealth quintiles. For example, households in wealthier quintiles rely more on livestock sales, whereas poorer groups depend more on trade and wage labour for income. Thus, it was reasonable to expect that the relationship between inheritance and father's wealth might differ across quintiles. There are many factors that might potentially affect a respondent's wealth portfolio. Hence, the quantitative analyses take into account household- and individual-level factors, including income, household size (AAME), age and respondent's education.

3.3 Results

3.3.1 *Description of the sample*

The quantitative analysis is based on survey responses from 128 men, 68 from Siambu and 60 from Mbaringon.⁶ Table 1 shows descriptive statistics for the sample. The average age of participants was 55 years. The youngest respondent was 33 years and the oldest was 85 years. Most respondents were married (n=126) while two were widowers. The average household size was 9, ranging from 3 to 26 people. About one-third (34 percent) of the sampled households were polygynous. The average number of years spent in school was almost three, but the majority of respondents (68 percent) had no formal education.

The average household TLU was 15.93 (StDev=22.94). Respondents had an average annual household income of KES 99,331.72, or \$1,241 (StDev=104,890.2). One respondent reported no income at all, and the median income was KES 69,980 (\$874). The highest income was KES 687,800 (\$8,597) and the second-highest income was KES 398,000 (\$4,975). Respondents' father's wealth (at the time of the respondent's marriage) in TLU averaged 158.58 (StDev=426.12). This figure ranged widely, from zero to 4,036. Respondents reported inheriting an average of 19.16 TLU from their parents (StDev=25.76), varying from zero to 144. In the following analysis, variables that were not normally distributed were either transformed or had the outliers eliminated. The descriptive characteristics (Table 1) are presented in the original scale.

⁶ As noted above, four female-headed households were excluded from the analysis in order to focus on the flow of livestock from fathers to sons.

Table 1: Descriptive characteristics of variables

Variables	Mean	StDev	Range	Median	Mode
Dependent variable					
Son's current wealth (TLU)	15.93	22.94	0–174.24	8.68	0
Independent variables					
Father's wealth (TLU)	158.58	426.14	0–4036	92.92	0
Inheritance (TLU)	19.16	25.76	0–144	8.92	0
Income (KES)	99,331.72	104,890.2	0–687,800	69,980	16,800
Household size	9.27	3.89	3–26	8	7
Age	55.22	12.03	33–85	53.90	47
	Frequency	Valid %			
No. of wives					
0	2	2			
1	83	65			
2	35	28			
3	6	5			
4	1	1			
Community					
Siambu	68	53			
Mbaringon	60	47			
Education					
Beyond primary education	11	9			
Primary education	28	23			
No education	83	68			

3.3.2 Regression results

Table 2 presents results of all the significant regression models. In the table, the unstandardised coefficients (b) are presented with the standard errors (SE) in parentheses. Significant relationships are denoted with asterisks. These results suggest only correlational relationships, not causal relationships.

3.3.3 Relationship between inheritance and son's wealth

The second column of Table 2 presents results of the Inheritance Model based on the Ordinary Least Squares regression. In the model, inheritance is not statistically significantly associated with son's wealth ($b=.015$, $p=.676$). Hence, the hypothesis that 'Sons who receive more inheritance will have higher livestock wealth' (H_1) is not supported by the data and is rejected. In the Inheritance Model, only income is statistically significantly associated with son's wealth ($b=.376$, $p<.001$). This means that a 1 percent increase in income is associated with a 0.38 percent increase in son's wealth, while controlling for inheritance, AAME, age and



education.⁷ Results of the Inheritance Model for the Ordinal Logistic regression are not presented because the overall model was not significant.

3.3.4 *Relationship between father's wealth and son's wealth*

Results of the relationship between father's livestock wealth and son's wealth are presented in two models in columns 3 and 4. Column 3 presents the results of the Ordinary Least Squares and column 4 presents results of the Ordinal Logistic regression. The Ordinary Least Squares results suggest father's wealth ($b=.133$, $p<.05$), income ($b=.301$, $p<.001$), AAME ($b=.080$, $p<.05$) and primary education ($b=.479$, $p<.05$) are statistically significantly associated with son's wealth. Hence, the hypothesis that 'Fathers who have more livestock will have sons with more livestock' (H_2) is supported by the data and is accepted.

A 1 percent increase in father's livestock wealth is associated with a 0.13 percent increase in son's livestock wealth, while controlling for household AAME, income, age and education. Therefore, in response to Question 5, there is a statistically significant relationship between son's wealth and father's wealth. Also, a 1 percent increase in income is associated with a 0.3 percent increase in son's wealth, while controlling for father's wealth, AAME, age and education. Son's wealth increases by 8 percent (i.e. $100*b$) for a one-unit increase in AAME, while all other variables in the model are held constant.⁸ This means larger households with more adults tend to be wealthier. The significant coefficient for primary education means that, compared with sons without any education, sons with primary education have an average of 47.9 percent (i.e. $100*b$) more livestock, while controlling for father's wealth, income, AAME, age and education beyond primary level. This finding supports hypothesis H_3 : 'People who have more education will have more livestock than those who have less education.' However, the relationship holds only for primary education, not beyond primary education.

The fourth column in Table 2 presents results for the Father's Wealth Model, which is based on an Ordinal Logistic regression. The model predicts the probability of a respondent falling in the highest wealth quintile. The overall model was significant and the proportional odds assumption of a non-significant chi-square was met ($\chi^2=4.014$, $p=.067$). Similar to the results of the Ordinary Least Squares regression, father's wealth ($b=1.332$, $p<.05$), income ($b=1.797$, $p<.01$) and AAME ($b=1.198$, $p<.01$) are statistically significantly associated with the highest wealth quintile. For one TLU increase in father's wealth, the odds of being in the highest wealth quintile is 1.33 times greater, given that income, AAME, age and education are held constant. For a one-unit increase in income, the odds of being in the highest wealth quintile are 1.79 times greater when controlling for father's wealth, AAME, age and

7 This interpretation reflects a back-transformation of the coefficient into the original scale because both son's wealth and income are log-transformed.

8 The back-transformation of the coefficient for AAME is different from the previous back-transformations because in this model son's wealth is transformed but AAME is not transformed.

education. For a one-unit increase in AAME, the odds of being in the highest wealth quintile are 1.29 times greater, given that father's wealth, income, age and education are held constant.

Table 2: Results of regression models showing the relationship among son's livestock wealth, inheritance and father's livestock wealth

	Inheritance Model	Father's Wealth Model	
	Ordinary Least Squares regression <i>b</i> (<i>SE</i>)	Ordinary Least Squares regression <i>b</i> (<i>SE</i>)	Ordinal Logistic regression <i>Odds</i> (<i>SE</i>)
Predictors			
Inheritance	.015(.067)		
Father's wealth		.133(.052)*	1.332(.124)*
Covariates			
Income	.376(.084)***	.301(.079)***	1.797(.201)**
AAME	.045(.033)	.080(.032)*	1.198(.074)**
Age	-.004(.008)	.001(.008)	1.01(.018)
Education beyond primary	.668(.376)	.590(.348)	.296(.833)
Primary	.410(.240)	.479(.216)*	.447(.496)
<i>F</i> Statistic	5.418***	7.827***	
Adjusted <i>R</i> ²	.211	.299	
Deviance			276.650
Nagelkerke <i>R</i> ²			.314

Note: * $p < .05$ ** $p < .01$ *** $p < .001$.

3.3.5 Education as an alternative pathway out of poverty (Income Model)

Primary education was associated with son's livestock wealth in the Father's Wealth Model, and we wanted to examine its relationship with income as well. The reasoning was that, since education often leads to employment or other income-generating activities, it might be associated with income rather than livestock holdings. This may be the case for educated individuals in a household who contribute to income but do not invest their income in livestock. The overall model that assessed the association between income and education yielded significant results and explained 10.9 percent of the differences in income: [$F(5,111)=3.648$, $p < .01$, Adjusted $R^2=.111$]. Among the independent variables, only son's wealth was statistically significantly associated with income ($b=.406$, $p < .001$). Therefore, the data do not support the hypothesis that 'People who have more education will earn more income than those who have less education.'

4 Discussion

4.1 Relationship among inheritance, father's livestock wealth and son's current livestock wealth

Although the results do not show a significant direct association between livestock inheritance and current wealth, they do show that father's wealth is positively associated with son's wealth. One way of interpreting these results is to consider the 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 the Samburu, like other pastoralists, have developed many strategies for coping with this uncertainty, some of these, 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.⁹ Thus, vulnerability to drought-induced livestock losses is high, most recently demonstrated by heavy losses – perhaps upward of 50 percent – incurred during the most recent drought (2008–9). 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 not surprising the numbers of livestock inherited are not associated strongly with current wealth levels, because these levels are likely to fluctuate over time. As noted above, there is considerable mobility across wealth quintiles in this population, even over a five-year period (Lesorogol, 2008b). An earlier study found that about half of all households in this sample had moved up or down at least one quintile between 2000 and 2005 (*ibid*). 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 is 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. Borgerhoff Mulder *et al.* (2010) also find a substantial correlation between father's and son's wealth and suggest that this derives from common environments, cooperation and advantages of scale for larger herds. For example, wealthier families may hold a social network advantage. More specifically, such families tend to be large (as revealed in our analysis). With a large family, one has a larger network of agnatic (from the patrilineage) and affinal (the family 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

⁹ Access to land is limited for several reasons. One is the demarcation of district boundaries that began in the colonial period, which continues in the present. These tend to cement ethnic boundaries and lead to increasing conflict over pastures in 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 raids by neighbouring ethnic groups over the past decade have led the Samburu to avoid large areas of pasture they used to frequent.

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, enabling the combination of herds to economise on herding labour and access to 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 labour 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 structural advantage that wealthier families enjoy.

This interpretation is supported by the previous research on mobility, which showed less mobility out of the richest and poorest quintiles compared with the middle ones. For example, in Mbaringon, about 50 percent of households experienced mobility, but only 25–30 percent had moved out of the poorest quintile, whereas 35 percent had moved out of the richest quintile (Lesorogol, 2008b). Some scholars have referred to this kind of phenomenon as a poverty trap, whereby below a certain threshold it is difficult to rise out of poverty (Carter and Barrett, 2006; Lybbert *et al.*, 2004). The question raised here is the extent to which social relations influence the likelihood of falling into or escaping from such traps.

4.2 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. Regression analyses failed to find a significant relationship between income and primary education or education beyond primary level. However, descriptive statistics show that the average income of people who have only primary education (KES 94,820.37) is KES 10,375.54 more than people with no education (KES 84,444.82) and KES 4,855.93 more than those who have more than primary education (KES 89,964.44). Therefore, people without education have the least income. However, the difference in income is not statistically significant, after controlling for current livestock wealth levels, AAME and age. The multivariate results of the study are limited by the fact that the survey respondents are relatively old and, therefore, have relatively low educational attainment owing to the recent introduction of formal education in the area. 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 (generally a father or older sons and daughters) who are employed and are non-resident.¹⁰ Given the growth in

10 As noted above, incomes from absent household members are included in the analysis either as remittances or as wage labour or trade income (depending on the source). Not captured here are those complete households that have left the area to pursue employment, which therefore could not be in our sample.



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 complete empirical evidence regarding the returns to education.

It is also important to understand how people perceive 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 enrolment seemed to be diminishing in this group of respondents. For example, 45 percent of girls and 52 percent of boys under age 20 were reported to have some primary education. 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 to help one's family. 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 they could use, say for self-employment. 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 being that they would be able to move beyond the limits of Samburu district and survive anywhere, to be more 'worldly wise'. One informant felt 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 older informants pointed out that the poorer families that had sent sons to school in the early days of formal education had benefited, 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 so) 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, to no avail. Even though he runs a successful business today, he wonders how different life would have been if he had gone to school. Others expressed no regret at not receiving formal education, even though they recognise 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 education was an alternative form of inheritance. Most said no, again reflecting the limitations in 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 parents can provide to children while they are alive. In this sense, education appears to be linked to *inter vivos* transfers of livestock, reinforcing its investment nature. Along these lines, a couple of the younger



informants (including one of our research assistants) pointed out that they felt that providing their children with education was largely going to replace any livestock they might give them. For them, education was the primary investment they could make in their children's future.



5 Conclusion

Our results suggest that wealth begets wealth, but not simply through the direct 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.

Regression results show an association of primary education with respondent's wealth, but it is not possible in these analyses to establish a causal connection. It may be that wealthier individuals were more likely to attend school or that education has contributed to the generation of wealth. In terms of income, men with primary education have a higher income than the other groups, but not significantly so. It is clear from the interviews, however, that many Samburu people are investing more in education, sending more children to school and perceiving benefits to education. Observation of the educational system in Samburu district raises some concerns regarding the quality of education on offer as well as the prospects for gainful employment on graduation. Kenya recently introduced free primary education and enrolments have jumped, including in the study communities. In addition, the World Food Programme operates a school feeding programme in Samburu district, providing another incentive for attendance. The downsides of these generally favourable policies are overcrowded classrooms, teacher shortages, low quality of education and continued high dropout rates. These problems may pose a threat to the perceived positive returns to education. More attention should be paid to quality and also to employment opportunities for graduates.

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