

Childhood aspirations, occupational outcomes and exposure to violence: Evidence from Burundi

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Abstract:

Recent evidence points at the importance of childhood aspirations for our understanding of poverty and development. But how are these affected by the exposure to violence? This paper employs a logistic framework to study that question for Burundi, a conflict-affected, fragile state. Using data from a new nationwide survey with a panel component we distinguish between armed violence, domestic violence, violence at school and participation in violence. We find that (i) aspiring a job in the public sector is popular regardless of the type of violence; (ii) Children exposed to armed conflict have higher aspirations, defined as wishing to be employed outside of agriculture. Our results also show that these children, as well as children exposed to domestic violence, have a lower probability to fulfill their aspirations; (iii) children exposed to violence at school or children who perpetrated violence do not aspire to leave agriculture, making that their outcomes are closer to their aspirations, (iv) the differences between aspirations and outcomes for the four types of violence have a strong gender component.

Keywords: aspirations, outcomes, armed violence, domestic violence, aspirations failures

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1 Introduction

In his speech on 11 April, 2017 in London, World Bank president Jim Yong Kim focused on the effect of global interconnectedness on the formation of aspirations. He called upon the global development community to allow people in developing countries to fulfill their aspirations and he is worried that, if we fail to do that, we would see more frustration and violent conflict. This recent statement echoes the increasing popularity of studying aspirations in the scientific community in the past few years. To be precise, an aspiration is defined as a hope or a wish to achieve something¹, such as an occupation, obtaining a degree or reaching a certain salary. The expected benefits of realising the aspiration are sometime in the future, whereas the efforts required to attain it have to be exercised beforehand, over a longer period of time. To quote Bernard and Taffesse (2012), "aspirations combine or summarize the preferences maintained, the beliefs held, and possibly the constraints acknowledged by an individual about aspects of the future". As a result, researchers have linked aspirations to poverty. Appadurai (2004) for example believes that the poor have a lower capacity to aspire and are thus trapped in poverty. The idea is that young individuals from a poor community who aspire to improve their wellbeing stand more chance to escape from poverty compared to adolescents with low aspirations. If the goal is to foster the development of a country, it is thus crucial to understand how aspirations are formed, how events in the lives of the individuals can alter them and finally, what determines the coincidence of outcomes in adulthood with aspirations. Studying the formation of aspirations is an important first step as there are no achievements without aspirations, as Tafere (2014) reminds us, saying that "As people cannot usually achieve what they have not aspired to, aspirations are important inputs for achievements and eventual better outcomes". Nevertheless, forming aspirations is only the tip of the iceberg, since the difficult part for the individual, but also the most important one for the development of a country, is to fulfil these aspirations.

In this paper we want to contribute to the understanding of aspirations and adult outcomes, by shedding light on a new factor - exposure to armed violence - which, as we will see, can shape aspirations and outcomes. The relationship between aspirations, exposure to violence and adult outcomes has, to the best of our knowledge, not yet been studied in a developing country. We will analyse the childhood occupational aspirations and the adulthood outcomes of individuals exposed to armed violence - whilst controlling for other types of violence as well- in Burundi, a country ravaged by a decade-long civil war. Since most Burundians work in agriculture, we first study the effect of violence on the desire to leave agriculture. We will then analyse how violence and childhood aspirations coincide. Understanding this new channel in the shaping of aspirations should help us to grasp the long-term consequences of armed violence.

Our findings suggest that individuals, who have been exposed to armed (and domestic) violence, have higher aspirations and that these same individuals have a lower probability to realise them. This is a sobering result, as children first suffer from exposure to violence and then from failed aspirations. We find that individuals who actively participate in violence have lower aspirations and higher chances to realise them. Additionally, we find evidence that the poor have a lower capacity to aspire and that the rich have more chances of realising their aspirations.

After surveying the literature on aspirations, outcomes and violence in the second section, we briefly present Burundi's

¹Source: Cambridge online dictionary. Retrieved from: <http://dictionary.cambridge.org>. Consulted on the 25th of July 2016.

recent history in the third section. We describe the data and the variables in the fourth before continuing with our estimation method and the discussion of potential threats in the fifth. Our results are presented and discussed in the sixth section and the present paper ends with the conclusion.

2 Literature on aspirations and violence

Research on aspirations, in particular in relation to poverty and development, is blossoming. There is however, to the best of our knowledge, no research conducted on aspirations and exposure to armed violence. We review the literature on civil war and domestic violence in order to understand the psychological impact of violence. Our review of the literature is divided into three parts. In the first one we present the theoretical foundations of aspirations, in the second one its applications in practice and in the last part we review the literature on exposure to violence.

Aspirations in theory: The work of Appadurai (2004) and Ray (2006), who both have written extensively on aspirations, can be regarded as foundational for the modern literature on this subject. Appadurai (2004) starts his essay on the capacity to aspire by observing that culture is most often associated with traditions, heritage and habits, meaning a cultural actor is a person of the past as opposed to an economic actor, who is a person of the future interested in needs, expectations, calculations and development. Appadurai wishes to bring back the future in the cultural models using the concept of aspirations as a cultural capacity. In order to do so, he reminds us that first, aspirations are closely linked to wants, preferences, choices and calculations which are future-oriented economics terminology, and second, that aspirations are formed in "interaction and in the thick of social life" and thus are related to the cultural norms of the society. Aspirations about a good life or a good job exist in every society, but each are different and based on the "map of local ideas and beliefs" present in the local societies. The author then analyses the links between aspirations and poverty. He argues that the poor have a smaller capacity to aspire because they have less knowledge of the relationship between aspirations and their outcomes as they have less possibilities to explore and try different paths. Every project that has as a goal to ameliorate the situation of the poor should in his eyes prioritise the capacity to aspire for the poor. Inspired by the work of Appadurai, Ray (2006) builds up on his theory and defines three important concepts, the aspirations window, the aspirations gap and the aspirations failure. The window can be seen as the group of similar or attainable individuals who are in the individual's environment. The concept of aspirations window is that individuals form their aspirations based on the people in their window, i.e their situation regarding wealth, occupation, ideals etc. As Bernard and Taffesse (2012) put it, the aspirations window is constructed by "the individual's observation of his or her peers to form comparisons, as well as of the information and economic opportunities of the local environment". Ray defines the aspirations gap as the difference between the standard of living that is aspired to and the standard of living that one already has. He argues that individuals who have a small aspirations gap will not have enough incentive to invest in their future, as the expected benefit is too small. Similarly individuals who have a very large aspirations gap will not have an incentive to fill it either, since they believe their goal is unattainable. Taking the argument further, he states that the window must be widened if the goal is to increase self-betterment but, the window cannot be too large in order to avoid frustrated aspirations. Finally, a failure of aspirations occurs when the individuals do not achieve their aspirations. Ray analyses the effect of aspirations on poverty in a polarised society in which there are poor and rich individuals. He concludes that either the rich are in the poor individuals aspirations window but the gap is too large leading to frustration and envy, or the rich are

simply not in the window of the poor, which leads to fatalism and a self-sustaining poverty trap.

Aspirations in practice: Risso Brandon and Pasquier-Doumer (2015) apply Ray's framework to *Young Lives* data in Peru, in order to find out if aspirations failures explain the existing poverty trap of the indigenous people of Peru. Their findings suggest that the aspirations of indigenous and non-indigenous are similar, but the gap is much larger for the former. As children grow up, the disincentive to fill the gap becomes larger and their efforts at school decrease. The authors find that children, with low educated and poor parents, lower their aspirations, whatever their age and the effect is even larger as children grow older, since they may become more aware of the efforts needed to fill the gap. Bernard and Taffesse (2012) analyse aspirations failures, fatalism and poverty traps in Ethiopia, using the framework provided by Ray (2006). They remind us, that the poor often make choices that are not coinciding with rational economic thinking. While there are sometimes very high returns to some investments, the poor do not make them, which can be explained by market constraints, government taxation but also by social constraints, as Ethiopians often have to share the return of their investment within their community. They define fatalism as the absence of investment in order to improve one's well-being and using survey questions on locus of control related to destiny and luck, find evidence of fatalistic beliefs in Ethiopia. The authors find that a narrow aspirations gap and external locus of control explain the fatalism present in Ethiopia. Bernard *et al.* (2014) find that this kind of fatalism in Ethiopia can easily be altered: when subjecting poor Ethiopians to a documentary on the success story of individuals with the same background, the savings, credits, school enrolment and education spending of these individuals increases.

There is not a lot of literature analysing the determinants of aspirations coinciding with actual outcomes. Using data on aspirations and achievements of gifted children collected in 1926, Trice and McCallen (1993) find that, if the ability of the child is not a constraint, the aspirations are a very good predictor of early adulthood occupations. The authors observe that there is an exact match for 46% of boys aged 14 to 17 and 27% for girls the same age. Tafere (2014) does a qualitative and quantitative analysis on Ethiopia using *Young Lives* data and finds that young Ethiopians have high aspirations in regard to the level of education they wish to receive. His results thus suggest rather the opposite of fatalism, result observed by Bernard and Taffesse (2012), as young Ethiopians believe that working hard leads to an improvement of their situation. According to Tafere, young Ethiopians do not suffer from an aspiration deficit, but the problem is that their aspirations are not met, since the job market in Ethiopia does not demand a high amount of graduates. Tafere explains that some authors think that the role of the authorities in this matter is to reorient the aspirations towards more realistic ones, as a developing country like Ethiopia cannot absorb a huge amount of skilled graduates. The author thinks that lowering the aspirations of young people leads to the lowering of achievements, which is not a desirable solution. A better solution would be for the government to respond to the aspirations of the young Ethiopians and move faster in helping them fulfil their aspirations. It is important, in order to avoid lowering the aspirations of the future generations, to act fast, since frustrated graduates who are forced to return to farming are in the aspirations window of younger people.

Interestingly, some authors suggest that aspirations failures can lead to social unrest. In her summary of the literature on poverty and aspirations, Flechtner (2014) highlights, among others, the danger of high aspirations and high education in a country without job opportunities, which leads to frustration and unrest. According to Flechtner, some authors explain

the Arab spring as the consequence of failed aspirations: these countries are characterised by a growingly educated young population with little economic perspective or opportunities. The authors suggest, that these aspiration failures, in the sense that the individuals cannot exercise the job they studied for, lead to frustration and social unrest. This notion of frustration is also taken into account by Genicot and Ray (2014), in a paper, which studies the investment and growth in an aspirations framework. They argue that aspiring for incomes which are not much higher than the current ones lead to increased investments and growth but aspirations that are too high lead to frustration and a decreased incentive to invest.

Wydick *et al.* (2013) find that the international child sponsorship known as the Compassion International program, which focuses among other things on raising children's self-esteem and aspirations, increases the years of completed schooling by the individuals. They suspect that the results are driven by the higher aspirations and self-esteem of the children. In a follow-up study, Glewwe *et al.* (2016) confirm that the Compassion International program effectively raises the children's hopes, but also their self-efficacy and happiness, by analysing self-portraits drawn by the children. More recently, Favara (2016) analyses if aspirations coincide with educational attainments in Ethiopia and if, as she puts it, "dreams come true". Similarly to Tafere (2014), the author uses the *Young Lives* data of Ethiopia. First, she confirms Appadurai's theory that people living in poverty have lower capacities to aspire: children as well as their parents aspire to a lower level of education, if they come from poorer households. The author observes positive correlations between the aspirations of children and their educational attainment. As the author points out, citing psychological studies, children and parents believe their aspirations are rigid, but in fact they are constantly adjusted by the changing environment and events shaping their lives. Previewing the next paragraphs, such events could be the exposure to civil war and other forms of violence which, we believe, affect the aspirations and their fulfilment.

Violence and civil wars: We first review the effects of violence on children before continuing with the analysis of the effects of domestic violence and finally present the literature on civil war and armed violence. Himaz (2013) analyses the effect of a parent's death on childhood outcomes, using *Young Lives* data in Ethiopia, and finds, that it can have a negative impact on school enrolment and scores, but also on the optimism towards the future. In such a situation, it is probable that the aspirations are revised, or that the individual is forced to follow a different path than the desired one. The effects of war and terrorism on children have been highlighted by Pine *et al.* (2005), who find that a lot of children affected by the war, or displaced in refugee camps, experience post-traumatic stress disorder which could certainly modify their aspirations and their outlook on life.

Verwimp and Van Bavel (2013) study the effect of conflicts on schooling and gender gap. They find, that being exposed to violence as a child, reduces the probability of completing primary school. For girls coming from non poor households, the authors find that the gender gap, which is important in Burundi, is reduced. The possibility to complete ones education is an important factor in achieving one's aspirations. The negative effects of violence on education can reduce the chance of having one's aspirations coincide with one's outcomes, as jobs outside of agriculture require a certain amount of schooling. Also concerning Burundi, Akresh *et al.* (2009) find, that being exposed to the civil war reduces the height for age z-score, a measure of the children's health. This can be explained by the displacement caused by the civil war, which exposes the

children to water and vector-borne diseases, but also by theft and burning of crops which affects their nutrition.

As Reading (2008) finds in his review of the literature on the effects of domestic violence on children, growing up in a violent household can lead to a damaging of their self-esteem as well as to trauma and distress. Additionally, he highlights the intergenerational transmission of violent behaviour and the reproduction of violence by the children outside the household and throughout their adult lives. Not all children are equally affected and some are not at all. The latter is particularly true for the children which have a non-violent adult attachment. Knowing this, one would expect a negative impact of domestic violence on the coinciding of aspirations and occupations, since the child may lack the necessary self-esteem to pursue his aspirations.

The effects of the Burundian civil war on psychological distress have been analysed in Familiar *et al.* (2015), in which the authors observe significant amounts of depression and anxiety symptoms, which are more accentuated during the conflict than after. Voors *et al.* (2012) attempt to understand, with a field experiment, the effect that violence can have on an individual's preferences. They argue, that contrarily to other social sciences, in which it is accepted that external shocks, like exposure to violence, can alter your outlook on life, the preferences are fixed and exogenous in the standard economic theory. However, their results support endogenous preferences, as they find that exposure to violence leads to more altruistic behaviour, increased risk seeking and a higher preference for the present. For our research question, this last result could mean less incentive to invest time, money and efforts in order to realise one's aspirations. Being exposed to a brutal civil war and living in a constant uncertainty and fear due to extortion, theft and violence by armed groups was the situation of many Burundian individuals. Therefore, in light of the aforementioned literature, we believe that Burundi is an interesting starting point in order to study the aspirations and the outcomes of individuals exposed to such an environment.

3 Recent history of Burundi

Burundi is a small country in eastern Africa with 11 million inhabitants and a GNI/capita as low as 270 US current dollars² in 2014, making it one of the poorest countries in the world. The main economic activity is subsistence agriculture. In 1965, three years after the country's independence from Belgium, a group of Hutu led an unsuccessful coup, which resulted in a complete exclusion of the Hutu from the Burundian government and army. This event marked the beginning of the domination of the Tutsi minority over the Hutu.

In 1972, following a Hutu rebellion in which many Tutsi were killed, the Burundian army retaliated and brutally killed between 80,000 and 200,000 Hutu. The army systematically killed the Hutu intellectuals and the survivors fled the country. In the eighties, Hutu uprisings killed several thousands of Tutsi and the government once again retaliated by killing around 20,000 Hutus. Pressured by the international community to reconcile the two groups and to stop the Tutsi domination, the President appointed several Hutu to the government and the first democratic elections were held in 1993 resulting in the election of a Hutu President, Melchior Ndadaye. His reformist agenda was not appreciated by the vested interests in the army.

²Source: The World Bank, World Development Indicators. Retrieved from: <http://www.worldbank.org>. Consulted on the 25th of July 2016.

A group of Tutsi murdered the newly elected President, which resulted in a Hutu uprising and a retaliation by the army. After a few weeks the number of victims reached between 50,000 and 100,000 people, but many more fled the country in order to survive. The civil war that followed lasted from 1993 to 2005 and resulted in a cumulated decline of 30% of the GDP in a decade.

The civil war can be characterised as a low technology war in which rebels and armies rarely confronted each other but attacked the civilian population instead. Burundi is a country with a geography that makes it difficult for an army to occupy and which provides many places for rebels to hide. The young Tutsi would join the army and the young Hutu the rebels. Sabates-Wheeler and Verwimp (2014) explain the extortion mechanism put in place by the rebels in order to finance their rebellion. They would demand cash or in kind contributions but also impose forced labour, typically by stopping buses passing through their territory or by going from home to home in occupied villages. This created a constant insecurity and fear among the population for over a decade. Bundervoet (2010) explains that the rural areas in Burundi lack properly functioning financial systems, meaning farmers have to accumulate capital in form of livestock, a highly risky asset in wartime. It was not difficult for rebels to steal or destroy a farmers total savings. Akresh *et al.* (2009) point out, that the number of livestock per household fell from 2.37 before the war to 0.42 in 2001. The individuals owning livestock were not the only ones to suffer losses during the civil war, as the rebels burned crops and coffee trees in order to diminish the central governments income, constituted in a large part by the taxation of these crops. The people of Burundi thus went through repeated episodes of extreme violence, uncertainty and deprivation and we will show how these events have impacted their aspirations and outcomes.

4 Description of the data

4.1 Origin

For the present study, we will use the two waves of a longitudinal study, in which households in Burundi were interviewed in 2005 and in 2014. The first and main part of the analysis uses the CARENT (from care-parents) questionnaire that was fielded in the second wave. This has been conducted thanks to a partnership between UNICEF and the Université Libre de Bruxelles (ULB). In total, 2,050 households were interviewed. Of these, 628 are split-off households, meaning they are newly founded households between 2005 and 2014 by members of the 2005 households. The focus of the CARENT questionnaire lies on the attitudes and practices parents have regarding their children. The main questions that will be used in this paper are the ones regarding aspirations, occupations and exposure or participation to/in different types of violence.

In a second part of our analysis we include the first wave of the data, the Multiple Indicator Cluster Survey (MICS), collected in 2005. The MICS contains additional important background information on the situation of the households in 2005. In order to analyse the influence of parental wealth and education on our variables of interest, we will only use the 2005 data on the subset of split-off households, which answered the survey questions of 2014 on aspirations, outcomes and violence and were still living in their parental household in 2005.

Of the 2,050 households that were interviewed, not all can be used in this paper. The reason for this is that in some households more than one individual answered the survey, which means that we cannot link the survey answers on aspirations

and violence to a unique individual's background information, such as the occupation or the gender. From here on, we work on a subset of the data for which we can merge the survey answers to the individual characteristics. This subset is composed of 1,657 individuals, of which 504 come from split-off households. Of these 504 individuals, 491 could be merged with their parental household in 2005 and 13 could not be matched.

4.2 Occupational aspirations and outcomes

The interviewed individuals were asked the following question: *When you were a child, did you have any expectations regarding your future occupation? If yes, which occupation did you want to do?*³. Only 801 individuals, 60% of which being women, answered the first part of the questions. These people were given 13 categories to choose from⁴. The answers to this question is what we refer to as occupational aspirations. We understand occupational aspirations as the occupation the child wishes or hopes to exercise as an adult. This preference for a futur occupation is a function of many things such as the occupations of the individuals in the aspirations window, the availabilty of the occupation in the area you grow up in, your knowledge of the existence of the occupation, the prestige or salary the occupation provides, but also individual characteristics such as aspects of your personality like being ambitious, motivated, optimistic, having high self-esteem and internal locus of control, etc.

By looking at the distribution of the individuals inside the categories, it was clear that the categories could be summed up into fewer ones, which can be seen in Table 1. Agriculture is divided into two categories, the first one includes producers of crops that are exported, such as coffee or cotton, and the second one does not produce any crops for export. Public and para-public jobs are summed up into one category and both agricultural and non agricultural private sector employees as well. The category "Other" includes the remaining, less popular, categories. We have information on the occupational outcome variable for 1,545 individuals out of the 1,657. A first result of the present paper is that 92% of the individuals end up in the agricultural sectors, whereas only 37% aspired to them. The most aspired category is the public and para-public sectors, with 35% of aspirations but with only 1,50% of outcomes. We believe that the public sector is the most popular category, because, in theory, it should lead to higher and more stable wages in comparison to agriculture. Other categories cannot be neglected, since almost 60% of the individuals wanted a different future than agriculture.

Table 4 of the results section shows the aspirations and outcomes by gender, and we can see that aspirations are not highly different for girls and boys. Both wish to work in the public and para-public sector, but girls seem slightly more attached to the agricultural sector, while boys aspire more to be employed in the private sector (cat.6) and in trade (cat.7). From the two variables aspirations and outcomes, we constructed a binary variable equal to one if the aspirations coincide with the outcomes. There are 748 observations for which we have both information: the aspirations and the adulthood outcomes. From the Table 3, which summarises all the variables, we see that the mean is 0.32, suggesting that for most individuals their aspirations are not met. We find, that the aspirations are met for 34% of the girls and 30% of the boys.

Table 5 shows the row frequencies of the childhood aspirations and their occupational outcomes. This simple table allows us to see one of the most important results on aspirations coinciding with outcomes in Burundi of the present paper: A given

³Free translation from the french questionnaire, questions 10.6.Q1 and 10.6.Q2a.

⁴For more information on the initial categories and distribution of the individuals see, Table 47 in the annex.

cell x_{ij} tells us how many individuals have the occupational outcome of the column j , knowing they had the aspiration of the row i . We can see, for example, that 50% of the individuals who wanted to work in agriculture with an export crop (cat.1), actually end up in that category. The diagonal of the table shows the percentage of individuals for whom the aspirations coincide with the occupational outcomes. We can see that wanting to work in agriculture without an export crop, leads, with a probability of 84%, to work there. Only 5% of the 259 individuals wanting to work in the public sector (the highly aspired cat.4), work there as adults. The main result of this analysis is that if you do not wish to work in agriculture, there are good chances that it will lead to aspirations failures.

[Table 5 here]

Since agriculture is the main activity of over 85% of households in Burundi and since our sample is predominantly rural, it is safe to assume that almost all individuals in the sample grew up in an agricultural household. Using this information, we also want to understand the determinants for wishing to leave agriculture, which brings us to the construction of a second variable: a binary variable equal to one if the individual aspired to a different category than the three agricultural occupations (cat.1-3). We believe, that for most individuals in our sample, aspiring to anything outside of agriculture can be seen as a wish to leave poverty and thus as having high aspirations, while wishing to work in agriculture can be seen as having low aspirations. For this variable, we have 801 observations of which 58% wanted to leave agriculture as children distributed as 56% of girls and 62% of boys, which suggests girls have slightly lower aspirations than boys.

We constructed a the third variable based on attitudes towards working. The individuals were asked to choose between the four categories "Very important", "Important", "Of little importance" or "Not important" ⁵, for the following questions: *Do you think it is important to have a job you like? Did your parents think it was important?*. The answers are highly skewed and we therefore created a dummy variable equal to one if the individuals answered "Very important", and equal to zero if not. We have 1,608 observations for this question and 78% of the individuals think it is very important to have a job that they like, with almost no gender effect. The individuals recalled that only 52% of their parents believed this to be very important. We will use these variables in order to have a broader understanding of the psychological effects and the shaping of the attitudes towards working, when individuals grow up in a violent context.

4.3 Exposure to Violence

The interviewed individuals were asked several questions concerning their exposure before the age of 18 to violence at home, at school and in the society. Additionally, they were also asked if they had participated in violence themselves. The main variables of interest are the armed violence variables, but we will try to capture each of the four dimensions of violence in our models. The following bullet points summarise the different questions of the survey that were used for the different dimensions of violence⁶. For each of the statements the individuals answered if they had lived the experience "One time", "A few times", "Many times" or "Never" in the first 18 years of their lives.

- *Armed Violence:*

⁵Free translation from the french questionnaire, question 10.6.Q3.

⁶Free translation from the french questionnaire, the original questions can be found in the survey questions 10.2.3 and 10.2.4.

- You had to move because of a conflict/war. (Armed Violence 1)
- You assisted to the destruction of your house. (Armed Violence 2)
- You were the object of violence by soldiers, militia, the police or other armed groups. (Armed Violence 3)
- You have lost a family member because of violence perpetrated by soldiers, militia, the police or other armed groups. (Armed Violence 4)
- Domestic Violence:
 - You have been insulted, humiliated by a household member. (Domestic Violence 1)
 - You have been injured by an object used violently against you by a household member (for example, knife, bottle, stick). (Domestic Violence 2)
 - You have been beaten, hit by a household member. (Domestic Violence 3)
 - You have been abandoned or threatened to be abandoned by a household member. (Domestic Violence 4)
- Violence at school
 - You have been maltreated in school.
- Participation in violence
 - You have taken part in combats, fights and other forms of physical violence.

Figures 2, 1 and 3 show the distribution of answers to the above questions. Regarding armed violence, having to move because of a conflict or a war is very present and more or less 400 individuals reported that they had to move "Many times". The distribution of the fourth armed violence question is also rather impressive, as over 200 individuals claim to have lost family members to armed groups "Many times", which comes as a reminder of the long lasting and brutal civil war that ravaged Burundi, in which civilians were the main victims. The first and the last questions on domestic violence represent psychological violence, while the second and third represent physical violence. Being beaten by a household member, which is the most severe form of violence covered by the four domestic violence questions, seems to happen quite frequently. Not many individuals claim to have suffered from violence at school while a lot participated in violence themselves. Due to the highly skewed distribution of the answers, we chose to construct binary variables for each question equal to one if the individual was exposed at least once, and equal to zero otherwise. These binary variables are summarised in Table 3.

Since it is also of interest to capture the effect of the intensity of violence an individual has been exposed to, we build an armed violence score and a domestic violence score. The methodology is the following: for each question we modify the ordering of the questions to have 0 = "Never", 1 = "One Time", 2 = "A few times" and 3 = "Many times". To build the armed violence score, we add the four questions on that matter, which gives us a score ranging from 0 (no exposure) to 12 (maximum exposure for each question). The same methodology is applied to construct the domestic violence score. These new variables give us the possibility to control for each question of the domestic and armed violence at once, without losing information on the intensity of violence. The histograms are reported in Figure 4 and the detailed frequency distribution can be found in Table 6. 37.5% of the sample reported no domestic violence and 32% no armed violence. The mean of the armed

violence score is 2.95 and the mean of the domestic violence 2.63. Almost 3% of the sample reaches the maximum score on all the armed violence questions.

Before continuing, we present several descriptive tables summarising our data on aspirations, outcomes and violence, which are useful to understand our econometric results.

In Table 9 we show cross-tabulations of aspirations, outcomes and violence. Aspirations to be employed in agriculture (without exporting crops) are lower when individuals are exposed to domestic violence, as are the aspirations for the public and para-public sectors. A high exposure to domestic violence seems to be coupled with high aspirations to the category one, agriculture with export crops. The outcomes on the other hand seem much less affected by the different categories of domestic violence. Looking at the armed violence score, we see that aspirations to be employed in agriculture (without exporting crops) are twice as small for the highest scores. The aspirations to be employed in agriculture with export crops (cat.1) , in the private sector (cat.5) and in trade (cat.6) are higher if the armed violence score is high. As before, the outcomes seem much less affected by the score. Children exposed to violence at school have higher aspirations for agriculture without export crops. An interesting result, is that when individuals participate in violence, aspirations to both categories of agriculture are higher.

In tables 10 to 12 we show descriptive tables on aspiring to leave agriculture, when exposed to violence. Without making any inferences, we observe that individuals exposed to insult or humiliation (domestic violence 1) and injury (domestic violence 2) have less desire to leave agriculture, and those exposed to beatings (domestic violence 3) and abandoning (domestic violence 4) have more desire to leave agriculture. Looking at the domestic violence score, we observe that individuals with a high exposure to domestic violence have lower aspirations. Regarding armed violence, we find that exposure to the destruction of their house (armed violence 2) and armed violence (armed violence 3) is coupled with higher aspirations. Individuals with an armed violence score between 1 and 6 have lower aspirations, but individuals exposed to the highest levels of armed violence have the highest aspirations. The individuals participating in violence seem to have lower aspirations, as 47% of them aspire to leave agriculture compared to 63% of the individuals who did not participate. There is also an important gender component, see tables 13 to 16: it seems that domestic violence on girls is coupled with much lower aspirations, as 37.50% of them with a score of 7-12 wish to leave agriculture, as opposed to 69% of boys with the same score. Additionally girls participating in violence are 38% who wish to leave agriculture, while girls who do not participate are 62%. These two important results suggest that we should imperatively control for the gender in our econometric analysis.

The distribution of individuals exposed to violence, for whom aspirations coincide with the outcomes, are reported in tables 17 to 24. 32% of individuals who were not exposed to domestic violence have their aspirations coinciding with their outcomes. The number slightly increases to 33.4% with a score between 1-6 but decreases to 26% for a score above 6. Individuals exposed to the most violent form of domestic violence, being beaten by a household member, are fewer to have matching aspirations and outcomes, as the percentage drops from 36% ("Never") to 23% ("Many times"). For an armed violence score above 6, only 23% of the individuals work in the category they aspired to, as opposed to 34% who were not exposed. Once we look at the different armed violence variables, it seems that there is a downward trend in aspirations coinciding with the outcomes

when the acts of violence occur more often.

Individuals that reported having participated in violence are 41% to have their aspirations met in later life as opposed to 28% that did not participate. We find that 41% of the children exposed to violence at school realise their aspirations, as opposed to 31% for the non-exposed children. In general, it seems that girls fulfil their aspirations more often than boys.

4.4 Satellite data on night lights

As we have seen in the literature, aspirations are shaped by the environment the individuals grow up in. The theoretical model of Ray (2006) suggests that individuals form their aspirations based on the people in their aspirations window. But the kind of people that are in your aspirations window is influenced by many things. Take for instance a child born in a poor commune in which the majority of people are farmers and the access to radios and televisions is limited or non-existent, in such a case it is probable that the individuals inside the aspirations window of the child are also farmers. The way we take this into account is to include the increasingly popular night light intensity in our models, as a proxy for economic development of the communes. This data has been constructed using the National Oceanic and Atmospheric Administration (NOAA) data averaged at the commune level using QGIS⁷. We construct two different variables based on the night light data, the first one is the night light in 1992 - which captures differences in development of the communes before the start of the civil war - and the second one is the average night light during the adolescent years of our individuals. The second one is less preferred as it restricts the sample size given that night light data starts in 1992.

4.5 Fatalistic beliefs in Burundi - Internal and external locus of control

Inspired by the work of Bernard and Taffesse (2012) on fatalism in Ethiopia, we use similar questions present in our questionnaire to highlight the degree of internal and external locus of control in our sample. These concepts are important in order to analyse why aspirations match with outcomes in adulthood. We believe fatalism can be compatible with having high aspirations, but explains why aspirations are not realised, as fatalistic individuals will not believe that their efforts matter to attain their objectives. Internal locus of control is a binary variable equal to one if the individual agrees or strongly agrees with the following statement: *My professional life has been largely determined by my own acts.*⁸ In Table 3 we observe that 70% of the individuals in our sample report having internal locus of control, meaning 30% of the individuals do not believe that their own actions affect their professional outcome. This result can be compared to the one of Bernard and Taffesse (2012), who also found that 30% of their sample showed strong evidence of external locus of control⁹. Agreeing with the four following statements is evidence of external locus of control: firstly, to the statement: *My professional life has been largely determined by the will of god*, 91% of the individuals in our sample agree or strongly agree. Secondly, only 20% agree or strongly agree to: *My professional life has been largely determined by powerful individuals*. Thirdly, 77% agree or strongly agree to the statement: *My professional life has been largely determined by my initial social condition*. and finally, 62% of them agree or strongly agree that: *My professional life has been largely determined by random events*. We thus find evidence

⁷We follow the framework provided by Henderson *et al.* (2012), "Measuring Economic Growth from Outer Space". Any additional information on the data can be found in their paper.

⁸Free translation from the french questionnaire, question 10.6.Q6.

⁹Bernard and Taffesse (2012) derived their results from different survey questions, which were: "To be successful one needs to be lucky" and "To be successful is a matter of ones destiny".

of a high presence of external locus of control in Burundi.

4.6 Parental household - Wealth and level of education

For this part, we use the MICS data of 2005 and focus on the subset of split-off households, as we have explained in section 4.1. To measure the wealth of the parental household, we use a wealth score variable which ranges from -0.59 to 5.80. In order to facilitate the statistical analysis we also use the wealth indicator variable which divides the households into the five following categories according to their wealth score, "Very Poor", "Poor", "Average", "Rich" and "Richest" households, as can be seen in Table 7. To control for the education of the parental household, we use a variable summing up the education of the head of the household into four categories: "No Education", "Unofficial Program", "Primary", and "Secondary". The unofficial program is an adult literacy program called "Yagamukama", organised by churches in Burundi (two days per week). We see from the Table 7 that over a third of the individuals in this subsample do not have any education, another third have primary education and only 14 individuals completed secondary school. 29% of the individuals took part in the adult literacy program.

The last analysis covers the distribution of aspirations and outcomes in the different categories of wealth of the parental household and for the different levels of education of the head of the parental household, which are reported in tables 25 to 30. The wish to work in the public and para-public sectors is linked to the wealth of the household, as only 33% of the very poor wish to work there compared to 61% of the richest. Similarly, 26% of the very poor wish to work in the agricultural category 2 as opposed to 7% of the richest. Regarding the outcomes, there is a clear difference between the very poor and the richest. The former almost exclusively work in the two first categories of agriculture and only 63% of the latter work in these categories. Almost 10% of the children from the richest households work in the public and para-public sectors as adults. It seems that poor individuals have a lower capacity to aspire, as suggested in the literature, since only 57% of the very poor wish to leave agriculture, compared to 85% of the very rich. 32% of the richest have their outcomes coincide with their aspirations, which is a high number considering that 88% aspired to jobs outside of agriculture. Aspirations and outcomes seem rather similar between categories of educational level of the head of household, except for the secondary school. Unfortunately, in this restricted sample, there are only 10 individuals who completed secondary school making an analysis difficult. Nevertheless most individuals in that category aspire to the public sector and all of them outside of agriculture.

5 Methodology

Before going into the details of the methodology used for our econometric regressions, we will present some preliminary results in relation to aspirations and violence variables. In the present paper we avoid making any prediction as what to expect from our results as it is - to our best knowledge - the first study on exposure to violence and occupational aspirations, meaning we don't have any precedent to guide our predictions.

5.1 Difference of means - t-tests

In the tables 31 to 33 , we report the difference of the means, and the associated t-tests, of our variables of interest for individuals who were and were not exposed to violence. In the first one, we show the difference of the means of the binary equal to one if the aspirations are outside of agriculture. Individuals exposed to domestic violence 1 (you have been insulted, humiliated by a household member) and 2 (you have been injured by an object used violently against you by a household member) have significantly lower aspirations. Contrarily to this, we observe that the individuals exposed to armed violence 2 (you assisted to the destruction of your house) and 3 (you were the object of violence by soldiers, militia, the police or other armed groups) have significantly higher aspirations. Individuals claiming to have participated in violence have lower aspirations.

In the second table, we show the difference of the means of the binary variable equal to one if the aspirations match with the outcomes. The domestic violence 2 and 3 (you have been beaten, hit by a household member) variables move in opposite directions. It seems that being injured by an object used by a household member increases the probability of coinciding aspirations and outcomes, while being hit or beaten directly by a household member decreases this probability. We will come back to this in the results section. The difference of the means for armed violence 2 to 4 (you have lost a family member because of violence perpetrated by soldiers, militia, the police or other armed groups) are positive and significant, suggesting that individuals exposed to armed violence have a lower probability to have matching aspirations and outcomes. Both participation in violence and violence at school seem to increase the probability of working in the aspired field. We apply the same methodology to a third variable, which is a binary equal to one if the individual believes that it is very important to do a job he or she likes, reported in Table 33. Domestic violence and participation in violence seem to have an overall negative impact on the belief that individuals should do a job they like. Armed violence and violence at school have the opposite effect and increase the probability that individuals believe it is very important to do a job they like. In order to do a more complete and rigorous analysis of the link between violence and aspirations, we will perform logistic regressions, which brings us to the next section.

5.2 Logistic analysis - 2014 data

The first set of regressions on the last wave of the data is based on the following model:

$$Pr(Y = 1|X, C, \lambda) = F(\alpha + \sum_i \beta_i X_i + \sum_j \mu_j C_j + \lambda)$$

With Y being the dependent binary variable which is equal to one if the latent variable $y^* = \alpha + \sum_i \beta_i X_i + \sum_j \mu_j C_j + \lambda + \varepsilon$ is above zero, F the logistic function, X_i the violence related variables¹⁰, C_j being the control variables and finally, λ the province fixed effects and ε the error of the model. The standard errors are clustered at the sampling level. In order to facilitate the interpretation of the results we add the marginal effects when all other variables are at their means for the main regressions.

The following framework is applied to the regressions on our two main binary dependent variables, the first one identifies if the individual aspired to an occupation outside of agriculture and the second identifies if the aspirations coincide with the outcomes. In the main specifications, we include the main variable of interest - armed violence - alongside with the domestic violence score, the participation in violence and the violence at school binary variables and we control for the age, the gender and the satellite night light intensity at the commune level. The difference between the regressions is the way we include the armed violence variables. In the first part, we will look at the effect of the armed violence scores on our dependent variables in order to have a global overview. Here, we will present the results with and without fixed effects, but for the remaining tables we will systematically include fixed effects. In the second part, we will analyse the four armed violence variables separately. We have 799 observations for the regressions on the first dependent variable, which correspond to the 801 individuals who answered the aspirations questions minus two for which we do not observe the age. For the second dependent variable we have 746 observations, which correspond to the 801 individuals, who answered the aspirations questions minus 53 on which we do not observe the outcomes and two, for which we do not know the age.

In order to have a more complete understanding of the effect of violence on the attitudes the individuals have towards working, we perform a secondary analysis on a third dependent variable which is a binary identifying if the individual thinks it is very important to do a job he or she likes. For this part, we will not go into details and only include the armed violence score. Additionally to the other violence variables, the gender and the age, we control for the fact that the parents of the individual also thought that it is very important to do a job that one likes. For these regressions we have 1,146 observations, which correspond to the 1,608 individuals who answered the questions on attitudes towards working minus 459 individuals who did not recall the attitude of their parents and minus 3 individuals for whom we do not have information on their age.

5.3 Potential threats to the analysis

We are aware of several potential threats to our analysis. The first one is the possible endogeneity in the model, as the domestic violence and the participation in violence variables could be correlated with the error term. Before discussing the potential endogeneity issue between exposure to domestic violence and childhood aspirations, we first outline the case for the exogeneity of armed violence towards childhood aspirations. Voors *et al.* (2012), have extensively documented the

¹⁰In Table 8 we show the correlation matrix of the violence variables.

near-exogeneity of armed violence towards household characteristics and local economic conditions in Burundi's civil war. In their quantitative work, no systematic correlation appears between, on the one hand, violence exposure during the civil war and, on the other hand, the socioeconomic characteristics of households and their localities. As Voors *et al.* (2012) infer the effect of armed conflict on a set of behavioral outcomes such as risk aversion, social behavior and time preferences, a domain of research that is close to our own work on aspirations, we feel on safe ground to argue for the same near-exogeneity of armed violence and aspirations. Hence, the risk that the estimated effects will be driven by the non-randomness of violence or 'selection into violence' is low. However, it is possible that variables captured in the error term have both an impact on the aspirations / their realization and on the occurrence of domestic violence / participation in violence. The main variables that can lead to domestic violence (and participation in violence) and at the same time have an impact on the aspirations of the children are, in our eyes, the income, the education level, the employment status, the matrimonial status, the mental health and the abuse of alcohol or drugs of the parents. For the subset of split-off households, we have the possibility to compute the correlations between the domestic violence / participation in violence variables and the majority of variables captured in the error term and potentially causing endogeneity, namely the wealth score, the education level, the employment status and the matrimonial status of the parents. The highest correlation is below 10% and the majority of correlations are below 2%. This result suggests that, for the observable variables influencing both domestic violence / participation in violence and the aspirations of the children, there is very little evidence of endogeneity based on the subset of split-off households. Since the difference between a surveyed individual coming from a split-off household and one from a regular household is the age of the individual, we believe that the generation should not have a major influence on the computed correlations, meaning the result can be generalized for the complete sample.

A second threat to our model is a possible omitted variable bias. For our main model, we do not include the parental characteristics mentioned in the previous paragraph that could explain aspirations, since these variables are only available for the small subset of split-off households in our sample. To control for this potential threat we perform a second set of regressions on the split-off households in which control for the income and the education, as we discuss in the following section. However, even if we had additional covariates at the parental level for which we could control for, we face the constraint of a lower number of observations in our split-of sample, which sets a constraint on the number of covariates one can introduce in the analysis, a problem (and our approach to it) that we describe in detail in section 5.4 below.

Another threat could arise from the recall of aspirations held in childhood by our adult respondents. The recall problem, or more precisely the problem of selective memory, would only pose a threat in the event that exposure to violence in childhood would systematically affect the recall of the aspiration held as a child. If that would be the case, the aspirations stated to the interviewer would have a violence-exposure bias and the researcher would erroneously believe that the aspirations expressed during the interview are a correct representation of the person's real aspirations. While we cannot exclude this possibility completely we have no indication that this issue affects our data. In particular, we have no evidence that respondents exposed to violence in childhood 'lied' to the interviewer (intentionally or not) while the non-exposed did not. A problem related to the recall is that children can go through several different phases of occupational aspirations that can change during childhood. Again, to the extent that there is no systematic bias in reporting between exposed and non-exposed respondents, the issue

should not affect our results. For exposed as well as non-exposed, we believe this is not an issue of concern because we only have seven broad categories of occupations. It is thus highly likely that the expressed aspiration applies to a category of occupations rather than one specific occupation (e.g.'teacher' could also be 'journalist'). Hence, changes over time within a category should not matter. This is particularly the case for the analysis on leaving agriculture as the aspirations are only in two categories, in - or out- of agriculture.

A related issue to this last point is the recall questions for both violence and aspirations questions, disabling us from knowing which happened first. The first reaction would be that we could only infer causality if violence happened before the formation of aspirations. But as we have said in the previous paragraph and seen in the literature, there is no such thing as definitive or rigid aspirations. Aspirations evolve constantly and are shaped by the events in the lives of the individuals. This means that if a child has an idea of what he wants to do in his life at age 12, and, at age 13, he or she is exposed to a form of armed violence, occupational aspirations can still be adapted as a response to the shock. Taking this into account we believe it does not matter that we do not know at which moment in time the individuals were exposed to violence in their youth since an adaption of the aspirations is always possible after the shock. For this reason we feel confident about inferring causality between an exogeneous armed violence exposure and occupational aspirations.

5.4 Logistic analysis, attraction/repulsion matrices and correspondence analysis - 2005 data

As explained earlier, we work on the subset of split-off households for this part, since for these individuals we have information on the aspirations, outcomes and violence variables and additionally, we know that they were still living in their parental household back in 2005. The idea is to control for two important variables which should explain our dependent variables, namely the wealth and the level of education in the parental household. Unfortunately, we have an additional constraint, which is the small number of observations. As we have stated earlier, we have 491 split-off households that could be merged with their parental households and of these, 254 answered the aspirations questions. There has been some debate in the literature about the minimal amount of observations required for a logistic regression. Peduzzi *et al.* (1996) use Monte Carlo simulations to analyse how the number of events per variable (EPV)¹¹ impacts the accuracy of the estimation of the coefficients. They find, that as the EPV gets smaller, in particular from 10 downwards, there is an increasing probability to have inaccurate estimations of the coefficients. If we take as a rule of thumb a minimum of 10 events per variable, we can verify, using the following formula, if we have a sufficient amount of observations to perform logistic regressions: $N = 10 * \frac{k}{p}$ with k being the number of covariates and p the smallest proportion of either positive (1) or negative (0) observations of the dependent variable¹². For the different dependent variables that we use, p is around 0.25 in our subsample of split-off households and the number of covariates ranges from six to 22 once we control for the provinces. The range of observations necessary using this formula would be between 240 (no fixed effects) and 880 (fixed effects), meaning we will present the results with and without province fixed effects¹³. The variable *violence at school*, which as we will see does not impact the results for the 2014

¹¹The EPV is defined as the smallest number of positive or negative events of the dependent variable divided by the number of covariates: $\frac{n_0}{k}$.

¹²This formula can be derived from the EPV definition: $\frac{n_0 N}{k} = 10 \iff \frac{pN}{k} = 10$.

¹³For the regressions in the first part of the analysis, the number of observations fulfils the rule of thumb requirements, since p is at least 0.32 and k at most 22, leading to a minimum sample size of 690.

regression, will not be included in the regressions in order to have the smallest k possible.

This being said, we use the same logistic framework as the one presented in the previous section, minus the violence at school variable and focus only on the domestic and armed violence *scores* as the goal is to highlight the effect of the wealth and the education of the parents. For starters, we perform the regressions without wealth nor education on the subset of split-offs, in order to find out if the previous results still hold in our subset. We then perform four different regressions: two on each dependent variable, one adding the wealth score of the household and one adding the education level of the head of the household. There are four binary variables identifying the level of education of the head of household. We include "Unofficial Program", "Primary" and "Secondary" and compare it to "No Education". The number of observations for the regressions range from 241 to 253.

Since we have the strict minimum number of observations for our regressions we also perform an additional statistical analysis to support the logistic regressions and in particular highlight the wealth and education effect of the parents. We use attraction and repulsion matrices (ARM) and correspondence analysis (CA). For this type of analysis, we need categorical variables, which is the reason why we use the wealth indicator instead of the wealth score for this part. An ARM is a matrix constructed using the relative frequencies and the expected relative frequencies under the independence hypothesis.¹⁴ The element jk of the matrix is defined as $d_{jk} = \frac{f_{jk}}{f_{j.k}} = \frac{f_{jk}}{f_j \cdot f_{.k}}$. The interpretation is that if, $d_{jk} > 1$, the categories of j and k are attracted to each other, since the observed frequency is larger than the predicted frequency under the independence hypothesis. Similarly, if $d_{jk} < 1$, the categories are not attracted to each other. By applying this to the question of interest, we wish to analyse, which types of wealth / education of parents lead to which kind of aspirations and occupational outcomes of children. To complete the analysis, we perform a correspondence analysis, which is a method to simplify the interpretation of the data by representing tabular data graphically.¹⁵ The method summarises our categorical data into a much simpler graphic. The interpretation of the graphical display is the following: in order to know to which other categories a given category A is attracted to, we draw a line from the origin to the category A and a second line perpendicular to the first one going through the origin. Every category on the same side of the second line than the category A is attracted to it and the ones on the other side are repulsed by it. To facilitate the interpretation, we have drawn these two lines for the first correspondence analysis biplot for the category "Very Poor".

6 Results and discussion

6.1 Part I: Exposure to violence

ngo.lu *Dependent variable 1: Leaving agriculture*

We begin the analysis by applying our framework to our first dependent variable, which is a binary variable taking unity if the individual wished to leave the three main agricultural fields as a child. As a reminder, the wish to work in a different

¹⁴Dehon, Catherine. *Applied Multivariate Statistical Analysis (STAT-S-401)*. Université Libre de Bruxelles, 2014.

¹⁵Greenacre, Michael. *Correspondence analysis in practice*. CRC press, 2007.

sector than agriculture, can be seen as a wish to leave or escape agriculture, since the large majority of children grew up in agricultural households. This can in turn be seen as having high aspirations. We start of with Table 34, which solely reports armed violence variables, of which we can plausibly be confident that they are exogenous to the formation and realization of aspirations. Adding province fixed effects we see that the global score is positive and significant at the 10% level and Armed Violence 2 (Destruction of the house) and 3 (Direct violence by armed forces) at 5% and 1%.

[Table 34 here]

Analysing Table 35, we only find participation in violence to be significant at a 1% level and, once we add the fixed effects, the armed violence score is significant at a 10% level. The domestic violence score is not significant but it is positive. The results also suggest that girls have a 20% lower probability of wishing to leave agriculture. The luminosity at night in 1992 is positive but not significant once we add province fixed effects¹⁶.

[Table 35 here]

Using the specific questions on armed violence instead of the score, we can see from Table 36 that the domestic violence score is positive, but not statistically significant. As before, participation in violence is negative and highly significant. Armed violence variables 2 to 4 are all positive and significant at a 10% level. Being exposed to armed violence seems to result in children having higher aspirations.

[Table 36 here]

Dependent variable 2: Aspirations coincide with outcomes

As before, we start by showing the results including only the armed violence variables, with and without fixed effects, in Table 37. The dependent variable is a binary variable taking unity when the aspirations coincide with the outcomes. All the armed violence variables have a negative and highly significant impact on aspirations coinciding with outcomes.

[Table 37 here]

In the fully specified model shown in Table 38, we find that all our violence variables are significant, except violence at school. Individuals exposed to domestic or armed violence see their chances of fulfilling their aspirations decrease. The magnitudes of the coefficients being similar, we find that a score of 10 on the domestic or armed violence score would imply a reduction of about 17% in the probability of aspirations coinciding with the outcomes. The participation in violence coefficient is positive and significant at a 1% level and suggests, that individuals, who participated in violence as children, are more likely to work in their aspired field. Being a women and being older, both increase the probability of working in the aspired category. The night light variable is significant and positive, suggesting a higher probability of matching aspirations and outcomes if

¹⁶An alternative specification is provided in Table 48 in the Annex, in which we average the night light at the commune during the youth of the individuals (12-18 years) in order to control for the fact that night lights can change over time. As we have said earlier, this restricts the number of observations since night light data is only available after 1991. The results for the variables of interest are similar.

you live in a more developed commune¹⁷.

[Table 38 here]

Once we isolate the armed violence questions in Table 39, we find that all armed violence questions are negative and all are significant, except the first one. The magnitudes of the coefficients are almost equal and suggest that an exposure to the different acts of violence decreases the probability of realising aspirations by around 11%. The variables used in the first model keep their significance levels and have similar magnitudes.

[Table 39 here]

Dependent variable 3: Doing a job that one likes

In this last set of regressions, we will apply a similar framework to a third dependent variable, which is a binary variable taking unity when the individuals considered it very important to have an occupation that they liked. All the variables, except gender, age and night light, are significant. Interestingly, domestic and armed violence coefficients move in opposite directions. Having a score of 10 on the domestic violence score decreases the probability of thinking that one should have an occupation that one likes by around 9% and having a score of 10 on the armed violence score increases that probability by around 11%. The binary variable identifying violence in school is highly significant and positive. The results suggest that being exposed to violence at school increases the probability of the dependent variable by around 20%. Participating in violence decreases the probability by around 6%. When the parents also think that it is important to do a job one likes (as reported by the individuals), there is a 22% increased chance that the individual does as well, which suggests an intergenerational transmission of such values.

[Table 40 here]

6.2 Part II: Wealth and education of the parents

We begin by analysing the two main regressions of the previous part, when applied to the subset of split-off households. Participation in violence and age are significant at a 5% level and the other variables have the same sign as before, but are not significant anymore. Either, it is caused by our reduced number of observations, which, as we have suggested in the methodology, can make our results less precise, or, it is because the individuals in newly created households are not impacted by violence in the same way as the older generations were.

[Table 41 here]

First, we see in Table 42 that once we control for the wealth score and the education level, the domestic violence score is negative and significant at a 10% level for the regressions on aspirations coinciding with the outcomes. The wealth score is positive and significant at a 5% level for both dependent variables. This important result suggests that children from richer households form higher aspirations and also have a higher probability of realising them. The education level of the head of the

¹⁷Table 49 in the Annex shows the alternative specification of night light data explained earlier. The results for the variables of interest are similar.

household is not significant. Secondary school is omitted from the regression on leaving agriculture, since it perfectly predicts the outcome: all six individuals with secondary education wish to leave agriculture¹⁸.

[Table 42 here]

Since the few observations can make the econometric analysis imprecise, we can look at the attraction/repulsion matrices in the tables 43 to 46 , in order to further understand how wealth and education impact aspirations and outcomes. Clear effects can be seen for the outcomes of the children coming from the richest households. These children have outcomes which are highly attracted to categories four to six and repulsed by the agricultural categories, which seems to be the opposite of all the other wealth categories. This confirms what we have found in the descriptive statistics and in the regressions, which is that one has to grow up in the richest categories if one wants a chance of realising one's aspirations. This result is also confirmed by the correspondence analysis, which can be seen in Figures 5 and 6: children from very poor households seem to have lower aspirations and are attracted to agricultural categories, as opposed to the richest children who are more attracted to categories four and seven. Looking at the outcomes, we see a clear separation between the richest and the other categories of wealth. The children of the richest households end up in categories different from agriculture, whereas all the others are attracted to the agricultural categories.

Looking at the results of the education ARM, we first see that secondary education of the parents is closely linked to higher aspirations and outcomes different than agriculture, but these findings are based on a small number of observations. It seems, that if the parents have primary education, children are attracted to outcomes in sectors five, six and seven, which are outside of agriculture. The unofficial education program leads to a clear repulsion to sectors four, five and six and to a small attraction to the agricultural sectors and the category seven. Looking at the biplots in Figures 7 and 8 of the correspondence analysis, the results are clearer for the outcomes: we see that primary education of the parental household leads to jobs outside of the agricultural sectors, contrarily to the absence of education and to the unofficial program. The absence of education and unofficial program seem to have a similar impact on the children's outcomes. To summarise, the wealth and the education of the head of the household seem to play an important role. This is particularly true when it comes to the adulthood outcomes.

Discussion

It seems that exposure to armed violence, but also domestic violence and active participation in violence, as well as the wealth and the education level of the parental household, have a role to play in shaping occupational aspirations and their fulfilment. An important result is that the signs of the coefficients seem to go in opposite directions for aspirations coinciding with outcomes and for the desire to leave agriculture. The reason for this is that wanting to leave agriculture means having higher aspirations, but we have seen that in Burundi, higher aspirations lead most of the time to aspirations failures. Higher aspirations, for example wanting to work in the public sector, very rarely come true in Burundi. For this reason, we believe that any variable affecting positively the desire to leave agriculture has good chances to affect negatively the matching of

¹⁸Additional regressions, in which we include the observations on secondary education into the primary education variable, renamed *Primary and Up*, can be found in the annex, Table 50. The interpretation of the results seems to be unaffected.

aspirations and outcomes in this country. We start by discussing the results on aspiring to leave agriculture and then move on to the discussion of the results on aspirations coinciding with the outcomes.

First, one of the main results we find is that armed violence, plausibly exogenous to aspirations, leads to higher aspirations. It could be that individuals exposed to armed violence have higher aspirations because they believe that having a certain status and wealth will protect them and their families against future episodes of armed violence. As we have seen in the literature, exposure to armed violence alters the preferences, the choices and the outlook on life of the individuals. These alterations seem to have a rather positive effect on aspirations. From the last set of regressions, we also observe that individuals exposed to armed violence are more likely to think that it is very important to do a job that they like. It seems that armed violence shapes the individual's personality to a somewhat more positive, optimistic and hopeful state. But as we will see, this does not entail that they will actually try to realise their aspirations.

Second, we find that girls have lower aspirations. The findings of Tafere (2014) in Ethiopia suggest that aspirations regarding the desired education seem to be the same for boys and girls. Risso Brandon and Pasquier-Doumer (2015) do not find any indication that girls have lower aspirations in Peru. Nevertheless, they recall the psychological literature, which indicates that girls often have a smaller range of occupations judged to be appropriate for women. From Verwimp and Van Bavel (2013), we also know that there is an important gender gap in Burundi regarding the number of years of education achieved. We can imagine, that if jobs outside of agriculture require a certain level of education and since girls are aware that they will have a lower amount of education, based on the women in their aspirations window, they will adapt their aspirations accordingly.

Third, young individuals who actively participated in violence have lower aspirations. As we have said in previously we only claim causality for exposure to armed violence. Nevertheless we offer some ideas to explain this result. A first explanation could be that children who were forced to take part in combats and fights in order to defend themselves and maybe even in order to survive, could be left with psychological scars, which could interact with their outlook on the future, as well as with their preferences. This idea is consistent with our result that children who participated in violence are fewer to believe that they should do a job they like. Children who participated in violence seem less optimistic and have their aspirations shaped in a negative way. A second interpretation, could be that individuals with low aspirations are in a self-sustaining poverty trap, in which they can feel helpless and frustrated, which could lead them to be more inclined to participate in violence. It would be convenient to have additional details on why the individuals participated or had to participate in violence for the interpretation of the results.

Finally, we find that the poor have a lower capacity to aspire, as suggested theoretically by Appadurai (2004), Ray (2006) and practically by Favara (2016) in Ethiopia. Children growing up in the richest households will aspire to a job outside of agriculture. It is probable, that the richest parents were not simple farmers, leading to a higher chance that their children had more individuals with professions outside of agriculture in their aspirations window. Children growing up in the richest households are thus probably more in contact with individuals outside of the agricultural world, making them more aware of the jobs outside of agriculture and of the path required to attain them. Additionally, based on the statistical analysis, we find that the education of the head of the household matters for the outcomes of the child. It seems that if the parents have

primary education, the children will have more chances of working outside of agriculture.

Moving to our second set of results on the coincidence of aspirations and outcomes, we observe that exposure to armed violence leads to a higher probability of aspirations failures. All variables on armed violence, except the first one, which is having to move because of a conflict, seem to jointly drive the result. One interpretation is that the individuals have high aspirations, but because of other adverse effects of armed violence, they do not have the capacity to fulfil them: based on the literature, we know that being exposed to violence and to civil war leads to psychological distress, post traumatic stress disorder, but also to a modification of the preferences regarding risk and discount rates and finally, also to a reduced health and schooling level. All these factors put together, can certainly explain aspirations failures. Increased preference for the present could mean reduced incentives to invest in efforts to reduce the aspirations gap. Individuals who could not achieve their desired level of education due to the civil war, should have a limited access to professions outside of agriculture. Having enough education, as well as a good health, both mental and physical, are important factors that should help individuals pursue their aspirations. Exposure to civil war seems to have a negative impact on all of these variables.

Girls and individuals participating in violence both have lower aspirations, which explains why they seem to meet their aspirations in later life: we believe that it is probably easier to achieve an occupational goal when this goal is agriculture in Burundi. Similarly, it seems that older generations had lower aspirations, which also explains why they have more chances of doing a job that they like. An interpretation could be that, as you get older, you have more opportunities, knowledge and savings in order to pursue your initial aspirations. The results on domestic violence indicate that exposed children have lower chances of meeting their aspirations in adulthood. As documented by Reading (2008), domestic violence can lead to a low self-esteem of the children, which in turn could lead to aspirations failures. Children can have high aspirations, but do not believe that they can realise them because they lack the necessary self-esteem to pursue their dreams. Growing up in an abusive home environment, could also mean wanting to leave the household earlier, even if the cost is to sacrifice additional education or opportunities. In this case the expected benefit of leaving the household and escaping abusive parents can surpass the expected benefit of the aspired occupation.

While we are not able to test the exact reason(s) that could lead us to an unequivocal interpretation of our findings, the results are compatible with at least three underlying reasons: (i) individuals do not believe that their efforts matter as they lack internal locus of control. As we have seen in the descriptive statistics, most individuals in Burundi are highly religious and rely heavily on the will of god for their professional life. Additionally, they believe that their situation in adult life is determined by their initial social conditions, which suggests a feeling of helplessness and fatalism. As much as 30% of the individuals do not believe that their actions and efforts have an impact on their outcomes. These impressive results on locus of control, can certainly explain why aspirations fail, since the individuals put their future in the hands of faith, rather than actively trying to reach their goals. (ii) It could also be that, in Burundi, as suggested by Bernard and Taffesse (2012) for Ethiopia, individuals have to share the returns of a better paying job with the family and the community, which decreases the return on the investment and the incentive to fulfil higher aspirations, which subsequently leads to aspirations failures. (iii) As in Tafere (2014), an explanation for this phenomenon could be that there is simply not enough room for the excess

of individuals who want to leave agriculture. This would mean that individuals would like to pursue their dreams and are ready to provide the necessary efforts, but the job market in Burundi cannot absorb them. Similarly, it could also be that, in Burundi, the individuals are *not* ready to provide the necessary efforts to realise their aspirations, as they know that there is a limited demand for jobs in the public and private sectors.

7 Conclusion

The aim of the present paper is to contribute to the existing literature on occupational aspirations, by presenting a new channel through which they can be shaped: the exposure to violence, and particularly, armed violence. Additionally, we analyse how the exposure to violence impacts the fulfilling of these aspirations. In order to do so, we perform an econometric analysis on a Burundian survey collected in 2014, composed of 2,050 households. Burundi's recent history, in particular its decade-long civil war, permits us to analyse how an exposure to armed violence, before the age of 18, influences the aspirations and the outcomes of young individuals. The longitudinal nature of the survey allows us to trace a subset of individuals back to their former parental household in 2005. For this subset, we then analyse how the wealth and the level of education of the parental household affect the children's aspirations and outcomes.

We find that children in Burundi have relatively high aspirations, but that these aspirations are rarely met in later life: around 60% of children wish to work outside of agriculture, but only 8% turn out to have an occupation outside of agriculture as adults. Our results suggest that, on the one hand, a high exposure to armed violence increases the wish to leave agriculture, but that on the other hand, this same exposure leads to an increased probability of aspirations failures. Furthermore, we find that individuals participating in violence wish to stay in agriculture and have higher chances of fulfilling their aspirations. It is, we believe, easier to realise one's occupational aspiration in Burundi, when this aspiration is agriculture. Our additional analysis on wealth confirms the theoretical predictions of Appadurai (2004) and Ray (2006), who state that children from poor households have a lower capacity to aspire and that the rich have more chances of realising their aspirations. Regardless of violence, higher aspirations are rarely met in Burundi. Of the individuals fulfilling their aspirations, the majority aspired to work in agriculture. We give several possible explanations for this, among others, the high presence of external locus of control in Burundi and the possible scarcity of jobs outside of agriculture.

Appadurai (2004) states that the goal of any project wishing to ameliorate the situation of the poor, should be to raise their aspirations. It is true that the poor in Burundi have lower aspirations than the rich, but our analysis shows that the aspirations of the other categories of wealth - except the richest - are rarely fulfilled. We believe that focusing on raising the aspirations of the Burundians is not a good solution, as the existing aspirations are hardly ever realised as it is. Raising the aspirations of the poor would probably lead to more aspirations failures and generate frustrations in the country. An alternative, as suggested by Tafere (2014) for Ethiopia, is for the authorities to support or help create a demand for the excess of individuals who wish to leave agriculture. We believe that it is better to start by trying to satisfy the existing aspirations, which in general are not necessarily low in Burundi, before trying to increase them. Since we find an important presence of external locus of control, creating a demand for the existing aspirations is not enough, as individuals would still need to believe that their actions matter in order to achieve their aspirations. Bernard *et al.* (2004) show that external locus of control can

easily be modified by submitting individuals to documentary stories about poor individuals' success stories. Raising awareness that one's actions and efforts are closely related to achievements is thus an important step that would help Burundians fulfil their aspirations.

Additional research would be necessary in order to highlight the micro level impacts of aspirations failures, for example, its effects on adulthood outcomes, such as happiness and attitudes towards the education of their children. At the macro level, further research could focus on analysing concretely, how failed aspirations impact the post-conflict development of a country. In light of our results, it could be that the increased failed aspirations, due to the exposure to armed violence, are slowing down the development of a country after a conflict. Helping the young individuals achieve their higher aspirations after a conflict would thus be beneficial for the development of the country.

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Figures

Figure 1: Armed Violence - Distribution of Answers

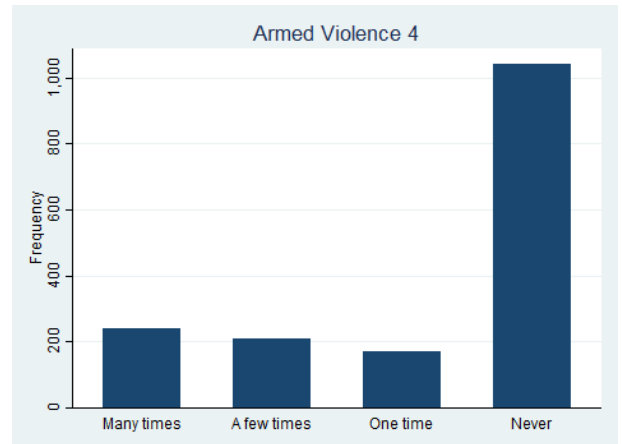
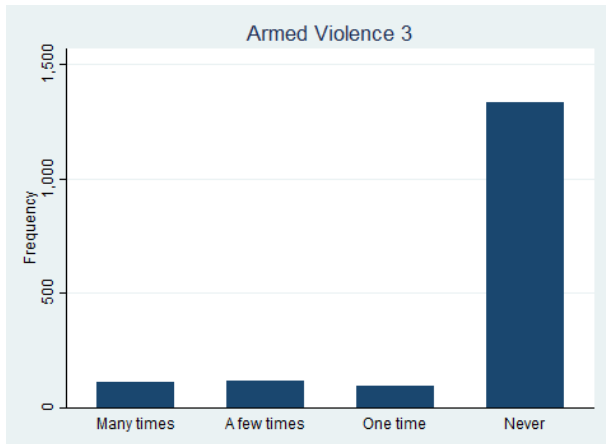
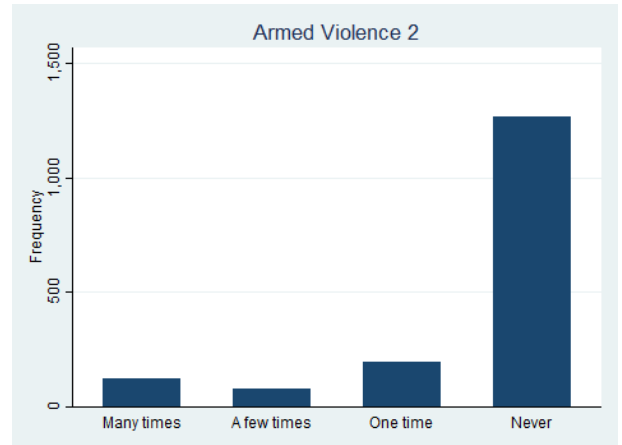
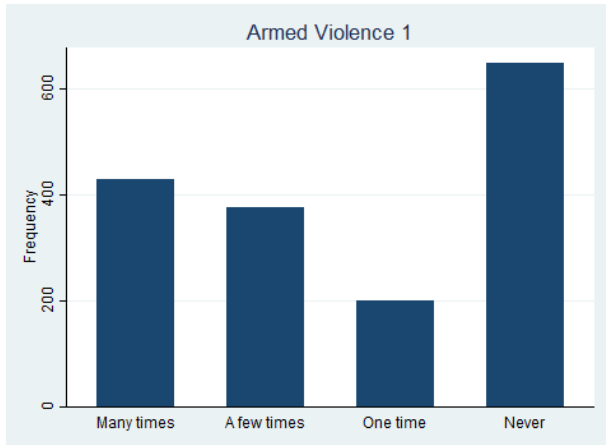


Figure 2: Domestic Violence - Distribution of Answers

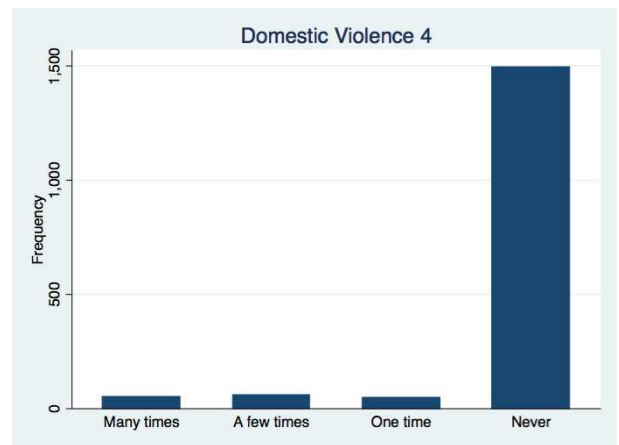
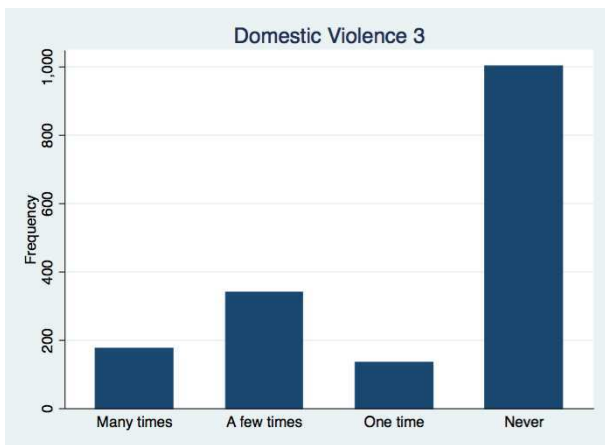
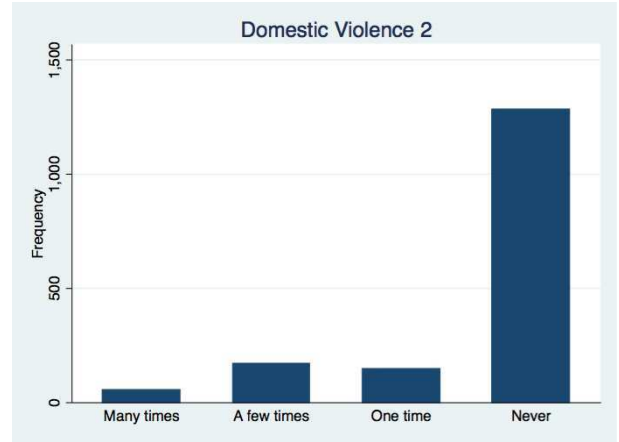
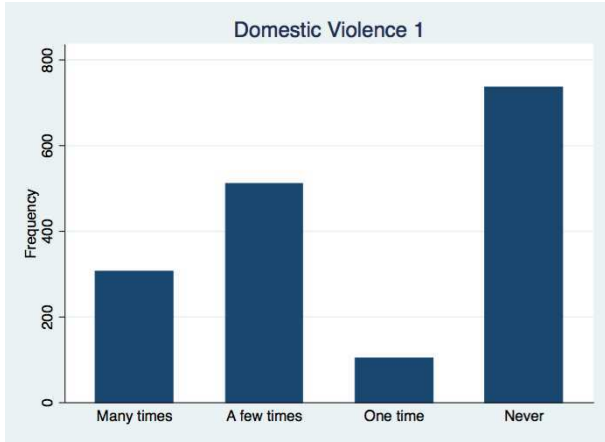


Figure 3: School Violence and Participation in violence - Distribution of Answers

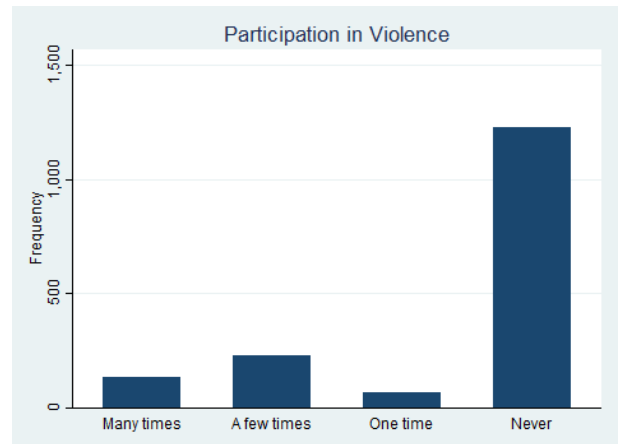
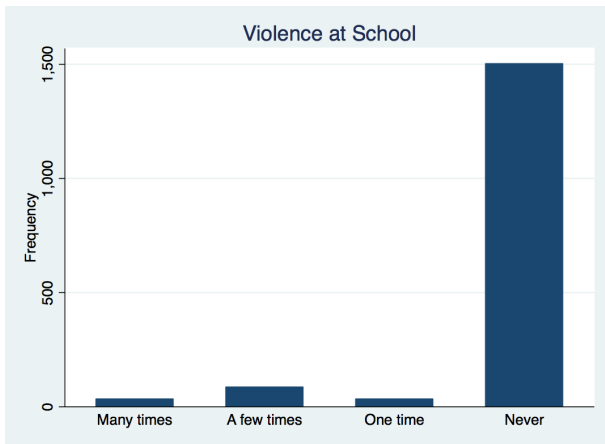


Figure 4: Armed and Domestic Violence Scores

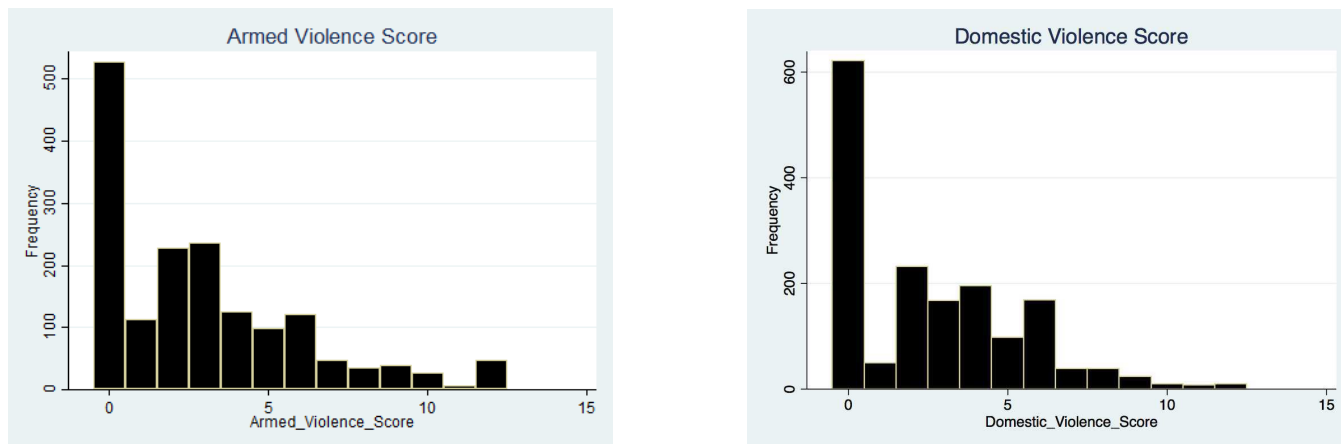


Figure 5: Wealth indicator and aspirations

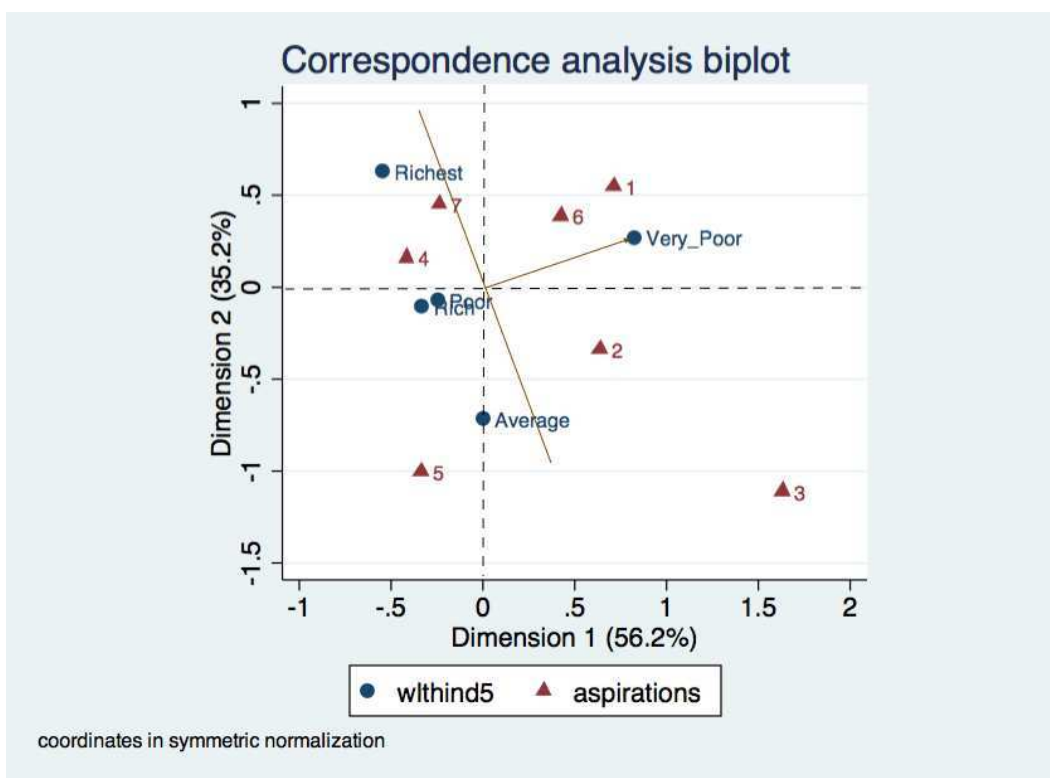


Figure 6: Wealth indicator and outcomes

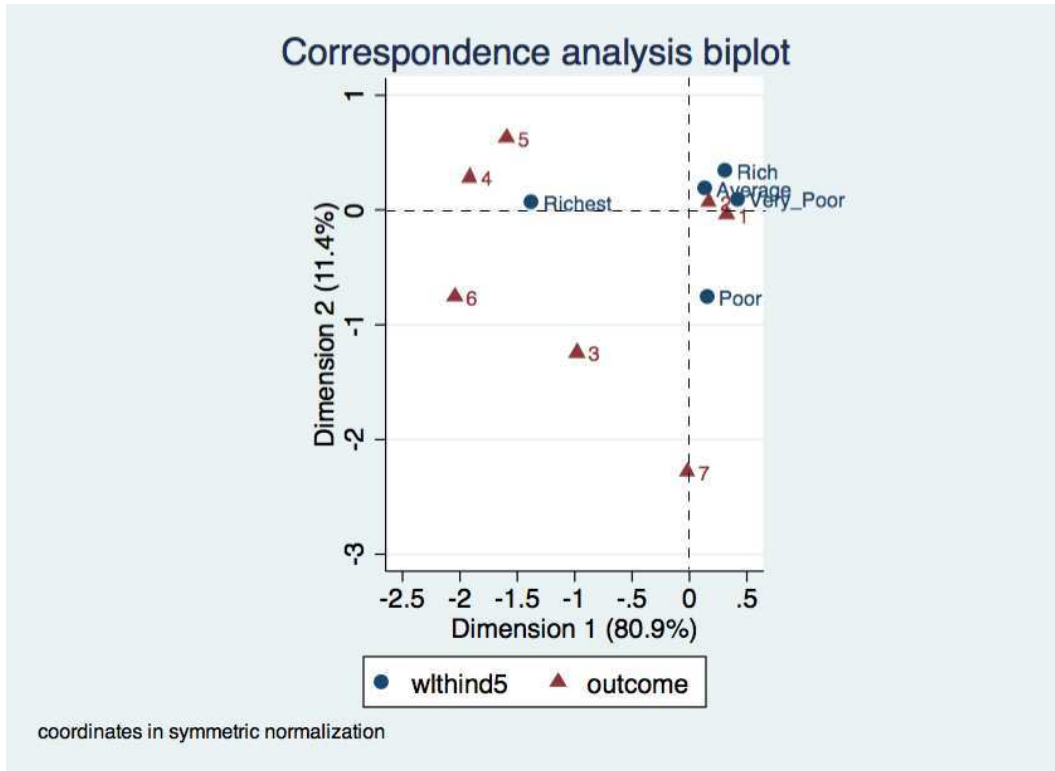


Figure 7: Level of education of head of household and aspirations

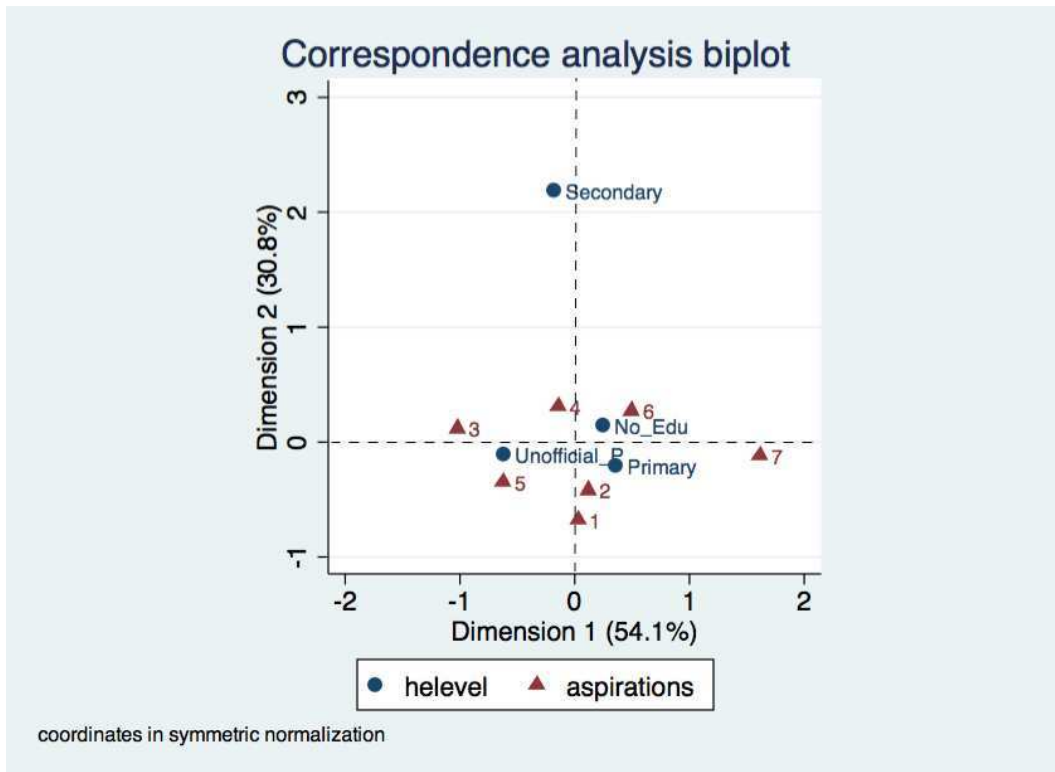
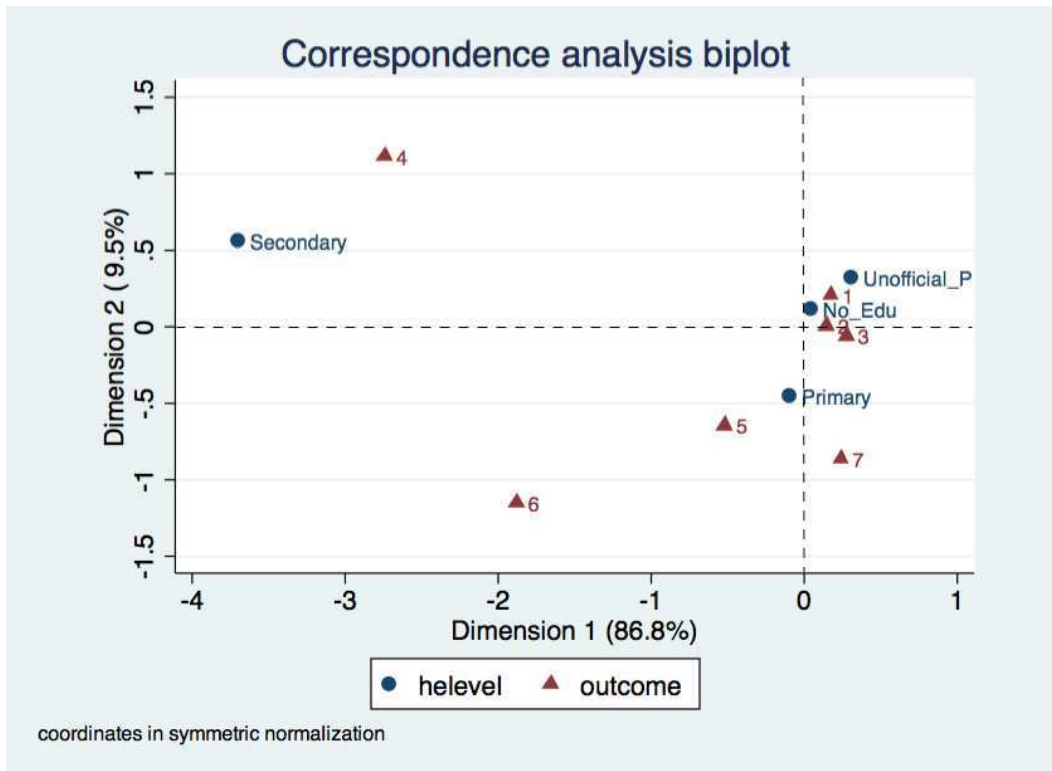


Figure 8: Level of education of head of household and outcomes



Tables

Summary statistics

Table 1: Occupations and Aspirations - Grouped Categories

| Occupation | Aspired | | Outcome | |
|-------------------------------|------------------|-------------------|------------------|-------------------|
| | <i>Frequency</i> | <i>Percentage</i> | <i>Frequency</i> | <i>Percentage</i> |
| 1. Agriculture - Export Crops | 121 | 15.11 | 418 | 27.06 |
| 2. Agriculture - Other Crops | 194 | 24.22 | 1000 | 64.72 |
| 3. Cattle Farm | 20 | 2.50 | 6 | 0.39 |
| 4. Public, Parapublic | 280 | 34.96 | 23 | 1.49 |
| 5. Private Sector - Employee | 65 | 8.11 | 46 | 2.98 |
| 6. Trading / Sales | 75 | 9.36 | 31 | 2.01 |
| 7. Other | 46 | 5.74 | 21 | 1.36 |
| Total | 801 | 100 | 1545 | 100 |

Table 2: Violence variables and corresponding survey questions

| Violence Variables | Survey Question |
|----------------------------|--|
| | Question: In the first 18 years of your life, |
| Domestic Violence 1: | You have been insulted, humiliated by a household member. |
| Domestic Violence 2: | You have been injured by an object used violently against you by a household member (for example, knife, bottle, stick). |
| Domestic Violence 3: | You have been beaten, hit by a household member. |
| Domestic Violence 4: | You have been abandoned or threatened to be abandoned by a household member. |
| Armed Violence 1: | You had to move because of a conflict/war. |
| Armed Violence 2: | You assisted to the destruction of your house. |
| Armed Violence 3: | You were the object of violence by soldiers, militia, the police or other armed groups. |
| Armed Violence 4: | You have lost a family member because of violence perpetrated by soldiers, militia, the police or other armed groups. |
| Violence at School: | You have been maltreated in school. |
| Participation in Violence: | You have taken part in combats, fights and other forms of physical violence. |

Note: For each statement the individual has to answer if it occurred "One time", "A few times", "Many times" or "Never". The violence variables are constructed as binary variables equal to one if the answer is "One time", "A few times" or "Many times".

Table 3: Summary of variables

| Variables | Obs | Mean | Std. Dev. | Min | Max |
|---|------|-------|-----------|-------|------|
| Occupation Variables | | | | | |
| 1. Occupation: Aspired | 801 | 3.48 | 1.75 | 1 | 7 |
| 2. Occupation: Outcomes | 1545 | 2.00 | 1.12 | 1 | 7 |
| 3. Aspirations = Outcome | 748 | 0.32 | 0.47 | 0 | 1 |
| 4. Leave Agriculture | 801 | 0.58 | 0.49 | 0 | 1 |
| 5. Outcome is Agriculture | 1545 | 0.92 | 0.27 | 0 | 1 |
| 6. Individual thinks it is important to like occupation | 1608 | 0.78 | 0.42 | 0 | 1 |
| 7. Parents think it is important to like occupation | 1154 | 0.52 | 0.50 | 0 | 1 |
| Violence Variables | | | | | |
| 1. Domestic Violence 1 | 1656 | 0.56 | 0.50 | 0 | 1 |
| 2. Domestic Violence 2 | 1656 | 0.22 | 0.42 | 0 | 1 |
| 3. Domestic Violence 3 | 1656 | 0.39 | 0.49 | 0 | 1 |
| 4. Domestic Violence 4 | 1656 | 0.10 | 0.30 | 0 | 1 |
| 5. Domestic Violence Score | 1656 | 2.63 | 0.07 | 0 | 12 |
| 6. Armed Violence 1 | 1656 | 0.61 | 0.49 | 0 | 1 |
| 7. Armed Violence 2 | 1656 | 0.23 | 0.42 | 0 | 1 |
| 8. Armed Violence 3 | 1656 | 0.19 | 0.40 | 0 | 1 |
| 9. Armed Violence 4 | 1656 | 0.37 | 0.48 | 0 | 1 |
| 10. Armed Violence Score | 1656 | 2.96 | 0.08 | 0 | 12 |
| 11. Participation in violence | 1656 | 0.26 | 0.44 | 0 | 1 |
| 12. Violence at School | 1656 | 0.09 | 0.29 | 0 | 1 |
| Parental Household - MICS 2005 Data | | | | | |
| 1. Wealth Indicator | 490 | 2.89 | 1.38 | 1 | 5 |
| 2. Wealth Score | 490 | -0.17 | 0.72 | -0.59 | 5.80 |
| 3. Head of Household Education | 489 | 2.24 | 1.22 | 1 | 4 |
| 3a. No Education | 489 | 0.36 | 0.48 | 0 | 1 |
| 3b. Unofficial Program | 489 | 0.29 | 0.45 | 0 | 1 |
| 3c. Primary Education | 489 | 0.32 | 0.47 | 0 | 1 |
| 3d. Secondary Education | 489 | 0.03 | 0.17 | 0 | 1 |
| 4. Primary and Up | 489 | 0.35 | 0.48 | 0 | 1 |
| Other | | | | | |
| 1. Internal Locus of Control | 1544 | 0.68 | 0.47 | 0 | 1 |
| 2. External Locus: Will of God | 1585 | 0.91 | 0.28 | 0 | 1 |
| 3. External Locus: Powerful Individuals | 1531 | 0.19 | 0.40 | 0 | 1 |
| 4. External Locus: Random Events | 1517 | 0.62 | 0.49 | 0 | 1 |
| 5. External Locus: Initial Social Conditions | 1554 | 0.77 | 0.42 | 0 | 1 |
| 6. Head of Household | 1657 | 0.51 | 0.50 | 0 | 1 |
| 7. Age | 1650 | 41.00 | 16.32 | 13 | 103 |
| 8. Female | 1657 | 0.64 | 0.48 | 0 | 1 |

Table 4: Occupations - By Gender, row percentage

| Occupations: Gender Analysis | | | | | | | | | |
|------------------------------|----------------|-------|-------|------|-------|-------|-------|------|------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Obs |
| Women | Aspired | 15.30 | 27.88 | 1.26 | 36.90 | 6.71 | 6.92 | 5.03 | 477 |
| | Outcome | 26.34 | 68.62 | 0.30 | 1.41 | 1.51 | 1.61 | 0.20 | 991 |
| Men | Aspired | 14.81 | 18.83 | 4.32 | 32.10 | 10.19 | 12.96 | 6.79 | 324 |
| | Outcome | 28.34 | 57.76 | 0.54 | 1.62 | 5.60 | 2.71 | 3.43 | 554 |

Table 5: Aspirations and occupational outcomes, row frequencies

| Aspiration | Outcome | | | | | | | Total |
|--------------------------|---------|-------|------|------|-------|-------|------|--------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 1. Agriculture | 54 | 53 | 0 | 0 | 1 | 0 | 0 | 108 |
| Export | 50.00 | 49.07 | 0.00 | 0.00 | 0.93 | 0.00 | 0.00 | 100.00 |
| 2. Agriculture | 26 | 157 | 0 | 0 | 1 | 1 | 1 | 186 |
| No Export | 13.98 | 84.41 | 0.00 | 0.00 | 0.54 | 0.54 | 0.54 | 100.00 |
| 3. Cattle Farm | 9 | 10 | 0 | 0 | 0 | 0 | 0 | 19 |
| | 47.37 | 52.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 |
| 4. Public Sector | 83 | 134 | 4 | 12 | 14 | 6 | 6 | 259 |
| or para-public | 32.05 | 51.74 | 1.54 | 4.63 | 5.41 | 2.32 | 2.32 | 100.00 |
| 5. Private Sector | 23 | 27 | 0 | 1 | 7 | 1 | 0 | 59 |
| | 38.98 | 45.76 | 0.00 | 1.69 | 11.86 | 1.69 | 0.00 | 100.00 |
| 6. Trader | 33 | 29 | 0 | 0 | 1 | 9 | 0 | 72 |
| or Sales | 45.83 | 40.28 | 0.00 | 0.00 | 1.39 | 12.50 | 0.00 | 100.00 |
| 7. Other | 11 | 24 | 0 | 2 | 3 | 2 | 3 | 45 |
| | 24.44 | 53.33 | 0.00 | 4.44 | 6.67 | 4.44 | 6.67 | 100.00 |
| Total | 239 | 434 | 4 | 15 | 27 | 19 | 10 | 748 |
| | 31.95 | 58.02 | 0.53 | 2.01 | 3.61 | 2.54 | 1.34 | 100.00 |

Table 6: Domestic and Armed Violence Score - Distribution

| Score | Domestic Violence | | Armed Violence | |
|--------------|-------------------|-------|----------------|-------|
| | Freq. | Perc. | Freq. | Perc. |
| 0 | 621 | 37.50 | 528 | 31.88 |
| 1 | 49 | 2.96 | 113 | 6.82 |
| 2 | 232 | 14.01 | 228 | 13.77 |
| 3 | 167 | 10.08 | 237 | 14.31 |
| 4 | 195 | 11.78 | 125 | 7.55 |
| 5 | 98 | 5.92 | 98 | 5.92 |
| 6 | 168 | 10.14 | 122 | 7.37 |
| 7 | 39 | 2.36 | 48 | 2.90 |
| 8 | 39 | 2.36 | 36 | 2.17 |
| 9 | 23 | 1.39 | 39 | 2.36 |
| 10 | 9 | 0.54 | 28 | 1.69 |
| 11 | 7 | 0.42 | 6 | 0.36 |
| 12 | 9 | 0.54 | 48 | 2.90 |
| Total | 1656 | 100 | 1656 | 100 |

Table 7: Wealth and Education

(a) Wealth indicator

| Wealth Indicator | Freq. | Perc. |
|------------------|-------|--------|
| Very Poor | 109 | 22.24 |
| Poor | 89 | 18.16 |
| Average | 118 | 24.08 |
| Rich | 93 | 18.98 |
| Richest | 81 | 16.53 |
| Total: | 490 | 100.00 |

(b) Education of the head of household

| Level of Education | Freq. | Perc. |
|--------------------|-------|--------|
| No Education | 177 | 36.20 |
| Primary | 158 | 32.31 |
| Secondary | 14 | 2.86 |
| Unofficial Program | 140 | 28.63 |
| Total: | 489 | 100.00 |

Table 8: Correlation table of violence variables

| | Armed Sc. | Armed 1 | Armed 2 | Armed 3 | Armed 4 | Domestic Sc. | V. at School | Part. in V. |
|---------------------------|-----------|---------|---------|---------|---------|--------------|--------------|-------------|
| Armed Violence Sc. | 1.0000 | | | | | | | |
| Armed Violence 1 | 0.6596 | 1.0000 | | | | | | |
| Armed Violence 2 | 0.6673 | 0.3777 | 1.0000 | | | | | |
| Armed Violence 3 | 0.6716 | 0.3123 | 0.4454 | 1.0000 | | | | |
| Armed Violence 4 | 0.6892 | 0.3730 | 0.3621 | 0.4048 | 1.0000 | | | |
| Domestic violence Sc. | 0.1149 | 0.1563 | 0.0149 | 0.0182 | 0.1326 | 1.0000 | | |
| Violence at School | 0.0946 | 0.1037 | 0.0678 | -0.0045 | 0.0254 | 0.1895 | 1.0000 | |
| Participation in Violence | 0.1202 | 0.1405 | 0.0080 | 0.0455 | 0.0894 | 0.3444 | 0.3287 | 1.0000 |

Exposure to violence

Exposure to violence - Aspirations and outcomes

Table 9: Exposure to violence - Aspirations and outcomes - Row Percentages

| | Occupation: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | Obs |
|----------------------------------|-------------|-------|-------|------|-------|-------|-------|------|--|------|
| Domestic Violence Score | | | | | | | | | | |
| Aspired | 0 | 9.92 | 26.03 | 1.65 | 42.15 | 5.37 | 7.44 | 7.44 | | 242 |
| | 1-6 | 14.90 | 24.90 | 3.06 | 32.24 | 9.59 | 10.61 | 4.69 | | 490 |
| | 7-12 | 34.78 | 13.04 | 1.45 | 28.99 | 7.25 | 7.25 | 7.25 | | 69 |
| Outcome | 0 | 23.67 | 66.96 | 0.35 | 2.12 | 1.94 | 2.65 | 2.30 | | 566 |
| | 1-6 | 29.75 | 62.54 | 0.35 | 1.28 | 3.50 | 1.75 | 0.82 | | 857 |
| | 7-12 | 23.77 | 69.67 | 0.82 | 0.00 | 4.10 | 0.82 | 0.82 | | 122 |
| Armed Violence Score | | | | | | | | | | |
| Aspired | 0 | 12.00 | 27.60 | 0.40 | 39.20 | 7.20 | 8.00 | 5.60 | | 250 |
| | 1-6 | 16.52 | 24.45 | 3.52 | 32.82 | 7.71 | 9.47 | 5.51 | | 454 |
| | 7-12 | 16.49 | 14.43 | 3.09 | 34.02 | 12.37 | 12.37 | 7.22 | | 97 |
| Outcome | 0 | 26.29 | 63.35 | 0.21 | 1.86 | 4.14 | 2.28 | 1.86 | | 483 |
| | 1-6 | 28.42 | 65.13 | 0.46 | 1.38 | 1.61 | 1.96 | 1.04 | | 869 |
| | 7-12 | 22.80 | 66.32 | 0.52 | 1.04 | 6.22 | 1.55 | 1.55 | | 193 |
| Participation in Violence | | | | | | | | | | |
| Aspired | 1 | 20.32 | 30.68 | 1.99 | 28.29 | 8.37 | 5.18 | 5.18 | | 251 |
| | 0 | 12.73 | 21.27 | 2.73 | 38.00 | 8.00 | 11.27 | 6.00 | | 550 |
| Outcome | 1 | 26.30 | 66.00 | 0.50 | 1.24 | 3.23 | 1.24 | 1.49 | | 403 |
| | 0 | 27.34 | 64.24 | 0.35 | 1.58 | 2.89 | 2.28 | 1.31 | | 1141 |
| Violence at School | | | | | | | | | | |
| Aspired | 1 | 13.27 | 30.97 | 2.65 | 38.94 | 3.54 | 4.42 | 6.19 | | 113 |
| | 0 | 15.41 | 23.11 | 2.47 | 34.30 | 8.87 | 10.17 | 5.67 | | 688 |
| Outcome | 1 | 22.07 | 66.90 | 1.38 | 1.38 | 4.83 | 1.38 | 2.07 | | 145 |
| | 0 | 27.59 | 64.47 | 0.29 | 1.50 | 2.79 | 2.07 | 1.29 | | 1399 |

Exposure to violence - Leaving agriculture

Table 10: Leaving Agriculture - Domestic and Armed Violence Score, row percentage

(a) Domestic Violence Score

| Leaving agriculture | | | |
|---------------------|-------|-------|-----|
| | No | Yes | Obs |
| Score: 0 | 37.60 | 62.40 | 242 |
| Score: 1-6 | 42.86 | 57.14 | 490 |
| Score 7-12 | 49.28 | 50.72 | 69 |

(b) Armed Violence Score

| Leaving agriculture | | | |
|---------------------|-------|-------|-----|
| | No | Yes | Obs |
| Score: 0 | 40.00 | 60.00 | 250 |
| Score: 1-6 | 44.49 | 55.51 | 454 |
| Score 7-12 | 34.02 | 65.98 | 97 |

Table 11: Leaving Agriculture - Participation and School Violence, row percentage

(a) Participation in violence

| Leaving agriculture | | | |
|---------------------|-------|-------|-----|
| | No | Yes | Obs |
| No Participation | 36.73 | 63.27 | 550 |
| Participation | 52.99 | 47.01 | 251 |

(b) School Violence

| Leaving agriculture | | | |
|---------------------|-------|-------|-----|
| | No | Yes | Obs |
| No Exposure | 40.99 | 59.01 | 688 |
| Exposure | 46.90 | 53.10 | 113 |

Table 12: Wishing to leave agriculture and violence, row percentage

| Wish to leave agriculture: | No | Yes | No | Yes | No | Yes | No | Yes |
|-----------------------------------|---------------------|------------|---------------------|------------|---------------------|------------|---------------------|------------|
| | Domestic V.1 | | Domestic V.2 | | Domestic V.3 | | Domestic V.4 | |
| Never | 36.39 | 63.61 | 38.15 | 61.85 | 43.02 | 56.98 | 40.92 | 59.08 |
| One time | 44.07 | 55.93 | 66.67 | 33.33 | 48.65 | 51.35 | 51.85 | 48.15 |
| A few times | 44.41 | 55.59 | 42.27 | 57.73 | 37.14 | 62.86 | 57.14 | 42.86 |
| Many times | 46.41 | 53.59 | 46.43 | 53.57 | 39.60 | 60.40 | 34.78 | 65.22 |
| | Armed V.1 | | Armed V.2 | | Armed V.3 | | Armed V.4 | |
| Never | 39.62 | 60.38 | 43.51 | 56.49 | 43.43 | 56.57 | 42.74 | 57.26 |
| One time | 44.57 | 55.43 | 37.08 | 62.92 | 31.82 | 68.18 | 46.51 | 53.49 |
| A few times | 46.15 | 53.85 | 33.33 | 66.67 | 32.69 | 67.31 | 32.14 | 67.86 |
| Many times | 40.19 | 59.81 | 36.36 | 63.64 | 39.22 | 60.78 | 43.80 | 56.20 |

Table 13: Leaving Agriculture - By Gender, row percentage

| Leaving agriculture | | | |
|----------------------------|-----------|------------|------------|
| | No | Yes | Obs |
| Girls | 44.44 | 55.56 | 477 |
| Boys | 37.96 | 62.04 | 324 |

Table 14: Leaving Agriculture - Violence Scores - By Gender, row percentage

| Wish to leave agriculture: | No | Yes | No | Yes | No | Yes |
|-----------------------------------|-----------|------------|------------|------------|-------------|------------|
| Domestic Violence Score: | 0 | | 1-6 | | 7-12 | |
| Girls | 44.22 | 55.78 | 42.07 | 57.93 | 62.50 | 37.50 |
| Boys | 27.37 | 72.63 | 44.00 | 56.00 | 31.03 | 68.97 |
| Armed Violence Score: | 0 | | 1-6 | | 7-12 | |
| Girls | 42.33 | 57.67 | 46.12 | 53.88 | 42.86 | 57.14 |
| Boys | 35.63 | 64.37 | 42.35 | 57.65 | 21.95 | 78.05 |

Table 15: Leaving Agriculture - Armed Violence Score - By Gender, row percentage

| Gender Analysis: Leaving agriculture - Armed Violence | | | | | | |
|--|-----------------|------------|-------------------|------------|--------------------|------------|
| | Score: 0 | | Score: 1-6 | | Score: 7-12 | |
| | No | Yes | No | Yes | No | Yes |
| Girls | 42.33 | 57.67 | 46.12 | 53.88 | 42.86 | 57.14 |
| Boys | 35.63 | 64.37 | 42.35 | 57.65 | 21.95 | 78.05 |

Table 16: Leaving Agriculture - Participation and School Violence - By Gender, row percentage

(a) Participation in violence

| Leaving agriculture | | | | |
|----------------------------|-------------------------|------------|----------------------|------------|
| | No Participation | | Participation | |
| | No | Yes | No | Yes |
| Girls | 37.93 | 62.07 | 62.02 | 37.98 |
| Boys | 34.65 | 65.35 | 43.44 | 54.54 |

(b) School Violence

| Leaving agriculture | | | | |
|----------------------------|--------------------|------------|-----------------|------------|
| | No Exposure | | Exposure | |
| | No | Yes | No | Yes |
| Girls | 43.41 | 56.59 | 50.75 | 49.25 |
| Boys | 37.41 | 62.59 | 41.30 | 58.70 |

Exposure to violence - Aspirations coincide with outcomes

Table 17: Aspirations Coincide With Outcomes - Domestic and Armed Violence Score, row percentage

| Aspirations = Outcome | | | | Aspirations = Outcome | | | |
|------------------------------|-------|-------|-----|------------------------------|-------|-------|-----|
| | No | Yes | Obs | | No | Yes | Obs |
| Score: 0 | 68.02 | 31.98 | 222 | Score: 0 | 65.93 | 34.07 | 226 |
| Score: 1-6 | 66.59 | 33.41 | 461 | Score: 1-6 | 66.59 | 33.41 | 431 |
| Score 7-12 | 73.85 | 26.15 | 65 | Score 7-12 | 76.92 | 23.08 | 91 |

Table 18: Aspirations Coincide With Outcomes - Participation and School Violence, row percentage

| Aspirations = Outcome | | | | Aspirations = Outcome | | | |
|------------------------------|-------|-------|-----|------------------------------|-------|-------|-----|
| | No | Yes | Obs | | No | Yes | Obs |
| No Participation | 71.79 | 28.21 | 514 | No Exposure | 69.16 | 30.84 | 642 |
| Participation | 58.55 | 41.45 | 234 | Exposure | 58.49 | 41.51 | 106 |

Table 19: Aspirations Coincide With Outcomes - Domestic Violence - Detailed, row percentage

| Aspirations = Outcome | | | | | | | | |
|------------------------------|---------------------|-------|---------------------|-------|---------------------|-------|---------------------|-------|
| | Domestic V.1 | | Domestic V.2 | | Domestic V.3 | | Domestic V.4 | |
| | No | Yes | No | Yes | No | Yes | No | Yes |
| Never | 69.89 | 31.11 | 70.99 | 29.01 | 64.05 | 35.95 | 67.51 | 32.49 |
| One time | 60.34 | 39.66 | 41.33 | 58.67 | 63.38 | 36.62 | 64.00 | 36.00 |
| A few times | 67.03 | 32.97 | 70.33 | 29.67 | 73.33 | 26.67 | 66.67 | 33.33 |
| Many times | 69.44 | 30.56 | 62.96 | 37.04 | 77.17 | 22.83 | 77.27 | 22.73 |

Table 20: Aspirations Coincide With Outcomes - Armed Violence - Detailed, row percentage

| Aspirations = Outcome | | | | | | | | |
|------------------------------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|
| | Armed V.1 | | Armed V.2 | | Armed V.3 | | Armed V.4 | |
| | No | Yes | No | Yes | No | Yes | No | Yes |
| Never | 67.96 | 32.04 | 65.45 | 34.55 | 65.79 | 34.21 | 64.37 | 35.63 |
| One time | 63.33 | 36.67 | 72.62 | 27.38 | 77.27 | 22.73 | 68.67 | 31.33 |
| A few times | 69.14 | 30.86 | 75.00 | 25.00 | 78.72 | 21.28 | 80.20 | 19.80 |
| Many times | 67.84 | 32.16 | 77.78 | 22.22 | 71.43 | 28.57 | 68.70 | 31.30 |

Table 21: Aspirations Coincide With Outcomes - By Gender, row percentage

| Aspirations = Occupations | | | |
|----------------------------------|-------|-------|-----|
| | No | Yes | Obs |
| Girls | 65.99 | 34.01 | 441 |
| Boys | 70.03 | 29.97 | 307 |

Table 22: Aspirations Coincide With Outcomes - Participation and School Violence - By Gender, row percentage

(a) Participation in violence

| Aspirations coincide with outcomes | | | | |
|---|-------------------------|------------|----------------------|------------|
| | No participation | | Participation | |
| | No | Yes | No | Yes |
| Girls | 72.31 | 27.69 | 48.28 | 51.72 |
| Boys | 70.90 | 29.10 | 68.84 | 31.36 |

(b) School Violence

| Aspirations coincide with outcomes | | | | |
|---|--------------------|------------|-----------------|------------|
| | No exposure | | Exposure | |
| | No | Yes | No | Yes |
| Girls | 67.81 | 32.19 | 54.84 | 45.16 |
| Boys | 71.10 | 28.90 | 63.64 | 36.36 |

Table 23: Aspirations Coincide With Outcomes - Armed Violence Score - By Gender, row percentage

| Aspirations coincide with outcomes - Armed Violence | | | | | | |
|--|-----------------|------------|-------------------|------------|--------------------|------------|
| | Score: 0 | | Score: 1-6 | | Score: 7-12 | |
| | No | Yes | No | Yes | No | Yes |
| Girls | 63.45 | 36.55 | 66.12 | 33.88 | 72.22 | 27.78 |
| Boys | 70.37 | 29.63 | 67.20 | 32.80 | 83.78 | 16.22 |

Table 24: Aspirations Coincide With Outcome - Domestic Violence Score - By Gender, row percentage

| Aspirations coincide with outcome - Domestic Violence | | | | | | |
|--|-----------------|------------|-------------------|------------|--------------------|------------|
| | Score: 0 | | Score: 1-6 | | Score: 7-12 | |
| | No | Yes | No | Yes | No | Yes |
| Girls | 65.93 | 34.07 | 65.80 | 34.20 | 67.57 | 32.43 |
| Boys | 71.26 | 28.74 | 67.71 | 32.29 | 82.14 | 17.86 |

Parental household : Wealth

Table 25: Wealth - Aspirations, row percentage

| Wealth Indicator | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total Obs |
|------------------|-----------|-----------|----------|------------|-----------|-----------|-----------|------------|
| Very Poor | 14.52 | 27.42 | 1.61 | 32.26 | 4.84 | 16.13 | 3.23 | 62 |
| Poor | 4.76 | 16.67 | 0.00 | 50.00 | 11.90 | 14.29 | 2.38 | 42 |
| Average | 5.45 | 20.00 | 1.82 | 41.82 | 18.18 | 7.27 | 5.45 | 55 |
| Rich | 6.25 | 16.67 | 0.00 | 54.17 | 12.50 | 8.33 | 2.08 | 48 |
| Very Rich | 8.70 | 6.52 | 0.00 | 60.87 | 6.52 | 10.87 | 6.52 | 46 |
| Total Obs | 21 | 46 | 2 | 118 | 27 | 29 | 10 | 253 |

Table 26: Wealth - Outcomes, row percentage

| Wealth Indicator | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total Obs |
|------------------|-----------|------------|----------|-----------|-----------|-----------|----------|------------|
| Very Poor | 26.85 | 69.44 | 0.00 | 0.93 | 0.93 | 0.93 | 0.93 | 108 |
| Poor | 20.93 | 67.44 | 1.16 | 1.16 | 1.16 | 3.49 | 4.65 | 86 |
| Average | 18.10 | 72.41 | 0.86 | 1.72 | 5.17 | 0.00 | 1.72 | 116 |
| Rich | 21.35 | 74.16 | 0.00 | 1.12 | 2.25 | 1.12 | 0.00 | 89 |
| Very Rich | 12.16 | 51.35 | 1.35 | 9.46 | 13.51 | 10.81 | 1.35 | 74 |
| Total Obs | 96 | 321 | 3 | 12 | 20 | 13 | 8 | 473 |

Table 27: Wealth - Leaving agriculture and coinciding outcomes

(a) Aspiring to leave poverty

| Wealth Index | Leaving Agriculture | | Obs |
|------------------|---------------------|------------|------------|
| | No | Yes | |
| Very Poor | 43.55 | 56.45 | 62 |
| Poor | 21.43 | 78.57 | 42 |
| Average | 27.27 | 72.73 | 55 |
| Rich | 22.92 | 77.08 | 48 |
| Richest | 15.22 | 84.78 | 46 |
| Total Obs | 69 | 184 | 253 |

(b) Aspirations coincide with outcome

| Wealth Index | Aspirations Coincide Out. | | Obs |
|------------------|---------------------------|-----------|------------|
| | No | Yes | |
| Very Poor | 70.97 | 29.03 | 62 |
| Poor | 85.37 | 14.63 | 41 |
| Average | 74.07 | 25.93 | 54 |
| Rich | 80.00 | 20.00 | 45 |
| Richest | 68.29 | 31.71 | 41 |
| Total Obs | 183 | 60 | 243 |

Parental household : Education of head of household

Table 28: Education of the head of household - Aspirations, row percentage

| Education - Head HH | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total Obs |
|---------------------|-----------|-----------|----------|------------|-----------|-----------|----------|------------|
| No Education | 5.68 | 18.18 | 1.14 | 45.45 | 10.23 | 13.64 | 5.68 | 88 |
| Unofficial Program | 8.86 | 17.72 | 1.27 | 49.37 | 15.19 | 7.59 | 0.00 | 79 |
| Primary | 11.39 | 20.25 | 0.00 | 43.04 | 7.59 | 12.66 | 5.06 | 79 |
| Secondary | 0.00 | 0.00 | 0.00 | 83.33 | 0.00 | 16.67 | 0.00 | 6 |
| Total Obs | 21 | 46 | 2 | 118 | 27 | 29 | 9 | 252 |

Table 29: Education of the head of household - Outcomes, row percentage

| Education - Head HH | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total Obs |
|---------------------|-----------|------------|----------|-----------|-----------|-----------|----------|------------|
| No Education | 20.11 | 70.11 | 0.57 | 2.30 | 4.02 | 2.30 | 0.57 | 174 |
| Unofficial Program | 23.53 | 69.85 | 0.74 | 1.47 | 2.21 | 0.00 | 2.21 | 136 |
| Primary | 18.42 | 66.45 | 0.66 | 1.97 | 5.26 | 4.61 | 2.63 | 152 |
| Secondary | 10.00 | 30.00 | 0.00 | 30.00 | 10.00 | 20.00 | 0.00 | 10 |
| Total Obs | 96 | 321 | 3 | 12 | 19 | 13 | 8 | 472 |

Table 30: Education - Leaving agriculture and coinciding outcomes, row percentage

(a) Aspiring to leave poverty

(b) Aspirations coincide with outcome

| Education | Leaving Agriculture | | | Education | Aspirations Coincide Out. | | |
|--------------------|---------------------|------------|------------|--------------------|---------------------------|-----------|------------|
| | No | Yes | Obs | | No | Yes | Obs |
| No Education | 25.00 | 75.00 | 88 | No Education | 75.00 | 25.00 | 88 |
| Unofficial Program | 27.85 | 72.15 | 79 | Unofficial Program | 84.00 | 16.00 | 75 |
| Primary | 32.65 | 68.35 | 79 | Primary | 68.00 | 32.00 | 75 |
| Secondary | 0.00 | 100.00 | 6 | Secondary | 50.00 | 50.00 | 4 |
| Total Obs | 69 | 183 | 252 | Total Obs | 182 | 60 | 242 |

Difference of means

Table 31: Leaving agriculture - Difference of means

| | No exposure | Exposure | Difference |
|---------------------------|-------------|----------|----------------|
| Armed Violence 1 | 0.60 | 0.57 | 0.04 (0.04) |
| Armed Violence 2 | 0.56 | 0.64 | -0.07* (0.04) |
| Armed Violence 3 | 0.57 | 0.65 | -0.09** (0.04) |
| Armed Violence 4 | 0.57 | 0.60 | -0.02 (0.04) |
| Domestic Violence 1 | 0.64 | 0.55 | 0.09** (0.04) |
| Domestic Violence 2 | 0.62 | 0.48 | 0.14*** (0.04) |
| Domestic Violence 3 | 0.57 | 0.60 | -0.03 (0.04) |
| Domestic Violence 4 | 0.59 | 0.51 | 0.08 (0.06) |
| Participation in violence | 0.63 | 0.47 | 0.16*** (0.04) |
| Violence at School | 0.59 | 0.53 | -0.06 (0.05) |

Two-sample t test with equal variances, standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 32: Aspirations coincide with outcomes - Difference of means

| | No exposure | Exposure | Difference |
|---------------------------|-------------|----------|-----------------|
| Armed Violence 1 | 0.32 | 0.33 | -0.01 (0.04) |
| Armed Violence 2 | 0.35 | 0.25 | 0.09** (0.04) |
| Armed Violence 3 | 0.34 | 0.24 | 0.10** (0.04) |
| Armed Violence 4 | 0.36 | 0.27 | 0.08** (0.03) |
| Domestic Violence 1 | 0.31 | 0.33 | -0.19 (0.04) |
| Domestic Violence 2 | 0.29 | 0.42 | -0.13*** (0.04) |
| Domestic Violence 3 | 0.36 | 0.28 | 0.08** (0.03) |
| Domestic Violence 4 | 0.32 | 0.31 | 0.12 (0.06) |
| Participation in violence | 0.28 | 0.41 | -0.13*** (0.04) |
| Violence at School | 0.31 | 0.42 | -0.11** (0.05) |

Two-sample t test with equal variances, standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 33: Important to do a job one likes - Difference of means

| | No exposure | Exposure | Difference |
|---------------------------|-------------|----------|-----------------|
| Armed Violence 1 | 0.78 | 0.78 | 0.00 (0.02) |
| Armed Violence 2 | 0.77 | 0.81 | -0.05* (0.02) |
| Armed Violence 3 | 0.76 | 0.84 | -0.08*** (0.03) |
| Armed Violence 4 | 0.77 | 0.78 | -0.01 (0.02) |
| Domestic Violence 1 | 0.81 | 0.75 | 0.05** (0.02) |
| Domestic Violence 2 | 0.77 | 0.81 | -0.05* (0.02) |
| Domestic Violence 3 | 0.82 | 0.70 | 0.12*** (0.02) |
| Domestic Violence 4 | 0.78 | 0.71 | 0.07* (0.04) |
| Participation in violence | 0.79 | 0.73 | 0.06** (0.02) |
| Violence at School | 0.76 | 0.90 | -0.13*** (0.04) |

Two-sample t test with equal variances, standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Logistic analysis

Leaving agriculture

Table 34: Results - 2014 - Leaving Agriculture - Armed Violence

| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|-------------------------------|--------------------|---------------------|---------------------|--------------------|----------------------|--------------------|----------------------|---------------------|---------------------|--------------------|
| Armed Violence Score | 0.0222 (0.0228) | 0.0465* (0.0245) | | | | | | | | |
| Armed Violence 1 ¹ | | | -0.149 (0.162) | 0.00704 (0.175) | | | | | | |
| Armed Violence 2 ² | | | | | 0.305* (0.177) | 0.457** (0.184) | | | | |
| Armed Violence 3 ³ | | | | | | | 0.368* (0.193) | 0.574*** (0.209) | | |
| Armed Violence 4 ⁴ | | | | | | | | | 0.0947 (0.153) | 0.188 (0.165) |
| Constant | 0.263** (0.113) | -0.208 (0.301) | 0.421*** (0.130) | -0.0459 (0.297) | 0.261*** (0.0965) | -0.171 (0.293) | 0.265*** (0.0959) | -0.239 (0.297) | 0.293*** (0.108) | -0.0984 (0.299) |
| Observations | 801 | 801 | 801 | 801 | 801 | 801 | 801 | 801 | 801 | 801 |
| Province FE | NO | YES | NO | YES | NO | YES | NO | YES | NO | YES |

The dependent variable is a binary variable equal to one if the childhood aspirations are different than agriculture. ¹Armed Violence 1 is a binary variable equal to one if the individual had to move because of war at least once. ²Armed Violence 2 is a binary variable equal to one if the individual has assisted to the destruction of his house. ³Armed Violence 3 is a binary variable equal to one if the individual has been a victim of violence by armed forces (police, army or militia). ⁴Armed Violence 4 is a binary variable equal to one if a member of the individuals family has been killed by armed forces. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 35: Results - 2014 Data - Leaving Agriculture - With Score

| VARIABLES | (1) Logit | (2) MEM | (3) Logit | (4) MEM |
|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Armed Violence Sc. | 0.0332 (0.0257) | 0.00799 (0.00619) | 0.0460* (0.0275) | 0.0110* (0.00660) |
| Domestic Violence Sc. | 0.0215 (0.0332) | 0.00518 (0.00795) | 0.0437 (0.0353) | 0.0105 (0.00845) |
| School Violence | -0.113 (0.235) | -0.0271 (0.0565) | -0.139 (0.244) | -0.0334 (0.0585) |
| Participation in Violence | -0.743*** (0.202) | -0.179*** (0.0484) | -0.783*** (0.213) | -0.188*** (0.0507) |
| Night Light 92 | 0.0911** (0.0434) | 0.0219** (0.0103) | 0.0283 (0.0398) | 0.00677 (0.00951) |
| Age | -0.0547*** (0.00609) | -0.0131*** (0.00147) | -0.0567*** (0.00645) | -0.0136*** (0.00155) |
| Female | -0.735*** (0.169) | -0.177*** (0.0406) | -0.829*** (0.180) | -0.198*** (0.0429) |
| Constant | 2.682*** (0.365) | | 2.493*** (0.451) | |
| Observations | 799 | 799 | 799 | 799 |
| Province FE | NO | NO | YES | YES |

The dependent variable is a binary variable equal to one if the childhood aspirations are different than agriculture. Regressions (1b) and (2b) are the marginal effects at the means. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 36: Results - 2014 Data - Leaving Agriculture - Armed Violence Variables

| VARIABLES | (1) Logit | (2) MEM | (3) Logit | (4) MEM | (5) Logit | (6) MEM | (7) Logit | (8) MEM |
|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Armed Violence 1 | -0.0398 (0.190) | -0.00954 (0.0456) | | | | | | |
| Armed Violence 2 | | | 0.355* (0.204) | 0.0849* (0.0490) | | | | |
| Armed Violence 3 | | | | | 0.443* (0.230) | 0.106* (0.0551) | | |
| Armed Violence 4 | | | | | | | 0.306* (0.175) | 0.0732* (0.0420) |
| Domestic Violence Sc. | 0.0463 (0.0350) | 0.0111 (0.00836) | 0.0471 (0.0351) | 0.0113 (0.00840) | 0.0491 (0.0354) | 0.0117 (0.00847) | 0.0421 (0.0349) | 0.0101 (0.00836) |
| School Violence | -0.127 (0.244) | -0.0304 (0.0585) | -0.133 (0.241) | -0.0319 (0.0578) | -0.0971 (0.245) | -0.0232 (0.0586) | -0.117 (0.245) | -0.0281 (0.0587) |
| Participation in Violence | -0.741*** (0.215) | -0.177*** (0.0511) | -0.765*** (0.212) | -0.183*** (0.0502) | -0.776*** (0.213) | -0.186*** (0.0505) | -0.767*** (0.212) | -0.184*** (0.0505) |
| Night Light 92 | 0.0290 (0.0402) | 0.00695 (0.00961) | 0.0287 (0.0397) | 0.00688 (0.00948) | 0.0302 (0.0415) | 0.00722 (0.00992) | 0.0278 (0.0390) | 0.00666 (0.00932) |
| Age | -0.0573*** (0.00648) | -0.0137*** (0.00155) | -0.0566*** (0.00647) | -0.0135*** (0.00155) | -0.0566*** (0.00648) | -0.0135*** (0.00155) | -0.0576*** (0.00648) | -0.0138*** (0.00155) |
| Female | -0.846*** (0.181) | -0.203*** (0.0430) | -0.835*** (0.180) | -0.200*** (0.0428) | -0.812*** (0.181) | -0.194*** (0.0431) | -0.837*** (0.180) | -0.200*** (0.0429) |
| Constant | 2.686*** (0.452) | | 2.536*** (0.448) | | 2.464*** (0.466) | | 2.601*** (0.446) | |
| Observations | 799 | 799 | 799 | 799 | 799 | 799 | 799 | 799 |
| Province FE | YES | YES | YES | YES | YES | YES | YES | YES |

The dependent variable is a binary variable equal to one if the childhood aspirations are different than agriculture.. (1b), (2b), (3b) and (4b) are the marginal effects at the means. ¹Armed Violence 1 is a binary variable equal to one if the individual had to move because of war at least once. ²Armed Violence 2 is a binary variable equal to one if the individual has assisted to the destruction of his house. ³Armed Violence 3 is a binary variable equal to one if the individual has been a victim of violence by armed forces (police, army or militia). ⁴Armed Violence 4 is a binary variable equal to one if a member of the individuals family has been killed by armed forces. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Aspirations coincide with outcomes

Table 37: Results - 2014 - Aspirations coincide with outcomes - Armed Violence

| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|-------------------------------|-----------------------|------------------------|----------------------|--------------------|-----------------------|----------------------|-----------------------|----------------------|----------------------|---------------------|
| Armed Violence Sc. | -0.0530** (0.0235) | -0.0732*** (0.0246) | | | | | | | | |
| Armed Violence 1 ¹ | | | 0.0229 (0.161) | -0.0727 (0.166) | | | | | | |
| Armed Violence 1 ² | | | | | -0.452*** (0.164) | -0.575*** (0.175) | | | | |
| Armed Violence 1 ³ | | | | | | | -0.483** (0.208) | -0.667*** (0.208) | | |
| Armed Violence 1 ⁴ | | | | | | | | | -0.382** (0.176) | -0.436** (0.185) |
| Constant | -0.581*** (0.112) | 0.00730 (0.241) | -0.752*** (0.135) | -0.198 (0.241) | -0.639*** (0.0964) | -0.101 (0.243) | -0.654*** (0.0951) | -0.0229 (0.224) | -0.591*** (0.109) | -0.118 (0.241) |
| Observations | 748 | 748 | 748 | 748 | 748 | 748 | 748 | 748 | 748 | 748 |
| Province FE | NO | YES | NO | YES | NO | YES | NO | YES | NO | YES |

The dependent variable is a binary variable equal to one if the childhood aspirations coincide with the occupational outcome. ¹Armed Violence 1 is a binary variable equal to one if the individual had to move because of war at least once. ²Armed Violence 2 is a binary variable equal to one if the individual has assisted to the destruction of his house. ³Armed Violence 3 is a binary variable equal to one if the individual has been a victim of violence by armed forces (police, army or militia). ⁴Armed Violence 4 is a binary variable equal to one if a member of the individuals family has been killed by armed forces. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 38: Results - 2014 - Aspirations coincide with outcomes

| VARIABLES | (1) Logit | (2) MEM | (3) Logit | (4) MEM |
|---------------------------|------------------------|-------------------------|------------------------|-------------------------|
| Armed Violence Sc. | -0.0655*** (0.0253) | -0.0140*** (0.00540) | -0.0801*** (0.0272) | -0.0169*** (0.00579) |
| Domestic Violence Sc. | -0.0783** (0.0341) | -0.0167** (0.00722) | -0.0773** (0.0354) | -0.0163** (0.00743) |
| School Violence | 0.374 (0.244) | 0.0798 (0.0523) | 0.381 (0.243) | 0.0806 (0.0517) |
| Participation in Violence | 0.750*** (0.221) | 0.160*** (0.0466) | 0.734*** (0.234) | 0.155*** (0.0489) |
| Night Light 92 | 0.0478** (0.0200) | 0.0102** (0.00428) | 0.0641** (0.0286) | 0.0135** (0.00608) |
| Age | 0.0338*** (0.00536) | 0.00721*** (0.00114) | 0.0315*** (0.00554) | 0.00665*** (0.00116) |
| Female | 0.480*** (0.172) | 0.102*** (0.0367) | 0.491*** (0.181) | 0.104*** (0.0380) |
| Constant | -2.478*** (0.317) | | -1.858*** (0.385) | |
| Observations | 746 | 746 | 746 | 746 |
| Province FE | NO | NO | YES | YES |

The dependent variable is a binary variable equal to one if the childhood aspirations coincide with the occupational outcome. Regressions (1b) and (2b) are the marginal effects at the means. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 39: Results - 2014 - Aspirations coincide with outcomes - Armed violence variables

| VARIABLES | (1) Logit | (2) MEM | (3) Logit | (4) MEM | (5) Logit | (6) MEM | (7) Logit | (8) MEM |
|---------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|
| Armed Violence 1 | -0.114 (0.178) | -0.0241 (0.0378) | | | | | | |
| Armed Violence 2 | | | -0.525*** (0.184) | -0.111*** (0.0393) | | | | |
| Armed Violence 3 | | | | | -0.571** (0.228) | -0.121** (0.0481) | | |
| Armed Violence 4 | | | | | | | -0.511*** (0.185) | -0.108*** (0.0393) |
| Domestic Violence Sc. | -0.0796** (0.0349) | -0.0169** (0.00736) | -0.0818** (0.0350) | -0.0173** (0.00738) | -0.0860** (0.0361) | -0.0181** (0.00758) | -0.0730** (0.0347) | -0.0154** (0.00729) |
| School Violence | 0.346 (0.245) | 0.0734 (0.0522) | 0.364 (0.243) | 0.0769 (0.0516) | 0.317 (0.244) | 0.0670 (0.0518) | 0.339 (0.245) | 0.0715 (0.0521) |
| Participation in Violence | 0.700*** (0.236) | 0.148*** (0.0497) | 0.692*** (0.228) | 0.146*** (0.0477) | 0.706*** (0.230) | 0.149*** (0.0480) | 0.705*** (0.229) | 0.149*** (0.0478) |
| Night Light 92 | 0.0628** (0.0276) | 0.0133** (0.00589) | 0.0633** (0.0276) | 0.0134** (0.00587) | 0.0620** (0.0279) | 0.0131** (0.00593) | 0.0627** (0.0285) | 0.0132** (0.00607) |
| Age | 0.0321*** (0.00556) | 0.00680*** (0.00116) | 0.0313*** (0.00559) | 0.00662*** (0.00117) | 0.0312*** (0.00557) | 0.00658*** (0.00116) | 0.0330*** (0.00555) | 0.00697*** (0.00116) |
| Female | 0.508*** (0.182) | 0.108*** (0.0383) | 0.512*** (0.183) | 0.108*** (0.0384) | 0.473*** (0.183) | 0.0999*** (0.0384) | 0.503*** (0.181) | 0.106*** (0.0380) |
| Constant | -2.065*** (0.383) | | -1.975*** (0.380) | | -1.885*** (0.379) | | -2.041*** (0.378) | |
| Observations | 746 | 746 | 746 | 746 | 746 | 746 | 746 | 746 |
| Province FE | YES | YES | YES | YES | YES | YES | YES | YES |

The dependent variable is a binary variable equal to one if the childhood aspirations coincide with the occupational outcome. (1b), (2b), (3b) and (4b) are the marginal effects at the means. ¹Armed Violence 1 is a binary variable equal to one if the individual had to move because of war at least once. ²Armed Violence 2 is a binary variable equal to one if the individual has assisted to the destruction of his house. ³Armed Violence 3 is a binary variable equal to one if the individual has been a victim of violence by armed forces (police, army or militia). ⁴Armed Violence 4 is a binary variable equal to one if a member of the individuals family has been killed by armed forces. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Attitudes towards working

Table 40: Results - 2014 Data - Is it important to do a job you like? - With Score

| VARIABLES | (1) Logit | (2) MEM | (3) Logit | (4) MEM |
|-------------------------------|-----------------------|-------------------------|-----------------------|-------------------------|
| Armed Violence Sc. | 0.0904*** (0.0275) | 0.0116*** (0.00353) | 0.0930*** (0.0273) | 0.0116*** (0.00340) |
| Domestic Violence Sc. | -0.0722** (0.0318) | -0.00925** (0.00410) | -0.0702** (0.0333) | -0.00877** (0.00423) |
| School Violence | 1.499*** (0.455) | 0.192*** (0.0557) | 1.530*** (0.459) | 0.191*** (0.0542) |
| Participation in Violence | -0.493** (0.223) | -0.0632** (0.0299) | -0.528** (0.224) | -0.0660** (0.0294) |
| Parents think it is important | 1.753*** (0.205) | 0.225*** (0.0230) | 1.778*** (0.215) | 0.222*** (0.0236) |
| Night Light 92 | 0.0364* (0.0216) | 0.00466* (0.00275) | 0.0520 (0.0347) | 0.00651 (0.00429) |
| Age | -0.0101* (0.00555) | -0.00130* (0.000693) | -0.00822 (0.00566) | -0.00103 (0.000693) |
| Female | -0.253 (0.184) | -0.0325 (0.0235) | -0.225 (0.186) | -0.0282 (0.0232) |
| Constant | 1.122*** (0.330) | | 0.949** (0.440) | |
| Observations | 1,146 | 1,146 | 1,146 | 1,146 |
| Province FE | NO | NO | YES | YES |

The dependent variable is a binary variable equal to one if the individual believes it is very important to do a job that he or she likes. Regressions (1b) and (2b) are the marginal effects at the means. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Wealth and education

Table 41: Results - Subset of Split-off Households

| VARIABLES | (1) Aspirations = Outcome | (2) Leaving Agriculture |
|---------------------------|------------------------------|----------------------------|
| Armed Violence Sc. | -0.0233 (0.0552) | 0.0125 (0.0532) |
| Domestic Violence Sc. | -0.0956 (0.0633) | 0.0109 (0.0606) |
| Violence at School | -0.198 (0.467) | 0.423 (0.456) |
| Participation in violence | 0.814** (0.386) | -0.912** (0.404) |
| Age | 0.0517** (0.0207) | -0.0527*** (0.0140) |
| Female | 0.423 (0.353) | -0.238 (0.314) |
| Constant | -2.753*** (0.713) | 2.774*** (0.605) |
| Observations | 243 | 253 |
| Province FE | NO | NO |

The dependent variable (1) is a binary variable equal to one if the childhood aspirations coincide with the occupational outcome. The dependent variable (2) is a binary variable equal to one if the childhood aspirations are different than agriculture. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 42: Results - Subset of Split-off Households

| VARIABLES | (1a) Aspirations = Outcome | (1b) Aspirations = Outcome | (2a) Leaving Agriculture | (2b) Leaving Agriculture |
|---------------------------|-------------------------------|-------------------------------|-----------------------------|-----------------------------|
| Armed Violence Sc. | -0.0160 (0.0541) | -0.0147 (0.0548) | 0.0316 (0.0548) | 0.0226 (0.0533) |
| Domestic Violence Sc. | -0.109* (0.0618) | -0.110* (0.0658) | 0.00703 (0.0615) | 0.0231 (0.0609) |
| Participation in violence | 0.842** (0.411) | 0.745* (0.415) | -0.816** (0.393) | -0.829** (0.402) |
| Wealth Sc. | 0.511** (0.206) | | 2.018** (0.903) | |
| Unofficial Program | | -0.453 (0.451) | | -0.343 (0.389) |
| Primary | | 0.479 (0.338) | | -0.534 (0.348) |
| Secondary | | 0.913 (1.060) | | (omitted) |
| Female | 0.457 (0.358) | 0.328 (0.357) | -0.298 (0.325) | -0.170 (0.316) |
| Age | 0.0510*** (0.0194) | 0.0518** (0.0208) | -0.0545*** (0.0146) | -0.0549*** (0.0148) |
| Constant | -2.696*** (0.691) | -2.740*** (0.760) | 3.424*** (0.683) | 3.018*** (0.666) |
| Observations | 243 | 241 | 253 | 245 |
| Province FE | NO | NO | NO | NO |

The dependent variable for (1a,b) is a binary variable equal to one if the childhood aspirations coincide with the occupational outcome. The dependent variable for (2a,b) is a binary variable equal to one if the childhood aspirations are different than agriculture. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Attraction/Repulsion matrix

Table 43: ARM - Wealth and Aspirations

| Wealth Indicator | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Obs |
|------------------|------|------|------|------|------|------|------|-----|
| Very Poor | 1.76 | 1.50 | 2.00 | 0.69 | 0.45 | 1.41 | 0.80 | 62 |
| Poor | 0.57 | 0.92 | 0.00 | 1.07 | 1.11 | 1.25 | 0.58 | 42 |
| Average | 0.65 | 1.10 | 2.5 | 0.89 | 1.69 | 0.63 | 1.36 | 55 |
| Rich | 0.75 | 0.92 | 0.00 | 1.16 | 1.18 | 0.73 | 0.53 | 48 |
| Very Rich | 1.05 | 0.36 | 0.00 | 1.30 | 0.61 | 0.94 | 1.67 | 46 |
| Total Obs | 21 | 46 | 2 | 118 | 27 | 29 | 10 | 253 |

Table 44: ARM - Wealth and Outcomes

| Wealth Indicator | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Obs |
|------------------|------|------|------|------|------|------|------|-----|
| Very Poor | 1.32 | 1.02 | 0.00 | 0.37 | 0.22 | 0.33 | 0.56 | 108 |
| Poor | 1.03 | 0.99 | 2.00 | 0.45 | 0.28 | 1.25 | 2.67 | 86 |
| Average | 0.89 | 0.99 | 1.43 | 0.69 | 1.22 | 0.00 | 1.00 | 116 |
| Rich | 1.05 | 1.09 | 0.00 | 0.43 | 0.53 | 0.42 | 0.00 | 89 |
| Very Rich | 0.60 | 0.76 | 2.00 | 3.68 | 3.23 | 4.00 | 0.78 | 74 |
| Total Obs | 96 | 321 | 3 | 12 | 20 | 13 | 8 | 473 |

Table 45: ARM - Education and Aspirations

| Education | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Obs |
|--------------------|------|------|------|------|------|------|------|-----|
| No Education | 0.68 | 0.99 | 1.43 | 0.97 | 0.96 | 1.18 | 1.61 | 88 |
| Unofficial Program | 1.06 | 0.97 | 1.67 | 1.05 | 1.41 | 0.66 | 0.00 | 79 |
| Primary | 1.36 | 1.11 | 0.00 | 0.92 | 0.71 | 1.10 | 1.43 | 79 |
| Secondary | 0.00 | 0.00 | 0.00 | 1.79 | 0.00 | 1.43 | 0.00 | 6 |
| Total Obs | 21 | 46 | 2 | 118 | 27 | 29 | 9 | 252 |

Table 46: ARM - Education and Outcomes

| Education | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Obs |
|--------------------|------|------|------|-------|------|------|------|-----|
| No Education | 0.99 | 1.03 | 0.91 | 0.91 | 1.00 | 0.83 | 0.34 | 174 |
| Unofficial Program | 1.16 | 1.03 | 1.11 | 0.57 | 0.54 | 0.00 | 1.30 | 136 |
| Primary | 0.91 | 0.98 | 1.00 | 0.77 | 1.31 | 1.67 | 1.54 | 152 |
| Secondary | 0.50 | 0.44 | 0.00 | 10.00 | 2.50 | 6.67 | 0.00 | 10 |
| Total Obs | 96 | 321 | 3 | 12 | 19 | 13 | 8 | 472 |

Annex

Table 47: Occupations - All categories

| Occupation | Aspired | | Outcome | |
|---------------------------------|------------|------------|-------------|------------|
| | Frequency | Percentage | Frequency | Percentage |
| 1. Agriculture - Export Crops | 121 | 15.11 | 418 | 27.06 |
| 2. Agriculture - Other Crops | 194 | 24.22 | 1000 | 64.72 |
| 3. Cattle Farm | 20 | 2.50 | 6 | 0.39 |
| 4. Public Sector | 264 | 32.96 | 21 | 1.36 |
| 5. Para-public Sector | 16 | 2.00 | 2 | 0.13 |
| 6. Private Sector - Agriculture | 7 | 0.87 | 12 | 0.78 |
| 7. Private Sector - Other | 58 | 7.24 | 34 | 2.20 |
| 8. Craft Industry | 12 | 1.50 | 7 | 0.45 |
| 9. Trading / Sales | 75 | 9.36 | 31 | 2.01 |
| 10. Family Help | 0 | 0.00 | 1 | 0.06 |
| 11. Apprentice | 5 | 0.62 | 0 | 0.00 |
| 12. Other | 29 | 3.62 | 13 | 0.84 |
| Total | 801 | 100 | 1545 | 100 |

Table 48: Leaving Agriculture - Average Night Light 12-18 years period - Robustness check

| VARIABLES | (1) Logit | (2) MEM | (3) Logit | (4) MEM |
|---------------------------|-------------------------|-------------------------|----------------------|-----------------------|
| Armed Violence Sc. | 0.0332 (0.0257) | 0.00799 (0.00619) | 0.0753 (0.0464) | 0.0142 (0.00869) |
| Domestic Violence Sc. | 0.0215 (0.0332) | 0.00518 (0.00795) | -0.0106 (0.0500) | -0.00199 (0.00945) |
| School Violence | -0.113 (0.235) | -0.0271 (0.0565) | -0.193 (0.316) | -0.0363 (0.0597) |
| Participation in Violence | -0.743*** (0.202) | -0.179*** (0.0484) | -0.894*** (0.308) | -0.169*** (0.0575) |
| Night Light 92 | 0.0911** (0.0434) | 0.0219** (0.0103) | | |
| Night Light, average | | | 0.0897 (0.0665) | 0.0169 (0.0123) |
| Age | -0.0547*** (0.00609) | -0.0131*** (0.00147) | -0.0407 (0.0308) | -0.00767 (0.00581) |
| Female | -0.735*** (0.169) | -0.177*** (0.0406) | -0.322 (0.275) | -0.0607 (0.0524) |
| Constant | 2.682*** (0.365) | | 2.119** (0.920) | |
| Observations | 799 | 799 | 354 | 354 |
| Province FE | NO | NO | NO | NO |

The dependent variable is a binary variable equal to one if the childhood aspirations are different than agriculture. Regressions (1b) and (2b) are the marginal effects at the means. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 49: Aspirations coincide with outcomes - Average Night Light 12-18 years period - Robustness check

| VARIABLES | (1) Logit | (2) MEM | (3) Logit | (4) MEM |
|---------------------------|------------------------|-------------------------|-----------------------|------------------------|
| Armed Violence Sc. | -0.0655*** (0.0253) | -0.0140*** (0.00540) | -0.0964** (0.0492) | -0.0170** (0.00847) |
| Domestic Violence Sc. | -0.0783** (0.0341) | -0.0167** (0.00722) | -0.0752 (0.0553) | -0.0132 (0.00961) |
| School Violence | 0.374 (0.244) | 0.0798 (0.0523) | 0.312 (0.361) | 0.0550 (0.0634) |
| Participation in Violence | 0.750*** (0.221) | 0.160*** (0.0466) | 0.804** (0.349) | 0.142** (0.0597) |
| Night Light 92 | 0.0478** (0.0200) | 0.0102** (0.00428) | | |
| Night Light, average | | | 0.0655 (0.0400) | 0.0115 (0.00705) |
| Age | 0.0338*** (0.00536) | 0.00721*** (0.00114) | 0.0850*** (0.0304) | 0.0150*** (0.00519) |
| Female | 0.480*** (0.172) | 0.102*** (0.0367) | 0.300 (0.290) | 0.0528 (0.0513) |
| Constant | -2.478*** (0.317) | | -3.719*** (0.931) | |
| Observations | 746 | 746 | 340 | 340 |
| Province FE | NO | NO | NO | NO |

The dependent variable is a binary variable equal to one if the childhood aspirations coincide with the occupational outcome. Regressions (1b) and (2b) are the marginal effects at the means. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 50: Results - Subset of Split-off Households

| VARIABLES | (1a) Aspirations = Outcome | (1b) Aspirations = Outcome | (2a) Leaving Agriculture | (2b) Leaving Agriculture |
|---------------------------|-------------------------------|-------------------------------|-----------------------------|-----------------------------|
| Domestic Violence Sc. | -0.109* (0.0618) | -0.113* (0.0660) | 0.00703 (0.0615) | 0.0205 (0.0610) |
| Armed Violence Sc. | -0.0160 (0.0541) | -0.0170 (0.0547) | 0.0316 (0.0548) | 0.0112 (0.0527) |
| Participation in violence | 0.842** (0.411) | 0.752* (0.413) | -0.816** (0.393) | -0.794** (0.394) |
| Wealth Sc. | 0.511** (0.206) | | 2.018** (0.903) | |
| Unofficial Program | | -0.452 (0.452) | | -0.339 (0.390) |
| Primary and Up | | 0.506 (0.342) | | -0.414 (0.349) |
| Female | 0.457 (0.358) | 0.328 (0.358) | -0.298 (0.325) | -0.161 (0.316) |
| Age | 0.0510*** (0.0194) | 0.0522** (0.0211) | -0.0545*** (0.0146) | -0.0549*** (0.0146) |
| Constant | -2.696*** (0.691) | -2.741*** (0.764) | 3.424*** (0.683) | 3.038*** (0.670) |
| Observations | 243 | 241 | 253 | 251 |
| Province FE | NO | NO | NO | NO |

The dependent variable for (1a,b) is a binary variable equal to one if the childhood aspirations coincide with the occupational outcome. The dependent variable for (2a,b) is a binary variable equal to one if the childhood aspirations are different than agriculture. The standard errors are clustered at the level of the survey site. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1