



Graduate School of Development Studies

**Economics of Ethnic Identities:**  
An empirical analysis of Micro-level determinants of the 1994 Tutsi Genocide:

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***Emmanuel Murangira***

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Members of the examining committee:

**Prof. S. Mansoob Murshed**  
**Dr. Robert Sparrow**

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***Inquiries:***

Postal address:           Institute of Social Studies  
                                  P.O. Box 29776  
                                  2502 LT The Hague  
                                  The Netherlands

Location:                 Kortenaerkade 12  
                                  2518 AX The Hague  
                                  The Netherlands

Telephone:               +31 70 426 0460

Fax:                        +31 70 426 0799

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## List of Acronyms

CDR	Coalition Démocratique Rwandais
ICTR	International Criminal tribunal for Rwanda
IMF	International Monetary Fund
MRND	Mouvement Révolutionnaire Nationale pour le Développement
OLS	Ordinary Least Squares
RPF	Rwanda Patriotic Front
TIG	Travaux de L'intérêt Générale

## **Abstract**

This study explores the nexus between political violence and individual strong identity perception. We examine how participation in the 1994 Tutsi genocide in Rwanda responds to identity and host of other social variables, using data collected from prisons, villages and community service work camps in the eastern province of Rwanda on 1000 perpetrators and 72 non-perpetrators. We select variables with strong explanatory power for adverse human behaviour such as identity, education level, migration, household and economic characteristics, this allows us to study the micro level determinants of participation and significance of identity in the choice to participate in genocide. Our results show that strong identity perception, being an emigrant, an urban resident, owning a tin roofed and being a land owner determine the probability of individual participation in genocide. The results are interpreted in the social-political and economic context of Rwanda.

## **Relevance to Development Studies**

An empirical analysis of perpetrator behaviour will shed light on perpetrator profile such that future policy designs for reconciliation and prevention mechanisms would deal with micro factors that influence individual choices and decision rather than approaches that do not in most cases deal with the crux of the matter “Identity and choice”. Secondly, policies formulated on this basis would intervene in further perfecting information flow to participants; such that their decisions would depend on weighing the options<sup>1</sup> by would be perpetrators to enable them make a decision on the basis of full information that outlines more lucrative alternatives to violence.

## **Keywords**

Genocide, Identities, Participation, Migration, Public Goods, Utility, Behaviour, Tutsi, Hutu, Twa,

## 1. INTRODUCTION

Genocide is not an ordinary crime, its political motivation and its social-economic impact defines its uniqueness as a form of violent political crime. It ultimately deconstructs standard notions of social values and norms, usually thought to be static such as, standard behaviour and interactions of ordinary people within society. The dichotomy between genocide and other civil conflicts lies in the relationship between perpetrators and victims. In civil wars actors, use the threat of violence to advertise their cause, to persuade, coerce, intimidate or force those they are engaged with in confrontation to submit to their demands (Gurr, 1970). In Genocides however, violence is communal, characterized by impunity, takes on a quasi legal status and targets the moral minority<sup>ii</sup>.

While civil wars are usually spontaneous responses to social-economic conditions, Genocides, are often a response of the political elite to internal or external pressure capitalizing on social or local sensitivities to consolidate their hold on power. Because it requires popular participation and resources, it draws on identity based resources. It is not spontaneous but, planned and requires political organization to elicit popular participation. Planners must devise incentive frames that will enlist high levels of participation and appeal to specific identities embedded in production mechanisms and the ability to mobilise resources to produce violence(Chiswick, 2006).

Legal theories on Genocide apportion criminal responsibility to an individual. The legal definition postulates the *mens rea* principle of individual criminal liability save when the individual is *doli incapax* in which case such a responsibility takes into consideration *animus possidendi*. Like all other criminal acts, Genocide rests on the universal principle of individual responsibility which is situated in rationality of the individual.<sup>iii</sup> Thus whether persons acts singularly or jointly with others, it is immaterial *de minimis non curat lex*<sup>iv</sup>.

Studies in human behaviour in all fields are synonymous on common traits in genocide perpetrator behaviour. They all point to fact that, human behaviour is primarily pursuits of self interests. Thus, inseparable from pursuit of self fulfilment expressed in material or conditional wellbeing or satisfactory value attributions based on individual measure of self content (Aleskerov, 2002).

Environmental concerns are secondary among determinants of individual behaviour<sup>v</sup>, they appear later in the decision making process. Such consideration appears only instrumental in devising a strategy for implementation. Thus, the decision to kill is a matter of choice, when and how to kill is a matter of strategy. Strategy has little if any bearing on the decision itself (Miller, 2001).

The choice to align with a cause is influenced by the utility that an individual perceives to emanate from a cause. Participation strategy on the other hand is a matter of expediency (Becker, 1986). The decision process is endogenous while the strategic choice is influenced by multi level externalities. The choice to align with a cause does not necessarily prescribe a kitchen queue kind of adherence, but does also produce free riders (Murshed, 2006). This may explain the fact that many people care so much for the environment as to turn up for a rally, yet, Greenpeace still finds it hard to enlist enough volunteers.

Participation in genocide just like participation<sup>vi</sup> in any other crime derives from a set of macro and micro-level determinants. These determinants maybe similar among individuals located within similar geographical, social, economic, cultural and political set of conditions. However, their individual identities which are defined by these conditions, particularly at micro-level, determine their utility perception resulting in a diversity of incentives. A protestant identity for instance may derive no utility from drinking alcohol, while an atheist will derive high level of utility from drinking alcohol<sup>vii</sup>. Suffice to say, identities are fundamental to choice and therefore central to the study of economic behaviour, because they influence economic outcomes (Akerlof, 2000).

Chiswick (2006) argues that, although these differences may seem minor such that, they may not fully account for the variations in supply and demand as do tastes and preferences of individual consumer across ethnicity, they are often quite prominent and resilient in the way they affect markets and social institutions. Being homogeneous, identity groups face trade-offs between public goods and those goods specific<sup>viii</sup> to an ethnic group.

In perfect markets, Identities determine the differences in consumption and supply of goods and services patterns or market functionality of identity specific goods and services and attendant pay-offs. They determine levels and trends of investment in activities aimed at maximizing identity pay-offs. Imperfect markets for identity specific goods and services leads to situations of collectivized pursuits of identity specific production methods to increase pay-off or seek substitutes. People will tend to gravitate towards stronger expectation and identity based affiliations in times of uncertainty. In times of identity stability, which is a time when there is perfect market for identity specific “goods”, Individuals will not engage in collective action to produce collective identity “goods” because they can maximize their pay-offs without having to pool their identity specific resources (Chiswick, 2006).

Identity-specific goods and services “Identity goods” include a plethora of items essential to individual subsistence such as food, health services and those that might not meet the subsistence criteria but, which are essential in an individuals life such as prestige, faith, belief, education, sensual feelings, sexuality, sense of self and belonging (Chiswick, 2006). Resources<sup>ix</sup> related to these consumption patterns are Identity-specific. Important examples of Identity resources are productive skills related socially stratified roles. Much of these resources are developed within the identity groups as common norms and standards of behaviour, they affect the way in which people relate to the larger society in which the Identity group is embedded. The processes of resource accumulation is itself group-specific and for specific identity productivity purposes.

The analysis developed in this paper begins with the assumption that each individual belongs unambiguously to one and only one Identity group. For simplicity and specificity to the Rwandan context, we assume only three distinctive Identity groups, which we refer to through out this paper as “identities”. Chapter two summarizes the Rwandan context and gives the background to the genocide, and chapter three reviews the literature on behavioural economics theories and their suitability in analysing adverse human behaviour. Chapter four discusses the data collection, sampling methods and presents summary statistics. In chapter five we develop and describe the analytical model as well as present the estimation strategy. The sixth chapter is devoted to discussion of estimation results while the chapter that follows summarizes policy implications and provides conclusions based on the findings.

## 2. CONTEXT

### 2.1 *General Context*

Genocide is no ordinary conflict, the very nature of its commission and its transient character across disciplines in academia, situates it in a unique albeit, complex and extraordinary level, that is not only rare, but intriguing as a field of study. It is the extraordinary level and proportion of violence and popular participation by ordinary people that sets the 1994 Tutsi genocide apart from other forms of conflict.

Both oral and written history of Rwanda place the founding of the state of Rwanda between the 14<sup>th</sup> and the 15<sup>th</sup> century (Kagame, 1943). What became the state of Rwanda and the precursor to the current Rwandan Republic was initially fragmented kingdoms and principalities. At the turn of the 18<sup>th</sup> century, the kingdom of Rwanda emerged as a unified state amalgamating the other principalities and small kingdoms in central and southern Rwanda. By the 19<sup>th</sup> century the Greater Rwanda Kingdom had consolidated its power in the east, the north, north east, south east and in the west.

Historical evidence shows that even at the time of its metamorphosis, the state of Rwanda was made up of three ethnic groups, the Batutsi, Bahutu and Batwa<sup>x</sup> (Kamalu, 2007). The three groups spoke the same language, practiced the same religious rituals and observed the same cultural norms; the only distinguishing feature seemed to be their industry. The Tutsi were pastoralist, the Hutu were mainly agriculturalists and the Twa were potters in addition to being tanners.

A lot of literature tends to allude to differences in physical features in an attempt to underscore distinctions between the three identity groups. While there are demerits of this approach in studying the social set up of the Rwanda society, it goes beyond the scope of this study and we shall not therefore venture into the debates on the merits and demerits of the approaches used in different disciplines. It is worthwhile to point out that, despite the inter identity group distinct differences; all the three identities were highly amorphous. People crossed identity lines to adopt a different identity. A poor Tutsi, who had lost his herd of cows either to epidemic or disfranchisement would be reduced to an agriculturalist and with time identified himself as Hutu (Kagame, 1952). This was even more common among the Hutu and Twa; their wealth and elevated economic status would make them Tutsi. This process was known as “*kwihutura*”. Thus whether one became a Hutu or Tutsi, it depended on their wealth more than their lineage (Shyaka, 2005).

One other interesting phenomenon can be found in pre-Christian religious rites, rituals and traditional religious literature. Kagame (1976) in his book “*L’historicité de Iyangombe, chef des Imandwa*” underscores the dependent nature across all the three identity groups. He highlights the shared rituals and religious rites among the three identity groups (Kagame, 1976).

The first colonial power to colonize Rwanda was the Germans at the turn of the 19<sup>th</sup> century. Up to and until the arrival of the Germans, Rwanda was organised around a central monarchy. Roles and responsibilities of each group were distinctly defined according to industry (Kagame, 1952). Before declaration of the German sphere of influence in 1888 and subsequent colonization, Rwanda was ruled by a king with the help of two chiefs (*Abatware*) for each county (*umusozi*). These chiefs had different yet complementary roles; one chief was responsible for pasture (*umutware w’umukenke*) who was Tutsi, while the other was responsible for agricultural production (*Umutware w’ubutaka*) both of them exercise their power at the prerogative of the King and did not interfere with each others responsibilities (Shyaka, 2005).

This system seemed to have been a taxation mechanism where, the king held the chief responsible for revenues that accrued from both industries<sup>xi</sup> (DesForges, 1999). While the King’s rule was direct in all parts of the Rwandan Kingdom, some parts of the North West

enjoyed a measure of autonomy and they were ruled by “*äbahirza*” who were mainly Hutu priests, religious rites and ritual agents of the traditional religious institutions that spanned what is currently the great Lakes Region<sup>xii</sup> (Bigirumwami, 1978). Another reason is that the region was predominantly agricultural and therefore no pasture chiefs were required in the region.

Although the colonial administration did not invent the Hutu, Tutsi and Twa identity groups, their formalization by the colonial administration had a profound impact on intra society dynamics<sup>xiii</sup>. Inevitably, formalised identities removed the earlier mobility that did traditionally move people from one identity to another (Straus, 2006). Thus, despite the weak evidence that a people of the same language, religion, clans and even lineage could be different ethnically, the three identity groups were polarised in a highly ethnicised social-political landscape (Shyaka, 2005).

Traditionally, identity groups in Rwanda were of more an economic arrangement as opposed to differences in origin. Institutional frameworks and power structures were primarily dictated by the economic order, social-political and religious structures within the wider Rwandan society as oppose to identity groups and/or lineage or clan relationships (Bigirumwami, 1978). This view departs from the “ancient tribal hatred hypothesis” that was popularized by the media and embraced in some academic circles. Scott Straus (2006) rejects the latter hypothesis on the ground that the “Hutu” and “Tutsi” are not stable. The formalization of identity did remove an important characteristic of the pre-colonial Rwanda social architecture. The fluid nature of identities was no longer possible and brought about a shift in power relations which altered trans identity interaction (Straus, 2006).

The policies of the colonial administration embed in the Hermitic theory amplified inter ethnic identities (Shyaka, 2005). Their education policies for instance favoured the upper class, mainly Tutsi chiefs and ignored the other classes across all the identity groups. This in turn meant that administrative jobs and even participation in the new economic order became the preserve of the elite (DesForges, 1999). These policies were implemented by the new elite, chiefs and sub-chiefs imposed by the colonial administration.

While demands for independence<sup>xiv</sup> were gaining momentum. The formalization of identities played an important role in the changing political landscape. The Belgian administration and the Catholic Church<sup>xv</sup> used the formalised identities in co-opting the Hutu elite to replace the Tutsi in a new arrangement. The colonial administration and the Church aided the emerging Hutu elite in mobilizing the Hutu population in what was later the 1959 Hutu revolution (DesForges, 1999).

Rwanda attained its independence in 1962 amid chaos and mayhem that had started with the 1959 Hutus revolution. The “1959 revolution” came with the 1959 Tutsi genocide presided over by the Hutu elite with the support of the colonial administration and the Catholic Church (Linden, 1977). The violence apart from killing thousands of Tutsis also led to mass exodus of the Tutsi across the borders to the neighbouring countries and beyond (Prunier, 1995b).

The first post independence government of Rwanda was led by Gregoire Kayiband. The new administration presided over a series of Tutsi massacres in 1963, 1965, 1967 and in 1973. Most of the Tutsi elite in public service and the private sector were either killed or forced to flee to neighbouring countries. The violence did not only target the elite, but also poor Tutsi peasants and pastoralist. Thus from 19962 to 1973 when the administration was militarily overthrown hundred of thousand of Tutsis had been forced out of Rwanda into neighbouring countries (Linden, 1977; Prunier, 1995b).

After the 1973 military coup d’ éta by Habyarimana, ethnicity in public parlance was suppressed. However, the Tutsi discrimination policy remained unchanged (Straus, 2006). Tutsis were still barred from education and public service employment y a quota system. Intermariages however, were still common across identity groups, as were cross identity

cooperative behaviour and traditional social networks (Straus, 2006). Hutu and Tutsi remained neighbours, lived alongside each other in villages and hillsides.

Years of Habyarimana's rule did little towards strengthening the economy. The few state investments were in mining and agriculture and private sector was not thriving either. The few state enterprises were characterized by political patronage (Berlage, 2004). In the eighties, the fragile economy was further weakened by structural adjustment programme of the IMF and the World Bank. By the end of the eighties the economy was constrained by both falling commodity prices and structural adjustment programme.

The 1<sup>st</sup> October invasion by the RPF; a rebel force made up of exiles from the violent massacres since 1959 worsened the government position both politically and economically. The government faced with rising military expenditure coupled with a weakening economy served to further its economic woes. The government's response to the RPF's invasion was even more disastrous, its initial refusal to find a negotiated solution led to unprecedented capital flight (Storey, 2001). Among the responses of the government to the RPF invasion was to round out the Tutsis and put them in detention centres and prisons countrywide (DesForges, 1999; Prunier, 1995b). The Rwandan government of the time sought to divert the focus from the critical issues of the civil war and worsening economy.

The advent of multi-partyism brought with it a strong clamour for change (DesForges, 1999; Omar, 1995; Straus, 2006). Parties pushed and were able to coerce the government into a coalition even before the general election. The new coalition with a majority in government entered negotiations with the RPF and signed the Arusha Peace Accord in mid 1993 which was to pave the way for a power sharing arrangement before a general election planned after two years transition. This did not go down well with the MRND stalwarts and hardliners who saw power sharing as losing power to RPF which was in their view a Tutsi movement<sup>xvi</sup>. Hardliners<sup>xvii</sup> sabotaged and frustrated the implementation of the Arusha accords<sup>xviii</sup>. They intensified their campaign on radio and news paper, recruited a parallel militia and campaigned among the Hutu raising fear and evoking identity passions. At this stage, identity became a defining factor and there emerged a level of "Hutu" nationalism like there had never been before (Omar, 1995; Straus, 2006). Even among the rural folks who lived side by side with Tutsis begun to subscribe to the new meaning in the Hutu identity "the enemy of the Tutsi" peaceful coexistence collapsed. It is against this background that the Genocide started, the massacres of the Tutsi in Kibirira in the North West in 1992 and in Bugesera both in 1992 and 1993 culminating into the 1994 genocide (DesForges, 1999; Omar, 1995).

The threat of collapse of Arusha accords which had been brokered by regional leaders, sponsored by the international community prompted regional leaders to call for a meeting in Dar es Salaam, to pressurise the president to implement the Arusha Peace Accords. On April 6<sup>th</sup> 1994, when the then president was returning from the meeting, his plane was shot down while on descent into Kigali Airport and he was killed<sup>xix</sup> (Omar, 1995; Prunier, 1995b). Immediately the Genocide begun and spread all over the country. Calls were broadcast on RTLM an extremist Hutu owned private radio and later on Government owned radio. The genocide was achieved with daunting speed and efficiency.

Most intriguing characteristics of the Rwandan genocide is not only the efficiency with which it was carried out, but the behaviour of those who perpetrated it. That people killed close relatives including spouse and children in the name of Hutu identity is beyond comprehension albeit a reality of the Tutsi genocide<sup>xx</sup>. That a big number of Hutus risked their life to save Tutsis and some even lost their lives for doing that is another reality that makes a study of the Rwandan Genocide intriguing and extremely complex (DesForges, 1999).

## *2.2 Empirical Studies on the 1994 Tutsi Genocide*

The 1994 Tutsi genocide is perhaps the only well known Tutsi genocide among other genocides that have been committed against Tutsi populations since 1959. Notwithstanding all the available literature in other disciplines, very few scholars have used economics approaches to study the 1994 genocide. Most notable, is Philip Verwimp who has published a number of insightful articles based on analyses of diverse datasets.

Verwimp (2004), presents results from a binary logit model estimation based on two cross section data sets collected from three regions in the south of Rwanda and collected over two different periods. The first cross section was a household survey undertaken in 1988 by the department of agriculture and the Michigan State University, in collaboration with the Ministry of agriculture. The second cross section dataset was collected in the three regions using a tracing method that traced some of the households involved in the earlier survey. Verwimp (2004) finds that off-farm income has a significant effect on the probability of one being a perpetrator. He finds that the higher the income from off-farm employment or income generating activities, the higher the likelihood of one's participation in Genocide.

Land in Rwanda has been presented as one of the major factors that may have contributed to popular participation in the 1994 genocide at micro level. Most literature on the 1994 genocide, are almost tautological on lack of land or small land holdings as the cause of Genocide. Going by this, one would expect that the landless or those with small landholding would be more inclined to participate in genocide. Andre and Platteau (1998) assert that the genocide provided an opportunity to settle scores most of them land related. They seem to suggest that land was the defining factor in the decision to participate in the genocide and in essence suggesting that the genocide was nothing short of a land related conflict.

While Verwimp (2004) acknowledges that land in Rwanda was an important social issue, his findings however reject in totality the findings presented by Andre and Palteau (1998). He questions their methodology and approach to the study, based on the findings that people active in the land market had a higher probability of participating in genocide. In fact people who invested more or had large land holdings seemed to be pre-disposed to participation in genocide compared to those who had invested less in land or had little access to land (Verwimp, 2004). He finds a household activity in relation to land and labour market to be a good predictor of participation particularly for a male household member.

Paradoxically, people who were landed, including those with sizeable land holdings seemed to exhibit high likelihood of participation in genocide more than those that were landless or had small land holding. This challenges the inclusion of land as an explanatory variable in empirical analysis and questions its explanatory power considering that the general expectation would have been that the "wealthy" would be less inclined to participate in violence and would instead be protecting their property.

Interestingly Verwimp (2005) basing on regression results concludes that the high level of participation by the landed and those who were relatively well-off is an indication that people who were relatively wealthy had a lot to protect by participation rather than the other way round. In support of his foregoing argument, he asserts that the landless and those dependent on labour from the wealthy were placed in vulnerable position and thus their participation was indeed not driven by prospects of gaining land from their participation, but by their vulnerable position, which meant loss of income prospects.

Most of the literature on the 1994 Tutsi genocide is synonymous on the participation of the elite whether rural or urban. Local elites were particularly active in genocide; no wonder then that no-farm incomes or wages play an important role in explaining perpetrator characteristics. In Rwanda, the government or the political establishment was the largest employer even in rural areas, thus a main source of income for the local elite. Being the main source of income for the elite, the state had a strong hold on the elite (DesForges, 1999). In

turn, the elite derive political power from this symbiotic relationship which assures them access to lucrative economic opportunities (Kuper, 1981). Thus this locates participation in genocide in the political economy realm, where the elite will participate to maintain their political power and secure their economic well being. The poor on the other hand as providers of labour are enlisted using both coercion and promise of pie when the tidal wave of mayhem subsides.

One of the elements of the literature cited here and other literature on genocide that has not been cited here, but which scholars agree on, is the pecuniary expectations of perpetrators of genocide. That participation in genocide more so at the micro-level was underlined by expectations of pecuniary and intrinsic gains is not in question. Most important however is to be able to distinguish between pecuniary and those gains that are intrinsic in nature, such as identity and its role on individual decision to participate in violence.

### 3. THEORETICAL FRAMEWORK

#### 3.1 *Basic Behavioural Economics Theories*

Individual behaviour is assumed to be rational; thus decision to allocate resources in production or recreation is subject to trade-offs between equitable returns to resources invested and the cost that maybe incurred in the processes. An individual will weigh the opportunity cost against the utility derived from an action and will chose the more lucrative of the two. In violence, like any other rational action, individuals will weigh the cost of not behaving peacefully and the lootable rents that might accrue from their violent behaviour or even the prestige, respect and a sense of accomplishment from their violent behaviour (Addison, 2003; M. S. Murshed, 2006)

Behavioral theorists argue that adopting, and maintaining a specific identity is associated with certain pecuniary or intrinsic utility. The choice to adopt or reject a given identity is determined by pecuniary and intrinsic benefits and the opportunity costs it imposes on the individual. This means that, individuals experience identity based pay-offs or trade-offs. They may emanates from their own actions, actions by others and externalities to the pay-offs generated by other parties other than themselves (Akerlof, 2000). The pay-offs and trade-offs as determinants of decision making give identity a character that oscillates between benefit and cost cycles over time (Stigler, 1950). The need to optimize these gains, influences competition to maximize utility and determines the choice of competition methods such as active behavioral traits to achieve an end that will yield pay-offs<sup>xxi</sup>. The choice to maximize utility leads an individual to attach a higher value on outcomes of a criminal enterprise and a low value on the opportunity to refrain. The individual will then forego the opportunity to refrain because it is not lucrative to do so (Stanpoulos, 1996).

The most prominent behavioural trait is that of hyperbolic discounting, proposed by Ainslie (1975), in which a high rate of discount is used between the present and the near future, and a lower rate between the near future and the far future (Ainslie, 1975). Ainslie (1975) argues that, a response to threat of individual inconsistency determines the basic fabric of human culture. This suggests that individuals are more like populations of bargaining agents than the hierarchical command structures envisaged by cognitive psychologists. This perspective helps us understand so much that is puzzling in human action and interaction: from self-defeating behaviours to wilfulness, from pathological over-control and self-deception to subtler forms of behaviour such as altruism, sadism, gambling, and the "social construction" of belief.

In game theory an individual's success in making choices depends on the choice of others in the same situation. Game theory was initially developed to analyse competition where one individual achieves success at the expense of the other (the zero sum game). It has since been expanded to include a broad range of interactions such as in emotional relationships as well as choice of a marriage partner. Conventional applications of game theory attempt to find equilibrium in these sets of strategies in which individuals are unlikely to alter their behaviour (Aliprantis, 1999). It usually focuses on particular sets of strategies known as equilibrium in games. In non-cooperative games, the most famous of these is the Nash equilibrium. Strategies are in Nash equilibrium if each represents a best response to the other strategies. So, if all the players are playing the strategies in Nash equilibrium, they have no unilateral incentive to deviate, since their strategy is the best they can do, given what others are doing. The payoffs of the game are generally taken to represent the utility of individual players(Bierman, 1998).

Models that rely on rational choice theory often adopt methods that view society from an individual perspective; they view society as composed of individual actors whose action are

driven by individual desires, choices and decisions hence, the assumption that collective behaviours are the result of individual actions. The underlying principle of behavioural economics concepts is the assumption that, the economic agent is a rational being who acts rationally at all times. Strange as this may seem the assumption is not far from the truth. People act rationally even under the most unlikely circumstances. It has been empirically determined that people under heavy interrogation which involves extreme physical torture, will lie despite the pain and the full knowledge that lying might worsen their condition. This is the reason why, people under physical torture will mostly end up dead without giving any useful information. They stretch their interrogators to their limit. Thus rationality is neither inhibited by environmental conditions nor obscured by conditions external to the individual's own perception of value (Stanpoulos, 1996).

Patterns of behaviour in societies reflect the choices made by individuals as they try to maximize their benefits and minimize their costs. The 1994 Tutsi genocide is a case in point, where years of indoctrination generated a sense of identity which in turn determined the way in which people behaved and related to their neighbours and sometimes relatives. One of the major criticisms of this approach, albeit an unfair one, is that one cannot attach cost or price on everything, nor can everything be visualized in monetary terms (Zafirovski, 2000). This line of thought is to say the least prosaic; it ignores the cardinal fact that, cost cannot be visualized in purely pecuniary terms at the expense of costs that are purely of intrinsic value (Mureshed, 2006). Violence in defence of identity or any common cause will not necessarily generate pecuniary benefits, but will in the short and long run ensure identity supremacy, which is a source of immense pleasure, prestige and a sense of self fulfilment.

Rational decision making entails choice of a course of action, given one's preferences. In a state of chaos, people with a strong sense of identity will be inclined to participate in genocide if they were convinced that by participating they would benefit from property of those they eliminate prestige and praise as people who purged their society of enemies. This raises the value of perpetuating violence than the benefits that may accrue from peaceful behaviour. Non-participation On the other hand invokes a sense of fear, inadequacy and defeat, outweighing the benefits that accrue from peaceful behaviour. The option of not participating becomes less attractive as the cost of non-participation is higher than the benefits that are generated by non-participation(M. S. Murshed, 2006). Although there are many reasons for a rational choice theory approach, two are important for the social sciences. First, assuming humans make decisions in a rational, rather than random manner implies that their behaviour can be modelled and thus predictions can be made about future actions. Second, the mathematical formality of rational choice theory models allows social scientists to derive results from their models that may have otherwise not been seen.

Altruism another rational choice theory concept that explains human behaviour, is defined as a concern for the welfare of others, selfless giving without as much as prospects for returns. It has been associated with charitable acts, where people make donations or contribute to a cause for the benefit of society or the other without expecting or anticipating person benefit from their actions. The dilemma that researchers have faced in drawing the bounds of altruism includes the definition of returns to altruistic acts(M. S. Murshed, 2006). The biggest question is whether nonmaterial gains from altruistically motivated actions are gains that accrue to altruistic individuals.

One other dilemma is where people can conceive and exhibit altruistic behaviour, without altruistic motives. This assertion is situated in the logic that, self seeking behaviour demands a degree of selfishness. Thus as long as one is using public goods, they deplete common resources

and infringe on others ability to enjoy the use of those goods. There is a thin line between altruistic acts and acts that may appear to be altruistic, but intended for self-preservation. Examples that can be drawn from the African conflicts are situations where people support a cause without necessarily offering material support or involvement in physical perpetuation of violence. Another behaviour that is altruistic is where corrupt individuals will give generously to a common cause in order to cover up for the damage they do to society.

The Altruistic person derives utility from the utility of the recipient. Altruism can be applied to the study of individual behaviour in their decision or motivation to align themselves with a cause or a way of life. Pure altruism does not require direct participation, utility can be obtained passively; without active participation. Another form is the impact philanthropy when individuals feel compelled to actually take direct action in delivering utility to the recipient (Mureshed, 2006). Altruism can explain over subscription of events such as mass violence, demonstration and even post conflict social cohesion of homogenous communities. In all the cases however, the common denominator is rationality of actors with competing interest and facing certain constraints.

In its simplest and most basic form, rational choice theory as a principle theory for understanding human behaviour, postulates that, economic agents are rational and in their decisions, weigh the best cause of action influenced by both the level of derived utility and the opportunity cost involved (Duncan, 2003). If the utility derived from an action is higher than the opportunity cost of refraining from such an action, the economic agent will choose a cause of action that guarantees higher utility, irrespective of the attendant risks. Thus an economic actor is inherently not risk averse.

### **3.2 Some Conflict and Violence Models in Economics**

Legal theories on Genocide as a crime against humanity apportion criminal responsibility to an individual, thus justify the need to study genocide and crimes for that matter at micro-level. The legal definition postulates the *mens rea* principle of individual criminal liability save when the individual is *doli incapax* in which case such a responsibility considers *animus possidendi*. As a political crime, it rests on the principle of individual responsibility situated in individual rationality.<sup>xxii</sup> Whether persons act singularly or jointly with others, it is immaterial *de minimis non curat lex*, the choice to participate in a criminal enterprise knows no influence, but the bounds of costs and profit.

The dichotomy between genocide and other civil conflicts lies in the relationship between perpetrators and victims. In civil wars violence entrepreneurs use the threat of violence to advertise their cause, to persuade, coerce, intimidate or force the other to submit to their demands (Gurr, 1970). Political violent conflict is usually a result of harboured grievances or perception of a raw deal for a section of society (Gurr, 1970; M. S. Mureshed, 2008). Relative deprivation is perhaps the best concept that can explain such a state within a social setting where people feel aggrieved or find their life conditions not meeting their expectations, relative to the opposite side of the social divide.

Studies in human behaviour reveal a common trait; they all more or less point to the fact that human behaviour is primarily pursuits of self interest. Adverse behaviour is therefore, an outcome of rational consideration where an individual weighing the option between returns to engagement and the opportunity cost to avoid adverse behaviour. Thus an individual chooses to engage in violence because they expect utility proportionate to their level of participation.

Unlike other forms of conflict, in Genocides violence is communal, characterized by impunity, takes on a quasi legal character and has always been intended to annihilate the moral minority<sup>xxiii</sup>. While civil wars are usually spontaneous responses to social-economic

conditions, Genocides requires political organization to achieve. Because it depends on large scale participation, its planners must devise incentive frames to enlist high levels of participation (DesForges, 1999; Straus, 2006). In devising incentive frames to enlist popular participation these leaders capitalize on relative deprivation. In cases where relative deprivation may be absent like in the case of the genocide against the Tutsi<sup>xxiv</sup> in Rwanda, they capitalize on prevailing circumstances to ignite a sense of relative deprivation within the supporting population<sup>xxv</sup>.

Ethnology theory argues that adopting and maintaining a specific identity is associated with certain pecuniary or non pecuniary gains characterized by value expectation and value capabilities of an individual. Rational choice theory postulates that, economic agents will chose their actions based on expectations of deriving utility from a cause of action (Akerlof, 2000). The choice to adopt or reject a given identity is determined by benefits as well as the opportunity costs it imposes on the individual. The choice of identity will determine the cost or utility perception of an economic agent and determines individual susceptibility to violent behaviour or otherwise. The need to maximise utility influences the choice of competition methods.

Incentive frames capitalize on social- political and economic needs in society that, are usually occasioned by a set of economic shocks at a certain time. They appeal to a certain creed that firstly seeks to apportion blame for their woes on some perceived enemy and violence becomes a mode of consumption smoothing. This ignites the appetite for personal gains from lootable resources as a reward for participation or an enhanced social status that promises participants access to rents that may accrue from future economic, political or social conditions(Arnson, 2005). People may take the path of violence motivated by their belief in a cause, and then postulate a legitimate grievance against their perceived enemy. However, the demand for inputs for producing violence or to sustain conflict does often lead to rent seeking behaviour (Kandeh, 2005). This change-over in the realm of adverse behaviour has been presented as a behavioural dynamic that starts off as grievance, motivated by creed and later metamorphosing into greed. Greed therefore is a distinct economic motive and differs from social political grievances that are generated by the social systems (Murshed, 2007). Greed is generated by the need to sustain capacity for violence, despite some of the loot ending up in person possessions of individuals involved in the conflict. Thus the act of amassing wealth in rebel movements is not usually a matter of policy but, a moral issue which is also prevalent in Governments that generate grievances.

Violent conflicts that are quintessentially of political nature are often funnelled by poverty and horizontal or vertical inequalities characterized by both economic policy failures and/or policies that exclude sections of society (M. S. Murshed, Tadjoeeddin, Z. M, 2007). These politically motivated violent conflicts require economic resources in terms of capital to invest in the equipment or terror production machinery, and the human capital to operate them (Kennes, 2005). Participants in these conflicts often adopts varying predatory behaviour that include kidnapping for ransom, extortion and theft as it is common in Somalia, among the rebels in northern Uganda and the eastern part of the Democratic Republic (Arnson, 2005). In their paper “reappraising greed and grievance in explaining violent internal conflict,” Murshed and Tadjoeedin (2007) find that, appropriation of natural resources, contributions from sympathetic Diaspora, contributions to hostile states opposed to the regime or other entities with economic interests in the region of conflict is the common source of rebel finance. Mineral resources being the most highly rated above the other three sources. While sponsors may exhibit a variety of behaviour traits, among them greed, there exists no empirical evidence to attest to the fact that the advent of violent conflict is an outcome of premeditated greed. Evidence to the contrary however abound: The fact that grievances ignite creed and gravitation towards a

cause capitalizing on transient or long term social political conditions to precipitate violent conflicts is an established fact (Murshed, 2007).

Although greed may explain the economic opportunity to fight (Collier, 2004), it does not explain the conditions preceding the onset of violent behaviour or the motivation for choosing conflict over peaceful behaviour (Zartman, 2005). While economic agents may in their decision to align with a cause, exhibit optimizing behaviour, it would be imprudent to propose that this being the case, the sole consideration in aligning with a cause is pecuniary in nature. In this case the econometric model to establish such validity would have to disaggregate explanatory variables in the optimising behaviour model into minute detail to compare those interests that maybe pecuniary in nature and those that are solely of intrinsic value in order to present a variable that has a stronger explanatory power than all the others. According to Murshed and Tadjoeddin (2007) “if economic agents are actuated by self interest, we must demonstrate why they chose war over other alternatives. Thus any motivation for greed must be based on the economic motivation for violence and criminality in the first place<sup>xxvi</sup>.”

Economic models of conflict and violent behaviour are infinitely useful in understanding unique forms of violent behaviour such as genocides. Although conflicts maybe said to differ from genocide generally<sup>xxvii</sup>, at the micro-level, both genocide and conflict bear similarities such that generic models of the latter can be developed from models specifically designed for the former.

### ***3.3 The Utility Function and Identity***

The strength of identity in explaining decision under uncertainty has been a well-identified empirical fact. In fact the essence of the theories of decision under uncertainty is characterized by their underlying presumption of the role of identity in individual decision making process. According to Chiswick (2006) individual actions are underscored by the identity one ascribes to and the identity-specific resource accumulation processes that are unique to an identity group and are meant to develop a set of specific skills for producing identity specific goods and services. These in turn generates specific utility and are constrained by certain cost.

Membership in an Identity group is understood to be a “good<sup>xxviii</sup>” because it has both pecuniary and intrinsic pay-offs as well as trade-offs. Chiswick (2006) notes “it is desirable but, not costless”. Assuming a given identity or assimilation to a given identity group yields intrinsic and pecuniary benefits, but requires diversion of resources from other uses. Although the cost of identity cannot necessarily be quantified in monetary terms, it is best treated as a good that combines both identity specific goods and services and the amount of time expended on identity-group specific activities (Akerlof, 2000).

Although behaviour is an outcome of a choice made by an individual, the choice itself is underscored by the individual’s identity and education<sup>xxix</sup>. People’s choices are influenced by their value attribution, value capabilities, a set of specific skills, cultural norms and education. These factors determine the value that an individual attributes to a given action. A crop farmer may attribute value to time by season because his crops are seasonal, while a pastoralist time may be valued by the length of day light, because he will have to graze livestock from sunrise to sunset, with time to water and perhaps rest. Consequently, one may culturally find it alright to eat a given type of food, while another may find it culturally repulsive. Thus value perception is actuated in identity and is one of the critical factors in decision making process.

Factors that underpin identity formation influence the way an individual chooses their action (Akerlof, 2000). Thus while rationality will involve the process of trade-off, the identity serves to attribute value and therefore eliminates on value criteria those goods and services that will be by default out of the bundle as they will be of no utility to the individual and their consumption may

impose a greater cost on one's identity than the utility derived. Identity influences economic outcomes and thus identity is utilitarian in nature and is subject to trade-offs (Akerlof, 2000).

Akerlof and Kranton (2005) present a series of identity-related behaviours, they argue that, people generally have identity-related pay-off derived from their own actions, actions of others and there are externalities independently generated to those pay-offs. It determines the way in which individuals across the identity divide perceive each other, with clear demarcation based on differences in behaviour traits acquired through identity-based learning and skill formation that reinforces identity sense of self.

Differences in identities generate externalities across identity demarcated lines (Akerlof, 2000). An action acceptable by one identity group may evoke a series of mixed responses from other identity groups, where it may be considered outrageous and an affront to the others' self-esteem and a sense of pride. Female genital mutilation or female circumcision for instance affords a good example; where some communities derive a sense of pride while others find it utterly repugnant and inhuman. In the foregoing example, identity groups across the divide have their own set of values that reinforce their identity and which influence the bundle of goods and services that they may consider in making their choices for consumption or taking action within and outside their identity groups.

Identities evolve within society and with them evolve a system of incentive frames that manipulate the dynamics in identity formation or individual compliance with set of parameters prescribed as befitting adherent behaviour. The evolution of a strong or extremist Hutu identity in Rwanda in the last two decades of the twentieth century for instance, evolved alongside incentives rooted in the education system adopted by the state, distribution of wealth processes and a false sense of political power for the majority. Thus incentive frames raised the utility level that one would expect from ascribing to a Hutu identity, which held an enormous prospect of advantage above the other identity groups. On the other hand, the cost of doing violence in perceived defence against an affront to Hutu identity became lower compared to the utility derived from the violence, in the process diminishing the value of peaceful coexistence with other identity groups.

Individuals face tradeoffs between public goods or goods that are shared by different identity groups and those that are specific to their own identity groups. Similarly, they allocate their budgets between shared and identity-specific consumption. Thus participation in identity-specific activity will generate intrinsic pay-off and on the other hand generate costs. They derive utility from participating in identity-specific activities, just as much as they may incur a cost for doing so.

If violent behaviour is made costly by prospects of reprisal, retribution or punishment, its shadow price will diminish and shadow price of peaceful behaviour will appreciate. Consequently, producing violence will no longer be lucrative as a means of deriving utility from one's identity. In a state where there is no prospect of punishing crime or where the punishment for a crime is light people will find it lucrative to engage in crime rather than work, since work pays less in comparison to crime.

Identity groups and individuals within them have specific endowments which include time employed in producing identity-specific goods and services, but also in accumulation of resources that are important in developing identity-specific skills. These resources are accumulated through a process of interactive learning that is part of identity group structure and architecture. They also include population adjustments through migration, assets accumulation, transfer of experiences and skills. These define intra-group power relations, production and consumption patterns. Similarly, groups and individuals are engaged in the

production process of public goods through provision of resources such as labour, skills, investible assets and experience. They invest in productive processes through participation at different times and different levels. Their Maximization of utility derived from identity-specific goods and public-goods is dependent on their participation in identity-specific activities and production of public-goods and services. This includes participation in education and skill-building activities, migration, economic activities, and social-political. Each Identity group is part of the larger society and each has group-specific Identity goods,  $I$ , that effectively define its Identity. Since identity groups and individuals are consumers of both private and public goods, utility-maximizing consumers will seek to maximize their utility from both Private goods<sup>xxx</sup>  $P$  and Public goods  $Y$ . The utility problem can be expressed as:

$$\text{Max}U(I,Y) \quad \text{Subject to } T_I + T_Y + T_R = T^* \quad (1)$$

Where  $I$  = Identity

$Y$  = All public goods (shared with other identity groups)

$T_I$  = Participation in Identity-specific activities (production of private goods)

$T_Y$  = Participation in all activities

$T_R$  = Participation in productive resource accumulation (education, skill building) and

$T^*$  is participation<sup>xxxi</sup> in general productive activities irrespective of their nature.

Productive resources may or may not necessarily be for producing tangible goods only. They refer generally to the skills, experience and productive capacity used in producing consumption goods<sup>xxxi</sup>  $I$  and  $Y$  respectively. These goods and services may include shared solidarity with an identity group's cause(M. S. Murshed, 2006), aggressive or defensive violence, compassion and any other act that may be perpetuated in the name of an identity group whether for self-preservation, uncooperative or cooperative behaviour or competitive tendencies. The difference between identity productive resources and public goods productive resource is that the former refers to skills and experiences idiosyncratic to the identity while the latter is for aggregated production that is useful to the wider society.

For example, Identity productive resource,  $P_I$ , may include an Identity group specific belief, faith, or behaviour peculiar to that group and affecting the way individual within the group relate to each other, while productive resource shared by all Identity groups,  $P_Y$ , would include skills and experiences useful for everyone irrespective of their Identity. For simplicity, we ignore the role of purchased goods and services, let the two consumption goods  $I$  and  $Y$  be produced using specific productive resources for each of them.

$$I = f(p_I T_I) \quad (2)$$

$$Y = g(p_Y T_Y) \quad (3)$$

Where  $P_I$  the level of Identity productive resources used to produce identity specific goods and  $P_Y$  is the level of productive resource use to produce public goods. The total amount of productive resources  $P_I = p_I T_I$  or  $P_Y = p_Y T_Y$  respectively, is the input for producing the corresponding consumption goods. Each Identity group is thus characterized by its own group-specific productive resource. The term "Identity investment" here refers to any investment in Identity-specific productive resource mobilization process and the skills that

enhance the productivity of resources deployed within the group for producing identity specific goods.

The rate of return to Identity resource accumulation processes, which includes such things as education, migration<sup>xxxiii</sup> and population movements and wealth accumulation, does not only depend on individual tastes and preferences but also on production function of identity groups. Each type of identity resource including skills, labour, assets and income, is the output of the family and the identity group education processes. A potter for instance, owes his or her skills to the education they receive at home learning from parents and from a community that instils the pottery values.

At the individual level the investment in this education is the time spent in learning while the other costs are borne by the community or family. These can be inversely expressed as cost functions, expressing the participation cost as a function of skills acquired by an individual through the education process or the identity resource development (Chiswick, 2006).

$$T_R = T_{YR} + T_{IR} \quad (4)$$

$$T_{YR} = \lambda(p_Y), \lambda', \lambda > 0 \quad (5)$$

$$T_{IR} = \delta(p_I) - \varepsilon p_Y p_I, \delta', \delta'' > 0 \quad (6)$$

Where  $T_{YR}$  = participation in general resource formation activities

$T_{IR}$  = participation in Identity-specific education activities and the constant coefficient  $\varepsilon$  indicates the extent to which resource accumulation for production of public goods imposes external effects on Identity-specific resource formation processes. For example, if  $\varepsilon > 0$  a greater level of general resource accumulation ( $p_Y$ ) would make it less costly to acquire any given level of Identity resource formation ( $p_I$ ), while if  $\varepsilon < 0$  the opposite would be true. We solve by maximizing Lagrangian function:

$$\chi = U(g(p_I, T_I), f(p_Y, L_Y)) - \lambda [T_E + T_Y + \delta(p_I) + \phi(p_Y) - \varepsilon p_Y p_I - T^*] \quad (7)$$

Equations (4)-(6) have been substituted into the participation constraint to eliminate the resource formation participation variables. The first-order conditions can be solved to yield:

$$U_g g' p_I = U_f f' p_Y \quad (8)$$

$$T_I / p_I = [\lambda' - \varepsilon p_Y] \quad (9)$$

$$T_Y / p_Y = [\phi' - \varepsilon p_I] \quad (10)$$

$$T^* = T_I + T_Y + \lambda(p_I) + \phi(p_Y) - \varepsilon p_Y p_I \quad (11)$$

Equation (8) equates the marginal rate of substitution in consumption between Identity specific and common uses of time to -1, the slope of the participation budget line, requiring that the marginal value of time be the same in both consumption activities (Ostaszewsky, 1993). Equations (9) and (10) equate the slopes of the identity resource quantity-quality isoquants,  $T_I/p_I$  and  $T_Y/p_Y$  respectively, to the marginal cost of the corresponding type of resource formation. These conditions allocate time to each type of resource formation up to the point where its marginal value in resource formation is the same as the opportunity cost of

participation in consumption activities (Akerlof, 2000). Equation (11) restates the overall time constraint for all activities. Solving (9) and (10) for  $L_I$  and  $L_Y$ , substituting the result into (11) and rearranging terms permits the overall participation constraint to be expressed solely as a function of skill levels,  $p_E$  and  $p_Y$ , and the externality parameter  $\varepsilon$  :

$$T^* = p_I \lambda' + p_Y \phi' + \lambda + \phi - 3\varepsilon p_I p_Y \quad (12)$$

This describes participation-constrained opportunity for attainable combinations of resource formation, and it generally has a negative slope. Solving the same two equations for  $p_I$  and  $p_Y$ , substituting the result into equations (8) and rearranging terms yields:

$$\frac{U_g g' T_I}{U_f f' T_Y} = \left[ \frac{\lambda' - \varepsilon p_Y}{\phi' - \varepsilon p_I} \right] \quad (13)$$

The expression on the left-hand side of equation (13) is the marginal rate of substitution in consumption between  $p_I$  and  $p_Y$ , the slope of an indifference curve between levels of the two types of resource formation meaning the difference between resource formation for identity-specific production and resource formation for production of public goods shared across different identity groups. The right-hand side is the slope of a production possibility frontier (PPF) that holds  $T_R$  constant; the total resources devoted to general and Identity training combined. Optimization thus requires tangency between an indifference curve and a accumulated resources PPF determined by the allocation of time between consumption and resource formation processes (Chiswick, 2006). By varying the amount of time devoted to education, equation (13) implies an expansion path with a positive slope as long as both  $p_Y$  and  $p_I$  are normal this would mean that resources allocated to formation of resources increases the demand for each type of resource formation process. The overall solution to the consumer's problem occurs where the time constraint in (12) crosses the expansion path either at a unique combination of  $p_I$  and  $p_Y$  or at one of its corners.

The key parameter in the model developed here is  $\varepsilon$ , an indicator of tension between the Identity group and the shared environment. When  $\varepsilon$  is positive the two types of resource formation are acquired by means of complementary learning processes: the greater the level of  $p_I$  embodied in a person the more efficiently he can learn general skills and the greater the level of shared resource, the more efficiently he can acquire Identity-specific skills. The opposite is true when  $\varepsilon$  is negative, indicating that high levels of Identity specific skills and experiences will lead to strong attachment to the Identity group making it more difficult to acquire general skills<sup>xxxiv</sup> and *vice versa*. The parameter  $\varepsilon$  will thus differ across Identity groups to a degree that depends on the relationship between each group's cultures relative to the shared culture of the larger society. This means that an individual who grows up with strong identity indoctrination may find it difficult to coexist with others in the larger society. In the process of reinforcing identity-specific skills and productive-resources, such individuals do not gain the common skills required in producing public-goods, which results into shortage of those public-goods. Since their identity skills are limited, and the cost of public-goods is raised by their non participation in the production process, the only option open to them is to use identity-resources to gain advantage.

Identity is threatened by unusual circumstances such as conflict or a state of instability. At this time, individuals weigh between violence to defend their identity and the option to refrain. The former is more lucrative since it assures the continued flow of identity-goods and

services while the latter is less costly because the cost of behaving peacefully is already undermined by prevailing circumstances.

Normal market operations in identity markets such as inter-identity groups exchange and cooperation are substituted by engagements in the violent enterprise to defend the identity in the hope that they can assure a constant flow of identity specific-goods and services. In the 1994 genocide context, the breakdown of law and order and the refusal of the government to implement the Arusha peace accords created an atmosphere of uncertainty. The political atmosphere and the ensuing implementation of the accord created uncertainty and threatened access to identity-specific goods. The cost of doing violence diminished with the promise of impunity, as the utility of identity-based production of violence appreciated.

## 4. DATA AND SOME STYLIZED FACTS

### 4.1 The Data

We use survey data of 1000 perpetrators found in the Kigali central prison, in Kigali city, Nsinda Prison and Kibungo prison<sup>xxxv</sup> in eastern province. Data was also collected among released genocide perpetrators in TIG camps in Nyabikenke, Gasabo District of Kigali City, the TIG camps in Ngoma district as well as the Rweru Camp in Bugesera District both in Eastern province. Data for non perpetrators was collected in Gasabo district of Kigali City, Bugesera and Ngoma districts located in eastern province as well.

Genocide perpetrators are grouped in three categories in the Rwandan legal system. The first category are those accused of being organisers, leaders, those suspected of committing sexual violations, rape, mass murders, mutilations as well as leading others in attacks on civilians. The second category contains those who were as part of a larger group or on their own are suspected to have committed murder, torture, desecrating human remains, mutilations, destruction of property and other related crimes. The third category is made up those people accused of what can be termed as less aggressive participation such as looting, slaughtering livestock as well as harassment and hunting victims on behalf of killers. For the purpose of this study our data collection focused only on category one and two. The reason for this decision was because; most of those in the third category were mostly undergoing trials in Gacaca courts and were therefore not in prisons or TIG camps, but in their homes. It would have required longer preparation and tracing to be able to interview a sizeable sample for the purpose of this study.

The regions from which data was collected were selected for two major reasons; one because they were located in close proximity of Kigali city and logistics was reasonably easier to deal with more than other outlying areas. Secondly, the current area covered by the eastern province of Rwanda, which is among the areas where participation level was high compared to other regions. One other reason was a high level of migration from other parts of the country into eastern province and the likely differences between those indigenous to eastern province and those from other parts of the country. The table below shows the number of perpetrators by case category in Eastern province and the city of Kigali.

**Table 1: Number of Perpetrator by category (All Districts in eastern province and Kigali City)**

District	Category 1	Category 2	Category 3	Total
Bugesera**	4186	28784	12552	45522
Gatsibo	2185	7982	6958	17125
Kayonza	3012	1 2618	7730	2 3360
Kirehe	1533	1 1062	8231	2 0826
Ngoma**	3080	21599	14187	3 8866
Nyagatare	130	920	1560	2610
Rwamagana	4229	23652	9781	37662
Gasabo**	2292	13276	6452	22020
Kicukiro*	1453	6020	2513	9986
Nyarugenge*	1460	6145	2456	10061
Total	77269	4 32557	3 08738	8 18564

\*\* Indicates districts surveyed

\* Districts in the city of Kigali including Gasabo

Source: Gacaca Courts Jurisdiction

The locations from which data was collected were chosen because of their unique features. Some of those features included the diversity of prisoners i.e. prisoners who were charged in diverse categories of genocide as well as a high number of convicted prisoners. The second

feature was that prisoners held in these prisons, majority of them committed genocide in the city of Kigali and Eastern province. The third feature was that; we would be able to match the prison sample with that of non perpetrators collected from outside the prisons and TIG camps. Other important factors that were considered were that the regions had a high population of Tutsi before and during 1994 and the number of perpetrators from these particular districts were higher than most.

The survey looks at a wide range of socio-political and economic indicators for households and individuals, including personal identity attribution, political membership, level of political participation as well as different assets owned by individual as a measure of wealth, education and occupation that individuals were engaged in prior to and during the 1994 Genocide. Social-political characteristics such as the level of exposure to propaganda, access to and frequency with which one received information on the goings on in the country were also thought to be important indicators and data was collected on these variables.

The data collection process engaged ten staff of an NGO under the direct supervision of the researcher. They were engaged in the data collection exercise that, run for a whole month between the 14<sup>th</sup> of July through to 16<sup>th</sup> August 2008. All the ten were skilled in data collection, having undergone several trainings in data collection methods and approaches. To be sure that the data collection process was understood and that they would not conduct the interviews in such a way as to jeopardise the quality of responses, the entire team was taken through one day training on conducting a data collection exercise. The refresher training was appreciated and came in handy when they had to deal with complex situations.

During the training, a number of ethical issues were highlighted as well as techniques to handle complex situation. Since Genocide is an extremely sensitive subject, they were trained on how to introduce themselves and the subject of their research. Sensitivity was emphasised and were told to explain the nature of the research that was being undertaken. After the training, they went back to their locations where the data collection was to be conducted. Permission had been obtained from the ministry of internal security as well as from the TIG secretariat. All those engaged in data collection were furnished with copies of the authorizations to ensure that their work was not hindered.

The instrument of data collection was a questionnaire, designed purposely to capture diverse behavioural traits. To achieve this, the questionnaire grouped variables into distinctive categories that describe different individual's, household, social political and economic categories. In the individual characteristics are variables such as age, education, identity as attributed by the state system, personal identity attribution or the identity one ascribed to and felt strongly about, their religious confession, substance abuse, profession and occupation.

In the household category, we include marriage, number of children, and ability of the household to send their children to school. In the social-political category, we look at political activity, level of political involvement and political militancy, access to and level of exposure to propaganda. In the Economic characteristics we look at asset ownership and indicators such as land size, whether one had a tin roofed house or not and other assets that range from vehicles, bicycles as well as livestock. These variables reflect different characteristics that play a major role in individual decision making processes. They are also important factors in defining individual identity.

In designing the questionnaire, another deliberate decision was taken to exclude questions that related directly to individual participation. This was due to two fundamental reasons; one because we did not hope to obtain correct answers by asking individuals the number of people they might have killed or whether they were killers or looters. We only asked which category their case fell in and from there we could relate it to the law and trial court rules of procedure. Secondly, we felt it would be of no purpose asking whether one had admitted the crime or not.

To mitigate the gap left by the above questions, we had earlier decided to select our sample from convicted prisoners and those who had confessed to having committed genocide.

In deciding on the type of questions, two sources were used in the selection of indicators as well as framing the questions to be asked. For the selection of indicators, we relied on earlier research conducted on genocide perpetrators by Verwimp (2004). In his paper the “An Economic Profile of Peasant Perpetrators of Genocide: Micro level evidence from Rwanda”, he uses variables that capture individual behaviour as influenced by a number of characteristics that range from personal characteristics, household characteristics to land characteristics. These were modified a little to include such other variables as identity attributed and the value that one attached to their identity. The latter addition was adopted from Akerlof and Kranton (2000) and Chiswick (2006). Other details such as migration, political activism, access to information and other related variables were also included.

Another source of indicators was from research work by Afrobarometer on democracy, governance and conflict covering the Southern and Eastern Africa region. Their questionnaires and research guidelines were invaluable in framing questions and their administration process. Questionnaires were randomly administered to one thousand prisoners convicted of genocide in three prisons in three out seven prisons in the research area. One prison in Kigali and two in eastern province as well as the TIG camps in Kigali, Ngoma and Bugesera. Seventy two non participants were also randomly selected in the districts of Gasabo in Kigali city, the district of Bugesera and Ngoma in eastern province.

The researcher himself was involved in the data collection and debriefing of staff in the field to ensure that problems encountered were dealt with promptly. Completed questionnaires were required from field within a maximum of two days to facilitate early data entry as well as to ensure that, the process was kept on track and the exercise was carried out according to instructions and within ethical boundaries.

In Kigali and at the TIG camps, staff of these institutions sometimes offered help in interviewing respondents, this went beyond the ethical boundaries that we had set for ourselves and the researcher had to caution staff about using other people, other than those enrolled for the task.

During the interview process, the team was requested to be as discrete as possible and to find an isolated location within the premises where to conduct the interviews. Although this was challenging in prisons especially, care was taken to ensure that respondents were at ease and comfortable before questions were asked. Once the exercise had been completed, all the staff involved met with the researcher for debriefing. The debriefing was crucial as it was important to find out the kind of problems that had been experienced and that needed to be taken into account while dealing with the data and the analysis there after

As mentioned elsewhere in this section, the location identified for data collection were selected based on two key consideration, firstly because a large perpetrator population and secondly based on their location and convenience. For example, Bugesera District had the highest participation out of all the eight districts in Eastern Province and the highest fatalities; Ngoma had the third highest participation and the second highest fatalities. Gasabo is an urban district, one of the three districts that make up the greater Kigali city. It has the highest perpetrator count and had the highest fatalities in all the three districts. TIG camps in the area also met the criteria that were applied to prisons. However, it is also important to mention here that there were other considerations such as logistics.

Bugesera district is only a twenty two kilometres out of Kigali to the south east, while Ngoma was an operational area where the researcher had worked before and had undertaken research in line of duty. Gasabo was the home district of the researcher which was familiar territory. Once the locations had been selected, respondents were randomly selected from lists provided by prison authorities, TIG camps and districts.

Apart from survey data, additional quantitative information was collected from different government departments. Notable among others, was the Gacaca courts jurisdiction and the office of the prosecutor general. Although the kind of data held in these institutions was not to the standards that were required for the purpose of this study, they provide useful background information. We were able for instance to obtain the number of perpetrators per district, survivors of genocide, number of fatalities and other ongoing investigations. Some of this information is presented in the section that follows.

During the exercise, we were able to interview 179 in Kigali central prison, 102 in Nsinda prison and 210 in Kibungo prison. In the TIG camps, we interviewed 111 in Nyabikenke camp in Gasabo district, 161 in Rweru camp in Bugesera district and 210 in Ngoma district. For the non perpetrators, we identified people who had been in Rwanda before and during 1994 and were of majority age then.

In Gasabo District, a total of thirty two (32) people were interviewed of which eighteen (18) men and fourteen (14) women. In the other districts a total of thirty two (32) men and six (6) women were interviewed. They included both survivors, and Hutu non perpetrators. The idea behind this was to obtain two comparable samples of both perpetrators and non perpetrators.

People included in the sample bore similar personal characteristics, household, economic as well as political characteristics. The survey covered peasants from rural areas, urban people as well as a number of the elite in both urban and rural areas. The questionnaire too, had questions that were meant to ensure that we were balanced in terms of sampling. People were asked questions that included their occupation before and during 1994, their profession, whether they were emigrants or indigenous to the area. When sampling non perpetrators, these issues were given high consideration to ensure that the two samples were comparable.

#### *4.2 Summary Statistics*

It is difficult to ascertain the exact number of people who were involved in genocide in Rwanda. Inmates are full of tales of people at large or living peacefully in the community who they accuse of genocide. One thing is evident though; majority of perpetrators were ordinary rural or urban folks of low income with low or no skills (Berlage, 2004). This may not mean however, absence of highly learned and high skilled individual. In fact, there are high level professionals and top civil servants among prisoners not to mention a generous number of middle class professionals as well as low level workers such as primary teachers, clerks and technical professionals in different trades. We find that 906 of the 1000 respondents were people in the lowest category of profession as well as peasants which is equivalent to 90.69%. Top level professionals in the sample were 9.3% of the total survey sample. This shows a large number of people in the lower economic bracket as opposed to only nine percent in the upper income category.

Identity as attributed by the state and strong identity affiliation presented interesting statistics. In identity attributed by the state, only 5.7% in our sample are participants, while those with strong identity attachment had a high participation rate at 94.3%. There was no marked difference between the participation rate of married or un-married persons. Statistics however show a high rate of participation among emigrants at 98% for all survey locations. In the low income category the rate of participation was 97% and in the mid-income bracket participation rate was 94% and 89.4% in the high income bracket. This is an indication that, differences in income did not really matter in ones decision to participate given the high levels of participation across income categories.

In other household characteristics such as having many children or less did not show a marked difference. Both characteristics show high rates of participation at 91% and 98%. This also shows that having more or less children was not consequential in determining whether one became a perpetrator or not. Interestingly however, there is a marked difference between

those who are married and those who are not in the sample. Unmarried people account for 94% rate of participation among the unmarried category, as opposed to 41% participation rate in the married category. Again this shows that majority of perpetrators were youth or delinquents enlisted in both rural and urban areas (Omar, 1995; Straus, 2006).

In economic characteristics, there is a small difference between owning land and being landless. In fact the difference in the rate of participation is so small such that it would not account for differences in both variables. Owning a tin-roofed house in the rural area as well as a town house are two variables characterized by lower percentages of participation, 52 and 61% respectively. This however is not in itself explanatory in that owning other assets such as commercial building; vehicles as well as other characteristics such as being a merchant or a trader return high percentages of participation at 97 and 90% respectively.

Looking at religious confession, we find that both Catholics and Muslims had the highest participation rate at 95%, while Protestants had a slightly lower rate of 85%. The difference in the rates of participation is however very small and can be explained by other factors. For instance, Catholics make up a large part of the Rwandan population generally (Linden, 1977; Longman, 1997) and the fact that Both Ngoma and Gasabo have sizeable number of Muslims than Bugesera district. Religious confession would not therefore be a strong determinant.

Looking at the summary statistics, they tell an unexpected story; that although majority of the participants were from the low strata of society, this does not mean however that poverty would be the major determinant. Other wealth related variables show that participation was also high among the well to do.

**Table 2: Summary Statistics**

Variable	Mean	Std. Deviation	Participant	Non-participants
Identity 2	0.9123134	0.2829705	99.59%	0.41%
Primary Schooling	0.4048507	0.4910922	94.70%	5.30%
Secondary Schooling	0.2322761	0.4224813	89.56%	10.44%
Higher Education	0.1287313	0.3350587	87.68%	12.32%
Migration	0.7182836	0.4500458	98.05%	1.95%
High Income	0.2014925	0.4013023	87.04%	12.96%
Land Owner	0.8470149	0.3601411	92.62%	7.38%
Urban Resident	0.8526119	0.3546578	92.12%	7.88%
Tin-roofed House	0.9692164	0.1728115	92.97%	7.03%
Observation	n=1,072			

The summary statistics presented in table 2: indicate that poverty was not necessarily the main determinants. High percentages of participation among both the poor and the well to do, means that individual decision to participate in genocide can not be judged solely on economic, household and political considerations in exclusion of individual characteristics. Looking at different participation rates and convergence towards the mean, it is important that further statistical manipulation of data is undertaken to be able to draw accurate inference on determinants of choice to participate. The chapter that follows presents an econometric model and estimation strategy. The estimation results are presented in chapter six and will be collaborated with the summary statistics.

**Table 3: Description of Variables**

Variable	Description
Identity 2	Strong identity affiliation (strong feeling of identity)
Primary Schooling	Having completed primary school
Secondary Schooling	Having completed High school
Higher Education	Having higher education after High school (Includes University and higher)
Migration	Whether one migrated from other provinces or is indigenous to the province
High Income	Monthly Income above Rwf 31,000
Land Owner	Whether one was land owner or not
Urban Resident	Whether one lived in urban area and not in the rural area
Tin-roofed House	Owning a tin-roofed house – Sign of rural wealth

## 5. MODEL SPECIFICATION AND ESTIMATION METHODOLOGY

### 5.1 Model Specification

To test the hypothesis that strong identity feelings and personal identity affiliation influenced choice to participate in genocide, we fit a binary response model using personal, household, social-political and economic indicators to study their effect on individual decision to participate in political violence. The dependent variable is a qualitative event and represents a binary outcome of one being a perpetrator or a non-perpetrator, where it takes on values zero if an event does not take place or one if it does.

We choose a binary response model in this case, over the linear probability model because trying to estimate a binary dependent variable through a Linear Probability Model, which is simply estimated through OLS have several shortcomings (Wooldridge, 2003). Plugging in certain combinations of values of independent variables, one can arrive at predictions either less than zero or greater than one. Since these are predicted probabilities, the values must be between zero and one.

We fit the following representation of one being a perpetrator (Gujarati, 2003):

$$P_i = E(Y = 1|X_i) = \left( \frac{1}{1 + e^{-(\beta_1 + \beta_2 X_i)}} \right)$$

For ease of expression, we transform the above equation into a cumulative distribution function (cdf)

$$P_1 = \frac{1}{1 + e^{-z_i}} = \frac{e^z}{1 + e^z}$$

Where  $Z_i = \beta_1 + \beta_2 X_i$ ; with  $Z_i$  ranging from  $-\infty$  to  $+\infty$  and  $P_i$  ranges between 0 and 1 being non-linearly related to  $Z_i$ . Note that  $P_i$  the probability of being a perpetrator or participating in Genocide is non-linear in both the explanatory variable as well in the coefficients ( $\beta$ 's) which excludes OLS in estimation of parameters. Consequently, if  $P_i$  the probability of being a participant in genocide is given by equation above then the probability of not participating is

$$1 - P_i = \frac{1}{1 + e^{z_i}}$$

We can rewrite the above equation as

$$\frac{P_i}{1 - P_i} = \frac{1 + e^{Z_i}}{1 + e^{Z_i}} = e^{Z_i}$$

Where  $P_i/(1 - P_i)$  is the ration of the probability for participation and non participation in Genocide. We fit the following binary logit model representing the probability of participation in which different characteristics represent a number of variables. The probability of *participation* depends on several independent variables that represent personal characteristics, household characteristics as well as economic characteristics (Gujarati, 2003; Verwimp, 2004).

$$L_i = \left( \frac{P_i}{1-P_i} \right) = \beta_0 + \sum_i \beta_i PersCharct + \sum_i \beta_i Houscharact + \sum_i \beta_i SocPolCharact + \sum_i \beta_i EconCharct + u_i$$

Where *perscharct* is a vector variable that includes personal characteristics such as the identity attributed by the state, personal attribution level or strong feelings towards the attributed identity, being a migrant, level of education (primary school, secondary school and higher education), age, religious confession and substance use. *HousCharct* is a representation of household characteristics, such as being married, the number of children one has, ages of children and the ability of household to take them to school. *SocPolCharact* is a vector of all those variables that are related to political activities, level of activism, access to information exposure to and the frequency of an individual to political propaganda. *EconCharact* groups together variables such as assets, land ownership, income levels and other assets such as owning a tin-roofed house in rural area, a town house, a commercial building, a car, motorcycle, bicycle or truck. We select those variables that have a strong explanatory power and estimate the model using a logit regression.

## 5.2 Estimation Methodology

In this section we discuss briefly econometric methods for estimations of the models specified above. The econometric analysis in this paper is based on a cross-section data set obtained through an interview of 1072 persons comprised of perpetrators and non perpetrators in Eastern Rwanda between July and August 2008. Since this study is based on micro level data we use a logit regression in estimation of a binary response model. The sample is fairly large and therefore the error terms will be asymptotic making the logit regression an appropriate estimation technique.

We generate dummy variables for different levels of schooling as well as income levels. We then run eight logit regressions of the explanatory variables on a selection of variables of which the eighth is the most complete and we compute the marginal effect for all and present the results in tables in the next chapter. However, here below we only present the complete model upon which interpretation of results will be based. The other seven are presented in the table for comparison purposes.

$$Part = f(identity2, Migrat, primar, sec\ ond, higher, land, Hincome, urbnres, tihouse)$$

Where *Part* is the participation probability *identity2* is strong Hutu identity attachment or strong feelings towards the Hutu identity. *Migrat* represents one being an emigrant, *prim*, *second* and *higher* represent the education levels attained; primary, secondary and higher education respectively. *Hincome* represents the high income bracket, *land* represents land owner, *urbnres* represents urban resident and *tihouse* is owning a tin-roofed house.

We expect to observe, the magnitude and direction of coefficients for different variables. The sign of the coefficient tells us the magnitude and direction. We compute the marginal effect and predict P values to observe the economic and statistical significance of the coefficients obtained.

In the chapter that follows we present the results of logit regression and marginal effects computation after logit in two tables. The discussion on results incorporates both the regression results as well as results of the summary statistics.

## 6. ESTIMATION RESULTS

The discussion on data provides an insightful, yet preliminary description of the relationship between a number of characteristics and probability of an individual's participation in Genocide. In reality however, all of the variables in the model and other elements that are unobserved interact with each other. For policy purposes nevertheless, one needs to know the relative impact of each explanatory variable on the probability of individual participation in genocide once the effects of other variables have been dealt with.

In this section of we present the results of the model specified in chapter five. We present results from a number of logit regressions on different sets of variables which shows the coefficients based on the model specification. They include characteristics thought to be the conventional determinants of individual decisions in conflict with specific evidence of pre-Genocide Rwandan society.

As determinants of probability of participation in genocide, we use the following variables in a logit regression. The variables are initially grouped in four categories representing four different characteristics seen as important in influencing individual decision making process. We then select those variables that have a strong explanatory power on individual decision to participate. The categories highlighted above were discussed extensively in the chapter on data and preceding chapter.

Identity squared is significant in all the eight, meaning that the probability to participate in genocide increases with one's perception and strong feelings towards Hutu identity. As the identity variable captures an individuals place within society, it is clear that decision whether to participate in the genocide or abstain was determined by attachment towards their identity. Given the education system that emphasised discrimination based on identity, the state of anarchy in 1994 and the media appeals for Hutu unity; raised the crescendo of identity passions. This was specifically targeted by the media and state propaganda machinery thereby creating fear of loss of identity.

Having completed primary school and higher level of education reduces the probability of participation in the genocide although not statistically significant. Interestingly however, education level seems to be economically significant. This means that people who were more educated were less likely to participate in genocide, but does not entirely exclude them from participation. It would also mean that one having completed secondary school or higher was less likely to participate in genocide, perhaps because they were more aware of the likely consequences of engaging in such a violent enterprise. This departs from the findings in Verwimp (2004), in which education was not a determinant in participation. Verwimp (2007) presents evidence from rural Rwanda where the data is likely to be biased towards uneducated rural folks. This shows that education if considered will provide evidence to the contrary. We argue here that, educated people would have been aware that their action would in the long run, attract consequences especially that they were aware of the losses of the government on the battle front<sup>xxxvi</sup>(Omar, 1995; Prunier, 1995b; Straus, 2004).

Being an emigrant has a significant effect on the probability of participating. It is both economically significant and statistically significant at 1%. In the mid seventies and through the eighties, the government adopted a systematic relocation of population from the Northwest to the current eastern province. This policy may have been conceived for a number of reasons, firstly because of high population in the Northwest and land scarcity. Secondly, the eastern part of the country was sparsely populated since majority of inhabitants had fled from the series of violence since 1959. Most of the land in eastern province had also been rangeland and provided land as reward for political support. The third reason which seems the strongest of all was to strategically settle Hutu loyalist along the borders with Uganda, Tanzania and Burundi to stem infiltration by Rwandan exiles<sup>xxxvii</sup> (DesForges, 1999; Omar,

1995). The borderline settlements also served to curtail contacts between the local Tutsi and their counterparts on the other sides of the border. No wonder then the emigrants and especially those at the boarder with neighbouring countries were the most vicious of the killers<sup>xxxviii</sup>.

Most of the participants and non participants interviewed during data collection seemed to point at the emigrants as the most active and in most cases having crossed from their own sectors to carry out genocide in other sectors. The emigrants themselves said that they felt that it was their duty to kill Tutsis as they saw them as a threat to the Hutu in Rwanda. Ten of the emigrants interviewed in Nsinda prison still thought Tutsi to be foreigners who must be forced to leave. The response from these interviews collaborates the evidence from logit regression.

These findings seem to disagree and contradict the situational factors and the assassination hypothesis advanced by Straus (2006) it upholds the strong identity perception hypothesis. The evidence presented in Straus (2006) exclude identity and focus on what he calls “a culture of hatred”, against the Tutsi, which he then dismisses. His evidence however collapses in the face of other facts: That among the perpetrators were avowed opponents of the regime who did not care really about the president and their participation was based on their identity as Hutu<sup>xxxix</sup>. We advance a counter argument that the Hutu population was called upon to kill Tutsi even before 1994 and the response was high on all occasions. They did not need a grievances but an assurance of impunity, that there would be no consequences because the killing was state sanction. This argument is also based on the responses of the interviewees; none of the 1000 perpetrators who were interviewed in the survey mentioned grief, but their responses are synonymous on defending their Hutu identity.

On household characteristics, being a resident in urban areas increased the probability of participation in genocide. The positive coefficients from the regression and marginal effect estimation are positive and statistically significant at 5%. This essentially means that there were no differences between rural residents and urban residents. In fact, most of the Tutsis having been denied education opportunities took to trade, small and medium businesses and sometimes even large businesses(DesForges, 1999). A large number were resident in urban areas by virtue to escape the glare government agents in the rural areas who sometimes confiscated their property and extorted bribes. Others had found refuge in urban centres from the violence of the past. Most were prosperous, had access to information and would have been more expressive than their rural kin. This would have classified them as being accomplices of the RPF.

More important though, most of them had joined political parties an act that put them at loggerheads with the urban Hutu hardliners. Thus it is true here to suggest that the urban Hutu were more likely to kill their neighbours and would have felt more threatened than the rural folks. The urban Hutus were more likely to participate in genocide because they were more privy to the hate propaganda and resurgence of the Hutu Identity. It is also important to note here that, the urban Hutu were more susceptible to propaganda and hate broadcast because they had access to information.

Land and land ownership has and remains an issue in Rwanda even today. We would have expected that the landless and not the landed would feature prominently as participants even to the exclusion of the landed. The regression results however present a different story. The landed feature prominently as participants; the regression results return positive coefficients which though not statistically significant are economically significant.

Why then did land owners participate in genocide? There are several underlying reasons. One is related to the migrant issue and their ownership of land in eastern Rwanda. Most of them had been settled on land owned by Tutsi after 1959, sixties and the seventies. Secondly, I would agree with Verwimp (2006) that the landless depended more on land related labour and

feared losing their source of income. After all, many among the landless were Hutu and had not been given land for more than three decades by the Hutu government and they did not expect any.

Paradoxically, owning a tin-roofed house in the rural area did not reduce the probability of one participating in genocide as I had expected and it is significant at 10%. This read together with the results of the regression on land owner's variable reinforces the argument that poverty was not a major determinant of participation in genocide. A tin-roofed house is a measure of wealth in rural Rwanda and one would have expected that owning one would reduce the probability to participate.

When we consider the economic characteristics, we find that having high income reduced the probability of participation and was statistically significant at 10%. Although this may not mean that no high income people participated; the low probability is due to two reasons. First, high income people were the elite, who were actively involved in coordinating and mobilising local people to participate (Straus, 2006). The fact that they did not directly kill, but coordinated and incited the killings complicates their cases most of which are in appellate stage and therefore did not meet the criteria of our respondents. Secondly, due to their high incomes, most were able to leave the country and were not therefore arrested and tried. Considering that the high income bracket was only 5% in our sample the foregoing argument would be valid.

We present below, regression results in table 4 and marginal effects in table 5.

**Table 4: Results of Logit Regressions**

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Identity 2	8.10890 *** (1.03811)	8.19064*** (1.07778)	8.19064*** (1.11518)	8.96525*** (1.04488)	8.61648*** (1.14302)	8.25018*** (1.05326)	7.97428*** (1.03979)	9.10488*** (1.30504)
Migration		1.73726*** (.645573)						1.83033*** (.66216)
Primary Schooling			-1.51616 (1.64873)					-2.28604 (2.29190)
Secondary schooling			-2.49937 (1.64121)					-3.20591 (2.28723)
Higher Education			-3.146669 (1.64490)					-3.65963 (2.30660)
High Income				-.916014* (.50507)				-.75835 (.54111)
Land Owner					1.676774 (.579243)			1.68200* (.49977)
Urban Resident						.9120834** (.48289)		.84374** (.77457)
Tin-roofed House							1.302746* (.67817)	2.05812* (1.43820)
Constant	-4.02535*** (1.00888)	-4.65255*** (-4.65255)	-2.0360 (1.62772)	-3.4930*** (1.03869)	-4.90882*** (1.15118)	-4.69959*** (1.08447)	-.161147 (2.47603)	2.84967 (4.59548)
Number of observations	1072	1072	1072	1072	1072	1072	1072	1072
Pseudo R2	0.0000	0.6755	0.6771	1072	0.6706	0.6638	0.6675	0.7316
Log likelihood	-91.41138	-86.50604	-86.08524	-89.65087	-87.82071	-89.63128	-88.65497	-71.54396

\*\*\* Significant at 1%

\*\*significant at 5%

\*Significant at 10%

Source: authors regression results

**Table 5: Marginal Effect after logit**

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Identity 2	.9657074***	.9660396 ***	.9689877***	.965253****	.9734384***	.9681648***	.961097***	.9646289***
Migration		.0351547***						.0108615
Primary Schooling			-1.516.164					-.0185075
Secondary Schooling			-.0920802					-.0483899
Higher Education			-.1898856					-.0956477
High Income				-.0221468*				-.7582498
Land Owner					.0301435***			.0081613
* Urban Resident						.0250489*		.0054135
** Tin-roofed House							0.0243726**	0.011098 *

\*\*  
Significant at 1%

\*\*significant at 5%

\*Significant at 10%

Source: authors regression results

## 7. POLICY IMPLICATIONS AND CONCLUSIONS

### 7.1 *Policy Implication*

The difference between conflict and genocide rests in the differentiation of actors in the violence. In conflict, there are two competing sides or belligerents while in genocides there are perpetrators and victims. This differentiation is important for two reasons; one, it serves to differentiate important characteristics that define actors in conflict and genocide. Secondly, the distinctions are important in drawing a line between violence that result from conflicts that involves two competing sides and the violence used against victims of genocide.

In dealing with conflict or dealing with the aftermaths of conflict, it is important that policies are focused on achieving consensus between belligerents. Addressing social-political and economic issues as well as building institutional frameworks that safeguard the social contract is of paramount importance (M. S. Murshed, 2006; M. S. Murshed, 2006). Considering that conflict is often as a result of the decline or breakdown of the social contract, national and to some extent international policies that seek to prevent, manage and mitigate conflict must inevitably focus beyond the patchwork on the social contract. Policies and policy makers especially must in addressing conflict dynamics focus on correcting horizontal and vertical inequalities (M. S. Murshed, 2008). More important is the need to strengthen institutions that not only guarantee freedoms, but safeguard the developmental contract between the governors and the governed. Addressing intra society disparities required devolution of power and enhancement of the principle of equitable representation which underlies inclusion (Annan, 1998)

In dealing with genocide, policy makers have used the same approaches as those employed in conflict resolution. However as noted earlier, Genocide is no conflict, as I have argued earlier in this paper, genocide is a unique form of political crime at the heart of which lies identity values. Being a political crime with identity connotations, policies must focus on dealing with issues that regulate and ensure safeguards for identities. Since genocide results mainly from the political dispensation seeking to enlist identity based resources to divert the course of social ills, policies must focus on institution mechanisms that strengthen interaction across identities.

Preventive and mitigation policies must focus on justice and dispensation of punitive sanctions such that the cost of producing violence in society is higher than the utility of producing violence. Secondly, preventive policies must aim at raising the utility levels derived by individuals from public goods. An increase in value perception of public goods will diminish the demand for identity specific goods. This in essence means that productive capacities in nation and international states should and must be focused on production of public goods. Prevention and mitigation of genocide must include not only justice, but also a complete overhaul of education systems in order to out-compete identity specific education and human capital development processes. Addressing governance issues and establishing a consensus on inter-identity social contract would stem gravitation towards identity denying the state machinery the resources it may require to preside over genocide (Murangira, 2007).

## **7.2 Conclusion**

In conclusion, the stylised facts point to the fact that identities play a critical role in the choice to participate in genocide. Literature on the 1994 genocide across disciplines is synonymous on formalization of identities that started during the colonial rule and strengthened by subsequent governments played an important role in the genocide (Omar, 1995; Straus, 2006) The policies adopted by the colonial administration and later by the post independence governments emphasized identity differentiation (Prunier, 1995a) Discriminatory policies against the Tutsi favouring the Hutu in all spheres of social-political and economic life reinforced the Hutu identity. Thus the education system and the human-capital formation was identity-specific, such that welfare instead of being perceived as a public good, became an identity specific good.

The post independence governments in Rwanda were identity based, their functions as producers of public goods was undermined by their identity focus. Thus they no longer produced public goods and services, but identity specific goods and services (Chiswick, 2006). Therefore being Hutu in post independence Rwanda came with privileges in terms of access to identity specific goods. A threat to the government was a threat to the entire Hutu identity, a fact reinforced by identity specific-education such as the propaganda and the hate-campaign at different stages in the three decades that preceded the 1994 genocide.

Since the production of public-goods and services had been moved from the realm of public-consumption into identity-specific consumption bundle, the demand for public-goods by other identities other than the Hutu meant an affront to the Hutu identity. The state itself had been "Hutunised" such that Hutu Identity was equal to state and vice versa irrespective of social status or position (Shyaka, 2005).

Empirical literature and empirical evidence from a number of studies on the 1994 genocide seem to point to identity. Verwimp (2004), profiling genocide perpetrators in southern Rwanda finds that, factors such as income poverty and landlessness do not explain participation in the genocide. Straus (2006) though not implicit on the role of identities in participation in genocide does present evidence to the fact that poverty and economic shocks were not defining factors for participation. Although he rejects ideology as a motive for participation, the findings in this study point to the fact that strong identity feelings were extremely significant and explain adequately the choice to participate in genocide. We would argue here that, ideology is identity-specific; it is a result of identity human-capital formation and identity-specific education processes (Chiswick, 2006). Its causal relationship with genocide therefore cannot be summarily dismissed.

We have argued here and in other sections of this paper that Identities generate utility and that adverse behaviour is influenced by identity specific utility. In the case of the 1994 genocide, the Hutu derived utility from their identity and their adverse behaviour cannot be explained in isolation of their identity. Literature on genocide is synonymous to the fact that people killed because they felt that they stood to gain because of who they were. In conclusion, identities lie at the heart of genocide, but genocide is not a purely identity crime, it is a political crime that draws on identity resources.

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i One of the pillars of genocide ideology is misinformation or distortion; while there is usually perfect information upon which a participant may use to make decisions, it is usually skewed in order to enlist maximum participation.

ii Moral minority need not be demographic minority, could be majority demographically. Their minority status is perceived or implied by their tormentors (perceived adversaries). To justify the purge, the moral minority are attributed a negative label that usually reduces their significance as human beings. Alternatively they gave a tag that demonizes them in society such that their status reduces them to a perceived or artificial minority. The intention is to remove their worthy as equals such that purging would be justified in the eyes of society

iii The legal principle of individual responsibility hinges on the assumption that individuals are faced with a choice to commit or refrain from criminal acts; this principle finds its basis in the fact that people of sound mind i.e. not mentally incapacitated are of rational mind and thus can on their own volition choose not to commit a criminal or civil offence

iv International Criminal Tribunal for Rwanda; Statutes and rules of procedure. *Prosecutor v. Karemera, Nzigirumpatse and Nzirorera*, ICTR-98-44-AR73, ruling on judicial notice application

v Environmental concerns here mean those conditions that might alter individual behavioural patterns. It is worthwhile here to distinguish between those factors that influence a decision and those that alter individual behaviour. A decision is made, it does not matter whether the cause of action is altered; the change does not obscure the initial decision and incentive considerations.

vi The focus of the study is micro-level determinants

vii Evangelical Protestants do not use alcohol in their religious rituals while Catholics use wine in the same rituals, yet they both profess the Christian faith. The ritual "holy communion" is the most sacred of Christian rituals

viii Goods here should be taken to mean both value expectation which groups together tangible and intangible benefits accrued to an individual or as part of a given group (include sense of belonging, political affiliation etc.)

ix Resources are identity group specific endowments which are used in productivity

x For the purpose of this study we shall use the familiar appellation of Hutu, Tutsi and Twa

xi Taxes were paid in the form of crop or livestock to the king on annual basis and depended on individual ability to pay (*amaturu*)

xii Aloys Bigirimwami wrote extensively on taboos, rituals and religious rites of the Rwandan society most of his works are in Kinyarwanda and book cited here translates as "Rituals, Rites and Taboos in the Rwandan Society"

xiii Mobility across social identities was restricted to artificially created inter identity demarcations

xiv Demands for independence were spearheaded by the Tutsi elite from 1946

xv The Catholic Church was extremely influential and held say over the colonial administration. In fact some authors have argued that it was difficult to distinguish between the church and colonial administration

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<sup>xvi</sup> It must be noted that while majority of the RPF fighters were Tutsi exiles to begin with and even later, its leadership was however different, some of its key leaders in the highest positions in the hierarchy were Hutu who had a lot of influence within and outside Rwanda.

<sup>xvii</sup> The president and his inner circle “Akazu” DesForges 1999 Leave none to tell the story: Genocide in Rwanda

<sup>xviii</sup> For more detailed account see Allison DesForges “leave none to tell the story: Genocide in Rwanda.”

<sup>xix</sup> It is beyond the scope of this paper to go into the details or argument as to who shot down the president's plane, many authors have written extensively about this already and whether it was the cause of the genocide or not. The underlying interest of this study is why people some of whom were opposed to the president would choose to participate in a criminal enterprise?

<sup>xx</sup> One of the prisoners I interviewed was admitted to having killed his Tutsi wife and their child because he was convinced that Tutsis should be destroyed.

<sup>xxi</sup> Identity therefore will determine behavioural traits, e.g. certain identities may predispose a person in refraining from certain action while others may predispose opposite behaviour

<sup>xxii</sup> The legal principle of individual responsibility hinges on the assumption that individuals are faced with a choice to commit or refrain from criminal acts; this principle finds its basis in the fact that people of sound mind i.e. not mentally incapacitated are of rational mind and thus can on their own volition choose not to commit a criminal or civil offence

<sup>xxiii</sup> Moral minority need not be demographic minority, could be majority demographically. Their minority status is perceived or implied by their tormentors (perceived adversaries). To justify the purge, the moral minority are attributed a negative label that usually reduces their significance as human beings. Alternatively they are given a tag that demonizes them in society such that their status reduces them to a perceived or artificial minority. The intention is to remove their worthy as equals such that purging would be justified in the eyes of society

<sup>xxiv</sup> The Tutsi were relatively badly off as compared to the Hutu, however, the state on the other hand had to use economic woes, a results of both aggregate and idiosyncratic economic shocks to mobilize the Hutu against their equally poor neighbours.

<sup>xxv</sup> In mobilization for genocide, the Tutsis were said to have amassed all the wealth and to be responsible for all economic hardships. They were branded thieves who had stolen all the wealth which the Hutus will get back after annihilating them. In Germany, the Nazi party blamed mounting poverty and the collapse of the middle and working class on Jews

<sup>xxvi</sup> Emphasis mine

<sup>xxvii</sup> Conflicts more or less have victims on either side of the warring parties while genocide has perpetrators and victims. The difference in the form of the enterprise of violence puts genocide more into the realm of crime than conflict. Nevertheless, economic models of violence and conflict remain ideal in understanding underlying causes of genocidaire behaviour

<sup>xxviii</sup> A good here includes goods and services that are produced by an individual or an identity group. Also considered as a good produced by individual is violence and peaceful behaviour respectively, as they generate utility to an individual or identity group

<sup>xxix</sup> Note: education here does not mean formal education, but that process of acquiring identity specific skills, norms and practices that defines an individual as part of the identity group

<sup>xxx</sup> Private goods here are taken to be the same as identity goods; Identity determines the private bundle of consumption e.g. kosher foods are directly related to the Jewish identity in the same way Halal foods are linked to the Muslim identity. In the same way, a pastoralist identity will influence consumption tendencies that lean towards livestock products such as milk and meat, while an agriculturalist is likely to be associated with the consumption of vegetables and juices. Identities do influence consumption patterns and the attendant utility.

<sup>xxxi</sup> Participation here is taken to be time variant and it means the choice to allocate time to production of goods and services that includes production of violence and/or other goods and services

<sup>xxxii</sup> Consumption goods here refer to tangible goods and services

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<sup>xxxiii</sup> Migration here is considered to be a type of resource formation participation. People migrate in search of resources. In the Rwandan context this was mainly for land and paid labour. Most of the migration to the east was government controlled and migrants were allocated land on boarder stretches as a buffer to prevent external Tutsi attacks and in areas of High Tutsi Population concentration. Identity was therefore instrumental in migration from northern and north western provinces to the eastern provinces.

<sup>xxxiv</sup> General skills are also characterised by coexistence skills or in general terms people skills.

<sup>xxxv</sup> TIG is a French acronym for Travaux de l'Intérêt Générale, which is a community service sentence imposed by Gacaca courts for those who plead guilt and ask for forgiveness.

<sup>xxxvi</sup> A few days into resumption of hostilities the interim government left Kigali and fled to Gitarama. The fact that the Government was losing ground was common knowledge.

<sup>xxxvii</sup> The threat of infiltration and invasion by Tutsi exiles seemed to be omnipresent

<sup>xxxviii</sup> See African Rights: Death, Despair and Defiance

<sup>xxxix</sup> Based on responses to qualitative data questions from the same sample