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## Structural Causes of Social Conflict in Africa

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# STRUCTURAL CAUSES OF SOCIAL CONFLICT IN AFRICA

by

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A thesis in partial fulfillment of the requirements  
for the Honors in the Major Program in International and Global Studies  
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Thesis Chair: Dr. Thomas Dolan

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## **ABSTRACT**

Social conflict, as opposed to armed conflict, has received less attention in the field of quantitative research. This paper investigates the structural causes of political violence in 35 African states using data from the Social Conflict in Africa dataset and the Beck and Katz panel corrected standard errors time series regression model. Theoretically, a closed political opportunity structure, combined with a weak state unable to provide public goods, should together produce high levels of social conflict. The independent variables attempt to operationalize these concepts from four different angles. In this analysis Access to Education and Infrastructure (AEI), Ethno Linguistic Fractionalization (ELF), Freedom in the World Political Rights (FIW), and National Material Capabilities (NMC) were all significant predictors of social conflict. This study found that as the level of ethnic fractionalization and material capabilities within states rose, the frequency of social conflict events also increased. However, as access to infrastructure and political rights declined, the number of social conflict events increased. Wald chi-square and R-square values suggest that the model is complete and has substantial explanatory power.

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## INTRODUCTION

Conflict studies are common in international relations research and assorted current events have highlighted their importance. From 9/11 and the 26/11 attacks in Mumbai to the London and Madrid bombings to intra-African insurgencies, violent activism has grown as perpetual concerns for states around the world. The recent history of popular uprisings, such as the Arab Spring and the more extended democratic movements of the African Summer, emphasizes the need to explain the causes of such incidents and, more broadly, the creation of activist organizations within Africa's population. This paper attempts to contribute to the answer of these questions by examining the structural causes of social conflict, which includes unarmed violence such as riots and protests. While armed, state conflict has received a great deal of attention in academia, social conflict has attracted less research, creating a void for possible explanations for both types of conflict.

The social angle of this investigation may provide insight that has previously eluded researchers who restrict their analyses to armed conflict. Broadening the scope of conflict studies to include riots and protests when attempting to identify predictors should bring to light independent variables that previously were thought to be insignificant or were never considered in the first place. People may choose social conflict over armed rebellion because participation is simpler and easier and danger is distributed across a large group of unidentified dissenters. Also, problems they perceive in society may merit violent uprising, but not a complete change of government. If people attempt to redress their grievances through social conflict, but are unable to foment the desired change, they may decide that their injustices warrant the escalation into all-

out rebellion. Following this line of reasoning, social conflict may in fact precede revolutions and serve as a precursor in their development. Therefore, arguments for social conflict can also be viewed as supporting armed revolution, and vice versa.

This thesis asks the question: does a relationship exist between political opportunity structure, strength of the state, and number of social conflict events (SCEs)? Citizens' opportunities to influence their government through normal politics should affect the types of grievances they feel and how willing they are to resort to group activism. Furthermore, weaker governments are less able to identify and punish demonstrators, so people should feel that protesting is safer in weak states. This answer draws on social movement theory and previous riot and protest case studies, as explained in the Literature Review.

This thesis focuses exclusively on social conflict in Africa for a number of reasons. First, there is rich, recent data for social conflict on the African continent. Second, there is more social conflict on the African continent than in many other areas of the globe. Third, much of Africa scores on the low end for the predictor variables used in this paper. Differences at this lower end of the scale should lead to greater variation in the number of social conflict events because each change should have more impact on the people. For example, if most of the people have little-to-no political rights, gaining some rights should have more of an effect than if people with myriad political rights gain an added civil liberty, such as a stronger right to privacy.

This paper's structural explanation for social conflict rests on two concepts: political opportunity structure and state strength. If citizens do not feel as though they have any method of influencing their government through normal means like elections, they are more likely to resort

to group activism than if they trust in some sort of representation. Second, weaker governments are less able to control their territory and leave more openings for violent, organized uprisings.

Furthermore, until recently, social movement studies as an academic discipline have experienced a shortage of large  $N$  analysis-based research. This paper attempts to explain some of the variation in social conflict activity and development with a large  $N$  time series regression model. Such a method helps to distinguish between explanations that are only possible and those that demonstrate some validity.

The analysis for this paper uses an adjusted ordinary least squares (OLS) panel corrected standard errors time series regression model, developed by Beck and Katz (1995). I chose a time series model because social conflict events might often be explained by causes that appear in the years prior to the events' actual occurrence. Moreover, many case studies of riots and protests draw unique conclusions as to the predictors of social conflict. Hopefully this paper's continent-wide time series model can identify independent variables with more encompassing validity. The dependent variable for this project is how many social conflict events occurred in each state per year. The outcome is an interval level variable, with values corresponding to the exact number of events.

## LITERATURE REVIEW

When facing a choice whether to participate in social conflict, armed revolution, nonviolent civil resistance, or to do nothing, people will favor social conflict in a number of circumstances for several reasons. Social conflict events include protests, riots, strikes, inter-communal clashes, and government action against the population provoked by the people. Strikes and communal clashes should emerge as a method of confronting a closed political opportunity structure because citizens have no ability to influence the government through normal means like elections, they need no permission to participate in social conflict events, and they may be able to force the state to address them. (Lichbach 1987; Jenkins and Klandermans 1995; McAdam et al 1996; Crenshaw 2010) People might also participate in riots and protests if they live in a weak state, because weaker governments do not provide many public goods, nor are they able to identify and punish protesters. (Skocpol 1994; McAdam et al 1996; Burgoon 2006; Atzili 2010) Social conflict is preferable to revolution because it requires less effort and planning, and offers more individual protection for participants (Scott 1985; Chenoweth and Stephan 2011). Social conflict is also preferable to nonviolent resistance when the government does not tolerate social movements, because nonviolent resistance would not be more safe or efficacious than social conflict and violence might increase the perception of the movement's strength. (Goldstone 2001; Crenshaw 2010) Finally, social conflict is preferable to inaction if people judge grievances to justify giving up some safety, participation is convenient, and they perceive the movement to have a certain level of efficacy. (Karklins and Petersen 1993; McAdam et al 1996)

Recent literature focusing on the causes of social conflict attempts to identify causal economic, political, and demographic factors. Research has delved into connections between poverty, education level, state strength, social movements and repression with the formation of activist groups. However, due to a focus on case studies, many reports posit unique and contradictory explanations for social conflict. From attempts to explain riots (Horowitz 2000; Brass 2003; Karklins and Petersen 1993), to the relationship between poverty and conflict (White 1989; White 1993; Krueger and Maleckova 2003; Honaker 2008) or state strength and conflict (Newman 2007; Atzili 2010), researchers have developed slightly, or even drastically different answers. This paper's continent-wide time series model tries to identify structural independent variables with more complete reliability. Moreover, social conflict events might often be explained by causes that appear in the years prior to the events' actual occurrence, emphasizing the potential power of a time series regression.

#### Riots and Protests:

Why do ordinary people participate in riots and protests? What causes social conflict to happen in the first place? In *The Production of Hindu-Muslim Violence in Contemporary India*, Paul Brass (2003) identifies four contributing factors: the functional utility of riots, the role of the state, the institutionalized riot system, and contextualization. First, riots provide benefits to many people, from criminals and businessmen to local politicians who can assume the position of protectors. Second, governments have responsibility for preventing and controlling the outbreak of riots, and they often do not have the ability or the desire to expend resources maintaining the peace. Third, Brass argues that riots can become engrained in societal dynamics;

"the scene has been prepared with numerous rehearsals marked by tension, rumors, and provocations, in which the signals that an outbreak is about to occur... have been made clear." (Brass 2003, 378) Finally, Brass thinks that the widespread attention devoted to trying to find causes for riots "provides a license to many to loot, burn, and kill for revenge, profit, or pure fun under the cover of broader explanations provided by the authorities, journalists, and social scientists." (Brass 2003, 380)

On the other hand, Donald Horowitz (2000) attributes riots to the influence of rumors and communal hatred in *The Deadly Ethnic Riot*. These rumors are based on an actual event, but grossly exaggerate the severity of the violence to play off of ethnic grievances. Rumors concern secret outrages that are extreme enough to close alternative peaceful channels of activity and serve to establish confidence in the necessity of taking action. As a result of the rumors, rioters feel justification and moral impunity. (Horowitz 2000)

This paper adopts elements from each of these theorists by including state strength and the division of power along ethnic lines in the regression model. However, this analysis hinges less on case studies and is more focused on identifying cross-cultural phenomena that affect riots and protests across years and state borders. The structural nature of this model and the factors it uses, access to public goods, strength of state industry, ethnic power divisions and political rights are more broad, but still take into account many case-based issues.

What factors would influence ordinary people's decision to engage in riots and protests versus other forms of resistance? James Scott (1985) posits in *Weapons of the Weak* that peasant populations would elect other types of resistance because they do not have the power to directly

confront the government. Scott highlights the benefits of smaller-scale dissent saying, "They require little or no coordination or planning; they make use of implicit understandings and informal networks; they often represent a form of individual self-help; they typically avoid any direct, symbolic confrontation with authority." (Scott 1985, xvi) Scott mentions myriad examples of this phenomenon: "foot dragging, dissimulation, desertion, false compliance, pilfering, feigned ignorance, slander, arson, sabotage, and so forth." (Scott 1985, 29) Often issues that affect the peasantry comprise taxes, planting regulations, unfair laws, etc. Scott explains that poor citizenry will not risk overt confrontation with authorities over these sorts of problems because they are scattered without structure across the land, do not have any formal organization, and are prepared for drawn-out, defensive attrition campaigns. Any peasant would choose squatting, desertion, or pilfering as opposed to an actual invasion, obvious mutiny, or attacks on stores. (Scott 1985) Scott's argument addresses minor infractions by the government against the people, such as over taxation or crop regulation. This thesis deals with more pressing concerns, like access to water, electricity, political representation, etc, which may cause the population to choose more violent forms of protest than Scott's foot-dragging.

Similar to Scott's reasoning, in *Why Civil Resistance Works*, Chenoweth and Stephan (2011) contend that nonviolent campaigns have an advantage over violent insurgencies because the "moral, physical, informational, and commitment barriers to participation are much lower." (Chenoweth and Stephan 2011, 10) They further show that the higher grass roots participation in nonviolent movements significantly increase their chances of success and decrease the probability of a relapse into civil war.

Will Moore (1995) offers a counterargument to Scott, Chenoweth and Stephan and addresses the free-rider problem of mass participation in violent social conflict. Since riots and protests seek collective goods (redress of grievances), people will benefit from the event even if they do not participate. Therefore, rational people should decide against participation in collective activism. In order to explain why people do end up joining social conflict events, Moore summarizes a number of theorists' ideas. The explanations that he found most valid include Popkin's (1979) efficacy solution and the tipping games of Goldstone (1994), Lohmann (1992), and Karklins and Peterson (1993). Popkin argues that people who participate in social conflict events believe that their contribution to the effort will have an impact on the probability that the event will be successful. People do not have perfect information and their ability to assess their efficacy may not be perfect either. Furthermore, leaders can manipulate information to convince people that their participation will have an effect. "If a large overall goal can be broken down into many small independent pieces, all of which are necessary, then the free-rider problem can be overcome...Collective goods are financed by convincing persons that each member's contributions will have a perceptible effect." (Popkin 1979, 257 in Moore 1995, 435)

Goldstone argues that the free rider problem will be overcome whenever group members all believe in doing one's fair share. "Group action is so pervasive in ordinary society that the free-rider problem is solved by adopting norms that allow the members of identifiable, knowledge-sharing groups to achieve effective group action." (Goldstone 1994, 148-149 in Moore 1995, 437) Lohmann uses an economic model called informational cascades to explain tipping points. She contends that people form groups, which form coalitions, which form large conflict events. "Different actors have different preferences for rebellion, but shifts in the number

of people who are supporting the rebellion have an impact on the preferences of others." (Moore 1995, 446)

Karklins and Petersen (1993) continue the discussion of tipping points by approaching riot participation through the lens of game theory. They identify two considerations in the potential protester's assurance game: protection and prediction. Protection involves security against physical repression while demonstrating and safety from being sanctioned in a personal environment. Prediction includes knowing the probability of being protected at the demonstration site and the chances that the regime the demonstrators are protesting will collapse. The integral point for them is that "the individual pay-off for a choice is determined by the choices of the rest of the population." (Karklins and Petersen 1993, 591) At low levels of dissent, the personal value to not participate is much higher than the choice to participate because governments can quickly find and punish small groups of dissenters. As the number of demonstrators rises, the likelihood (born of legitimacy) that the regime will sanction any single individual falls. In order for society to move from low levels of dissent to a tipping point with high enough participation for riots to form, two things must happen. First, groups that have lower tipping points combine to inflate the percentage of participation enough that groups with higher thresholds will be affected. Second, as more groups reach tipping points, other groups will use them as references and lower their perceptions of regime will or effectiveness. (Karklins and Petersen 1993)

This paper follows the thought processes of Karklins and Petersen, Horowitz and Brass, instead of Scott, Chenoweth and Stephan. Ordinary people will participate in riots and protests as

opposed to other forms of conflict and political representation for several reasons. First, the blame is spread across all of the dissenters, making them less accountable. Second, in most of the countries with frequent riots, citizens are aware that the government is too weak to be able to identify and punish individual demonstrators. Third, when communities are repressed (i.e. fewer political rights and access to public goods) and members gather to discuss the unfairness of their situation, the group dynamics can incite attendees to collective anger and eventual violence. Fourth, as power becomes more severely divided along ethnic lines, communal hatred has room to fester and grow. Fifth, once a core assembly of dissenters begins spreading rumors and planning a riot, it becomes easier and easier for ordinary people to participate, because the core takes charge of developing logistics and delegation. Sixth, warlord style governments that are not concerned with citizen safety will often allow riots to happen rather than expend resources to control them.

#### Poverty:

The causal relationship between poverty and violent uprising is often assumed. For example, George W. Bush pronounced in Monterrey, Mexico in 2002, “We fight against poverty, because hope is an answer to terror.” From the other side of the world, in his Nobel Prize acceptance speech, economist Muhammad Yunus (2006) of Bangladesh said, “We must address the root causes of terrorism to end it for all time to come. I believe that putting resources into improving the lives of the poor people is a better strategy than spending it on guns.”

However, these assumptions are not borne out by research. The 9/11 Commission Report (2004) argues that deprived individuals typically do not resort to violent extremism. The 2004

report reads, “Terrorism is not caused by poverty.” (National Commission on Terrorist Attacks, 378) Other researchers concur. Krueger and Maleckova (2003) found that in the West Bank, early in the 1980s, the majority of Israeli Jewish settlers who attacked Palestinians had high-paying jobs. They further note that participants in Hezbollah’s more militant faction in the late 1980s and early 1990s were as likely to come from high income families as they were to come from economically disadvantaged families. Additionally, White (1989, 1993) examined the factors that led to the Irish Republican Army’s (IRA) violent attacks in Northern Ireland between 1969 and 1980, in spite of the rest of the population choosing peaceful protest. He showed that state repression increased support of IRA attacks and found no correlation between unemployment and political violence. Conversely, Honaker (2008) analyzed the same conflict, but divided his investigation into Catholic-instigated violence and Protestant-instigated violence. Once split, his analysis revealed that unemployment among Catholics engendered a perception of economic discrimination and was a leading cause of Catholic attacks. On the other hand, the occurrence of organized violent crimes, including murders, is typically found to be unrelated to economic opportunities. If structured violent crime is unrelated to economic opportunity, it follows that violent uprisings may be unrelated as well. (Krueger and Maleckova 2003)

The measurement issues between different areas of research, one claiming poverty contributes to social conflict, and the other suggesting it does not, reinforce the need for an encompassing large *N* analysis that takes into account specific aspects of poverty, such as access to education and infrastructure. This paper argues that poverty on the whole may not serve as an appropriate variable in determining the formation of activist groups because poverty includes different aspects that may have opposing effects on the presence of social conflict, e.g.

education, nutrition, income, contacts in society, etc. Rather, digging deeper to examine specific issues such as access to electricity, roads, water, sanitation, and elementary schools might yield more fruitful results.

#### Education:

When education is added to the poverty equation, steadier trends begin to emerge. Krueger and Maleckova (2003) found that having either a higher education or a standard of living above the poverty line was linked with participation in Hezbollah. Working with the Hezbollah data from Krueger and Maleckova (2003), Kavanagh (2011) found a conditional relationship between poverty, education, and involvement with Hezbollah. Her results demonstrated that it was not poverty alone but poverty among the highly educated that was a determinate factor in involvement in this terrorist organization. Moreover, she found that a high level of education was a much stronger determinant of activist group involvement for the economically disadvantaged than for those who had access to money.

As to the reasoning behind the increased incidence of highly-educated yet impoverished terrorists, it appears not to be the choice of the individual as much as it is the screening process of the terrorist organization that is the determining factor. Kavanagh (2011) asserts that the lowered opportunity costs for impoverished, highly-educated individuals make them more susceptible and available for recruitment. Low opportunity cost means the individual has to forgo or give up very little in the way of resources in order to take advantage of an opportunity. In short, without lucrative careers or prospects for the future, they may perceive their situations as having little to lose. As the economy suffers, educated people lose their jobs and are more likely

to apply to become terrorists because they have fewer options. Krueger (2007) asserts that it is not that the terrorists have nothing to live for, rather, that they believe so strongly in a cause to be willing to die for it. This is one of the many contradictions that arise when reviewing the literature of terrorist and other social movements, especially at the case study level.

Moreover, poverty does not necessarily have to be a personal motivator. Ted Gurr (2006) brings up the idea of relative deprivation to explain participation in social conflict. People may be more prone to join social conflict events if they, a group they belong to, or other people they know, are deprived of something that they believe they deserve. When people compare their positions in society to others', they may realize they have less than those around them. This effect can incite people to violence even if they are not personally affected because they may still want redress for the relative deprivation (of their social group or others) around them.

James Davies (1970) offers another explanation for the abundance of poor, highly educated activists in *When Men Revolt and Why*. Perhaps more educated individuals have higher expectations than others and this increases their frustration with the regime. He argues that people have constantly rising expectations that over time are satisfied less and less until a point where gratifications actually downturn and the people can no longer tolerate the gap between what they want and what they receive. Often this happens as economic conditions undergo a period of steady improvement before falling off, but it can also occur more suddenly. For example, the violent suppression of a movement, or the abuse of an employee or farmer, is a downturn in the people's perception that their expectations will continue to be satisfied. "Tear gas or a billy club are not rising gratifications, nor do they produce rising expectations. They dash

the expectation that tear gas will not be used and that the public park will at last be integrated." (Davies 1970, 134) At this time people will organize a revolution, or in this case a social conflict event. Due to this shared frustration toward the regime, people with divergent interests may work together in order to see their expectations met.

Either way, the Hamas organization has no shortage of applicants to its suicide bomber ranks:

“The selection process is complicated by the fact that so many wish to embark on this journey of honor. When one is selected, countless others are disappointed. They must learn patience and wait until Allah calls them,” says a senior member of al-Qassam. (Hassan 2001, n.p.)

This could be applied to social conflict events in that people in a floundering economy might have fewer options and disincentives, increasing the chances of their participation in riots and protests. Furthermore, according to Brass (2003) and Horowitz (2000) many rioters participate in violence because they believe so strongly in the need to redress grievances.

Education is more than just an adjunct to poverty and is directly important in its own right as a predictor of participation in political violence. Extremist groups prefer to select highly skilled, educated members because they are more efficient operatives. Benmelech and Berrebi in 2007 found that suicide bombing missions carried out by Palestinian bombers from high-skill occupations or those who were highly educated, were more successful and resulted in more Israeli deaths. Consequently, both Hamas and the Palestinian Islamic Jihad recruited mainly on

college campuses. (Berrebi 2004)

It seems intuitive that violent organizations would prefer to hire highly educated persons, just as much as any other entity. In this paper, controlling for influences such as the openness of the political opportunity structure, the regression analysis includes access to education and will attempt to corroborate or dispute previous claims that higher education increases participation in political violence.

#### Economic Motivation:

While it has been previously established that poverty does not outright produce social conflict, Gary Becker argues there is a connection between wealth and violent activism based on the observation that "nations or regions that are experiencing rapid growth appear to have lower incidences of terrorism." (Becker 2005, n.p.) Becker conjectures that political activism, including violent uprising, is less appealing to individuals when their economic opportunities are improving. So, if poverty does not directly cause social conflict, it could still be true that economic growth *reduces* terrorism. (Becker 2005)

Building on this argument, findings from Blomberg, Hess, and Weerapana (2004) show that economic downturns are correlated with increases in activist organization membership. Furthermore, economic development, democracy and openness in countries that are a source of terrorism, reduce incidences of terrorism there. However, Bloomberg and Hess (2005) found that in generally higher income countries, as income per capita rises, the state is more prone to experience terrorism, and this effect is lessened by political openness. Furthermore, for countries

on the lower end of the economic scale, income per capita is negatively related to terrorism and openness positively related. Pape's (2005) findings also show that democratic states can experience more terrorism because they are uniquely vulnerable. Domestic terrorism declines in both low and high income countries that experience economic development. (Bloomberg and Hess 2005) Kreuger and Laitin (2007) found that the GDP growth rate of the origin states of terrorist organizations is unrelated to the amount of terrorist activity produced; however, the GDP growth rate of the target states is significantly related to terrorist attacks there.

Doug McAdam (1988) puts forward an explanation for the connection between economic opportunity and social conflict in *Freedom Summer*. He argues that upper class people often are more able to affect their environments than lower class people. Wealthy persons' access to resources including money, education, and contacts in society gives them more control over their surroundings. As a result, rich people are more likely than poor people to see the world as malleable and themselves as masters of their own fates. Therefore, higher income, higher educated people are more likely to participate in social conflict because they believe that protests and strikes do have the capacity to redress grievances.

Also considering the haves and the have-nots, Honaker in 2008 estimated the separate employment rates of Catholics and Protestants in Northern Ireland and found that unemployment leads to perceptions of economic discrimination and was a significant causal mechanism for the intensity of conflict there during the time of "The Troubles," which began in the late 1960s and ended in 1998. During this period, the Republicans, the largely Catholic minority who wanted Northern Ireland to leave the United Kingdom and form a united Irish Republic, felt they were

being discriminated against economically by the Loyalists, who came mostly from the Protestant community and wanted Northern Ireland to remain part of the United Kingdom. As would be expected, unemployment of Catholics was a leading cause of the violence by Republican (Catholic) factions. As an added result, Honaker also discovered that Loyalist (Protestant) violence increased when unemployment rate of Protestants rose. (Honaker 2008)

Finally, Burgoon (2006) found that generous social welfare policies tend to reduce poverty, inequality and religious-political extremism and thereby decrease the formation of activist groups and social conflict. Burgoon found a negative correlation between a country's welfare efforts and the number of transnational or total terrorist incidents there, as well as transnational terrorist attacks committed by its populace. He suggests that strengthening social welfare policies at home and abroad may help combat activist violence. Such policies as social security, unemployment, disability, health and education spending discourage violent uprising by reducing poverty, inequality, and socioeconomic insecurity, hence reducing incentives to commit or condone violence for political reasons, and by weakening radical political and religious groups that provide economic security where public safety nets are deficient. A logical assumption, then, would be to include the development and maintenance of social welfare policies as part of the strategy to combat violent activism. Burgoon is quick to point out that while social welfare policies will decrease preferences for terrorist activities, they may also increase the capacity to organize and perpetuate terrorism. (Burgoon 2006)

This paper taps into these issues with the variables of National Material Capabilities (NMC) and Access to Education and Infrastructure (AEI). As NMC measures a state's military

and industrial strength, it might help this study to corroborate Becker's findings about the negative relationship between economic strength and violent activism. AEI also measures state strength by examining the government's ability to provide services and by association identify and control its people. If AEI and NMC are significantly related to social conflict, they might help to substantiate Burgoon's findings in 2006.

#### State Strength:

Existing research does not support the assertion that weak or failed states breed violent activism. Edward Newman (2007) has demonstrated that terrorist groups form in both strong, stable states and weak or failed states, making a relationship between governmental stability and formation of terrorist organizations difficult to find. As social conflict is largely a local phenomenon, it is more likely that the perpetrators of violence will challenge the government that directly oversees their district, rather than start an uprising that has any connection to a failed national government. In fact, often the activists exploit the logistical and economic opportunities available in a stable state to accomplish their aims. While some violent groups do form in weak or failed states, it is not necessarily so, and this condition is not a sufficient explanation for their presence. (Newman 2007)

On the other hand, Boaz Atzili (2010) using data from the Palestinian Liberation Organization (PLO), Hezbollah in Lebanon, and two mini-cases from Central America and Africa explored the various mechanisms through which the "vacuum of power" that is created in the absence of a strong state, translates into opportunities for terrorist groups. Among these mechanisms are the ease of obtaining assistance and recruitment among refugees or other

marginalized groups, the ability of the terrorist organization to appeal to the populace as a “surrogate state” that supplies institutions and services, the relations between civil or communal discord and the terrorist groups’ success, and the use of transnational terrorist organizations as surrogates for other states. (Atzili 2010) Here is another of the great inconsistencies in social movement and terrorism literature.

This paper operationalizes the idea of state strength using NMC and AEI. Hopefully by examining the entire continent of Africa using these structural variables, the paper will be able to shed some light on the paradox of Newman and Atzili's research. This study hypothesizes that some aspects of state strength, such as the ability to provide public goods, will discourage social conflict, while other aspects of state strength, such as military and industrial might, may encourage the formation of activist groups.

#### Social Movements:

This paper follows the assumption that most political violence sprouts from social causes. McAdam, McCarthy and Zald (1996) developed three main concepts that are central to social movement theory: political opportunities, mobilizing structures and cultural dimensions. Protests, revolutions, civil wars, etc. are shaped by the political structures and opportunities that are specific to the nations in which they arise. McAdam and his colleagues identify four aspects of political opportunity structure:

- the comparative closure or openness of political systems
- the stability/instability of the elite

- the existence or lack of elite allies
- the state's capacity to repress

After considering the political opportunity structures, McAdam et al (1996) consider mobilizing structures which are the mediums through which individuals mobilize and become active in collective action. Mobilizing structures include the organizational structures of social movements, and the friends and family that support them. Finally, they consider the shared culture of a population which brings them together, motivates them, and makes their causes legitimate. (McAdam et al 1996)

Along similar lines, Jenkins and Klandermans (1995) examine how state structures, party systems and other processes influence social movements. In its role as the primary distributor of socially valued goods, the state is frequently the focus and antagonist of social movements. Social movements must come into contact with the state in order to significantly alter the social institutions and practices that shape the social and political world. According to their findings (Jenkins and Klandermans 1995), variations in political opportunity structures explain the differences between countries in their “protest potential.” Comparative analysis of states should consider both the states as units of analysis and their different frameworks for political actions. Della Porta and Rucht (1995) found that the trajectories of similarly situated social movements are related and are determined principally by the proponents and opposition. Additionally, both the formal institutions of the state and its informal incorporation or segregation of elites towards social movements comprise its political opportunity structures. Furthermore, the interactions of the establishment, their opponents and various alliances shift over time, and affect the

negotiating power of social movement groups. Jenkins and Klandermans (1995) effectively argue that a society's protest potential is established by political arrangements.

Campbell (2013) studied potential participants in social movements. In order to determine which individuals will participate in a social movement, one must focus on individuals and social networks. In fact, the two approaches complement each other. The characteristics of individuals that are known to correlate with participation in social movements such as education, religious attendance, political acuity, political principles and civic duty all have a social component. (Campbell 2013)

Goldstone (2001) claims that the individualistic and network-wide factors that cause nonviolent social movements to fail might cause violent movements to emerge. One such factor is whether the state has the ability to provide the goods and services that are expected by elites and various citizen groups such as workers, peasants, and religious, ethnic or regional minorities. Another is whether the elites are mostly unified or divided and if the opposition elites join in protests by well-supported citizen groups. Moreover, population growth that exceeds economic growth can alter the relationship between the state, the elites and organized groups. Lastly, Goldstone (2001) asserts that there are inherent faults in many dictatorships and colonial regimes that lead to social conflicts, specifically revolutions.

Theda Skocpol (1994) argues broadly that revolutions cannot occur unless prior to revolutionary activity, the respective devices of state repression have become weakened and the individuals with an inclination to participate in such revolutions are able to form independent and “well-supported collective organizations.” Presumably the important questions are: why do

some regimes grow weak and why do some activist populations become well organized? In accordance with state-centered structuralism, Skocpol claims that these two things happen almost autonomously. (Skocpol 1994)

This paper addresses political opportunities and mobilizing structures with three variables: NMC, FIW (Freedom in the World - Political Rights) and ELF (Ethno Linguistic Fractionalization). FIW and ELF measure political opportunity structure by analyzing the level of political rights and the uneven distribution of power along ethnic lines. NMC measures state strength and the government's ability to stop protesters from mobilizing.

#### Government Repression:

There is evidence that the lack of political freedom and access also affect individual participation decisions. When political channels for change become blocked, violent resistance becomes more appealing. (Crenshaw 2010) As stated earlier, White (1989, 1993), when studying the Provisional Irish Republican Army (IRA), found that state repression was a major determinant of political violence. Furthermore, Lichbach (1987) found that changes in government repression affect an opposition group's choice between violent and nonviolent tactics. Depending on what activities the government is repressing, other activities increase (violent vs. nonviolent activities). If governments quickly shut down nonviolent civil resistance, violent social conflict will increase in an attempt to be efficacious.

This paper draws on ideas of government repression by attempting to operationalize political opportunity structure in two ways. First, the regression uses FIW's political rights figure

to analyze a population's ability to engage in the political process, with the expected result that more political rights leads to fewer social conflict events. Second, the model uses an updated version of the ELF statistic in order to measure oppression along ethnic boundaries, with the hypothesized outcome that more division of power along ethnic lines causes more social conflict.

### Ethnic Group Conflict:

Africa suffers from excessively bureaucratic political systems as well as feeble institutions, including the absence of legal legitimacy and the inability to operate without government takeover, and the lack of substantial social capital in society to help avoid and manage conflict. (Gebeyehu 2013) Many Africans align and mobilize themselves along ethnic boundaries because power and resources are not distributed equally, rather than some innate hatred. Over an extended period of time, undermining the strength of politically motivated ethnic divisions involves a methodical public education platform focused on creating the sort of single national identity that numerous African states still require. (Aapengnuo 2010) In line with Gebeyehu and Aapengnuo, this thesis does not focus on ethnic hatred, but rather the extent to which political opportunity structure is closed by an unfair distribution of power along ethnic lines.

Overall, structural volatility and social conflict in African states is increasing. In order to alleviate these issues, intervening third parties must manage the crises in the short term, but also resolve the long term underpinnings of conflict. Frequently, these two objectives work contrary to each other, and there is a substantial difference in the effectiveness of particular approaches. According to Quinn et al (2013), conflict mediators are much more effective when dealing with

short term crises, especially when they assume a more intrusive strategy. Conversely, these mediators are completely insignificant when it comes to long term crisis management, demonstrating no capacity to curtail recurring conflict. (Quinn et al 2013)

The high level of ethnic conflict in Africa, among other influences mentioned earlier, is one of the main reasons for including ELF in the regression model for this study. Although literature is focused on ethnic hatred, much social conflict is focused on the government. Therefore this thesis posits that if ELF proves to be a significant predictor of social conflict, it will be more because of ELF's effect on the political opportunity structure than on intergroup animosity. The rich cache and variation of ethnic group data available in Africa should not only help to produce significant results from a regression analysis, but also represents a principal reason for studying social conflict in the first place. If power being divided along ethnic lines causes the number of social conflict events to increase substantially, especially when overarching variables such as NMC and FIW are included as controls, then the importance of ethnic conflict as a whole becomes more apparent.

#### Modernization Theory:

Modernization theory views inequality from the functionalist perspective and attempts to explain society's evolution from traditional to modern. It developed into a popular, multidisciplinary methodology (relying on political science, psychology, economics, sociology and history) of development studies in the 1950s. The central argument of modernization theory is that modernization is unavoidable, unalterable, and assumes a linear progression. This transition can happen through the dissemination of Western politics, economic systems,

technological advances, and cultural progression through international aid programs, investment, educational curricula and media organizations. The spread of funds, technology, and culture from the developed world to the underdeveloped states is what enables modernization, according to proponents of the theory. Modernization as a perspective was broadly critiqued by world-systems advocates, dependency theorists, and neo-Marxists and was widely considered discredited by the 1970s. (Da Silva 2009)

Many opposing researchers disagreed with modernization theory's fundamental assumption that there was only one feasible road to improvement. "This constricted and rather unimaginative vision of what was in effect the future of humanity" was a Western reaction to the Cold War and the threat posed by the Soviet Union and Communism. (Adas 2003, in Da Silva 2009, n.p.) Critics regarded the modernization perspective as exceedingly ethnocentric, dubbing it a "none too subtle form of cultural imperialism." (Adas 2003, in Da Silva 2009, n.p.) Modernization also appeared to be more of a Westernizing process than an advancement process, in which non-Western countries could only improve if they "abandoned their traditional cultures and assimilated technologically and morally 'superior' Western ways." (Ingelhart & Baker 2000, in Da Silva 2009, n.p.) Finally, critics contended that modernization theory was based on the faulty claim that there existed a "causal relationship between development aid and economic development, on the one hand, and between economic development and its political consequences, on the other." (Kaufman 1982, in Da Silva 2009, n.p.; Haefele 2003)

Policies originating from modernization theory were founded on the assumption of a "functional interdependence of economic growth and democratization." (Knobl 2003, in Da Silva

2009, n.p.) Towards the end of the 1960s, many academics established that "tradition is not at all the opposite of modernity" and the belief in a "stable, homogenous, inflexible, 'traditional' culture is wrong." (Knobl 2003, in Da Silva 2009, n.p.) Perhaps obviously to contemporary researchers, modernization can have various significances depending on the cultural connotation. Moreover, maintaining that a "market society will automatically bring forward a democratic parliamentary system" ignores historical examples. (Knobl 2003, in Da Silva 2009, n.p.)

The similarities between modernization theory and this paper are impossible to deny. Modernization theory maintains that spreading Western politics, culture, economics and technology to developing states is beneficial for these countries' development and improvement. This study hypothesizes that increasing access to education and technology, features of Western culture, within a developing state will decrease that country's amount of social conflict. This paper also introduces themes from Western politics and society, such as the ability to freely and effectively participate in the governmental process, and the division of political power among interest groups, etc, to help explain social conflict. Finally, the variable NMC brings in aspects of Western economics by attempting to account for social conflict using predictors including military size, industrial strength, and population.

However, there are also principal differences between this thesis and modernization theory. Most importantly, political opportunity structure is a main predictor for this paper's explanation of social conflict events. Economic development alone does not decrease conflict. Moreover, NMC and AEI together operationalize the concept of state strength, which is much broader than economic progress and incorporates aspects outside of Modernization theory.

### The Case of Africa:

Why choose Africa as a focus for testing the structural causes of social conflict? First, there is rich, recent data for social conflict on the African continent. Second, there is more social conflict on the African continent than in many other areas of the globe. Third, much of Africa scores on the low end for the predictor variables used in this paper. Variation at this lower end of the scale should lead to larger differences in number of social conflict events because each change should have more impact on people. For example, if most of the people have little-to-no political rights, gaining some rights should have more of an effect than if people with myriad political rights gain an added civil liberty, such as a stronger right to privacy.

Many African states lack the financial and cultural resources to provide public goods. Per information from the United Nations Development Program (2013), twenty-seven (90%) of the world's thirty poorest countries are in Africa. In some areas, non-governmental organizations (NGOs) have taken the place of the government providing health care, water, and education. (Ihonvbere 1994) (Mbaku 2000)

Current infrastructure statistics in Africa are bleak and do not show many signs of improvement. African air transport is very expensive; many connections do not happen according to plan, and the continent as a whole has a poor safety record. Only 34 percent of Africans have access to roads year-round and public transportation is overcrowded and too expensive (about \$0.30 per trip) for most household budgets. Recurring complications with the power grid hinder production in more than 30 African states. "Inadequate generation capacity, limited electrification, low demand for power, unreliable service, and skyrocketing prices cause

serious bottlenecks in the [power] sector." (African Development Bank Group 2011, n.p.) Over 60 percent of people in Africa do not have access to safe sanitation. Moreover, a third of the African population use the outdoors as a toilet and about half depend on antiquated latrines. Finally, just 58 percent of Africans have safe drinking water available to them. (African Development Bank Group 2011) Combine these aspects of weak statehood with a closed political opportunity structure, and Africa should be prone to political violence.

Africa's political opportunity structure is closed because it suffers from oppressive and corrupt elites.

"In most African countries today, most governments pursue and advance primarily the interests and objectives of a few individuals and groups--mostly those of the ruling elites and their supporters... In many instances, civil servants engaged in illegal activities to extract income for themselves; judicial officers adjudicated cases based primarily on the wealth and political status of the defendant; judges often used their positions to punish their enemies and those of their relatives and supporters; and senior military elites routinely converted resources destined for their troops into their personal property." (Mbaku 2000, 32-34)

Moreover, population increases in these nations far exceed economic expansion. (Ergas 1986; World Bank 1981; Mbaku 1997) On the whole, African states are often led by regimes with significant vestiges of colonialism and dysfunctional, oppressive government systems. (Mbaku 2000)

## THEORETICAL INTUITION

This paper relies on a number of basic assumptions about the nature of un-armed violence and social conflict. First, I define social conflict to include protests, riots, strikes, inter-communal clashes, and government action against the population provoked by the people. Second, as opposed to organized groups, political parties, militias, warlords, etc, the instigators of social conflict are ordinary people. Third, rather than being driven by emotions or led like sheep, these regular individuals take part in unarmed violence of their own logical choosing as a means to redress grievances in a system that has removed them from the process.

My analysis begins with the political characteristics of everyday people. First, they will act out in response to serious grievances, i.e. people will react to perceived affronts to themselves and their communities by attempting to rectify the injustice. Second, these regular individuals are rational, strategic actors who weigh alternatives and decide on the best course of action. Third, they take into consideration three main incentives for political participation: safety, efficacy, and convenience. Safety from social conflict involves security against physical repression while demonstrating. It also consists of freedom from being sanctioned after the protest, e.g. through arrest, harassment, discrimination, or penalization in the workplace. Efficacy includes knowing the strength of the dissident movement and the chances that grievances will be redressed, or even that the target regime will collapse. Convenience has to do with the fact that people are more likely to participate in anything if it is easy for them to get involved. Riots may start sluggishly and then quickly peak because ordinary people will find it easier and easier to participate after a core assembly of dissenters handles planning and logistics. Convenience matters because as

social conflict events become more convenient, they are able to draw in participants who might feel less attached to the relevant grievances.

The characteristics of social conflict events themselves reveal when people might choose protests and riots instead of other types of political activism to address grievances. The first aspect falls under the category of political opportunity structure. The premise of political opportunity structure is that "exogenous factors enhance or inhibit prospects for mobilization, for particular sorts of claims to be advanced rather than others, for particular strategies of influence to be exercised, and for movements to affect mainstream institutional politics and policy." (Meyer and Minkoff 2004) Political blocking, i.e. the exclusion of groups from the political process, can be separated into ethnic and regime type. Ethnic blocking involves the division of power along ethnic lines. Riots and other social conflict events should often emerge as a method of addressing this problem because of ethnic groups' motivation and ability. All the members of one ethnic group share common perspectives and grievances to motivate them. They may also have the ability to easily plan and convene a protest because of stronger intergroup social networks. Alternatively, regime type blocking concerns autocracy and the prohibition / failure of democracy. The population may turn to social conflict in the face of regime blocking because they have no ability to influence the government through normal means like elections.

People believe participation in social conflict will be efficacious because their political opportunity structure restricts regular politics. Riots may seem a practical recourse for citizens who have no representation in government because they need no permission to participate and may be able to force the state to address them. In other words, social conflict lends power to the

people because governments do not want protests and will try to avoid them in the future. Riots and protests can succeed in attempting to redress grievances no matter the political opportunity structure, so social conflict is a viable alternative when other routes of political expression are closed.

The second aspect of this social conflict analysis is state strength. First, protesters in strong states are not free from retribution as they might be in weak states because the government can identify and punish demonstrators. Therefore, weak states should experience more social conflict because they do not have the resources to fight communal violence. Second, warlord style weak state governments may allow riots to happen rather than expend resources to control them. Furthermore, as a corollary to this argument, strong states usually provide more public goods to the people, so citizens might endure fewer grievances. Weak states leave openings for insurgent groups to offer services and gain the public's favor.

The final factor in this examination of social conflict is participation effort. A small group of core dissenters often plan riots and protests, making it simple and easy for the general public to get involved. For the vast majority of participants, all they have to do is show up. Demonstrators can feasibly march in a protest, then return to their normal lives, which is next to impossible with civil wars and revolutions. These kinds of social conflict events also possess just enough lack of organization to preserve the demonstrators' agency to act creatively, instead of forcing a hierarchical structure.

There are three main alternatives to social conflict. First, ordinary people can choose to participate in armed revolutions and civil wars. Second, citizens may elect to take part in

nonviolent civil resistance movements. Third, as always when action is concerned, the population may decide to not participate in social movements and do nothing at all.

In the first case, people may choose social conflict over armed rebellion because participation is simpler and easier and danger is distributed across a large group of unidentified dissenters. Civil wars and revolutions offer much less individual protection for participants than riots and protests. They also require more planning and organization, and it is more difficult to partake because of the necessary military operations. As stated earlier, social conflict is less demanding than armed rebellion, because participants are able to return to their everyday lives after demonstrating, which is unlikely in a revolution. Moreover, problems they perceive in society may merit violent uprising, but not a complete change of government. If people attempt to redress their grievances through social conflict, but are unable to foment the desired change, they may decide that their injustices warrant the escalation into all-out rebellion. Following this line of reasoning, social conflict may in fact precede revolutions and serve as a precursor in their development. Therefore, arguments for rebellion can also be viewed as supporting social conflict.

For the second alternative, potential participants might choose social conflict over nonviolent resistance because of safety and efficacy reasons. If the government cracks down quickly and violently on nonviolent movements, protesters' safety and efficacy are compromised because they have a substantial chance of being harmed and the movement does not have the opportunity to gain critical mass. They might as well turn to violence themselves in order to have a chance at redressing their grievances; i.e. riots may begin as nonviolent movements that did not

reach the intended level of efficacy. Furthermore, civil resistance does not have the same perception of efficacy of riots and protests and people might assume that governments will take them less seriously. Moreover, the individualistic and network-wide factors that cause nonviolent social movements to fail might cause violent movements to emerge, including the government's ability to provide public goods and the extent that the elites are unified behind the government. Finally, people might choose social conflict over nonviolent civil resistance because they feel that particular grievances deserve a more forceful response than pacifist activism.

Lastly, people can decide to do nothing. Sometimes, doing anything at all is too difficult, too dangerous, or simply not perceived to be effective. Obviously, if people do nothing, they do not expect to see results. Therefore, this choice comes down to decision calculus. As mentioned above, people will consider their personal safety and convenience, and the overall efficacy of a movement when deciding. Each individual's choice is determined by the choices made by others. At low levels of dissent, the personal value to not participate is much higher than the choice to participate because governments can quickly find and punish small groups of dissenters. As the number of demonstrators rises, the power of the regime to sanction any single individual falls. In order for society to breach the hump from low levels of dissent to high enough participation for riots to form, two things must happen. First, groups that have lower tipping points combine to inflate the percentage of participation enough that groups with higher thresholds will be affected. Second, as more groups reach tipping points, other groups will observe them and lower their perceptions of the regime's will or effectiveness.

In summary, at least part of the variation in African social conflict should be explained by

political opportunity structure and state strength because of their effect on people's safety, efficacy, and convenience. For political opportunity structure, citizens' ability to influence their government through normal methods like elections should affect the types of grievances they feel and how willing they are to resort to group activism. For state strength, weaker governments are less able to identify and punish demonstrators, so people should feel that protesting is safer in weak states.

AEI and NMC operationalize the idea of state strength, which affects protesters' safety, because strong governments should be able to identify and punish demonstrators. NMC measures a state's military and industrial strength and AEI measures a state's ability to provide public goods and by corollary to affect their lives and stop social conflict. If a government knows who they are providing education to, they know details about their people, perhaps enough to identify and punish protesters. State strength affects efficacy and convenience, because strong governments should find it easier to shut down protests before they gain momentum. Therefore, as access to education and infrastructure and national material capabilities increase, the number of social conflict events should decrease.

As opposed to state strength, which influences when protesters will or will not engage in social conflict, ELF and FIW represent political opportunity structure, which affects when protesters will or will not engage in regular politics. FIW measures the political rights that people have to influence their government. ELF measures the distribution of political power along ethnic lines. The relative openness of the political arena affects efficacy, because regular politics in closed-structure countries is not efficacious. Furthermore, states with open political

opportunity structures should generate fewer grievances for people to protest because they feel their voices are being represented. Therefore, as ethnic fractionalization decreases and political rights increase, the number of social conflict events should decrease.

As a final point, more than just assessing state strength, AEI relates to the basic traits of ordinary people mentioned in the second paragraph of the Theoretical Intuition because it measures grievances. If states provide more public goods to the people, the citizens might endure fewer grievances and have fewer reasons to consider social conflict as a recourse for addressing them.

## **HYPOTHESIS**

**H<sub>1</sub>:** As access to education and infrastructure increases, number of social conflict events will decrease.

**H<sub>2</sub>:** As national material capabilities increase, number of social conflict events will decrease.

**H<sub>3</sub>:** As level of ethnic fractionalization increases, number of social conflict events will increase.

**H<sub>4</sub>:** As political rights increase, number of social conflict events will decrease.

**H<sub>Null</sub>:** The number of social conflict events is not affected by access to education and infrastructure, national material capabilities, level of ethnic fractionalization, or extent of political rights.

## DESIGN OF TEST

These hypotheses are tested by an adjusted ordinary least squares (OLS) panel corrected standard errors time series regression model, developed by Beck and Katz (1995). Time-series cross-section (TSCS) data, like the kind used in this paper, are characterized by recurring observations of preset units. These could be anything from states / nations to individual leaders. A researcher would typically analyze between 10 and 100 units over a period of 15 to 50 years. (Beck and Katz 1995) This thesis analyzes 35 African states over a period of 16 years —1990-2005— attempting to contribute to an explanation of social conflict with variables that encompass assorted aspects of state strength and political opportunity structure.

In 1990, there were 43 countries on the African continent. (Johnson 2014) This paper examines 35 of these countries because they were the only ones with data available over a substantial time period. The determining predictors were Access to Education and Infrastructure (AEI) and Ethno Linguistic Fractionalization (ELF). Although AEI and ELF data were unavailable for eight African states, National Material Capabilities (NMC) and Freedom in the World (FIW) information was at least partly accessible. The mean of NMC and FIW values for the eight missing countries from 1990-2005 were easily within one standard deviation of the mean of the other 35 states for the same variables over the same time span. Therefore, the 35 states in the model are reasonably representative of the African continent as a whole, at least in terms of NMC and FIW.

In order to measure strength of the state and ability to provide public goods, I included

AEI and NMC data in the analysis as predictor variables. AEI is a compilation of school attendance rates, literacy, and access to electricity, radio, television, sanitation, and potable water. The data was split into areas of countries, so I found the mean of the regions in every state and used it to give the entire country a score for each particular indicator. I used an un-weighted mean because there was not a great deal of variation between regions. Then, I added the scores for each indicator (school attendance, electricity, water, etc) together to compute a single score for each African state. The information was gathered by the Climate Change and African Political Stability (CCAPS) program at the Robert S. Strauss Center for International Security and Law housed in the University of Texas at Austin. (Smith et al 2013) This paper uses version 4.0 of NMC, which covers the time period from 1816-2007. NMC creates a number for every state, called the Composite Index of National Capability (CINC) score, based on six indicators: military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population. The information was collected by the Correlates of War research project at the Pennsylvania State University. (Singer et al 1972, Singer 1987)

In order to determine openness of political opportunity structure, I incorporated Ethno Linguistic Fractionalization (ELF) and Freedom in the World (FIW) data in the study as additional independent variables. The traditional ELF score has received criticism for not aptly encapsulating the amorphous and slippery concept that is ethnicity. (Driessen 2008) In an attempt to develop a better measure of the division of power along ethnic lines, Cederman, Girardin, and Wimmer (2006) developed a new expert survey of ethnic groups (ESEG). According to this survey, a group is considered politically relevant if an interest group claims to represent them or ethnicity is the source of political discrimination. Their new Ethnic Power

Relation dataset uses this survey to create an updated ELF score based on ESEG data (i.e. only ethnopolitically relevant groups.) The ELF value used in this paper comes from this Ethnic Power Relations dataset. The ESEG project is managed jointly by researchers at the Swiss Federal Institute of Technology and the University of California at Los Angeles. FIW is a comprehensive measure that condenses survey information into three numbers for each state: Freedom Rating, Political Rights Rating, and Civil Liberties Rating (all ranging from 1-7). Because this study is interested in political opportunity structure, I chose the political rights figure to join the other variables in the model. The FIW report is published by Freedom House, an independent U.S. organization founded in 1941 to expand freedom across the globe. (Freedom House 2013) Freedom House assigns high values of FIW to states with few political rights and low values of FIW to states with many political rights. In order to clarify the meaning of my findings, I coded FIW in the opposite direction so that political rights and social conflict events should have the expected negative relationship in the regression results.

The dependent variable for this paper was African social conflict, operationalized by the Social Conflict in Africa Database (SCAD). SCAD is a registry of social conflict events organized by country and year. Social conflict, as opposed to armed conflict, includes protests, riots, strikes, inter-communal clashes, and government violence against the population. As with AEI, the figures were assembled by the CCAPS program at the Robert S. Strauss Center for International Security and Law housed in the University of Texas at Austin. (Hendrix and Salehyan 2012)

**Table 1: Access to Education and Infrastructure Range by Year**

<b>AEI Year</b>	<b>High</b>	<b>Low</b>
<b>1990-2005</b>	Egypt - 448.2396	Somalia - 106.9122

**Note: Egypt and Somalia maintain their positions as states with most and least access to education and infrastructure for all 16 years.**

**Table 2: Ethno Linguistic Fractionalization Range by Year**

<b>ELF Year</b>	<b>High</b>	<b>Low</b>
<b>1990</b>	Liberia - 0.986	Burkina Faso, Lesotho, <b>Madagascar</b> , Somalia, Swaziland, Tanzania - 0.01
<b>1991</b>	Liberia - 0.986	Burkina Faso, Lesotho, Somalia, Swaziland, Tanzania - 0.01
<b>1992</b>	Liberia - 0.986	Burkina Faso, Lesotho, Somalia, Swaziland, Tanzania - 0.01
<b>1993</b>	Liberia - 0.986	Burkina Faso, Lesotho, <b>Madagascar</b> , Somalia, Swaziland, Tanzania - 0.01
<b>1994</b>	Liberia - 0.986	Burkina Faso, <b>Gambia</b> , Lesotho, Madagascar, Somalia, Swaziland, Tanzania - 0.01
<b>1995-2005</b>	Liberia - 0.986	Burkina Faso, Gambia, Lesotho, Madagascar, Somalia, Swaziland, Tanzania - 0.01

**Note: From 1990 to 2005 Liberia had the highest level of ethno linguistic fractionalization, while the list of states tied at the lowest level of ELF fluctuated slightly from 1990 to 1994 before settling at Burkina Faso, Gambia, Lesotho, Madagascar, Somalia, Swaziland, and Tanzania for 1995 to 2005.**

**Table 3: Freedom in the World Political Rights Range by Year**

<b>FIW Year</b>	<b>High</b>	<b>Low</b>
<b>1990</b>	Gambia, Namibia - 6	Burundi, Ethiopia, Liberia, Malawi, Mauritania, Somalia - 1
<b>1991</b>	Benin, Gambia, Namibia, Zambia - 6	Burundi, Liberia, Malawi, Mauritania, Somalia - 1
<b>1992</b>	Gambia - 7	Liberia, Mauritania, Sierra Leone, Somalia - 1
<b>1993</b>	Benin, Gambia, Madagascar, Mali, Namibia - 6	Burundi, Democratic Republic of the Congo, Mauritania, Nigeria, Sierra Leone, Somalia, Togo - 1
<b>1994</b>	Benin, Madagascar, Malawi, Mali, Namibia - 6	Democratic Republic of the Congo, Gambia, Liberia, Mauritania, Nigeria, Rwanda, Sierra Leone, Somalia - 1
<b>1995</b>	Benin, Madagascar, Malawi, Mali, Namibia - 6	Cameroon, Democratic Republic of the Congo, Gambia, Kenya, Liberia, Nigeria, Rwanda, Sierra Leone, Somalia - 1
<b>1996</b>	Benin, Madagascar, Malawi, Mali, Namibia - 6	Burundi, Cameroon, Democratic Republic of the Congo, Gambia, Kenya, Liberia, Niger, Nigeria, Rwanda, Somalia - 1
<b>1997</b>	Benin, Madagascar, Malawi, Namibia - 6	Burundi, Cameroon, Democratic Republic of the Congo, Gambia, Niger, Nigeria, Republic of the Congo, Rwanda, Sierra Leone, Somalia - 1
<b>1998</b>	Benin, Madagascar, Malawi, Namibia - 6	Burundi, Cameroon, Democratic Republic of the Congo, Gambia, Niger, Republic of the Congo, Rwanda, Somalia - 1
<b>1999</b>	Benin, Madagascar, Namibia - 6	Cameroon, Democratic Republic of the Congo, Gambia, Rwanda, Somalia - 1
<b>2000</b>	Benin, Ghana, Madagascar, Mali, Namibia - 6	Cameroon, Democratic Republic of the Congo, Gambia, Rwanda - 1
<b>2001</b>	Ghana, Madagascar, Mali, Namibia - 6	Rwanda - 1
<b>2002</b>	Ghana, Lesotho, Mali, Namibia, Senegal - 6	Rwanda - 1
<b>2003</b>	Benin, Ghana, Lesotho, Mali, Namibia, Senegal - 6	Central African Republic, Swaziland - 1

<b>2004</b>	Benin, Ghana, Lesotho, Mali, Namibia, Senegal - 6	Swaziland, Zimbabwe - 1
<b>2005</b>	Ghana - 7	Swaziland, Zimbabwe - 1

**Table 4: National Material Capabilities Range by Year**

<b>NMC Year</b>	<b>High</b>	<b>Low</b>
<b>1990</b>	Egypt - 0.00785	Swaziland - 0.0000496
<b>1991</b>	Egypt - 0.0082864	Swaziland - 0.0000518
<b>1992</b>	Egypt - 0.0085444	Gambia - 0.0000421
<b>1993</b>	Egypt - 0.0084834	Gambia - 0.0000404
<b>1994</b>	Egypt - 0.008545	Gambia - 0.0000435
<b>1995-2005</b>	Egypt - 0.0085745-0.0096214	Gambia - 0.0000442-0.000049

**Note:** From 1990 to 2005 Egypt had the highest level of national material capabilities, while by 1992 Gambia passed Swaziland as the state with the lowest level of NMC. Egypt and Gambia maintained their high and low positions for the remainder of the time period.

**Table 5: Social Conflict Events Range by Year**

<b>SCE Year</b>	<b>High</b>	<b>Low</b>
<b>1990</b>	Cote d'Ivoire - 9	Burkina Faso, Burundi, Gambia, Ghana, Guinea, Guinea-Bissau, Lesotho, Mauritania, Namibia, Republic of the Congo, Rwanda, Uganda - 0
<b>1991</b>	Democratic Republic of the Congo - 26	Burundi, Gambia, Guinea-Bissau, Liberia, Malawi, Mozambique, Namibia, Somalia, Swaziland - 0
<b>1992</b>	Kenya - 29	Benin, Burkina Faso, Gambia, Guinea, Guinea-Bissau, Senegal, Swaziland - 0
<b>1993</b>	Nigeria - 31	Benin, Burkina Faso, Gambia, Guinea-Bissau, Lesotho, Mauritania, Sierra Leone, Swaziland - 0
<b>1994</b>	Nigeria - 30	Guinea, Guinea-Bissau, Madagascar - 0
<b>1995</b>	Egypt - 24	Central African Republic, Gambia, Guinea, Madagascar, Mali, Mauritania, Togo - 0
<b>1996</b>	Nigeria - 26	Gambia, Mali, Mauritania, Senegal, Togo - 0
<b>1997</b>	Kenya - 38	Gambia, Guinea, Madagascar, Mauritania, Namibia - 0
<b>1998</b>	Nigeria - 42	Gambia, Guinea-Bissau, Rwanda - 0
<b>1999</b>	Nigeria - 51	Gambia, Togo - 0
<b>2000</b>	Nigeria - 78	Rwanda - 0
<b>2001</b>	Nigeria - 86	Mauritania, Republic of the Congo, Rwanda, Swaziland - 0
<b>2002</b>	Nigeria - 81	Gambia, Guinea-Bissau, Lesotho, Mali, Mozambique, Namibia - 1
<b>2003</b>	Nigeria - 71	Ethiopia, Madagascar - 0
<b>2004</b>	Nigeria - 84	Lesotho, Namibia - 0

**2005**

Nigeria - 77

Gambia, Ghana, Lesotho, Namibia, Rwanda - 0

## EMPIRICS

Due to the nature of variables over time, e.g. many factors do not change a great deal in the space of several years, I expected the model to demonstrate strong autocorrelation and groupwise heteroskedasticity. In order to confirm these problems, I ran the Wooldridge and Modified Wald tests, which check for autocorrelation and heteroskedasticity respectively. Once verified, I decided to analyze the data using the Beck and Katz panel corrected standard errors time series regression model. This method was developed to specifically account for autocorrelation and heteroskedasticity, because often these issues are unavoidable in time series data. In fact, when running the panel corrected standard errors regression, STATA now defaults to the Beck and Katz model and assumes that the data is contemporaneously correlated and heteroskedastic.

### Wooldridge Test:

I first conducted a Wooldridge test for autocorrelation in the panel data. Jeffrey Wooldridge at the University of California, San Diego developed this test as a simple way to use the Ordinary Least Squares (OLS) residuals from a model that had been first-differenced to determine autocorrelation. (Wooldridge 2010) Due to this foundation on first differences, the Wooldridge test can suffer from a loss of power compared to some of the alternatives.

However, other similar methods including the Durbin-Watson statistic generalized by Bhargava et al. (1982), the Lagrange Multiplier derived by Baltagi and Li (1991, 1995) and Baltagi and Wu (1999), and the portmonteau Lagrange Multiplier statistic suggested by Inoue

and Solon (2006), all have more relevant shortcomings. The Durbin-Watson statistic relies on the amount of cross section units and the number of time intervals. Therefore, I would have been forced to give all critical figures in large tables affected by both dimensions. The Lagrange Multiplier does not have the customary  $\chi^2$  distribution because of the bias in estimating the autocorrelation coefficient. Finally, the Inoue and Solon (2006) Lagrange Multiplier statistic is designed for panels with smaller time periods. With a moderate  $T$  as in my model, the Lagrange Multiplier test loses accuracy because the null hypothesis' dimension rises as  $T^2$  increases. Moreover, the Wooldridge test depends on fewer assumptions, so although it might be less powerful than the other measures, it is more robust.

In reviewing the linear model,

$$y_{it} = \alpha + \mathbf{X}_{it}\boldsymbol{\beta}_1 + \mathbf{Z}_i\boldsymbol{\beta}_2 + \mu_i + \epsilon_{it} \quad i \in \{1,2, \dots, N\}, t \in \{1,2, \dots, T_i\}$$

"Where  $y_{it}$  is the dependent variable;  $\mathbf{X}_{it}$  is a  $(1 \times K_1)$  vector of time-varying covariates;  $\mathbf{Z}_i$  is a  $(1 \times K_2)$  vector of time-invariant covariates;  $\alpha$ ,  $\boldsymbol{\beta}_1$ , and  $\boldsymbol{\beta}_2$  are  $1 + K_1 + K_2$  parameters;  $\mu_i$  is the individual-level effect; and  $\epsilon_{it}$  is the idiosyncratic error." (Drukker 2003, 169)

The Wooldridge test employs the residuals from a first-differenced regression, shown below. This eliminates the constant, the time-invariant term, and the individual-level effect.

$$y_{it} - y_{it-1} = (\mathbf{X}_{it} - \mathbf{X}_{it-1})\boldsymbol{\beta}_1 + \epsilon_{it} - \epsilon_{it-1}$$

$$\Delta y_{it} = \Delta \mathbf{X}_{it}\boldsymbol{\beta}_1 + \Delta \epsilon_{it}$$

Where  $\Delta$  is the operator for the first differences. Wooldridge estimates  $\boldsymbol{\beta}_1$  by regressing  $\Delta y_{it}$  on

$\Delta \mathbf{X}_{it}$  and taking the residuals  $\hat{\epsilon}_{it}$ . Wooldridge observes that if there is no correlation among the  $\epsilon_{it}$ , then  $Corr(\Delta\epsilon_{it}, \Delta\epsilon_{it-1}) = -.5$ . Therefore, the residuals  $\hat{\epsilon}_{it}$  are regressed with first-differenced variables on their lags and the Wooldridge procedure tests if the lagged residuals coefficient equals  $-.5$ . Accounting for correlation within the panels of the  $\hat{\epsilon}_{it}$  to  $\hat{\epsilon}_{it-1}$  regression, the Wooldridge test adjusts the variance-covariance matrix (VCE) for panel level clustering. Due to the nature of the cluster command in STATA, the Wooldridge test is robust in regard to conditional heteroskedasticity. (Drukker 2003)

The results of the Wooldridge test demonstrated strong autocorrelation in my model.

H<sub>0</sub>: no first-order autocorrelation

F(1, 34) = 15.109

Prob > F = 0.0004

#### Modified Wald Test:

Second, I performed a Modified Wald test for groupwise heteroskedasticity in the fixed effect regression model. The Standard Wald test, likelihood ratio, and Lagrange Multiplier statistic are all sensitive to assuming the normality of errors. The Modified Wald test is appropriate for this paper because it is designed for cases when the assumption of normality may be violated asymptotically. The Modified Wald test is weak when dealing with models that have large  $N$ , small  $T$  panels. The time series regression for this project does not fall into that category. The null hypothesis states  $\sigma_i^2 = \sigma^2$  for  $i = 1, \dots, N_g$ , where  $N_g$  is the amount of cross-sectional

components. The Modified Wald test uses  $\hat{\sigma}_i^2 = T_i^{-1} \sum_{t=1}^{T_i} \epsilon_{it}^2$  as the estimator of the cross-sectional variance in errors for the  $i$ th component, according to the  $T_i$  residuals  $\epsilon_{it}$  accessible for that component. (Baum 2001) Then the procedure defines

$$V_i = T_i^{-1}(T_i - 1)^{-1} \sum_{t=1}^{T_i} (\epsilon_{it}^2 - \hat{\sigma}_i^2)^2$$

as the predicted variance for  $\hat{\sigma}_i^2$ . The Modified Wald test statistic, below,

$$W = \sum_{i=1}^{N_g} \frac{(\hat{\sigma}_i^2 - \hat{\sigma}^2)^2}{V_i}$$

is distributed as  $\chi^2[N_g]$  below the null hypothesis. (Baum 2001)

This trial revealed that the analysis also suffered from heteroskedasticity.

$H_0: \text{sigma}(i)^2 = \text{sigma}^2$  for all  $i$

chi2 (35) = 36445.38

Prob > chi2 = 0.0000

Both of these test results were to be expected from a time series regression because of the nature of variables over time, e.g. many factors do not change a great deal in the space of several years. Therefore, I analyzed the data using the Beck and Katz panel corrected standard errors time series regression model. Beck and Katz developed this method in order to account for common time series regression errors, namely autocorrelation and heteroskedasticity. In fact,

when running the panel corrected standard errors regression, STATA now assumes that the data is contemporaneously correlated and heteroskedastic.

#### Beck and Katz Model:

In 1995, Nathan Beck from the University of California, San Diego and Jonathan Katz from the California Institute of Technology published an article in which they invalidated numerous previous studies that used a generalized least squares (GLS) model to analyze TSCS data. GLS assumes that researchers have information about the error process that they do not have in practice. Therefore, analysts use a feasible generalized least squares (FGLS) approach, which employs an estimate of this error process information. However, in order to figure out the standard errors, the FGLS procedure supposes that these estimates are in fact known values. Often, this does not pose an issue because applications have few enough parameters in their error processes that they can be successfully estimated. Beck and Katz show that this is not the case with TSCS data, because the error process has so many parameters. They provide evidence that studies using FGLS underestimated variability by 50 to 300 percent.

As a solution to these problems, Beck and Katz instead promote an adjusted ordinary least squares (OLS) method that retains OLS estimates of parameters, but replaces OLS standard errors with panel-corrected standard errors. Although the characteristics of TSCS data make it difficult to use OLS estimates for model parameters, OLS parameter estimates often perform well in "practical research situations." (Beck and Katz 1995, 634) On the other hand, OLS standard error estimates for TSCS are exceedingly inaccurate. Therefore, Beck and Katz advocate keeping OLS estimates of parameters and replacing OLS estimates of standard errors

with panel-corrected standard errors. They demonstrate that these new variability samples are highly accurate, even when dealing with complex panel error arrangements.

The formula used to sample variability of OLS estimates comes from the square roots of the diagonal terms of

$$\text{Cov}(\hat{\beta}) = (\mathbf{X}'\mathbf{X})^{-1} \{\mathbf{X}'\mathbf{\Omega}\mathbf{X}\} (\mathbf{X}'\mathbf{X})^{-1}$$

If the errors are homoskedastic and adhere to the spherical assumption, this equation will simplify to the original OLS formula, i.e. "where the OLS standard errors are the square roots of the diagonal terms of  $\widehat{\sigma}^2 (\mathbf{X}'\mathbf{X})^{-1}$ , where  $\widehat{\sigma}^2$  is the usual OLS estimator of the common error variance,  $\sigma^2$ ." (Beck and Katz 1995, 638) If the errors instead are heteroskedastic and follow the panel structure, then this original OLS formula will provide inaccurate standard errors. However, if the errors are of the latter type, then  $\text{Cov}(\hat{\beta}) = (\mathbf{X}'\mathbf{X})^{-1} \{\mathbf{X}'\mathbf{\Omega}\mathbf{X}\} (\mathbf{X}'\mathbf{X})^{-1}$  can be used to provide precise panel-corrected standard errors. (Beck and Katz 1995)

For panels like the ones in this paper, with errors that are auto correlated and heteroskedastic, " $\mathbf{\Omega}$  is an  $NT \times NT$  block diagonal matrix with an  $N \times N$  matrix of contemporaneous covariances,  $\Sigma$ , along the diagonal." (Beck and Katz 1995, 638) To find a consistent estimate of  $\Sigma$ , Beck and Katz use the OLS residuals from the generic TSCS model:

$$y_{i,t} = x_{i,t}\beta + \epsilon_{i,t}; i = 1, \dots, N; t = 1, \dots, T$$

"where  $x_{i,t}$  is a vector of one or more exogenous variables and observations are indexed by both unit ( $i$ ) and time ( $t$ )... Let  $\epsilon_{i,t}$  be the OLS residual for unit  $i$  at time  $t$ ." (Beck and Katz 1995, 636-

638) To estimate a standard value for  $\Sigma$ :

$$\hat{\Sigma}_{i,j} = \frac{\sum_{t=1}^T e_{i,t}e_{j,t}}{T}$$

so that the estimate  $\hat{\Sigma}$  is comprised of all these components. This equation helps to create the estimator  $\hat{\Omega}$  by forming a diagonal block matrix and placing the  $\hat{\Sigma}$  matrices down the diagonal. As the amount of time periods increases,  $\hat{\Sigma}$  does better and better at estimating  $\Sigma$ . (Beck and Katz 1995)

In all of the Beck and Katz experiments, PCSEs performed superbly. When the errors displayed homoskedasticity and independence, a situation where OLS standard errors are highly accurate, PCSEs performed just as successfully as the OLS errors. More importantly, when faced with extreme heteroskedasticity and contemporaneous correlation in the error terms, PCSEs performed well consistently while the performance of OLS standard errors declined. In fact, every time the PCSEs were inside 10 percent of actual variability. (Beck and Katz 1995)

## FINDINGS

**Linear regression, correlated panels corrected standard errors**

**(PCSEs) :**

Group variable: Statel

Time variable: Year

Panels: correlated (balanced)

Autocorrelation: no autocorrelation

Estimated covariances = 630

Estimated autocorrelations = 0

Estimated coefficients = 5

Number of obs = 560

Number of groups = 35

Obs per group: min = 16

avg = 16

max = 16

R-squared = 0.2479

Wald chi2(4) = 52.53

Prob > chi2 = 0.0000

**Table 6: Social Conflict Events in Africa Regression**

	<b>Coef</b>	<b>Std Err</b>	<b>z</b>	<b>P&gt; z </b>
<b>AEI</b>	-.0254458	.005127	-4.96	0.000
<b>ELF</b>	1.94466	.6884785	2.82	0.005
<b>FIW</b>	-.4318902	.2342928	-1.84	0.065
<b>NMC</b>	3229.359	480.0612	6.73	0.000
<b>Constant</b>	7.453818	1.997748	3.73	0.000

Overall, the empirical analysis is supportive of the argument. The tests found that the theoretical independent variables, political opportunity structure and strength of the state, both have an effect on social conflict. Wald chi-squared and R-squared values suggest that the model is complete and has substantial explanatory power.

The Wald statistic deals with a null hypothesis that states that a set of parameters in the model is equal to a certain value. If the Wald test is unable to reject this null hypothesis, then if variables were removed from the regression, the model would not be substantially harmed. This is because an independent variable with a coefficient that is miniscule compared to its standard error is usually not contributing much in predicting the result of the dependent variable. The Wald test in this regression was able to reject the null hypothesis, indicating that each independent variable contributes substantially to explaining the dependent variable and that even in other time periods or with other units, the model would hold true. (Fox 1997) The R-squared statistic determines how well the model explains the variation in the data being analyzed. For example, an R-squared of 100 would mean that the independent variables explain all of the

variation in the dependent variable. For a study that encompasses an entire continent, an R-squared of 25 percent is a strong figure. (King 1986)

**H<sub>1</sub>:** As access to education and infrastructure increases, the number of social conflict events will decrease. Supporting this hypothesis, in the results as access to education and infrastructure increases, number of social conflict events decreases. For every one unit increase in the AEI score, the number of social conflict events for the state per year drops by 0.03, a statistically significant change at the 99 percent confidence level, with a P value of 0.000. An example from the data: the state with the closest AEI value to the mean for the model is Benin in 2005 at 264.19 with three social conflict events. Namibia in 2005 had an AEI score of 335.1223 (close to the 75th percentile of the total data on AEI) and experienced zero social conflict events.

**H<sub>2</sub>:** As national material capabilities increase, the number of social conflict events will decrease. Opposite to this hypothesis, in the findings as national material capabilities increase, number of social conflict events also increases. The reasoning for the original hypothesis was that weaker governments would be less able to control their territory and identify and punish protesters. However, the results are no less significant because of their direction. As NMC increases by 0.001, the number of social conflict events for the state per year *rises* by 3.2, a statistically significant effect at the 99 percent confidence level, with a P value of 0.000. (The one thousandth interval is used for NMC because the score compiled by the Correlates of War project uses small decimals when assigning NMC values to states.) An example from the data: the state with the closest NMC value to the mean for the model is Mozambique in 1993 at 0.0011661 with two social conflict events. The Democratic Republic of the Congo in 1990 had an NMC score of

0.0025798 (near the 25th percentile of the total data on NMC) and experienced four social conflict events.

**H<sub>3</sub>:** As level of ethnic fractionalization increases, the number of social conflict events will increase. In confirmation of this hypothesis, in the results as level of ethnic fractionalization increases, number of social conflict events increases, i.e. states where power is divided along ethnic lines endure more social conflict. For every unit increase in the ELF score, the number of social conflict events for the state per year grows by 1.94, a significant difference at the 99 percent confidence level, with a P value of 0.005. An example from the data: the state with the closest ELF value to the mean for the model is Zimbabwe in 1990 at 0.569 with four social conflict events. Zambia in 1990 had an ELF score of 0.735 (close to the 75th percentile of the total data on ELF) and experienced seven social conflict events.

**H<sub>4</sub>:** As political rights increase, the number of social conflict events will decrease. Although the direction of the findings did uphold this hypothesis, it was only at the 93 percent confidence level, with a P value of 0.065. Although FIW was expected to demonstrate a significant relationship at a lower P value, the variable still has some explanatory power. As FIW climbs by one unit, the number of social conflict events for the state per year decreases by 0.43. As political rights increase, number of social conflict events decreases, i.e. as the population feels better able to express their opinions and influence the democratic process, the fewer social conflict events a state will experience. An example from the data: the state with an FIW value close to the mean for the model is Central African Republic in 2002 at 5 with nine social conflict events. In 1994, when the Central African Republic was more free and had an FIW rating of 3 (near the 25th

percentile of the total data on FIW) it experienced only two social conflict events.

## DISCUSSION

AEI, NMC, ELF, and FIW operationalize the ideas of state strength and political opportunity structure, which affect the safety, efficacy, and convenience of social conflict. Safety from social conflict involves security against physical repression while demonstrating. It also consists of freedom from being sanctioned after the protest, e.g. through arrest, harassment, discrimination, or penalization in the workplace. Efficacy includes knowing the strength of the dissident movement and its ability to shield demonstrators from repercussions, but also the chances that grievances will be redressed, or even that the target regime will collapse. Convenience has to do with the fact that people are more likely to participate in anything if it is easy for them to get involved. For example, riots may start sluggishly and then quickly peak because ordinary people will find it easier and easier to participate after a core assembly of dissenters handles planning and logistics. Convenience matters because as social conflict events become more convenient, they are able to draw in participants who might feel less attached to the relevant grievances.

Supporting the theoretical explanation, the findings show that as access to education and infrastructure increases, number of social conflict events decreases. AEI and NMC represent state strength, which affects protesters' safety, because strong governments should be able to identify and punish demonstrators; and efficacy and convenience, because strong governments with developed law enforcement should find it easier to shut down protests before they gain momentum. Moreover, strong states usually provide more public goods to the people, so citizens might endure fewer grievances. This shows that funding education and infrastructure matters in

countering conflict. For the academic, this research opens the door to a host of other questions examining specific areas of infrastructure and education and determining if this finding only holds true where access to education and infrastructure is generally low, as is the case in this study. For the policy maker, this lends credibility to investment programs that target roadways, electricity, sanitation, schools, etc. The significant AEI results can also help to settle decisions on how the United States and other wealthy states should aid developing countries. Monetary assistance could come with conditions stipulating spending focused on education and infrastructure.

Opposite to what was theorized, as national material capabilities increase, number of social conflict events also increases. There are several possible explanations for this unexpected effect. First, states with higher NMC values may have strong militaries but not strong law enforcement systems. The military often does not have local knowledge to appropriately address communal issues better handled by police. In order to address this issue, future analyses might include law enforcement per capita, instead of military personnel. Second, The military and industrial strength measured by NMC might generate more grievances to protest because of unpopular military activity or violations of worker's rights. Third, in states with low NMC values, the government's actions may be less visible and seem less at fault for current conditions. The citizens may have survival issues that are more salient than any government action. Take the case of a starving town without access to water. Members of this community are more concerned with feeding themselves and their families than protesting the structural government decisions that caused their starvation in the first place. Or rather, returning to James Scott and *Weapons of the Weak*, the population of these countries might lack formal organization and prefer to resist

the government in smaller ways including foot dragging, noncompliance, deception, etc. (Scott 1985) Finally, some states may have large militaries, but even larger populations, so future analyses might include military per capita instead of total military size in order to more appropriately measure the military's ability to control the population.

Since states with higher national material capabilities are actually more likely to experience social conflict than weaker states, researchers will have many questions. What part of the NMC variable caused it to be so strongly correlated with social conflict events? Is NMC a valid measure of state strength? And, if so, why would stronger states be more likely to experience social conflict? Is this the case only in the lower portion of NMC scores (seeing as African states have generally lower NMC values)? On the policy making side, does this explain the presence of protests and related types of social conflict in developed states with high NMC scores? Perhaps not, because first world states might not experience more social conflict overall than less developed states. The direct relationship between NMC and SCAD may only exist when moving among lower values of NMC.

Confirming the ELF hypothesis, as level of ethnic fractionalization increases, number of social conflict events increases. The regression supports the theoretical explanation. ELF and FIW represent political opportunity structure, which affects when protesters will *not* engage in regular politics. The relative openness of the political arena affects safety, because it is dangerous for citizens to attempt regular politics in closed systems, efficacy, because regular politics in closed-structure countries is not efficacious; and convenience, because closed governments make it impossible to get involved in the normal political process. Furthermore,

states with open political opportunity structures should generate fewer grievances for people to protest because they feel their voices are being represented. This demonstrates that politically relevant ethnic groups' access to political power matters when it comes to social conflict. A group is considered politically relevant if an interest group claims to represent them or ethnicity is the source of political discrimination. Therefore, if interest groups are seen as having a considerable influence in government, it can affect the level of social conflict. If groups are discriminated against because of their ethnicity, it will also affect the level of social conflict. In academia, this has ramifications for a wealth of ethnic conflict research. To what extent does power have to be divided along ethnic lines for it to cause conflict? Does all ethnic fractionalization cause conflict or is it more common between certain groups? In legislation, this cements the importance of equal representation and opportunity. As governments begin to mirror their populations, they should have more peaceful societies.

Further supporting the theoretical intuition, although at a lower level of significance, as political rights increase, number of social conflict events decreases. FIW affects efficacy, because regular politics in closed-structure countries is not efficacious. Moreover, states with open democratic systems should generate fewer grievances for people to protest because they feel that they can affect change through regular politics like elections. In academia, this opens up avenues of research that statistically measure different areas of freedom and equality in order to operationalize different variations on a common theme. The results also lend weight to previous case-studies that emphasize the importance of political rights when assessing a successful government. In the policy-making arena, this model supports U. S. State Department and USAID programs that foster free and fair elections; improve participation of women, young people, and

minorities; and encourage citizen engagement in the political process. It also reinforces the mission of OSC independent and objective observers in assessing election legitimacy. Working to spread suffrage rights, access to the media, accurate vote counting, etc, does have an effect on the social conflict within states.

What are the effects of running this analysis in the African continent as opposed to other regions of the world? As stated in the Theoretical Intuition, there is more social conflict on the African continent than in many other areas of the globe. Furthermore, much of Africa scores on the low end for the predictor variables used in this paper. Variation at this lower end of the scale should lead to larger differences in number of social conflict events because each change should have more impact on people. For example, moving from 25 percent access to water among the population, to 35 percent access to water should have a more substantial effect than moving from 85 percent to 95 percent.

Nonetheless, due to the large scale nature of this project, the findings should hold true during other time periods and in other areas of the world. The 35 African states analyzed in this thesis vary substantially in all the variables used in the time series regression model, albeit at the low end. Moreover, the Wald chi-squared and R-squared values suggest that the model is complete and has substantial explanatory power.

## CONCLUSION

This thesis attempts to explain whether and to what extent a relationship exists between political opportunity structure, strength of the state, and social conflict. What makes a state more open or closed, or more strong or weak? The independent variables attempt to operationalize these concepts from four different angles. In this analysis Access to Education and Infrastructure (AEI), Ethno Linguistic Fractionalization (ELF), Freedom in the World Political Rights (FIW), and National Material Capabilities (NMC) were all significant predictors of social conflict. This study found that as the level of ethnic fractionalization and material capabilities within states rose, the frequency of social conflict events also increased. Moreover, as access to infrastructure and political rights declined, the number of social conflict events increased.

Social conflict events include protests, riots, strikes, inter-communal clashes, and government action against the population provoked by the people. Strikes and communal clashes emerge as a method of confronting a closed political opportunity structure because citizens have no ability to influence the government through normal means like elections, they need no permission to participate in social conflict events, and they may be able to force the state to address them. People also participate in riots and protests if they live in a weak state, because weaker governments do not provide many public goods, nor are they able to identify and punish protesters.

When facing a choice whether to participate in social conflict, armed revolution, nonviolent civil resistance, or to do nothing, people will favor social conflict in a number of

circumstances for several reasons. Social conflict is preferable to revolution because it requires less effort and planning, and offers more individual protection for participants. Riots and protests are preferable to nonviolent resistance when the government does not tolerate social movements, because nonviolent resistance would not be more safe or efficacious than social conflict and violence might increase the perception of the movement's strength. Finally, strikes and communal clashes are preferable to inaction if people judge grievances to justify giving up some safety, participation is convenient, and they perceive the movement to have a certain level of efficacy.

For academics, using social conflict statistics to shed light on studies of violence might prove fruitful. For policy makers and counter-terrorism practitioners, focusing on education and infrastructure programs, economic development, equal representation, suffrage rights, and election regulations should become a priority in conflict resolution.

In summary, at least 25 percent of the variation in African social conflict is explained by political opportunity structure and state strength because of their effect on people's safety, efficacy, and convenience. For political opportunity structure, citizens' ability to influence their government through normal methods like elections affects the types of grievances they feel and how willing they are to resort to group activism. For state strength, weaker governments are less able to identify and punish demonstrators, so people feel that protesting is safer in weak states.

## **FUTURE RESEARCH**

In order to further investigate the structural causes of social conflict and the types of predictors that exist, future research on this project will involve interacting AEI, NMC, ELF and FIW to determine whether variable combinations will have additional effects. Another avenue of examination is to split SCAD into organized vs. spontaneous events for some regression analyses and government initiated vs. civilian initiated events for others. Also, there is a wealth of information contained in my single variable, AEI. Moving forward, research will divide AEI into its separate elements and run regression analyses based on those components alone and in combination with other factors from the current model.

Since this paper takes an encompassing, structural approach to the study of social conflict, it does not attempt to explore conflict's underlying processes and leaves room for case studies to test the hypothesized micro-causal claims. Surveys and other means of data gathering among the affected populations would be able to corroborate or weaken my arguments by asking the people what their reasons were for participating or not participating in social conflict events. In-depth examinations of certain states would give valuable background as to whether those countries did indeed experience social conflict because of governments with the ability to repress and closed political opportunity structures. Researchers can also obtain personal accounts to determine whether a lack of access to education and/or infrastructure caused people to seek redress of their situations.

## REFERENCES

- Aapengnuo, Clement Mweyang. 2010. "Misinterpreting Ethnic Conflicts in Africa." *Africa Security Brief* 4 (April): 1-6. Washington, DC : Africa Center for Strategic Studies.
- Adas, M. 2003. "Modernization Theory and the American Revival of the Scientific and Technological Standards of Social Achievement and Human Worth." Engerman, D.C, Gilman, N., Haefele, M.H., and Latham, M.E., eds. *Staging growth: Modernization, Development, and the Global Cold War*. (pp. 25-45). Amherst and Boston: University of Massachusetts Press.
- African Development Bank Group. 2011. "Sectors Information."  
<http://infrastructureafrica.org/sectors> (January 30, 2014)
- Atran, Scott. 2006. "The Moral Logic and Growth of Suicide Terrorism." *Washington Quarterly* 29 (Spring): 127-47.
- Atzili, Boaz. 2010. "State Weakness and 'Vacuum of Power' in Lebanon." *Studies in Conflict & Terrorism* 33 (July): 757-782.
- Baltagi, B. H. and Q. Li. 1991. "A Joint Test for Serial Correlation and Random Individual Effects." *Statistics & Probability Letters* 11 (March): 277-280.
- Baltagi, B. H. and Q. Li. 1995. "Testing AR(1) against MA (1) Disturbances in an Error Component Model." *Journal of Econometrics* 68 (July): 133-151.
- Baltagi, B. H. and P. X. Wu. 1999. "Unequally Spaced Panel Data Regressions with AR(1) Disturbances." *Econometric Theory* 15 (December): 814–823.
- Baum, Christopher F. 2001. "Residual Diagnostics for Cross-Section Time Series Regression

- Models." *The Stata Journal* 1 (4th Quarter): 101–104.
- Beck, Nathan and Jonathan N. Katz. 1995. "What to do (and not to do) with Time-Series Cross-Section Data." *The American Political Science Review* 89 (September): 634-647.
- Becker, Gary. 2005. "Terrorism and Poverty: Any Connection?" May 29.  
<http://www.becker-posner-blog.com> (June 18, 2013).
- Benmelech, Efraim and Claude Berrebi. 2007. "Human Capital and Productivity of Suicide Bombers." *Journal of Economic Perspectives* 21 (Summer): 223-38.
- Berribi, Claude. 2004. "The Causes and Consequences of Terrorism." Ph.D. diss.. Princeton University.
- Bhargava, A., L. Franzini, and W. Narendranathan. 1982. "Serial Correlation and the Fixed Effects Model." *Review of Economic Studies* 49 (October): 533-549.
- Blomberg, S. Brock and Gregory Hess. 2008a. "From (no) Butter to Guns?: Understanding the Economic Role in Transnational Terrorism." Keefer Philip and Norman Loayza, eds. *Terrorism, Economic Development, and Political Openness*. (pp. 83-115). New York: Cambridge University Press.
- Blomberg, S. Brock and Gregory Hess. 2008b. "The Lexus and the Olive Branch: Globalization, Democratization, and Terrorism." Keefer Philip and Norman Loayza, eds. *Terrorism, Economic Development, and Political Openness*. (pp. 116-47). New York: Cambridge University Press.
- Blomberg, S. Brock, Gregory Hess, and Akila Weerapana. 2004. "An Economic Model of Terrorism." *Conflict Management and Peace Science* 21 (February): 17-28.

- Brass, Paul R. 2003. *The Production of Hindu-Muslim Violence in Contemporary India*. Seattle: University of Washington Press.
- Brym, Robert and Bader Araj. 2006. "Suicide Bombing as Strategy and Interaction: The case of the Second Intifada." *Social Forces* 84 (June): 1969-86.
- Burgoon, Brian. 2006. "On Welfare and Terror: Social Welfare Policies and Political-Economic Roots of Terrorism." *Journal of Conflict Resolution* 50 (April): 176-203.
- Bush, George W. 2002. "Remarks by the President at United Nations Financing for Development Conference" Speech, Monterrey, Mexico, March 22. White House.  
<http://www.whitehouse.gov/news/releases/2002/03/20020322-1.html> (May 11, 2013).
- Campbell, David E. 2013. "Social Networks and Political Participation." 2013. *Annual Review of Political Science* 16 (May): 33-48.
- Cederman, Lars-Erik, Luc Girardin, and Andreas Wimmer. 2006. "Getting Ethnicity Right: An Expert Survey on Power Distributions among Ethnic Groups." *Conference Papers -- American Political Science Association* 1-19.
- Chenoweth, Erica, & Maria J. Stephan. 2011. *Why Civil Resistance Works: The Strategic Logic of Nonviolent Conflict*. New York: Columbia University Press.
- Clark, C. and Bahry, D. 1983. "Dependent Development: A Socialist Variant." *International Studies Quarterly* 27 (September): 271-293.
- Cohn, T.H. 2000. *Global Political Economy: Theory and Practice*. New York: Longman.
- Crenshaw, Martha. 2010. "Counterterrorism Policy and the Political Process." *Studies in Conflict & Terrorism* 24 (August): 329-37.
- Da Silva, Anna. 2009. "Modernization Theory." *Research Starters - Sociology*. EBSCO Host

(January 17, 2014).

- Davies, James Chowning. 1970. *When Men Revolt and Why; a Reader in Political Violence and Revolution*. New York, Free Press.
- Della Porta, D. and D. Rucht. 1995. "Left-Libertarian Movements in Context." J. Craig Jenkins and B. Klandermans, eds. *The Politics of Social Protest: Comparative Perspectives on States and Social Movements* (pp. 299-372). Minneapolis: University of Minnesota Press.
- Driessen, Michael D. 2008. "Ethno-Linguistic Fractionalization: Dataset Review." *American Political Science Association Comparative Politics Newsletter* (Winter)
- Drukker, David M. 2003. "Testing for Serial Correlation in Linear Panel-Data Models." *The Stata Journal* 3 (2nd Quarter): 168–177.
- Esterbrook, John. 2002. "Salaries for Suicide Bombers." CBS, April 3.  
<http://www.cbsnews.com/news/salaries-for-suicide-bombers> (January 4, 2014).
- Ergas, Zaki. 1986. "In Search of Development: Some Directions for Further Investigation." *The Journal of Modern African Studies* 24 (June): 303-333.
- Fox, J. 1997 *Applied Regression Analysis, Linear Models, and Related Methods*. Thousand Oaks, CA: Sage Publications.
- Freedom House. 2013. "Country Ratings and status by region, FIW 1973-2013"  
<http://freedomhouse.org/report-types/freedom-world#.U68xoPldV8F> (June 18, 2013)
- Gebeyehu, Temesgen. 2013. "Ethnic Conflict, Interaction and Cohabitation in Africa: The Case of Nuer and Anuak." *Eastern Africa Social Science Research Review* 29 (June): 97-112.
- Goldstone, Jack A. 1994. "Is Revolution Individually Rational? Groups and Individuals in Revolutionary Collective Action." *Rationality and Society* (January): 139-166.

- Goldstone, Jack A. 2001. "Toward a Fourth Generation of Revolutionary Theory." *Annual Review of Political Science* 4 (June): 139-187.
- Greene, W. H. 2000. *Econometric Analysis*. Upper Saddle River, NJ: Prentice Hall.
- Gurr, Ted Robert. 2006. "Economic Factors." In *The Roots of Terrorism*, 85-101. New York, NY, US: Routledge/Taylor & Francis Group.
- Haefele, M.H. 2003. "Walt Rostow's Stages of Economic Growth: Ideas and Action." Engerman, D.C, Gilman, N., Haefele, M.H., and Latham, M.E., eds. *Staging Growth: Modernization, Development, and the Global Cold War* (pp. 81-103). Amherst and Boston: University of Massachusetts Press.
- Hassan, Nasra. 2001. "Letter from Gaza: An Arsenal of Believers." *The New Yorker*, November 19. [http://www.newyorker.com/archive/2001/11/19/011119fa\\_FACT1?currentPage=all](http://www.newyorker.com/archive/2001/11/19/011119fa_FACT1?currentPage=all) (May 16, 2013).
- Hendrix, Cullen S. and Idean Salehyan. 2012. "Social Conflict in Africa Database (SCAD)." [www.scadata.org](http://www.scadata.org) (June 24, 2013)
- Homer-Dixon, Thomas. 2002. "The Rise of Complex Terrorism." *Foreign Policy*, January 1. [http://www.foreignpolicy.com/articles/2002/01/01/the\\_rise\\_of\\_complex\\_terrorism](http://www.foreignpolicy.com/articles/2002/01/01/the_rise_of_complex_terrorism) (July 18, 2013).
- Honaker, James. 2008. "Unemployment and Violence in Northern Ireland: A Missing Data model for Ecological Inference." September 8. <http://tercer.bol.ucla.edu/papers/ni.pdf> (May 6, 2013).
- Horowitz, Donald L. 2001. *The Deadly Ethnic Riot*. Berkeley: University of California Press.
- Hudson, Rex. 1999. *The Sociology and Psychology of Terrorism: Who Becomes a Terrorist and*

- Why?* Washington, DC: Federal Research Division.
- United Nations Development Program: Human Development Reports. 2013. "The Rise of the South: Human Progress in a Diverse World." <http://hdr.undp.org/en/2013-report> (February 12, 2014).
- Ihonvbere, J. O. 1994. "The 'Irrelevant' State, Ethnicity, and the Quest for Nationhood in Africa." *Ethnic and Racial Studies* 17 (September): 42-60.
- Inglehart, R. and Baker, W E. 2000. "Modernization, Cultural Change, and the Persistence of Traditional Values." *American Sociological Review* 65 (February): 19-51.
- Inoue, A. and G. Solon. 2006. "A Portmanteau Test For Serially Correlated Errors in Fixed Effects Models." *Econometric Theory* 22 (October): 835–851.
- Jenkins, J. Craig and Bert Klandermans. 1995. *The Politics of Social Protest: Comparative Perspectives on States and Social Movements*. Minneapolis: University of Minnesota Press.
- Johnson, David. 2014. "A Guide to New Nations: Fledgling Countries that Have Emerged since the 1990s." <http://www.infoplease.com/spot/countries1.html> (March 19, 2014).
- Karklins, Rasma and Roger Petersen. 1993. "Decision Calculus of Protesters and Regimes: Eastern Europe 1989." *The Journal of Politics* 55 (August): 588-614.
- Kavanagh, Jennifer. 2011. "Selection, Availability, and Opportunity: The Conditional Effect of Poverty on Terrorist Group Participation." *Journal Of Conflict Resolution* 55 (February): 106-132.
- King, G. 1986. "How Not to Lie With Statistics: Avoiding Common Mistakes in Quantitative Political Science." *American Journal Of Political Science* 30 (August): 666-687.

- Knobl, W. 2003. "Theories that won't Pass Away: The Never Ending Story of Modernization Theory." Delanty, G. and Isin, E., eds. *Handbook of Historical Sociology* (pp. 96-107). London, Thousand Oaks, New Delhi: SAGE Publications.
- Krueger, Alan. 2007. *What Makes a Terrorist?: Economics and the Roots of Terrorism*. Princeton: Princeton University Press.
- Krueger, Alan B. and Jitka Maleckova. 2003. "Education, Poverty And Terrorism: Is there a Causal Connection?" *Journal Of Economic Perspectives* 17 (Fall): 119-144.
- Lichbach, Mark Irving. 1987. "Deterrence or Escalation: The Puzzle of Aggregate Studies of Repression and Dissent." *Journal of Conflict Resolution* 31 (June): 266-297.
- Lohmann, Susanne. 1992. "Rationality, Revolution and Revolt: The Dynamics of Informational Cascades." Stanford, CA: Graduate School of Business Research Paper #1213, Stanford University.
- Mbaku, J. M. 1998. *Corruption and the Crisis of Institutional Reforms in Africa*. Lewiston, NY: The Edwin Mellen Press.
- Mbaku, J. M. 2000. "Governance, Wealth Creation, and Development in Africa: The Challenges and the Prospects." *African Studies Quarterly* 4 (Summer): 29-47.
- Mbaku, J. M. 1997. *Institutions and Reform in Africa: The Public Choice Perspective*. Westport, CT: Praeger.
- McAdam, Doug. 1988. *Freedom Summer*. New York: Oxford University Press, 13.
- McAdam, Doug, John D. McCarthy, and Mayer N. Zald, eds. 1996. *Comparative Perspectives on Social Movements*. Cambridge: Cambridge University Press.

- Meyer, D. S., and D. C. Minkoff. 2004. "Conceptualizing Political Opportunity." *Social Forces* 82 (June): 1457-1492.
- Moore, Will H. 1995. "Rational Rebels: Overcoming the Free-Rider Problem." *Political Research Quarterly* 48 (June): 417-454.
- National Commission on Terrorist Attacks upon the United States. 2004. *The 9/11 Commission Report*. Washington, D.C.: National Commission on Terrorist Attacks.  
<http://govinfo.library.unt.edu/911/report/911Report.pdf>
- Newman, Edward. 2007. "Weak States, State Failure, And Terrorism." *Terrorism And Political Violence* 19 (October): 463-488.
- Nome, Martin Austvoll. 2013. "Transnational Ethnic Ties and Military Intervention: Taking Sides in Civil Conflicts in Europe, Asia and North Africa, 1944–99." *European Journal of International Relations* 19 (December): 747-771.
- Pape, Robert Anthony. 2005. *Dying to Win: The Strategic Logic of Suicide Terrorism*. New York: Random House.
- Popkin, Samuel L. 1979. *The Rational Peasant: The Political Economy of Rural Society in Vietnam*. Berkeley: University of California Press.
- Quinn, David; Wilkenfeld, Jonathan; Eralp, Pelin; Asal, Victor; Mclauchlin, Theodore. 2013. "Crisis Managers but not Conflict Resolvers: Mediating Ethnic Intrastate Conflict in Africa." *Conflict Management and Peace Science* 30 (September): 387-406.
- Sageman, Marc. 2004. *Understanding Terror Networks*. Philadelphia: University of Pennsylvania Press.
- Schult, Christoph, Britta Sandberg, and Ansgar Mertin. 2007. "Arab Bank Pays out Blood

- Money: Life Insurance for Palestinian Suicide Bombers." Spiegel Online International, February 9. <http://www.spiegel.de/international/spiegel/arab-bank-pays-out-blood-money-life-insurance-for-palestinian-suicide-bombers-a-465438.html> (January 14, 2014).
- Scott, James C. 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven: Yale University Press.
- Singer, J. David. 1988. "Reconstructing the Correlates of War Dataset on Material Capabilities of States, 1816-1985" *International Interactions* 14 (January): 115-32.
- Singer, J. David, Stuart Bremer, and John Stuckey. 1972. "Capability Distribution, Uncertainty, and Major Power War, 1820-1965." Bruce Russett, ed. *Peace, War, and Numbers*. (pp. 19-48). Beverly Hills: Sage.
- Skocpol, Theda. 1994. *Social Revolutions in the Modern World*. Cambridge, UK: Cambridge University Press.
- Smith, Todd G., Joshua W. Busby, and Anustubh Agnihotri. 2013. "Sub-national African Education and Infrastructure Access Data." <https://www.strausscenter.org/ccaps-content/climate-vulnerability-model.html> (September 12, 2013).
- Sprinzak, Ehud. 1990. "The Psychopolitical Formation of Extreme Left Terrorism." Reich Walter and Walter Laqueur, eds. *Origins of Terrorism: Psychologies, Ideologies, Theologies, States of Mind* (pp. 65-85). Princeton: Woodrow Wilson Center Press.
- White, Robert. 1989. "From Peaceful Protest to Guerrilla War: Micromobilization of the Provisional Irish Republican Army." *American Journal of Sociology* 94 (May): 1277-1302.
- White, Robert. 1993. "On Measuring Political Violence: Northern Ireland 1969 to 1980."

*American Sociological Review* 58 (August): 575-585.

Wooldridge, J. M. 2010. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: Massachusetts Institute of Technology Press.

World Bank. 1981. "Accelerated Development in Sub-Saharan Africa: An Agenda for Action."  
[http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469072  
&piPK=64165421&menuPK=64166093&entityID=000178830\\_98101911444774](http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469072&piPK=64165421&menuPK=64166093&entityID=000178830_98101911444774)  
(January 21, 2014).

Yunus, Muhammad. 2006. "Nobel Lecture." Speech, Oslo, Norway, December 10. Nobel Prize.  
[http://www.nobelprize.org/nobel\\_prizes/peace/laureates/2006/yunus-lecture-en.html](http://www.nobelprize.org/nobel_prizes/peace/laureates/2006/yunus-lecture-en.html)  
(June 16, 2013).