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Risk Factors for External Human Trafficking in Nigerian and Indonesian Hotspots

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Risk Factors for External Human Trafficking in Nigerian and Indonesian Hotspots

Written By

Mark Ryan

**A dissertation submitted in partial fulfilment for the degree MA
Human Rights and International Relations**

Department of Social Sciences, University of Roehampton

2012/06/08

Declaration Form

The work I have submitted is my own effort. I certify that all material in the dissertation which is not my own work has been identified and acknowledged. No materials are included from a degree which has been previously conferred upon me.

Signed..... Date.....

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I would like to express my gratitude to my supervisor, Dr. Gregory Kent, for providing guidance and information throughout the course of this project. I thank the organization ICF International for providing demographic and health data and the anti-trafficking NGO's Anti-Slavery International, ECPAT UK, and Unseen UK for providing informational assistance. I would also like to express my gratitude to Dr. Kevin Bales, slavery and trafficking researcher, whose research methods served as a major inspiration for this project. Finally I would like to thank my family and friends for their continued love and support.

ABSTRACT

This study ultimately attempted to determine how useful quantitatively analysing secondary data is when studying human trafficking in individual countries. Two countries were chosen to analyse: Nigeria and Indonesia. Secondly, the researcher tried to determine whether or not current human trafficking theory, which is based on international studies, can be applied when studying a nation individually. This study used content analysis to identify 'hotspot' areas of Nigeria and Indonesia. The researcher then used quantitative analyses of various secondary state-level data to search for risk factors that may be facilitating trafficking in these hotspot areas. In Nigeria, hotspot states were generally more developed and populated, less impoverished, and suffered from more crime. An explanation was offered for this, which said that Nigerian traffickers may be targeting highly populated and resourced areas because they provide better operation bases for their businesses. The crime culture of these areas may also allow the traffickers to operate more discretely. The researcher questioned if the nearly decade-long conflict in the highly prosperous Niger Delta was exacerbating trafficking in the area. Indonesian hotspots were characterized by large, dense, slowly growing populations. The proposed explanation for this result was that the hotspots were overpopulated and lacking in economic opportunities, creating a demand to emigrate of them and making residents vulnerable to traffickers. Indonesian problem areas were also found to have a higher proportion of females which was explained by the overwhelming amount of female victims trafficked from Indonesia. It was concluded that individual countries possess their own sets of risk factors which drive external trafficking. Based on this study, current trafficking theory should not be relied upon in analysing individual nations, but it can be helpful. The researcher determined that secondary data analysis of human trafficking is useful in creating a broad picture of the driving factors and generating research ideas.

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CHAPTER 1. INTRODUCTION

No one is free when others are oppressed.

-Anonymous

1.1 Human Trafficking and Human Rights

After becoming her family's sole survivor of the Rwandan genocide, Sabine made her way to the United States to begin working for a wealthy family. Instead of a new, more opportunity-filled life, Sabine had walked into another nightmare. She was imprisoned in their home and forced into domestic servitude. Her bed was the kitchen floor. She wasn't allowed to leave the house for six months until finally the family allowed her to go to church for an hour on Sundays. Sabine was eventually rescued and given transitional treatment services. For a long time she felt the effects of the trauma; she was afraid of nearly everything and wouldn't go out when it was dark outside. After several months Sabine eventually began to progress through her fears and even found a job, but not without much personal effort (Polaris Project, 2010).

In Sabine's story, it becomes evident how the concepts of 'human trafficking' and 'human rights' are inextricably tied together despite their differing connotations. In this case, several clauses in the Universal Declaration of Human Rights have been potentially breached. Sabine's capture violates articles 3 (right to life), 4 (freedom from slavery), 5 (freedom from inhumane treatment), 12 (privacy), 13 (freedom of movement), and 17 (property). Her restricted lifestyle limits her access to rights defended by additional articles, including 16 (home and family), 18 (religious practice), 19 (opinion and expression), 23 (decent work), and 24 (rest and leisure). In this case, eleven rights have been listed. UNESCO (2006) lists ten human rights, guaranteed in one or more international charters, which tend to or can be violated during trafficking incidents. Four of those were not previously mentioned: peace and security, access to judicial services, access to education, and health and social services.

Although a formal 'right not to be trafficked' has never been spawned, it is fairly evident that trafficking incidents are a major breach of rights; we have found fifteen rights that can typically be inhibited. These potential violations indicate that the study of human trafficking is an invaluable field of study in the realm of human rights.

1.2 The Fight Against Trafficking

Certain forms of the trafficking of human beings are known to date back to the beginnings of the Atlantic Slave Trade in the 15th century, when an estimated 9.5 million Africans were captured and transported to the New World into conditions of forced bondage (Rawley and Behrendt, 2005). It is hard to estimate past earnings, but as of today human trafficking stands as an enormous business; it is the second highest revenue-generating illegal industry in the world (Haken, 2011) and brings in up to an estimated US\$31.6 billion per year (Belser, 2005). The first international retaliatory response dates back to the 1904 International Agreement for the Suppression of White Slave Traffic, which served as an agreement to coordinate information and reintegrate white females who were victims of sexual slavery (Bruch, 2004). The peak of international awareness and cooperation has arguably come in recent years, beginning with the 2000 United Nations' Convention Against Transnational Organized Crime. Out of this came the Palermo Protocol, which brought forth the first internationally understood and agreed upon definition of human trafficking:

“Trafficking in persons” shall mean the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs... The consent of a victim of trafficking in persons to the intended exploitation set forth [above] shall be irrelevant where any of the means set forth [above] have been used.

The length and complexity of this definition provides a hint of the laborious difficulty and confusion that has come along with the fight against trafficking. Despite heavily increased international efforts, human trafficking still remains difficult to combat for numerous

reasons with a select few being: underreporting of the crime (Laczko and Gramenga, 2003), its similarities to human smuggling (Bajrektarevic, 2000a), a lack of trained prosecutors, communication barriers between victims and law enforcement officials, and the increasing ease with which traffickers can communicate with each other (Hilton, 2007). To add to this, governmental corruption adds a shocking and difficult obstacle to the battle; the IGO Human Rights Watch discovered evidence in Bosnia of police officers accepting free services from brothels in exchange for their 'ignorance' of the prostitutes' forged travel documents (Agbu, 2003). Human traffickers in Nigeria are known to collaborate with corrupt border officials, who will help to switch pages between stolen passports and those of victims (UNESCO, 2006). With the activities of traffickers being assisted by centralized power sources that are meant to protect the people, we find that the degree of difficulty in defensive efforts rises considerably.

Despite the obstacles, recent efforts to suppress human trafficking have been on the rise and global awareness has risen considerably. In 2001, the U.S. State Department created The Office to Monitor Trafficking in Human Beings, which releases annual reports that analyze how well individual countries are making efforts to combat trafficking. Several regional and global initiatives, including the Council of Europe's Convention on Action Against Trafficking in Human Beings and the United Nations' Global Initiative to Fight Human Trafficking, serve as legally binding instruments to ensure full prosecution of traffickers and victim protection amongst other things. NGOs and independent researchers work to spread awareness and better understand the phenomenon.

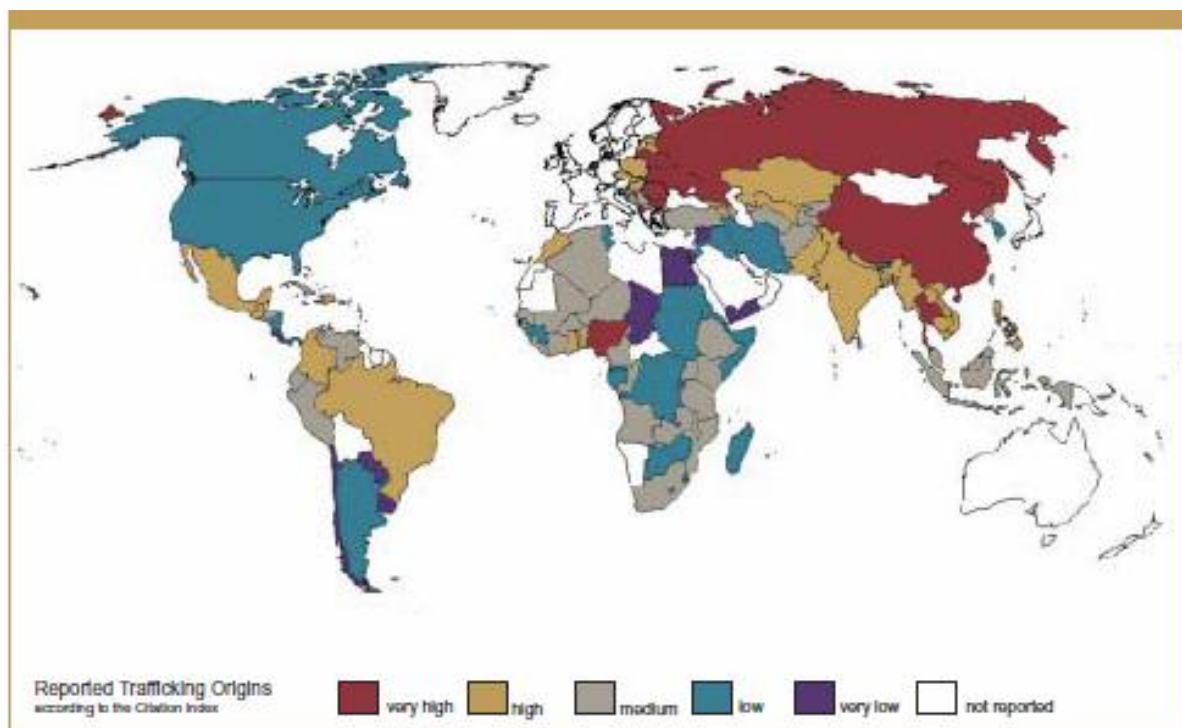
1.3 Background of the Study

This study will specifically analyze external trafficking, the forced migration of victims out of a country's borders. Two countries which serve as significant sources of victims, Nigeria and Indonesia, will be the focus of these analyses. Nigeria is a notorious source of victims trafficked all over the globe, while Indonesia is considered a moderate source (UNODC, 2005). This gives the opportunity to make a rich comparison between countries that not only sit on different continents, but have varying levels of trafficking.

1.3.1 Identifying Hotspots

One method of studying trafficking has been through the identification of ‘hotspots’, locales which are prone to particularly high amounts of the crime. Governmental agencies, NGOs, and researchers have all taken on this task. The US State Department’s ‘tier’ system grades countries on their anti-trafficking efforts, in which the lowest tier (3) is reserved for countries deemed as global hotspots (Zhang and Pineda, 2008). The UNODC has used a one-to-five scale assessing the amount of victims that are trafficked both to and from a country. Kevin Bales, an expert on modern slavery, has undertaken research across the globe to identify the prevalence of trafficking and slavery in individual nations. Local government bodies will also identify hotspots tucked within their own nations; Bangladeshi police recently publically deemed four areas which have alarming trafficking rates as hotspots (CAST, 2011). All of these approaches have been used over time to gather an idea of where trouble areas are concentrated.

FIGURE 1 COUNTRIES OF ORIGIN FOR HUMAN TRAFFICKING



Source: UNODC, 2006

1.3.2 Identifying Risk Factors

There are many ideas as to why specific countries become vulnerable to traffickers and their activities. These ideas are split into two categories: push and pull factors. Push factors consist of anything that motivates a resident to move *out of* a country or area, while pull factors drive people to come *to* an area. In the realm of human trafficking, push factors are considered to have more influence than pull factors (Bales, 2007).

In terms of source countries, poverty, unemployment and corruption are often cited as driving factors across the globe. Poverty and unemployment cause desperation for families and individuals to escape their situation and find a better life. Corruption can do the same while also allowing traffickers to conduct their illegal activities more easily. Regions of the world have their own unique factors which make them vulnerable. The rampant spread of AIDS and malaria in Africa are strong push factors to migrate abroad (Onuoha, 2011). The concept of identifying global and regional risk factors has become a major part of human trafficking discourse and theory. From a human rights perspective, it is invaluable; slowing down and reducing the effects of these push factors, such as poverty, should simultaneously ease vulnerabilities to trafficking (Bales, 2007; Black and Sward, 2009). This means that work which promotes and defends human rights can have soothing effects on numerous issues associated with the field, including human trafficking.

1.4 Country Backgrounds

1.4.1 Nigeria

1.4.1.1 Background

Amount of Victims (2006): Very High

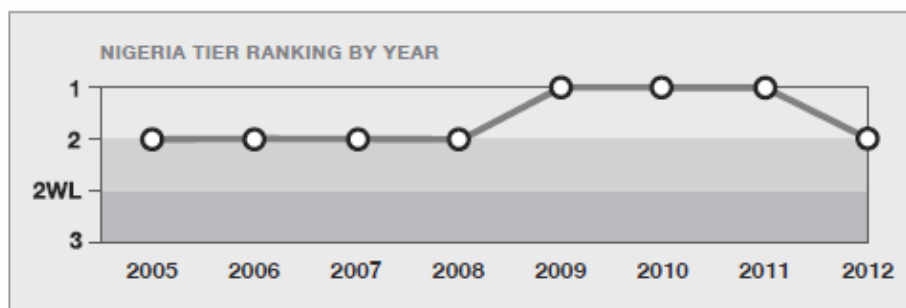
Current Tier Ranking (2012): 2

Nigeria serves as a source, transit, and destination country for victims of trafficking, mostly women and children. It currently ranks as a 'tier 2' country on the US Trafficking in Persons Report, although it held a 'tier 1' ranking for three years prior¹. Nigeria has shown keen

¹ Tier 1 countries are those that 'fully comply with the internationally accepted minimum standards for combating trafficking. Tier 2 countries do not comply, but are making a significant effort to meet those standards (US State Department, 2012).

interest in combating trafficking since it signed the Palermo Protocol in 2003 which eventually led to its promotion to tier 1. During that same year, the state established the National Agency for the Prohibition of Traffic in Persons and Other Related Matters [NAPTIP], a multi-functional response to the historical trafficking plague within Nigeria's borders and a fulfillment to their signed promises. The organization's functions include adopting measures to help combat trafficking, coordinating anti-trafficking laws, and strengthening legislative measures (NAPTIP, 2012). NAPTIP has consistently had success in rescuing victims, capturing traffickers, and spreading awareness to the general population. However, Nigeria received a tier rank demotion 2012 due to its lack of efforts and leniency in prosecuting traffickers, with nearly one-third of those convicted only received fines and no prison time (US State Department, 2012).

FIGURE 2: NIGERIA TIP TIER RATINGS 2005-2012



Source: US State Department (2012)

Despite relatively strong efforts, Nigeria still remains one of the world's most frequently cited sources of international trafficking victims (Kangaspunta, 2003), and has had an unfortunate reputation as Africa's trafficking hub (UNESCO, 2006). The majority of victims trafficked out of Nigeria are women and children (UNESCO, 2006). Women and young girls are generally sent into domestic servitude and sex work, while boys into various instances of forced labor and begging (US State Department, 2011).

Nigerian traffickers have established several complex networks which run from Nigeria to Europe, Russia, the Middle East, North America, and other parts of Africa. Surprisingly, they very rarely use air travel to transport their victims due to increasingly stringent security measures and instead opt for land and sea routes (UNESCO, 2006). Victims have even been

forced to walk through the harsh deserts of North Africa on routes to Europe (US State Department, 2011). The two most prominent networks are 1) between Nigeria and several West African countries², consisting mostly of children for the purposes of forced labor and 2) between Nigeria and Europe³, consisting of women for the purposes of prostitution. Benin City (Edo State), Lagos (Lagos State), Onitsha (Anambra state), and Port Harcourt (Rivers state) have been identified as the most common sources of origin within the second network. The flow between Benin City and Italy is perhaps the most notorious (IOM, 2006); it is estimated that around 60 percent of street prostitutes in Italy are women and girls from Nigeria (ECPAT, 2007).

1.4.1.2 Hotspots

Trafficked victims come from every nook and cranny of Nigeria, but certain states produce significantly more victims. Edo, Delta, Kano, and Borno provide the large majority of women trafficked internationally for prostitution (ECPAT, 2007; UNODC, 2007). The UNODC (2007) named Akwa Ibom, Cross Rivers, Rivers, Ebonyi, Kano, Abia and Kaduna as child trafficking hotspots. UNESCO (2006) named ten states as the most common sources of victims trafficked externally⁴. Including the IOM's identification of four sex trafficking source states, we have a total of sixteen hotspots that will be used for the Nigerian portion of this study.

1.4.2 Indonesia

1.4.2.1 Background

Amount of Victims (2006): Moderate

Current Tier Ranking (2012): 2

Compared with Nigeria, the more largely-populated Indonesia is not quite as notorious as an international trafficking hotspot, but nonetheless is still affected by the issue. Indonesia's trafficking is mostly characterized by children trafficked within the country for purposes of sex tourism. In 2003, the International Labour Organization estimated 100,000 people per

² The most common destination countries include Benin, Burkina Faso, Equatorial Guinea, Ivory Coast, Gabon, Ghana, Cameroon, and Togo (IOM, 2006).

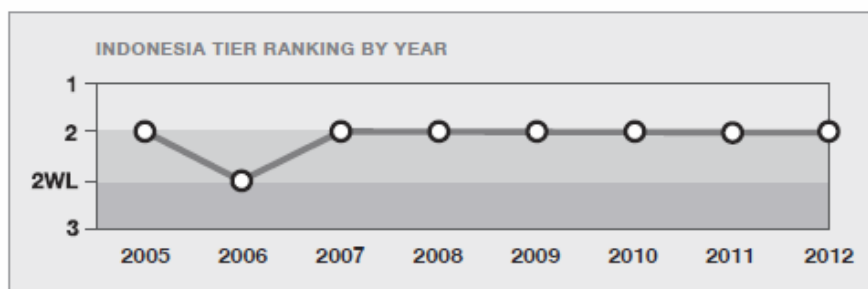
³ The most common destination countries include Italy, the Netherlands, Spain, and Germany.

⁴ Akwa Ibom, Cross River, Delta, Edo, Imo, Ebonyi, Kano, Ogun, Oyo, and Lagos.

year are trafficked within Indonesia (ECPAT, 2011). Indonesians being trafficked out of the country are overshadowed by the prevalence of domestic sex tourism. External trafficking is mainly exacerbated by the large amount of Indonesian citizens (between 6.5 and 9 million) who seek work abroad. 69 percent of these are purported to be female. This lines up with the estimation that 90 percent of trafficking victims from Indonesia are women (US State Department, 2011). Traffickers have taken advantage of this demand by posing as labor recruitment companies, some of which have been known to have ties to the government and police (US State Department, 2011).

Indonesia is currently classified as a 'Tier 2' country on the US State Department's Trafficking in Persons Report, meaning that it does not fully comply with the minimum standards for eliminating trafficking, but is making significant efforts to do so. Its shortcomings lie in its lack of effort in punishing corrupt law officials who participate in trafficking rings and enacting necessary legislations (US State Department, 2011). As with Nigeria, the majority of victims of Indonesian trafficking are women and children. The most common destinations are Malaysia, Singapore, and the Middle East (US State Department, 2011).

FIGURE 3: INDONESIA TIP TIER RATINGS 2005-2012



Source: US State Department (2012)

1.4.2.2 Hotspots

The US Department of State's 2009 Trafficking in Persons Report states:

"Each of Indonesia's 33 provinces is a source and destination of human trafficking; the most significant sources areas are, in descending order:

Java, West Kalimantan, Lampung, North Sumatra, South Sumatra, Banten, South Sulawesi, West Nusa Tenggara and East Nusa Tenggara, and North Sulawesi.”

This information gives a very straightforward group of twelve hotspot provinces that can be used in this study with an added distinction of severity. It is worth noting that ‘Java’ refers to three distinct provinces: Central Java, East Java, and West Java.

1.5 Research Questions

1. What are the risk factors that drive international trafficking within troublesome areas of Nigeria and Indonesia?
2. Do Nigeria and Indonesia share similar driving factors?
3. Can current international human trafficking theory be applied within nations?
4. How useful is using secondary data for understanding and predicting what drives external trafficking in specific areas?

1.6 Aim and Objectives

The overarching purpose of this study is to attempt to determine if secondary data and statistics can be useful in predicting human trafficking within countries. One major issue with combating trafficking is the lack of data and understanding of the phenomenon (Lazcko and Gramenga, 2003), so results from this study can potentially be used with purpose. This study will take a particular interest in trafficking victims internationally and not within the country. To do so, two origin countries from differing continents have been chosen to analyze: Nigeria and Indonesia. The researcher will qualitatively determine which administrative areas within both nations produce the largest amount of victims trafficked abroad. Various social, demographic, geographic, and economic statistics will then be analyzed within each state to understand whether or not there is a relationship between high-risk areas and individual statistics. The results from both countries will then be

qualitatively and objectively compared in order to understand whether any of the statistics are consistently predictive between countries and across continents. These results will then be compared to current human trafficking theory, which has been mostly derived from comparisons on an international scale. From this, the researcher will attempt to understand how useful secondary data is as both a predictive tool and as an explanation of what facilitates trafficking in the context of this project. This study is an attempt in the move toward the ultimate hope that a statistical tool can be created which will be able to pinpoint which populations are most vulnerable to being trafficked, which could serve useful for law enforcement agencies and NGOs to target their work and defend the human rights of potential victims.

CHAPTER 2. LITERATURE REVIEW

2.1 General Comments

Human trafficking has become a research topic of interest in the past decade or so since the inception of the Palermo Protocol. The amount of published research peaked during 2002, which is one year after the creation of the United States' Office to Monitor and Combat Trafficking in Persons and during the same year that the European Union's Preventing and Combating Trafficking in Human Beings conference⁵ took place (Laczko, 2005). Research is undertaken by independent academics, NGO's, and governmental organizations. The overwhelming majority of human trafficking research is qualitative; in Godziak and Bump's 2008 meta-analysis of 300 human trafficking research papers, only seven incorporated quantitative methodologies. Most research has provided estimates for the problem's scale, mapped trafficking routes, and reviewed legal frameworks and anti-trafficking policies (Godziak and Collett, 2005). Attempts have been made to characterize the typicality of both victims and traffickers, but the number of rescues and convictions are so low in comparison to total population that solid conclusions can rarely be drawn.

Many nations have taken the initiative to conduct their own research for the purposes of developing better anti-trafficking policies. Today, this movement is arguably led by the United States, which has released its Trafficking in Persons (TIP) report annually since 2001. The report is a collection of analyses of each country's current human trafficking situation and their anti-trafficking efforts. The report also grades each country in 'tiers'⁶, which assess how compliant each country is with the 2000 Trafficking Victims Protection Act's minimum standards for the elimination of human trafficking. The TIP report has essentially become the current stand-in for an internationally accepted predictive database of human trafficking. This system has received a wide amount of political support worldwide, but it has also taken its share of critical discourse. Criticisms include the United States' use of the system as a condition for distributing foreign aid, possible political biases in determining countries' rankings, the United States' unwillingness to analyse itself for nearly a decade,

⁵ The Preventing and Combating Trafficking in Human Being conference was hosted by the EU in Brussels during the month of September in 2002. It brought together over 1,000 representatives from EU and neighboring countries in order to discuss trafficking trends and develop counter-trafficking policy.

⁶ There are four tiers: 1, 2, 2WL (Watch List), and 3.

and a lack of efficacy in measuring the prevalence of human trafficking (Zhang and Pineda, 2008).

Incidents of human trafficking have been difficult to pinpoint and anticipate which necessitates the continued development of predictive measures to supplement or possibly supplant the TIP tier system. However, the creation of these measures has been a slow, arduous process for independent researchers. Primary, quantitative-based human trafficking data is extremely scarce for several reasons: the very recent acceptance of an international definition of trafficking, underreporting, highly varying estimation techniques, the general reluctance of governments and organizations to make data transparent, little incentive for police to take action against traffickers⁷, and a high degree of difficulty of detection (Laczko and Gramenga, 2003). Some have claimed that this type of data isn't necessary and that a qualitative approach is more appropriate. But other researchers have expressed that there is a need for better and more reliable numerical statistics and data collection methods (Aromaa, 2007; Kangaspunta, 2003; Laczko, 2002; Laczko and Gramenga, 2003;). Tyldum and Brunovskis (2005) suggest that it is possible to develop a quantitative formula for trafficking based on the study and use of secondary indicators that are understood to be associated with trafficking. Due to the extreme difficulty of accessing government data, this task is left up to NGO's independent human trafficking researchers.

Some independent researchers and NGO's have attempted to answer Tyldum and Brunovskis' call by generating their own custom-made data. Several datasets have been created data through surveys, mostly on opinions and perceptions of human trafficking⁸. Kevin Bales has perhaps been the most ambitious in data development. In his 2007 study, he used regression analysis to measure 76 different variables (including health statistics, incidence of conflict, automobiles per capita, and numerous others) against his own human trafficking estimates in all of the world's countries. He consulted several human trafficking and migration databases to generate his own measurements of how prevalent trafficking is within a country. He found that corruption, infant mortality, food production, population

⁷ This is true for two reasons: 1) there is not often a sufficient legislative framework for convicting traffickers and 2) trafficking convictions are generally based on witness testimonies, which are difficult to come by (Laczko and Gramenga, 2003).

⁸ See Ngban et al (2009)

density, and percentage of population below age 14 were all significant predictors of a country being a source of transnationally trafficked victims.

2.2 Understanding and Predicting the Root Causes of Human Trafficking

2.2.1 International Research

Kevin Bales' research is perhaps the pioneering and most influential attempt to develop a quantitative, social scientific theory for predicting human trafficking. Yet, several other researchers have attempted to understand why trafficking exists and what its prevalence is catalysed by. Bales' work has motivated several other researchers to follow in his methodological footsteps. Fry (2008) used the Global Program Against Trafficking in Human Beings (GPAT) database to construct a study similar to Bales', finding corruption, total population, and percentage of population under 14 to be significant factors. Zhang and Pineda (2008) used the TIP tier system to measure nations' trafficking prevalence. Through comparative analysis, they found income per capita, infant mortality, life expectancy, and corruption rating to have some predictive value. Karakus and McGarrell's (2011) analysis of 53 countries used a slight modification of Bales' methods; high poverty, rapid urbanization, large population numbers, and large youth populations were found to correlate with trafficking. Seyhan (2010) found gender inequality to be a reliable predictor. Mahmoud and Trebesch (2006) conducted over 5,500 household surveys in five Eastern European countries, using households that had a trafficked member as the dependent variable. They found that areas with high amounts of migration (legal and illegal) and low awareness of the dangers of trafficking historically made these dwellings more susceptible.

Qualitative, theoretical methods have also been used in an attempt to predict trafficking. Louise Shelley (2010) suggests that today's trafficking scourge is driven by growing economic disparities between the countries of the world. Because networks generally flow from poorer to richer countries, Shelley surmises that the demand will only increase as those disparities continue to grow. She cites globalization and the loosening of migration policies as other driving factors. Wheaton et al (2010) applied economic theory to the business of human trafficking in an attempt to understand the motivations of traffickers and the employers who use their services. In the paper, they classify the typical trafficking victim

as impoverished, poorly educated individuals who often have a strong urge to financially support their family. Wheaton postulates that traffickers have a strong understanding of this vulnerability and target their victims accordingly.

The aforementioned pieces of research, along with many others, have produced theories and ideas as to why specific countries become trafficking hotspots. One way that these vulnerabilities are understood is through previously mentioned ‘push’ and ‘pull’ factors. This paper is attempting to understand trafficking in terms of source areas, so the focus will be squared on factors which push residents out of countries. Widespread poverty and heavy corruption are arguably the most oft-cited of these⁹. The UNODC (2006) emphasized conflict, civil unrest, and war as push factors. Rampant domestic violence and sexual abuse creates desperation for the abused to escape, making them vulnerable to falling in the hands of traffickers (Getu, 2006). Gunatilleke (1994) cited rapid population growth as a causal factor. William Ejalu (2006) lists several conditions which can both serve as push factors as well as exacerbate a population’s vulnerability to being trafficked:

- Lack of education
- Poverty
- Urbanization and centralization of educational and employment opportunities
- Domestic violence
- Corruption
- Cultural thinking and attitude
- Conflicts
- Difficulty in acquiring visas

Despite these understandings, these vulnerabilities can and often differ between continents, regions, and countries (UNODC, 2006). Therefore, it is important to also understand Nigeria and Indonesia’s vulnerabilities in more confined contexts.

⁹ **Poverty:** Adepoju, 2005; Carling, 2006; Dottridge, 2002; Ejalu, 2006; Karakus and McGarrell, 2011; Tyldum and Brunovskis, 2005; UNESCO, 2006; Van Impe, 2000

Corruption: Agbu, 2003; Bales, 2007; Ejalu, 2006; Fry, 2008; Guth, 2010; Onuoha, 2011; Zhang and Pineda, 2008

2.2.2 Domestic Research

A fairly strong wealth of human trafficking knowledge has arisen from studies comparing nations across the globe. Far less predictive research has taken place which compares areas within the borders of single nations. The International Organization of Migration (2008) attempted to discover facilitating push and pull factors in four African countries: Tanzania, Kenya, Uganda, and Burundi. In each nation, they identified significant source and destination communities. Traffickers, victims, and informants were sampled for interviews. From the information gathered, the IOM identified unemployment, personal aspirations, conflict, and gender-based violence as facilitating factors. Karakus (2009) used Bales' methods within the borders of Turkey and found that cities with greater total population, proximity to international borders, poverty, residential mobility¹⁰, demographic heterogeneity, and incidence of marital separation or divorce to have higher amounts of trafficking.

Other than these two studies, no other intra-national, risk factor based human trafficking studies could be found.

2.3 Trafficking in Africa and Asia

Previous research has highlighted how trafficking patterns and vulnerabilities can differ between continents and regions. Africa and Asia both have a wide range of trafficking problems, so a fair amount of research has been done on both continents. Human trafficking in Africa is thought to be exacerbated by a lack of governmental capacity and misrule (all brought about by decolonization, conflicts, disease and famine). These can be understood as push factors, reasons that trafficking is easily committed, and bottlenecks for anti-trafficking work (Onuoha, 2011). Extreme rural poverty in sub-Saharan Africa has created an epidemic of families selling their children to traffickers for domestic work (Dottridge, 2002). It has also been blamed for exposing African women and girls to being deceived into working unwillingly as prostitutes abroad. Demand for young girls as prostitutes has been further amplified because of the prevalence of HIV and AIDS in the region. There is a general perception that younger girls are less likely to carry the disease,

¹⁰ This refers to the frequency that people change residence to and from an area

thus increasing the demand for them (Adepoju, 2005). Specific economic and cultural aspects have created unique trafficking profiles within smaller regions of Africa. Anti-Slavery International's highly focused 2010 research exposed the network of children trafficked into Cote d'Ivoire's cocoa industry from Mali and Burkina Faso. The long history of powering the industry with migrant labor combined with gradually increasing poverty and population growth led into the norm of this industry being powered by trafficked children.

The unprecedented development of East Asian countries in the late 20th century caused shortages in those country's unskilled labor markets. Combined with strict migration policies towards laborers, an opening for human traffickers to establish networks from the comparatively poorer South Asian region was created (Lee, 2005). Human trafficking in Asia is generally classified and thought of in terms of sexual purposes (Brown, 2001), and the majority of regional research that exists focuses on women and children trafficked into the secretive sex industries of Japan, South Korea, and Thailand. Perhaps the region's largest specialist organization is ECPAT International, based in Bangkok, which specializes in understanding the region's problem of children being trafficked for prostitution. ECPAT releases annual reports and numerous policy recommendations. However, English-language research in Asia is not as prevalent as in Africa.

Many similarities exist between the underlying causes of trafficking in Asia and Africa, including globalization and economic and social disparities (Huda, 2006). However, Asia possesses its own characteristic driving factors. Perhaps the most unique distinguishing characteristic is the ever-rising and possibly unmatched vulnerability of females, which is generally understood to be caused by the cultural, multi-dimensional suppression of women through the Southeast region (Crawford, 2009). This point is strongly supported in Mary Crawford's extensive 2010 case study of sex trafficking of young girls in Nepal. In terms of child trafficking, the most reliable predictor is being female (ECPAT, 2006a). Forced marriage is prevalent in the region as a lucrative money-maker in the trafficking business.

2.4 Nigeria

Within Africa, Nigeria is a unique case in terms of human trafficking. It currently is the only country on the continent whose anti-trafficking efforts have ever achieved 'Tier 1' status, yet it still serves as a major hotspot and could arguably be considered Africa's trafficking hub. Therefore it comes with little surprise that a handful of research has been based there. Perhaps the most notable is UNESCO's 2006 policy paper which analyzed the causes of Nigeria's trafficking problem based on years of data collection. It identified several unique factors which were helping to drive the problem: lack of access to information, a high prevalence of HIV and AIDS, restrictive migratory policies, and the manipulation of religious rituals¹¹. Prostitution is generally not well received in the country, but the degree of tolerance varies from state to state. The most common method of transportation of victims from Nigeria to Europe is via roads. UNESCO goes on to make several recommendations which include implementing several internationally endorsed anti-trafficking measures and creating policy relief programs.

There are several sources of pressure which have been hypothesized as major contributors to Nigeria's trafficking issue. Poverty, crime, and violence push Nigerians to emigrate abroad (Carling, 2006). Corruption is an especially strong factor in Nigeria as it serves as both a push factor and a way of allowing human trafficking to be a sustainable and low-risk business. Hints of collaboration between traffickers and the government in Nigeria have been documented. One example is the extortion of trafficking victims by police officers while rescued victims are being held in custody (Agbu, 2003). It has also been established that collusive relationships exist between trafficking cartels and border officials of various West African countries (UNESCO, 2006). Lack of education and information was addressed and studied by Ogonor and Osunde (2007). They generated and distributed surveys in order to measure the capacity of the Nigerian public education system to prevent females from being trafficked. They found that the education system's anti-trafficking efforts are inadequately resourced, poorly focused and generally has little effect on spreading

¹¹ In sum, this involves coercing victims (mostly women being sent to Europe) through a form of black magic called Juju. Before being sent away, traffickers will take their victims to a Juju practitioner, who will perform a ritualistic ceremony upon the victim. This ceremony is meant to serve as an oath in which the victim promises to pay off the debts of her travel costs, which the trafficker will cover. In the ceremonial process, the victim's soul becomes collateral for the debt, creating a commandeering sense of loyalty to the trafficker.

awareness and fostering protection. Strong familial ties generally urge young people to help provide for their families, making them more vulnerable to being trafficked out of desperation (Carling, 2006). Gradually decreasing wages have made citizens more willing to migrate out of the country as time goes on (Joshi, 2002).

2.5 Indonesia

The breadth of research in Indonesia is not nearly as extensive as Nigeria's, and the nation has generally received little attention in comparison to its neighboring countries. ECPAT's most recent report on the country was in 2011. The organization established that the destabilizing effects of subsequent tsunamis and earthquakes in the mid to late 2000's have increased Indonesia's vulnerability to human trafficking. The United States Agency of International Development (USAID) worked with the Indonesian government from 2001 onward to develop anti-trafficking measures. This work fostered a lot of the understanding of which provinces were most notorious as sources of victims. Compared to other countries in the region, Indonesia has received little support from UN agencies to combat trafficking (Piper, 2005).

Most Indonesian research papers are summations of the country's trafficking profile, policy recommendations, and descriptions of previous counter-trafficking projects. For example, ECPAT's 2011 paper analyzed how well Indonesia has historically cooperated with the Agenda for Action Against Commercial Sexual Exploitation of Children, an international partnership dedicating to ending child prostitution. ECPAT identified Indonesia's weak provincial implementation of the act as a driver of child trafficking. The US State Department's 2012 Trafficking in Persons report blamed the country's lack of anti-trafficking progress on not making sufficient efforts to improve the efficiency of anti-trafficking enforcement personnel, as evident in no rise in the total amount of prosecutions within the last year.

2.6 Further Remarks

Sizable publication gaps exist in the fields of quantitative and domestic-level human trafficking studies. This type of information is usually collected by government agencies but

is rarely if ever released to the public for many reasons: some governments have laws against distributing information that could compromise personal information while others simply have poor, unreliable data (Laczko and Gramenga, 2003). This equates to a need for both of these types of studies to be undertaken and released in the academic realm. The present study will involve a quantitative analysis of state-level areas within two countries, helping to address this information gap.

CHAPTER 3. METHODS

3.1 Procedure

3.1.1 Design

This study is heavily inspired by Kevin Bales' quantitative research methods in his previous research on human trafficking (2007). The motivation was to apply Bales' methods, which he used on an international scale, to the trafficking taking place in Nigerian and Indonesian societies. The first need of the study was to develop a measure for the amount of internationally trafficked victims within the two countries' administrative divisions. Because a negligent amount of numerical, state-level human trafficking figures are available, a quantitative method was not possible for this section of the study. From there, the next idea was to perform a risk analysis of each of the countries' administrative divisions.

Bales used United Nations' measures of human trafficking as well as his own research estimates in generating trafficking data for the nations analysed in his study. This type of data is not available for areas within countries, so concept analysis of relevant literature was used in order to identify the areas of highest risk in both Nigeria and Indonesia. The researcher analysed several human trafficking articles and reports in reference to both nations. The aim of this analysis was to separate the administrative divisions of both countries (the 37 Nigerian states and 33 Indonesian provinces) into groups based on the number of trafficking victims they are purported to produce. The Nigerian states and Indonesian provinces have both been separated into two groups; 'Hotspots and 'Less Problematic'. Hotspot states are those which have been mentioned in researched literature as being significant sources of human trafficking victims. Less Problematic states are those which have received no such mention. For Nigeria, the basis of these groups is derived from papers by ECPAT (2007), IOM (2006), UNESCO (2006), and UNODC (2007). For Indonesia, the separation is based on the US State Department's 2009 Trafficking in Persons Report.¹² Placed below are two charts showing the composition of these groups:

¹² See sections 1.4.1.2 and 1.4.2.2 for further information on hotspots.

TABLE 1: HUMAN TRAFFICKING HOTSPOTS OF NIGERIA AND INDONESIA

Nigerian States	
Hotspots	Less Problematic
Abia, Akwa Ibom, Anambra, Borno, Cross River, Delta, Ebonyi, Edo, Enugu, Imo, Kaduna, Kano, Lagos, Ogun, Oyo, Rivers	Adamawa, Bauchi, Bayelsa, Benue, Ekiti, FCT Abuja, Gombe, Jigawa, Katsina, Kebbi, Kogi, Kwara, Nasarawa, Niger, Ondo, Osun, Plateau, Sokoto, Taraba, Yobe, Zamfara

Indonesian Provinces	
Hotspots	Less Problematic
Banten, Central Java, East Java, East Nusa Tenggara, Lampung, North Sulawesi, North Sumatra, South Sulawesi, South Sumatra, West Kalimantan, West Java, West Nusa Tenggara	Aceh, Bali, Bangka-Belitung, Bengkulu, Central Kalimantan, Central Sulawesi, East Kalimantan, Gorontalo, Jakarta, Jambi, Maluku, North Maluku, Papua, Riau, Riau Islands, Southeast Sulawesi, South Kalimantan, West Papua, West Sulawesi, West Sumatra, Yogyakarta

3.1.2 Data Collection

Several categories of state-level data were collected for both countries. These categories correlate with previously discussed¹³ international and local factors which have been hypothesized to create a vulnerability to trafficking. These categories include:

- Economic/Development (HDI, GDP per capita, food production, unemployment)
- Inequality (Gini rating¹⁴, gender empowerment measure)
- Population (total population, population density, population growth rate, gender ratio, population under 14)
- Social (average household size, divorce/separation rate, female awareness, demographic diversity)
- Poverty (poverty rates, poverty severity index¹⁵, minimum weekly wage)
- Education (literacy rates, education index)
- Transportation (road length per km²)
- Health and Safety (HIV/AIDS, malaria, crime rate, life expectancy, infant mortality)
- Geographic (distance to nearest international border)

¹³ See Chapters 1 and 2 of this study

¹⁴ 'Gini Rating' measures economic inequality on a scale from 0 to 1, with 0 representing complete equality and 1 representing complete inequality.

¹⁵ 'Poverty Severity Index' measures the depth of poverty with which the impoverished experience. Higher values of the 'Poverty Severity Index' indicate that the impoverished, as a whole, live in more relatively severe poverty conditions. .

Many of these statistics were readily available within the data sources listed later in this chapter. However, a few of the statistics were partially generated by the researcher using available knowledge. Road length per square kilometre was measured in Nigeria using the 'total length of state roads' statistic available from the Nigeria National Bureau of Statistics. The researcher then created a ratio using the total size of the state. 'Distance to nearest international border' was generated by finding the shortest distance between an area of the state that looked to be closest to an international border. This was done so by finding the coordinates of the two points on Google Maps and then calculating the distance using an online distance calculator.¹⁶ This process cannot be called exact as the researcher is not trained in this method, so results from that test should be considered approximate.

3.1.3 Data Analysis

All data collected was entered into the Statistical Package for the Social Sciences (SPSS) program. Nigerian data and Indonesian data were separated into two different sets. First, all independent variables were tested for normality¹⁷ using a Kolmogorov-Smirnov Test, which tests for variability in datasets. This would determine what type of statistical test(s) to use for that specific independent variable. The Kolmogorov-Smirnov tests took place at the $p < .05$ level.

In both Nigeria and Indonesia's datasets, the means of all variables for both the Hotspot and Less Problematic groups were compared using statistical tests. For normally distributed variables, unpaired samples *t*-tests were conducted. For distributions that were not normal, Mann-Whitney U tests were used as these provide more accurate measurements for non-normal datasets by using a ranking system instead of measuring means (Elliott and Woodward, 2007). Both types were tested at the $p < .05$ significance level. If the test met this level, it indicated that the means of the two groups were significantly different, indicating that a relationship could exist between the tested variable and the amount of trafficked victims that originate from a state.

¹⁶ Available at <http://www.movable-type.co.uk/scripts/latlong.html>

¹⁷ Normality- When a dataset is approximately a 'bell curve', where 'exactly the same number of people perform above and below the mean, and most of them quite close to the mean' (Wellington and Szczerbinski, 2007). Essentially, datasets which are non-normal have too many outlying values to use a test based on a mean.

For Indonesia's hotspot provinces, the previously mentioned US Department of State ranking system was tested for statistical correlation with all variables. This offered an opportunity to understand how strongly a certain variable can predict a hotspot's victim rank. Provinces were ranked from '1' to '10', with the lowest classified as '1', and the highest at '10'. The US State Department did not specify the order in which the three most significantly sourced provinces (East, West, and Central Java) were ranked, so each were given the value '10'. Correlations were calculated using Spearman's rho, which is used for testing the relationship between one ordinal and one interval/ratio variable¹⁸ (Bryman, 2008). All tests were conducted at the $p < .05$ significance level.

Pearson's correlation coefficient [or Pearson's r] was calculated for all significant variables in both countries. Pearson's r , similar to Spearman's rho, is a test used to determine the statistical relationship between two interval/ratio variables (Bryman, 2008). These tests were conducted to further explain the relationships between tested statistics, which could have some use in explaining why some variables are serving as push factors in this study. All tests which are referenced in the discussion will be available in the appendix.

3.2 Materials

There was no need to generate primary data in this study as one of the purposes was to understand whether secondary data can be useful in predicting human trafficking. Several secondary sources were consulted:

Nigeria

- Nigeria National Bureau of Statistics
- United Nations 2008 Human Development Report
- United Nations 2006 Niger Delta Human Development Report
- 2007 Nigeria Census
- 2008 Nigeria Demographic and Health Survey

¹⁸ Ordinal variables are variables whose 'categories can be rank ordered' (p. 321), but which the distinctions between each value are not consistent, while interval/ratio variables have even, consistent distances between each value (Bryman, 2008). 'Hotspot rank' is an ordinal variable, while all tested statistics are either interval or ratio variables.

- The Cleen Foundation¹⁹

Indonesia

- Badan Pusat Statistik (translation: Statistics Indonesia)
- UNDP 2004 Human Development Report
- UNDP 2010 Aceh Provincial Human Development Report
- 2010 Indonesia Census
- 2007 Indonesia Demographic and Health Survey
- Global Business Guide – Indonesia

Due to the fact that the Nigerian division of groups is based upon knowledge from 2006 and 2007, data from that time was preferred instead of more recent data. The Indonesian division was based on 2009 information, so data from around that year was used. Statistics from these years were not always available, so the researcher attempted to use numbers from a source as close to the target year as possible.

3.3 Ethics

As of today, collecting primary data on human trafficking has been historically difficult. Therefore, at this stage, using primary trafficking data to draw conclusions comes with a certain risk of inaccuracy. This can lead to serious issues if unreliable data is implemented in anti-trafficking policies (Tyldum and Brunovskis, 2005). Some of the data used were based on surveys, which by nature carry some risk of inaccuracy or misrepresentation (Bryman, 2007). With that said, any conclusions drawn in this study should be interpreted with a certain caution.

Some statistics were not symmetrically tested in both countries for varying reasons. Often times, certain state data was available for one country but could not be found for the other. Some were impossible to compare from the start, such as minimum weekly wage, which is equal among all Nigerian states due to the fact that it regulated under federal and not state law. Transportation was compared using two different measures. Literature has shown that most traffickers in Nigeria utilize road transport, so the ‘Road Length per km²’ measure was

¹⁹ The Cleen Foundation is a Nigerian-based research organization which focuses on security and public safety.

created for that country. The case is not the same in Indonesia, a nation of many islands, so this measure was not used. Corruption, one of the most theoretically reliable predictors of human trafficking, is measured through subjective survey data and has not been generated on a provincial level. The confines of this study did not allow corruption to be analysed for either nation despite its importance in facilitating trafficking. Several factors, such as cultural attitude and difficult in acquiring visas, are nearly statistically impossible to numerically measure.

TABLE 2: UNANALYZED FACORS IN NIGERIA AND INDONESIA

Nigeria			Indonesia	
Food production, diversity, residential mortality, minimum urbanization	demographic mobility, infant weekly wage,		HIV, malaria, divorce/separation rates, residential mobility, population under 14, Gini rating, child literacy	

This study did not involve any interaction with traffickers, their victims, or anyone involved with the crime in any way. Therefore, issues of confidentiality did not exist.

CHAPTER 4. RESULTS

Several independent samples *t*-tests and U-tests were carried out to compare numerous statistical aggregates in Hotspot (coded as 'Group 1') and Less Problematic (coded as 'Group 2') states in both Nigeria and Indonesia. A significant test indicates a large difference in the statistical mean between both groups, indicating that the tested variable may have a relationship with human trafficking in that country. A total of twenty-four variables were tested for Nigeria and twenty-three variables for Indonesia.

4.1 Nigeria

Twelve of the twenty-four tested variables, listed below categorically, were statistically significant at the $p < .05$ level.

ECONOMIC/DEVELOPMENT

- **GDP per capita** – U (35)=73.00, Z=2.91, $p = .004$, Group 1: (Mean Rank=24.94, Sum of Ranks=399), Group 2: (Mean Rank=14.48, Sum of Ranks=304)

POPULATION

- **Population Density** – U (35)=51.00, Z=-3.59 $p = .000$, Group 1: (Mean Rank=26.31, Sum of Ranks=421), Group 2: (Mean Rank=13.43, Sum of Ranks=282)
- **Total Population** – *t* (35)=2.75, $p = .009$, Group 1: (M=4,616,040, SD=2,078,979), Group 2: (M=3,169,690, SD=1,075,523)
- **Percentage of population under age 14** – *t*(35) = -2.12, $p = .041$, Group 1: (M = 38.06, SD = 8.14), Group 2: (M=42.95, SD=5.89)

SOCIAL

- **Percentage of women who watch television at least once a week** – *t*(35)=3.20, $p = .003$, Group 1: (M=49.56, SD=19.19), Group 2: (M=28.52, SD=20.27)

POVERTY

- **Poverty Rate** – *t* (34)=-3.64, $p = .001$, Group 1: (M=41.15, SD=12.66), Group 2: (M=60.19, SD=19.13)

- **Poverty Severity Index** – $t(32) = -3.05$, $p = .005$, Group 1: (M=.077, SD=.047), Group 2: (M=.144, SD=.085)

EDUCATION

- **Adult Literacy** – $t(35)=3.44$, $p = .002$, Group 1: (M=76.13, SD=14.74), Group 2: (M=59.55, SD=14.37)
- **Child Literacy** – $t(35)=2.88$, $p = .007$, Group 1: (M=88.79, SD= 13.27), Group 2: (M=74.66, SD= 15.86)
- **Education Index** – $t(35)=2.96$, $p = .006$, Group 1: (M=.734, SD=.216), Group 2: (M=.499, SD=.255)

TRANSPORTATION

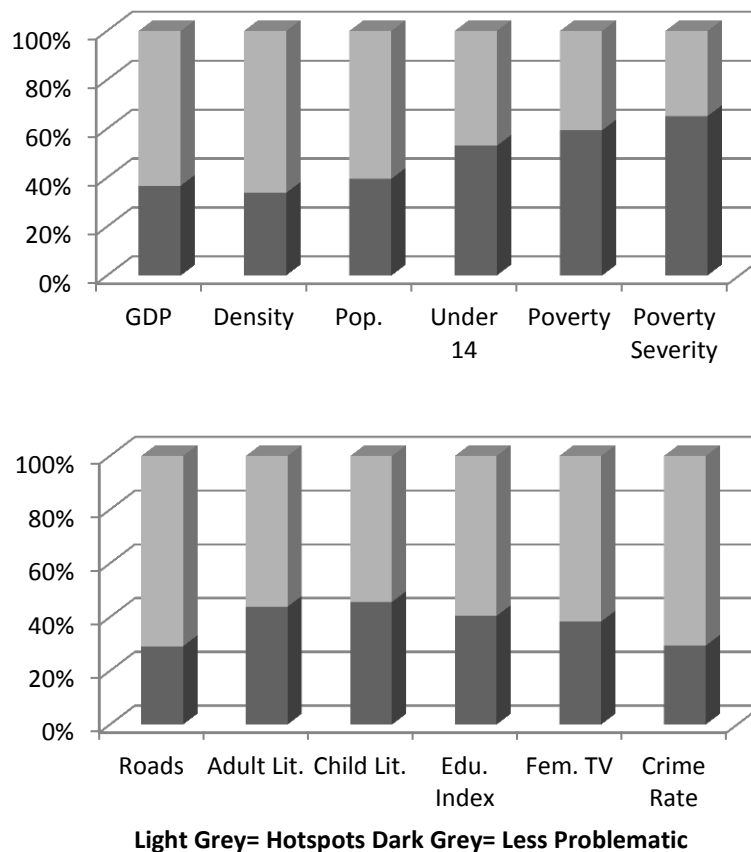
- **Total length of state roads per square kilometre** – $t(16)= 3.99$, $p= .001$, Group 1: (M= .078, SD= .045), Group 2: (M=.032, SD=.010)

HEALTH AND SAFETY

- **Crime Rate** – $t(21)=3.50$, $p = .002$, Group 1: (M=.206, SD=.125), Group 2 (M=.086, SD=.066)

Insignificant factors: HDI, unemployment, Gini rating, gender empowerment measure, population growth rate, gender ratio, household size, divorce/separation rate rate, HIV, malaria, life expectancy, distance to nearest international border

These tests suggest that Nigerian states which produce significant amounts of internationally trafficked victims have higher GDP per capita, greater and denser populations, lower amounts of poverty, greater literacy, more effective educational systems, more road systems, smaller youth populations, more crime, and higher exposure to mass media among women.

FIGURE 4: NIGERIA HOTSPOT AND LESS PROBLEMATIC MEANS AS PERCENTAGE OF TOTAL

4.2 Indonesia

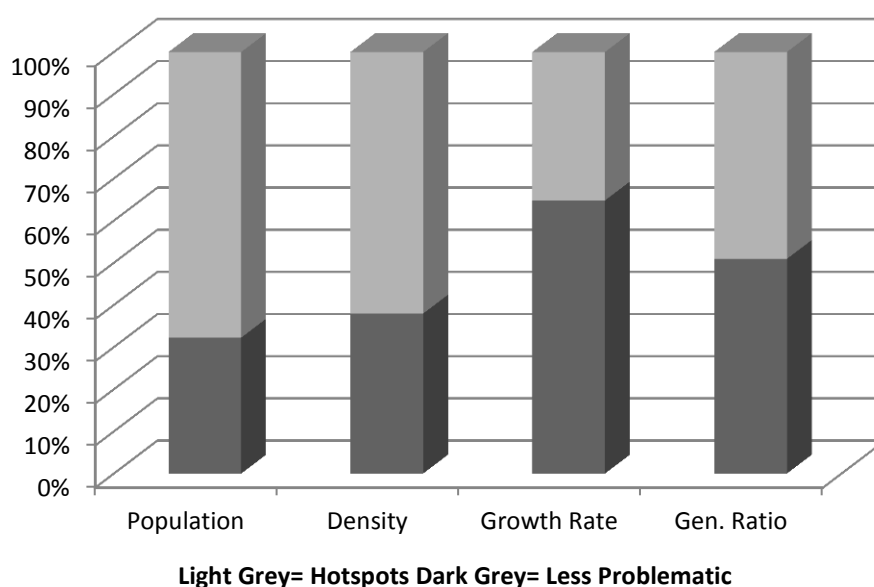
4.2.1 Comparing Means

Four of the twenty-three tested variables were statistically significant at the $p < .05$ level.

These include:

POPULATION

- **Total Population** – $U(31) = 24.00$, $Z = -3.82$, $p = .000$, Group 1: (Mean Rank=25.50, Sum of Ranks=306), Group 2: (Mean Rank=12.14, Sum of Ranks=255)
- **Population Growth Rate** – $t(31) = -2.96$, $p = .006$, Group 1: (M=2.89, SD=1.39), Group 2: (M=5.32, SD=2.63)
- **Population Density** – $U(31) = 59.00$, $Z = -2.51$, $p = .012$, Group 1: (Mean Rank=22.58, Sum of Ranks=271) Group 2: (Mean Rank=13.81, Sum of Ranks=290)
- **Gender ratio** – $t(31) = -2.53$, $p = .017$, Group 1: (M=100.67, SD=3.96), Group 2: (M=104.48, SD=4.26)

FIGURE 5 INDONESIA HOTSPOT AND LESS PROBLEMATIC MEANS AS PERCENTAGE OF TOTAL

Insignificant factors: HDI, GDP per capita, food production, unemployment, gender empowerment measure, household size, female awareness, demographic diversity, poverty, poverty severity index, minimum wage, adult literacy, education index, crime rate, life expectancy, infant mortality, distance to nearest international border

These tests suggest that Indonesian provinces which produce significant amounts of internationally trafficked victims have larger, denser, more slowly growing populations, and a greater ratio of females to males.

4.2.2 Correlation and Regression Analyses

Spearman's rank correlation coefficients were calculated for all variables against hotspot provinces' ranks within their groups. These values display the relationship between the tested variable and the hotspot's rank. For example, if infant mortality were to consistently increase as the rank of the provinces increase, then the correlation coefficient will be high and we can infer some sort of relationship between infant mortality and human trafficking hotspots. The following table displays all variables, their rho values and significance levels. Rho values explain the strength of the relationship through a numerical range from 0 to 1, with 0 representing no relationship and 1 representing a perfect relationship.

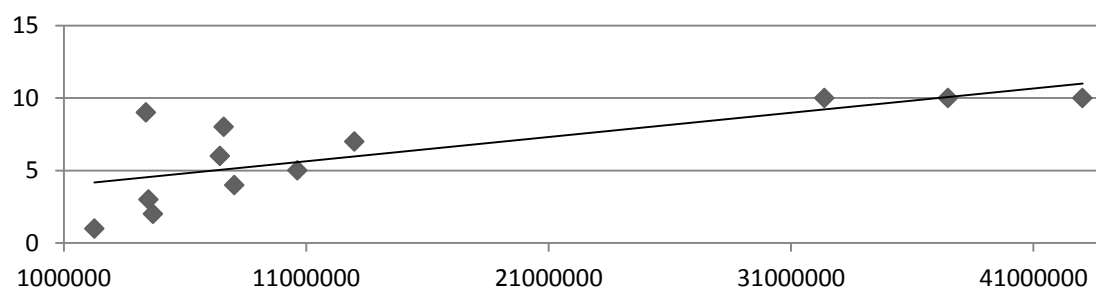
TABLE 3: INDONESIA HOTSPOT CORRELATION COEFFICIENTS

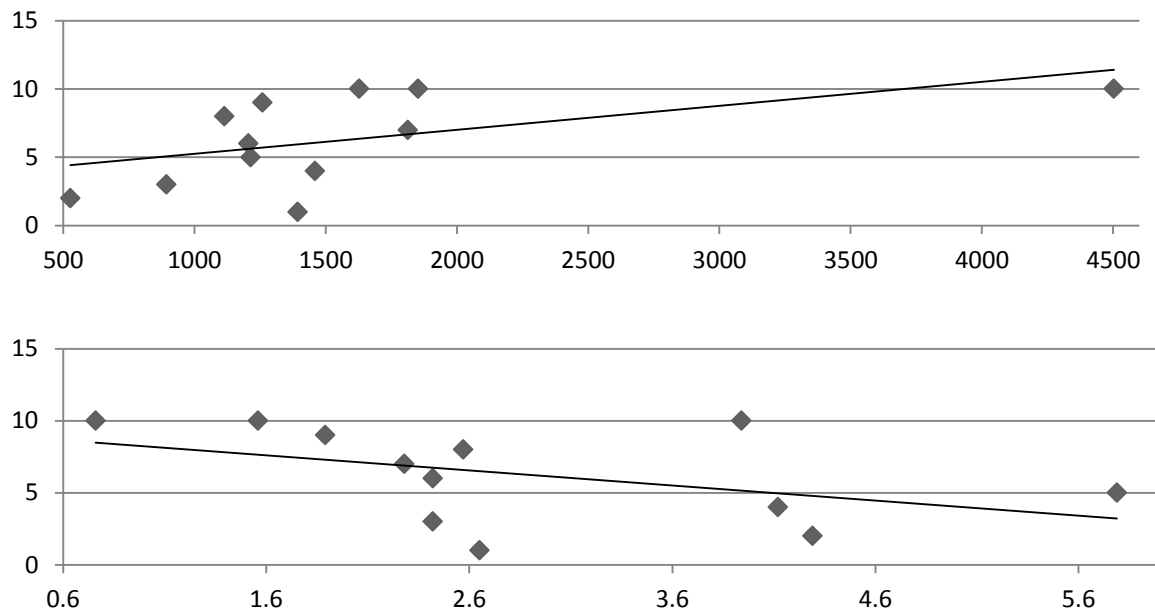
Variable	rho value	p value	Variable	rho value	p value
Total Population	.711**	.009	Food Production	.486	.109
GDP per capita	.627*	.029	Crime Rate	-.437	.156
Growth Rate	-.596*	.041	Distance to Border	.314	.320
Population Density	.155	.631	Infant Mortality	-.540	.070
Gender Ratio	.025	.939	Females Watch TV	.430	.163
HDI	.254	.427	Household Size	-.245	.443
Education Index	.479	.115	Minimum Wage	-.338	.283
Life Expectancy	.218	.495	Religious Homogeneity	.378	.252
Poverty	-.113	.727	Ethnic Homogeneity	.552	.078
Unemployment	.021	.948	Gender Empowerment	-.346	.271
Poverty Severity	.102	.752	Adult Literacy	.007	.983
Urbanization	.331	.293			

Bolded variables tested significantly in t-tests. *Correlation is significant at the 0.05 level (2-tailed)

****Correlation is significant at the 0.01 level**

These tests indicate that at a significance level of $p < .05$, total population and GDP per capita both have strong positive correlations with rank, while population growth rate has a strong negative correlation with rank. This means that as a province's trafficking rank increases within the hotspot group, GDP per capita and total population tend to increase and growth rate decreases along with it. Gender ratio and population density, which tested significantly in the *t*-tests, had almost no relationship with rank. Despite neither testing significantly in the Spearman's tests, infant mortality showed a tendency of falling while ethnic homogeneity rises as the hotspot's ranks increase.

FIGURE 6: CORRELATION COEFFICIENTS FOR HOTSPOT RANK WITH TOTAL POPULATION, GDP PER CAPITA, AND POPULATION GROWTH RATE



Y-Axis = Rank, X-Axis = 1. Total Population 2. GDP per capita 3. Population Growth Rate

A multiple regression analysis was run for total population, population growth, and GDP per capita. This test calculates r square and adjusted r square values, which determine how much of the statistical variation in rank is explained by these three variables. The test revealed that between forty-nine and sixty-three percent of the variation in rank is explained by population growth rate, total population, and GDP per capita.

FIGURE 7: MULTIPLE REGRESSION FOR TOTAL POPULATION, GDP, AND GROWTH RATE WITH RANK

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.795 ^a	.632	.494	2.312

a. Predictors: (Constant), PopGrowth, TotalPop, GDP

CHAPTER 5. DISCUSSION

5.1 Interpretations

5.1.1 Nigeria

5.1.1.1 Interpreting the Results

The results from the Nigeria analysis were, in terms of theoretical expectations, mixed and initially confusing. Some tests went as expected; the hotspot states were found to have significantly larger and denser populations, over double the amount of crime, and more complex road systems. These results were anticipated as high population density and crime tend to push people away from an area, larger populations numerically allow for more potential victims, and more roads allow for greater ease of transporting victims, particularly in Africa, where most traffickers stick to the highways (UNESCO, 2006; US State Department, 2011).

However, other tests completely defied what was anticipated. To very briefly summarize this study's results, the states that produce more victims were generally more developed. This is in direct contrast with Kevin Bales' 2007 study, who found that countries with many people trafficked from them possessed statistical indications of being poorly developed. Poverty, which is considered the greatest catalyst of human trafficking in Nigeria (UNESCO, 2006) was considerably lower in the hotspots. These problematic states were also better educated, more economically productive, and had better access to media, all of which are associated with *fewer* instances of trafficking. This theoretical contrast does not have an immediate intuitive explanation, but can be explained using criminological and economic concepts.

5.1.1.2 The Strategies of Nigerian Traffickers

Paulsen and Robinson (2004) state that rapid urbanization and industrialization becomes an issue for developing nations because they do not have the resources that address the crime that comes with cities. Ejalu (2006) also cited urbanization as a trafficking risk factor. Unfortunately, urbanization was not analysed in this Nigerian side of this study because there was not an available set of statistics at the state level. However, a quick look at where Nigeria's most populous cities lie is telling; the nine most populated cities and fifteen of the

top twenty are located in hotspot states. Urbanization and industrialization certainly seem more prevalent in the high-risk areas which could help to explain the hotspots' higher crime rates. Nigeria, one of the most rapidly emerging nations in the world, could be a strong example of the idea of Paulsen and Robinson.

The nature and psychology of people who tend to be trafficked could play a major role in what is happening in Nigeria. Potential trafficking victims, as opposed to being passive individuals, may be more likely to be highly motivated and enthusiastic, ultimately seeking to help out their families financially (IOM, 2008). Karakus and McGarrell (2011) note that people who live in crime-infested urban areas of developing nations may be generally more likely to risk their lives for a better future as evident in their current choice of location. To add to this, citizens of the more affluent and developed states have more access to international media and culture outlets and thus an overall better understanding of what type of life lies across borders. The overall higher education levels in these states not only provide evidence that this awareness likely exists, but also indicate that residents likely have better qualifications for finding a job and thus more confidence in moving elsewhere and finding better work.

The significance of population density as a push factor in the hotspots may be quite profound. High population density leads to increased competition for resources including shelter, food, and employment. The hotspots' mean population density is nearly three times higher than the remaining states, giving some indication as to it being a major source of pressure. In an already generally impoverished nation, this crowding in itself should provide an additional push for residents to improve their living conditions. In this study, population density in Nigerian states is positively correlated with greater income inequality and crime rates, indicating tougher social conditions in the denser states²⁰. In combining these ideas with the aforementioned higher general awareness in the problematic states, we can see that residents of these areas likely have great cognitive motivation to leave. Generally, there is nowhere else in Nigeria that they can go to escape, so migrating internationally becomes the only option. Due to reasons of confidentiality and safety, very little data on the types of people being trafficked is available meaning that this type of motivational information can only be a postulate at best.

²⁰ See Appendix E

It has been well established that traffickers operate in complex criminal organizations which cater to their own consumer-driven markets (Aronowitz, 2001; Wheaton et al, 2010). Trafficking organizations also operate in monopolistically competitive markets, often times with very fierce competition (Wheaton et al, 2010). These markets demand several types of employees [investors, recruiters, transporters, informants, debt-collectors, etc.] and resources [victims, transportation methods, travel documentation, fees, etc.] which are needed for the organization to function effectively. Karakus and McGarrell (2011) note that traffickers target highly urbanized, impoverished and populated areas because of their maximal amount of potential victims and customers. Even though they are not as poor as other states, Nigeria's hotspots have more people, more money, and better transportation; all of these things constitute material needs for traffickers. In a scarcely resourced country such as Nigeria, it would make sense to assume that these organizations would concentrate themselves in highly populated and resourced areas where there is more immediate access to these needed materials.

We can also possibly assume that traffickers are aware of the aforementioned higher educational levels and aspirations in the problem states. Often in trafficking cases, victims are duped into thinking they will be working a relatively luxurious job in a foreign nation. Who is more likely to believe that a nice career is waiting for him or her in the North, a farmer from rural Bauchi or a school-educated, ambitious young person from Lagos? Bales (2003) notes that people are rarely trafficked from very poor countries to rich nations because they are unfamiliar with and unable to communicate about their tasks. It seems likely that Nigerian traffickers operate by this logic, avoiding the destitute and focusing on the most affluent.

The hotspots' higher overall crime rate ties together this study's criminological explanations. As before mentioned, rapidly urbanized areas tend not to have enough resources to effectively combat crime. Despite the presence of the anti-trafficking governmental agency, NAPTIP, Nigeria still remains a Tier 2 country on the TIP tier scale, indicating that there is room for improvement in combating trafficking. In 2005, Emmanuel Onyeolizi conducted a historical ethnography of numerous newspapers, magazines, and journal articles which attempted to explain the ineffectiveness of the Nigerian police. He found that weak recruitment policies, organizational flaws, corruption, insufficient training, and their

tendency to protect the state instead of the people were examples of criticisms levelled against them. A survey revealed that police in Anambra [a hotspot state] are considered 'non-effective' and that a local youth vigilante group is actually considered more capable of defending the law than the police (Obioha, 2005). A lack of efficacy of the police is a common perception in Nigeria. Traffickers likely realize this, knowing that they can camouflage themselves into an inadequately defended landscape characterized by fear and danger.

There are two major loose ends that should be addressed. Poverty rates are theorized to be the most influential driving factor of human trafficking, yet this study found that the urbanized hotspots are in fact less impoverished than their more ruralized counterparts. If in fact the differentiation of the hotspot states has to do with the conscious choices of traffickers, this indicates that urbanization and population factors are of more importance in the minds of traffickers. This may be the case simply because poverty, by international standards, is a uniform issue throughout Nigeria; according to the World Bank's data of percentage of people living under the \$1.25 a day threshold, Nigeria is the 6th most impoverished nation throughout the world. Poverty seems to be a push factor throughout the country, creating the possibility that its decreased incidence in the hotspots more of a coincidental curiosity than a relevant factor.

Another curious result in this framework is the hotspots' higher average gross domestic product per capita. Usually, a higher GDP indicates greater spending into public bodies (Lederman et al, 2002), which would indicate more efficient police forces. Higher GDPs are also statistically correlated with lower corruption rates (Shao et al, 2007). However, this anomaly may be better understood in a broader context. According to the World Bank, Nigeria had the 143rd highest GDP per capita out of 190 countries over the past two decades. This indicates an overall lack of economic strength for Nigeria to cater to its large population. On top of this, Nigeria has one of the world's highest crime rates (Financial Times, 2012). This imbalance indicates a major lack of capacity in combating the crime issues that come with rapidly developing urban areas. This leads to the idea that the hotspot's higher GDP's are little indication of their ability to stop traffickers, but more so of the prevalence of resources for traffickers to use. In this case, the value of these areas' resources outweighs the slightly increased police presence.

With all of this said, the hotspot states seem to provide a more sustainable area for traffickers to run their services. After all, human trafficking qualifies as a business just as real estate and construction do. The importance of locational strategy in these fields is paramount in their success. In Nigeria, the most urbanized and affluent areas seem to house the best opportunities for the trafficking business to thrive. If this strategy is in fact being employed, it underscores great impotence in Nigerian anti-trafficking efforts. Logic tells us that people who are more highly educated and have more access to media would be more likely to understand the dangers of human trafficking and its prevalence in the area. The means that awareness campaigns in the area not nearly widespread enough and certainly not sending the message that they should be.

5.1.1.3 The Impact of Oil?

Some immeasurable [in the context of this study] factors may be potentially contributing to the trafficking scourge in these states as well. One which could play a major role is the prevalence of oil. A sizeable number of the Nigerian hotspots [seven out of sixteen] are located within the oil-rich Niger delta, which has been called the 'engine of Nigeria's economy (UNDP, 2006: iii), and all but two states in that region fall into the hotspot category. A heavy concentration of natural resources in an area can counter-intuitively lead to a greater risk of conflict and corruption because of the inevitable competition over who controls them (Collier, 2007). Sure enough, since the early to mid-2000's, the Niger Delta region has been host to a prolonged conflict fuelled by minority ethnic groups' anger over the environmental strain caused by transnational oil corporations. This resistance and protest has caused reaction from the Nigerian government and militarization of the police force. The conflict was most rampant during 2006 and 2007, the years that this study's classification of hotspots is based on. In 1999, nearly 2,500 people in Odi, Bayelsa state were massacred by the police under orders from President Obasanajo (Bassey, 2006). The attack was allegedly Obasanajo's reaction to an armed gang's murder of police officers; however, the event has been repeatedly understood as a violent counter by the Nigerian government to the indigenous Ijaw peoples' claim to the rights of the oil in that area (Omeje, 2004). This genocidal reaction marks the brevity of the politics that underpin this conflict. As of today, estimates of people killed during the entire span of the conflict ranges between 4,000 to at least 10,000 or more.

Is it possible that this conflict is a contributing cause to international trafficking in some of the hotspot states? William Ejalu (2006) and Kevin Bales (2007) cited conflict as a push factor and catalyst of trafficking. UNESCO (2006) wrote that conflict causes people to become vulnerable to being recruited by traffickers, but did not mention the events of Niger Delta conflict as a push factor. Within the context of this study, it is difficult to tell the impact that the tension has had on the trade. While it is difficult to find accurate numbers, there is a certainty of displacement, loss, and fear that has arisen in the population, creating not only some motivation to leave the region, but an opportunity for traffickers to take advantage of desperate individuals. The best that can be done in this study is to let out a call for qualitative ethnographies, case studies, and interviews to shed further light on the impact of oil on human trafficking in the region.

5.1.2 Indonesia

5.1.2.1 Interpreting the t-tests

With only four significant variables, the Indonesian results portrayed less character than the Nigerian analyses. All of the significant results were population-based measures that were extracted from census data. A basic, subjective snapshot of the hotspot provinces could best be described as overpopulated areas which grow at slower rates and have a slightly lower ratio of males to females. The discoveries of larger population sizes and densities in hotspots are expected as they are both known to exacerbate human trafficking. To add to this, population density was positively correlated with unemployment rates in this study, meaning that the denser areas tend to have more unemployment²¹. This is especially notable considering that Indonesian trafficking organizations have been known to pose as employment agencies (US State Department, 2011).

However, the significance of a smaller gender ratio and slower growth rate in their abilities to facilitate trafficking is initially unclear as these result do not follow current theory. In researching how the two statistics interact with each other, the researcher found that countries with a smaller proportion of males have historically grown at *faster* rates because there is a larger ratio of females available to give birth (Rankin and Kokko, 2007). Not only this, but a larger proportion of males tends to lead to more potential oppression of females

²¹ See appendix E

(Mayer, 1999), which we would expect in areas that are correlated with high amounts of trafficking. However, a brief statistical look at the relationships between the gender ratio, population growth and gender equality data used in this study reveals that provinces with a higher proportion of males [the non-hotspots] tend to possess *faster* growth rates, and that the faster growing provinces (which allegedly suffer from less human trafficking) experience *less* gender inequality²². At a distant glance, these statistics are highly confusing and filled with contradictions.

These theoretical contrasts can be alternatively explained by Roberts and Dodoo's (1995) analysis of Amazon communities found that areas with an abundance of males and high growth rates could be explained by the overabundance of employment opportunities catered to men, which was followed by a high amount of male migration to these townships. The case in Indonesia may be similar, with a heavy migration of males to the less problematic provinces for work purposes. This could indicate a relative lack of opportunity for women in these states, but this only makes our dilemma more confusing. Little opportunity for women would create expectations of a higher vulnerability to trafficking, but these states in fact suffer allegedly from less of it.

This contrast forces us to ignore known population literature and leads to a simpler, crude explanation of these two hanging factors. All indicators seem to be pointing to overpopulation and the ills that come with it as the driving factor behind Indonesian trafficking. Overpopulation has long been a problem in Indonesia; Java, the most notorious of the Indonesian hotspots, has been considered too populous for quite some time (Manderson, 1974). The first national population planning scheme was launched in 1969 to curb growth, seeing the rate be cut in half in a fifty year period (Barnwal, 2004). This helps to explain why the hotspots are growing at slower rates than the rest of the country. Low gender ratios, meanwhile, can simply be explained by the nature of Indonesian trafficking; nearly seventy percent of those trafficked abroad are female (US State Department, 2011). Thus, the hotspots have a larger pool of available female victims, inevitably leading to a larger amount of them being trafficked.

²² For this data, see Appendix E

The Indonesian side of the study highlights a weakness in this study's quantitative approach; only factors that test with a significant value should be taken into consideration. However, if we breach that rule and look at variables that *nearly* tested significantly, we notice that the mean hotspot minimum wage is much smaller, indicating weaker job markets. The average unemployment rates of the hotspots were also slightly higher than the non-hotspots. Both of these statistics indicate an overall lack of economic opportunity, which could further help to explain the incidental smaller growth rates in the hotspots and adds evidence to these provinces having an overpopulation problem. Furthermore, adult literacy and life expectancy on average are much lower in the hotspots as expected, despite not testing significantly. On the other side, accepting nearly significant tests would also leave us with more confusing stories; average food production numbers in the hotspots are much higher, which goes directly against Kevin Bales' (2007) results. Still though, by staying loyal to the rules of these quantitative methodologies, we lose out on ways to explain those numbers that were significant.

5.1.2.2 Interpreting the Correlation Coefficients

The correlation coefficients tested in Indonesia's hotspots were able to further clarify some of variables' potential impacts on human trafficking. These tests were most telling for the hotspots' population sizes and growth rates. The hotspot group had both larger and more slowly growing populations than the less problematic provinces. The significance and direction of these relationships were further underpinned by the Spearman's tests. Total population had a strong tendency to be relatively larger as a hotspot was higher ranked in trafficking. The three most troublesome provinces, East, West, and Central Java, are also, by far, the three most populated provinces in the nation. The results from this test suggest that there is very likely to be a relationship between total population and trafficking. The opposite pattern is seen with population growth rates, which tend to decrease as trafficking rank increases. The hotspot provinces with the three slowest growing populations are ranked among the top four in trafficking. This helps to indicate the predictive strength that population growth rate may have, but does not answer the question of *why* it is predictive.

The correlation tests also muddled our understanding of some of the variables' relationships to trafficking. The hotspot provinces had denser populations and a lower proportion of

males, yet within this group, almost no relationship was to be found between trafficking and said variables. Meanwhile, there wasn't a significant difference in the average values of GDP per capita between the two groups, but nonetheless GDP tends to increase as provinces produce more victims within the hotspots. This suggests that Indonesian trafficking in problematic areas may be tied to high GDPs as in Nigeria even though the *t*-test did not suggest this was so. This suggests a hint of evidence that Indonesian traffickers may be applying a similar strategy as in Nigeria. However, due to the lack of more statistical evidence and the coincidental presence of overpopulation issues in these provinces, further research will need to be conducted in these areas in order to answer that question.

5.1.2.3 The Need for Further Research

In attempting to dissect what little numbers Indonesia has offered, it becomes clear that a standard model of human trafficking may be more applicable here. Population pressure was established by Bales (2007) as a leading driver of external trafficking; overpopulation and the ills that come with it seem to be the main issue in Indonesia. Explanations have been offered for the population growth and gender ratio figures, but conclusions are more difficult to definitively draw in those cases. Deeper and more focused research, such as ethnographies and interviews, are recommended in order to determine the full extent of the numbers and what they mean.

5.2 Critical Comparisons

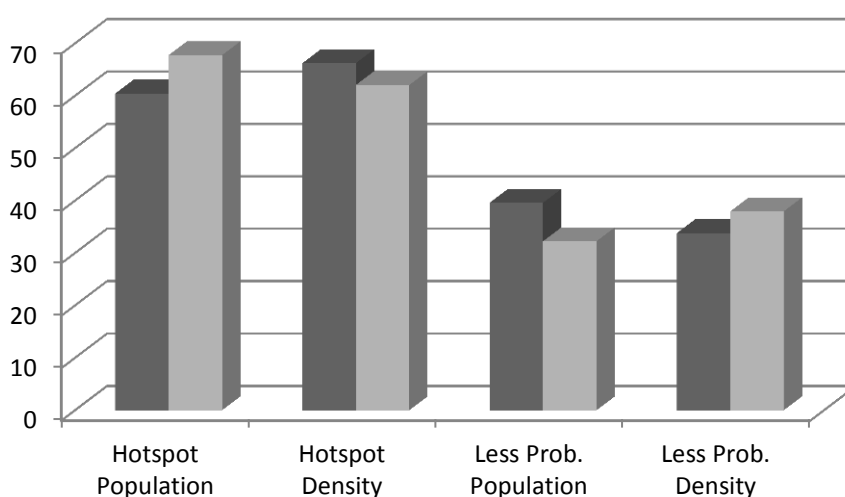
5.2.1 Nigeria and Indonesia

The two nation's results tell two differing stories in the context of this study. The only common threads between the two are the larger and denser populations within hotspots, which is in agreement with established theory which understands population pressure as a key driving factor. Other than that, we are left with two different pictures of what makes up a problematic state within each country. The following Boolean tables give a comparative display of the tests conducted in both Nigeria and Indonesia:

TABLE 4: COMPARISON OF FACTORS IN NIGERIA AND INDONESIA

	Total Population	Population Density	Growth Rate	Gen. Ratio ²³	Poverty	GDP	HDI	Gen. Power	Unemployed
Nigeria	A	A	b	b	B	A	A	A	b
Indo.	A	A	B	B	a	b	b	a	a
Total	AA	AA	b B	b B	Ba	Ab	Ab	Aa	ba
	Adult Literacy	Education Index	Life Expec.	Pov. Sev.	Dist. to Border	Fem. Media	House Size	Crime Rate	
Nigeria	A	A	b	B	b	A	B	A	
Indo.	B	b	B	b	b	b	b	b	
Total	AB	Ab	bb	Bb	bb	Ab	Bb	Ab	

How to read:: A=Hotspot group has higher average value, B= Less problematic group has higher average value. **BOLD, ITALICS, AND CAPITAL LETTERS= significance level of .05 or less**, CAPITAL LETTERS= significance level of .05 to .15, lower case letters= significance level of .15 or higher

FIGURE 8: TOTAL POPULATION AND DENSITY IN NIGERIA AND INDONESIA

Dark Grey = Nigeria, Light Grey = Indonesia

Why do the results in the two nations differ so greatly? Nigeria is arguably more notorious as a source country than Indonesia even though it has nearly 75 million less people, indicating that other sets of variables in Nigeria and Indonesia are responsible for this vast difference. What are the factors that control these differences? The most obvious might be Indonesia's much greater HDI level.²⁴ Indonesia is considered to be at an average level development while Nigeria is still at a low level. This fact in itself means that the push to move abroad would be greater in Nigeria and that trafficking should theoretically be and is a much greater problem there. This suggests that a different set of factors may become predictive depending on a country's level of development. It also implies that the overall

²³ Larger values for gender ratio indicate that there are a larger proportion of men in that area.

²⁴ In 2010, Indonesia had an HDI value of 61.7 while Nigeria's was .45.9.

benefit of becoming a trafficker is much greater in less developed nations, leading to more people participating and thus creating more competition in the business. This creates a need for traffickers to consciously implement highly strategic location selection in order to remain effective, which appears much more the case in Nigeria than Indonesia, where traffickers simply seem to exist in areas which most obviously allow it.

Trafficking victim rankings were only available in Indonesia, meaning that correlation coefficients could not be calculated for human trafficking in Nigerian states. This creates an asymmetric tilt in the comparison between the two nations. These analyses suggested that slow population growth and large populations as the most consistent and predictive factors in Indonesia. If these tests could have been conducted in Nigeria, we would likely have a much greater understanding of the power of each significantly testing variable. The rewards of these tests in Nigeria could potentially have been much greater considering that twelve variables were found to be significant there as opposed to Indonesia's four.

Nonetheless, the contrast between Nigeria and Indonesia indicates that in studying external trafficking at the state-level, individual nations present their own picture and therefore each should be studied more deeply. The intertwining cultural, political, social, and geographical factors that each nation possesses help form unique landscapes within each set of borders, so it would be unwise to expect human trafficking to have a similar set of driving factors in each country. Thus, it isn't shocking that Nigeria and Indonesia, countries that sit thousands of miles apart on two different continents, produced such differing results. Perhaps if Nigeria were compared to neighbouring Benin or Indonesia to Malaysia, the findings would tell a more comparable story. But, as with the already mentioned differing theories of trafficking between Asia and Africa, we are presented with two different pictures.

In performing quantitative analyses, careful measures should be taken in interpreting the meaning of numbers. Pinpointing what the numbers mean and what they indicate is crucial in making accurate assessments. This study has brought forth sixteen total significant factors. The relationships of some to human trafficking were easily explainable, while others were highly troublesome to account for. A three-pronged classification system of factors can be derived from these results, which provides a crude starting point for how directly they have an impact on external trafficking in either nation:

- *Primary* (ex: higher crime rates in Nigerian hotspots): These are factors which have one or more effects on the exacerbation of trafficking. High population density would classify as a primary factor due to their unavoidable effects in both nations.
- *Secondary* (ex: slower growth rates in Indonesian hotspots): These are factors which are inevitable statistical reactions to hidden primary factors. It was postulated that hotspots had slower growth rates because these areas were becoming overpopulated and running out of opportunity. Thus, growth rate is a secondary reaction to the two mentioned root causes.
- *Tertiary* (ex: lower poverty in Nigerian hotspots) Factors which tested significantly but seem to have no functional relationship with trafficking. Various poverty statistics were found to be much lower in the hotspots. If the proposed idea of traffickers targeting prosperous regions for their resources is true, then the incidence of these poverty statistics would not be relevant.

TABLE 5: RISK FACTOR CLASSIFICATIONS

Country	Hotspot Factors	Classification
Nigeria	Larger population	<i>Primary</i>
	Greater population density	<i>Primary</i>
	Higher crime rates	<i>Primary</i>
	Higher education index	<i>Primary</i>
	Higher GDP per capita	<i>Primary</i>
	More road transportation ²⁵	<i>Primary/Secondary (to GDP)</i>
	Females watch more TV ²⁶	<i>Primary/Secondary (to GDP)</i>
	Higher literacy rates	<i>Secondary (to education)</i>
	Less poverty	<i>Tertiary</i>
	Smaller poverty severity index	<i>Tertiary</i>
	Smaller population under 14	<i>Tertiary</i>
Indonesia	Larger population	<i>Primary</i>
	Greater population density	<i>Primary</i>
	Lower proportion of males	<i>Primary</i>
	Slower population growth rate	<i>Secondary (to population)</i>

²⁵ Nigerian traffickers are known to primarily use road transportation (UNESCO, 2006), so they may actively seek areas where road systems are more complex and easy to use. However, road systems tend to arise when areas become more developed, so this may be a secondary reaction to these areas being more prosperous.

²⁶ The fact that women in the hotspots tend to watch more television may make them more aware of national and international affairs, increasing their likelihood to migrate abroad. This statistics could also be a secondary reaction as people in these less impoverished, more highly areas are simply more likely to own televisions.

5.2.2 Nigeria and Indonesia with Turkey

Of the several factors found to be significant in Karakus' 2010 study of Turkey, the only relationship that was parallel with this study's findings was in concern to total population, which was a reliable predictor of trafficking in Turkey, Nigeria, and Indonesia. Little consistency was shared elsewhere however. Poverty's relationship to human trafficking hotspots in Nigeria was exactly opposite to what was found in Turkey. The average distances to the nearest border of both Indonesian and Nigerian hotspots were in fact slightly *further* away as opposed to being closer, although these values were not significant in difference so no solid conclusion should be drawn. No solid evidence was produced for demographic diversity or separation rates, and residential mobility was untested in this study.

TABLE 6: COMPARISON OF ANALYZED FACTORS IN NIGERIA, INDONESIA, AND TURKEY

Factor	Turkey	Nigeria	Indonesia
Total Population	Higher	Higher	Higher
Residential Mobility	Higher	<i>Untested</i>	<i>Untested</i>
Demographic Diversity	Higher	<i>Untested</i>	Inconclusive
Divorce/Separation	Higher	NS	<i>Untested</i>
Distance to Borders	Lower	NS	NS
Poverty	Higher	Lower	NS

Factors found to be statistically significant in Turkey and whether their average values were higher or lower in hotspot areas than non-hotspots. NS = value not significant

The comparison with Turkey further highlights the idea that when analysing the distribution of human trafficking within one country, different profiles of hotspots are formed. Turkey's hotspot cities are highly populated cosmopolitan centers which suffer from deep poverty. Nigeria's hotspots are similarly populated but suffer from less poverty and are more developed and affluent as a whole, while Indonesia's troubled provinces are long overpopulated areas with little opportunity left.

5.2.3 Noting the Role of Total Population

In this and Karakus' study, the only factor that was consistently associated with high amounts of human trafficking across all three was an area's population size. Karakus and McGarrell (2010) note that this relationship is existent because traffickers knowingly target highly populated areas due to their greater potential for more clients and victims. Total population could be significant for another very logical reason-- more people in an area means that statistically there are more victims available to be trafficked as well as more

people who are likely to be traffickers. In other words, it might not indicate anything about trafficking other than a mathematical inevitability. This also suggests the possibility that the other significant factors may not hold any meaning and that these areas are simply more trafficked only because there are more people. If this idea is true, this entire study's analyses and projections will all simply be hypothetical conjectures. This may not be the case, but it must be noted as a possibility for objectivity's sake.

5.3 Agreement with Current Theory

In the framework of this study, the findings indicate that some of the ideas from current international relations theories of human trafficking seem to break down when analysed at the intra-state level while others maintain their stance. Severe poverty is understood as the main factor that pushes people to be trafficked out of a country, yet within Nigeria, the states that produce more trafficking victims suffer from less destitution. In Indonesia, this study suggests that poverty is a negligible factor in relation to source provinces. Analyses from both countries produced results that agreed with current understanding, and some that denied it altogether.

Two consistencies were found with current theory in both countries. As mentioned, Nigerian and Indonesian hotspots were more populated than other states, which was similar to the findings in the studies of Fry (2008) and Karakus (2010). The other consistency was the relationship found between population density and highly problematic states in Nigeria. Bales (2007) found that countries with denser populations had a higher likelihood of people being illegally trafficked from them. Both Nigeria and Indonesia's hotspots had denser populations than their counterpart states. In Nigeria's hotspots, higher crime rates (Carling, 2006) and an increased prevalence of roads (UNESCO, 2006) were both expected.

This study brings to life the idea that current international human trafficking theory cannot necessarily be fully anticipated when attempting to study hotspots within nations. This likely is dependent on the difference between migratory flows when external trafficking is analyzed either globally or nationally. On an international scale, there is a large range of development levels from country to country; In 2011, the Democratic Republic of the Congo ranked the lowest at 28.6 while Norway held the apex of 94.3, equalling to a range of 65.6 (UNDP, 2011). This variation creates a strong flow from the less developed to the more

affluent. When looking at sub-regions within states, this range of development tightens up considerably. These sub-regions share more relatively similar levels of poverty, unemployment and other ailments which borders tend to be uniformly shared within borders; The HDI range in Nigeria is 43.9 while Indonesia's is an even smaller 20.9. To add to this, when analysing external trafficking within a nation, there is only one way for victims to go: abroad. This is contrasted by the multitude of directions that people can be trafficked on a global scale. Therefore, with these differences, it is not surprising that this study's results showed some conflict with current theory.

TABLE 7: TEST RESULTS COMPARED WITH HUMAN TRAFFICKING THEORY

	Agree	Disagree
Nigeria	<ul style="list-style-type: none"> • Larger populations • Denser populations • Higher crime rates • More complex road transportation 	<ul style="list-style-type: none"> • Less poverty • Higher economic productivity • Less female awareness • Smaller youth populations • Better education
Indonesia	<ul style="list-style-type: none"> • Larger populations • Denser populations • Larger proportion of females 	<ul style="list-style-type: none"> • Slower population growth

5.4 Information Gaps

Despite plausible explanations for the results of this study, some questions and uncertainties still exist for several reasons. Firstly, several measures went untested in this study for any combination of potential reasons.²⁷ The absence of an analysable measure of governmental corruption within both countries potentially creates a large void of information considering its role as a cog for the activities of traffickers. Considering that known ties exist between traffickers and governmental agencies in Indonesia (US State Department, 2011) and traffickers and border control agents in Nigeria (UNESCO, 2006), we must at least consider that corruption likely plays some sort of significant role. Bales (2002) notes that if traffickers understand that governmental officials are not willing to cooperate with or tolerate them, then their likelihood to continue their operations will decrease. He then suggests that battling corruption is the most effective way to combat human trafficking. Bales' idea underscores the importance of a corruption measure and fuels the

²⁷ Listed in section 3.3

question of whether or not variations in regional corruption support international trafficking in both countries. If corruption and other unavailable statistics were analysed in both nations, the pictures of what drives trafficking in their most vulnerable areas may be much clearer and explainable through current theory.

Another possibility is that analysis of secondary data alone is not strong enough to reveal the entire picture. For one, next to no information is publically available on the profiles of a typical trafficking victim; we know that the majority of them are females and children. Other than this, we have little idea of the average education level, economic background, ambitions, abilities, etc. of a typical Nigerian or Indonesian victim. There is no doubt that confidentiality is necessary in ensuring their protection, and there really is no dire need to release this type of information; but this doesn't change the fact that an enormous information gap exists here. Without knowing who is being trafficked, we cannot truly understand what the numbers in this study mean. It is possible that the victims originating from hotspots are only coming from the most destitute and disadvantaged boroughs of these states meaning that extreme poverty and lack of education are in fact facilitating factors, which this study's limited figures does not seem to suggest. In order to clarify this, deeper demographic analyses in both countries are needed in order to tighten up our understanding.

5.5 The Reliability of Hotspot Identification Methods

In identifying Nigerian hotspots, multiple sources were used. It is possible that each source may use different methodological approaches [none of which were disclosed] in identifying these areas, which must be taken into consideration when interpreting the results of the Nigerian section of this study. As previously mentioned, a universally accepted measure of human trafficking does not exist for a variety of reasons, so these haphazard methods are the best option in some cases for the time being. They may very well be reliable enough, but there is no way that current knowledge can tell us if that is true or not. This dilemma highlights the need for a consistent, quantified approach to hotspot identification.

A methodological approach that takes into account overall risk for human trafficking would be optimum. The consistent significance of total population as a risk factor in this study indicates that the amount of victims produced is a leading part in how human trafficking is

currently being measured. This is a logical method and a measure that should be incorporated into any approach, but as an end all is not enough to explain the true picture of human trafficking. Of course an area will produce more victims if there are more people there in the first place; it is mathematically expected. One way to create a more applicable measure is by measuring the average amount of victims per person in an area in order to control for population. On top of this, a more comprehensive approach is needed which takes into account locally driving factors, whatever those may be, and analyses an area based on those conditions.

CHAPTER 6. CONCLUSION

To answer the first two research questions, this study revealed several factors that seem to be associated with human trafficking in both Nigeria and Indonesia. Large and dense populations seem to be the only common drivers of external trafficking in both countries. In Nigeria we find that trafficking of human beings seems to be further underpinned by higher crime rates and the complexity of road systems in an area. This study also revealed that trafficking seems to be more prevalent in areas with greater economic and social development, which defies current theory. The significance of this cannot be confirmed within the confines of this study, but it is possible that traffickers may specifically target these areas for their resources and the ability to operate more stealthily in a chaotic background. In Indonesia, we see that a higher proportion of females and slow population growth seem to be linked with trafficking; slow population growth is likely to a numerical reaction to overpopulation, while the greater vulnerability of females explains gender ratio's significance. The differences between the two nations suggest that countries do not necessarily share the same driving factors and should be studied individually in order to further understand these catalysts.

As for the third question, this study has shown that current macro-level theories of human trafficking can be partially applied to studies that compare areas on a smaller scale. However, not all factors in this study were found to be consistent with current theory, and some in fact completely defied expectations in the opposite direction. Currently, human trafficking theories can tell us which nations as a whole are likely to be more affected by the phenomenon. However, it cannot necessarily tell us which regions and sub-regions within those nations will suffer the most. This study has shown that a micro-level study will produce only a few findings that are consistent with current understanding, but that other findings will require more expertise in order to explain. Deeper qualitative studies into these results may be needed for a full understanding. Therefore, it is not recommended to fully depend on human trafficking theory for sub-regional studies.

In reference to the fourth question, it seems that secondary data analysis has use in creating a broad picture of what makes countries vulnerable to external trafficking. However, the clarity of these revealed pictures is fuzzy and requires deeper, more strategic analyses to

bring the image into greater focus. With a bit of extra research, postulates of the deeper meanings of these analyses were made. The researcher was even able to formulate a three-pronged system of the level of impact that a discovered factor actually has on trafficking. However, these ideas cannot be confirmed from secondary data analysis alone and need further confirmation from local officials and experts. Overall, secondary analysis serves as a solid starting point to generate questions for further studies in ultimately mapping and understanding trafficking schemes. Potential research topics created by this study include 1) why trafficking is more prevalent in the developed areas of Nigeria, 2) The significance of the relationship between low gender ratios and human trafficking in Indonesia, 3) the extent to which corruption catalyzes human trafficking in both Nigeria and Indonesia, and 4) The Niger Delta oil conflict's role in driving human trafficking in the region.

Tyldum and Brunovskis' idea of creating a predictive, statistical tool has not been ruled out by this study; however, it seems that an all-encompassing one that can be used globally might not be possible. As this study seems to suggest, individual nations seem to have their own profiles of what facilitates trafficking. Therefore, this hypothetical toolkit would have to be tested, fitted, and tweaked to individual countries or perhaps regions. This leaves a lot of potential work to national and regional NGO's, anti-trafficking forces, and human rights scholars.

At first glance, attempting to suppress human trafficking and promoting human rights seem to go hand-in-hand. Yet, this study suggests that this tie may not be so inextricable as evident in Nigeria, whose less impoverished, better educated trafficking hotspots seem to be more capable of promoting of human rights than other parts of the nation. This indicates that human rights defense on its own may not necessarily soothe human trafficking; the latter will more likely continue to need a highly focused attack for its suppression to continue. There is certainly room for the use of secondary data and quantitative analyses in that offensive.

Those who deny freedom to others deserve it not for themselves.

—Abraham Lincoln

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APPENDIX A**KOLMOGOROV-SMIRNOV (K-S) TEST RESULTS**

Variable	NIGERIA K-S value	NIGERIA p Value	INDO. K-S value	INDO. p value
Adult Literacy	.707	.699	1.375*	.046
Child Literacy	.870	.435	-	-
Crime Rate	1.030	.239	.777	.582
Distance to Border	1.431*	.003	.601	.863
Divorce/Separation	.918	.369	-	-
Education Index	.961	.314	.737	.650
Ethnic Homogeneity	-	-	.920	.366
Females Watch TV	.989	.282	1.047	.223
Food Production	-	-	.430	.993
GDP	1.441*	.031	1.993*	.001
Gender Empowerment	.458	.985	.367	.999
Gender Ratio	.523	.947	.709	.696
Gini Rating	.594	.872	-	-
HDI	.511	.957	.827	.501
HIV	.794	.554	-	-
Household Size	.782	.573	.568	.903
Infant Mortality	-	-	.741	.643
Life Expectancy	.681	.742	.470	.980
Malaria	1.147	.144	-	--
Minimum Wage	-	-	.893	.402
Population Density	1.712*	.006	2.276*	.000
Population Growth Rate	2.251*	.000	.762	.608
Population Under age 14	.593	.874	-	-
Poverty	.831	.494	.712	.691
Poverty Severity Index	1.201	.111	1.428*	.034
Religious Homogeneity	-	-	.958	.318
Road Length per km ²	1.356	.051	-	-
Total Population	1.108	.172	1.673*	.007
Unemployment	.729	.663	.835	.488
Urbanization	-	-	.899	.394

* value significant at $p < 0.05$

APPENDIX B**INDONESIA U-TEST RESULTS**

Variable	Hotspot Mean Rank	Hotspot Sum of Ranks	Less Prob. Mean Rank	Less Prob. Sum of Ranks	U value	Z value	p value
Adult Literacy	13.71	164.5	18.88	396.5	86.5	-1.48	.139
GDP per capita	15.0	180.0	18.14	381.0	102.0	-.90	.369
Population Density	22.58	271.0	13.81	290.0	24.0	-3.82***	.000
Poverty Severity	16.83	202.0	17.1	359.0	59.0	-2.51*	.011
Total Population	25.5	306.0	12.14	255.0	124.0	-.08	.940

* value significant at $p < 0.05$, ** value significant at $p < 0.01$, *** value significant at $p < 0.001$

NIGERIA U-TEST RESULTS

Variable	Hotspot Mean Rank	Hotspot Sum of Ranks	Less Prob. Mean Rank	Less Prob. Sum of Ranks	U value	Z value	p value
Distance to Border	20.34	325.5	17.98	377.5	146.5	-.69	.492
GDP per capita	24.94	399.0	14.18	304.0	73.0	-2.91**	.004
Population Density	26.31	421.0	13.43	282.0	51.0	-3.59***	.000
Pop. Growth Rate	20.44	327.0	17.90	376.0	145.0	-.71	.481

* value significant at $p < 0.05$, ** value significant at $p < 0.01$, *** value significant at $p < 0.001$

APPENDIX C**INDONESIA t-TEST RESULTS**

Variable	Hotspot Mean (n)	Hotspot Standard Deviation	Less Prob. Mean (n)	Less Prob. Standard Deviation	<i>t(df)</i>	p value
Crime Rate	173.92	139.24	221.95	78.45	-1.23(29)	.228
Distance to Border	519.50	366.05	455.48	379.54	.47(31)	.640
Education Index	.71	.04	.72	.04	-.73(31)	.471
Ethnic Homogeneity	58.96	23.31	44.66	29.48	1.34(25)	.191
Female Watch TV	73.23	14.47	73.14	12.48	.02(31)	.986
Food Production	47.20	9.19	41.72	9.48	1.61(31)	.117
Gender Empowerment	58.47	4.44	58.17	7.73	.12(31)	.903
Gender Ratio	100.67	3.96	104.48	4.26	-2.53(31)*	.017
HDI	69.20	3.14	70.17	4.10	-.71 (31)	.484
Household Size	4.08	.35	4.16	.31	-.62(31)	.536
Infant Mortality	45.33	12.29	41.38	13.06	.85(31)	.400
Life Expectancy	67.58	3.25	68.96	2.10	-1.49(31)	.148
Minimum Wage	93.92	17.97	106.94	20.02	-1.86(31)	.072
Pop. Growth Rate	2.89	1.39	5.32	2.63	-2.96(31)**	.006
Poverty	14.49	5.85	15.76	9.65	-.41(31)	.682
Religious Homogeneity	81.56	16.89	83.82	14.95	-.38(29)	.704
Unemployment	7.46	2.98	6.24	2.27	1.33(31)	.192
Urbanization	35.32	11.05	38.89	20.56	-.55(29)	.585

* value significant at $p < 0.05$, ** value significant at $p < 0.01$, *** value significant at $p < 0.001$

APPENDIX D**NIGERIA t-TEST RESULTS**

Variable	Hotspot Mean (n)	Hotspot Stan. Dev.	Less Prob. Mean (n)	Less Prob. Stan. Dev.	<i>t(df)</i>	p value
Gender Ratio	96.85 (16)	4.48	94.94 (21)	3.20	.72 (35)	.475
Unemployment	13.61 (16)	6.32	14.01 (21)	10.38	-.14 (35)	.892
Poverty	41.15 (16)	12.66	60.19 (21)	19.13	-3.64 (34)**	.001
HIV	4.51 (16)	1.50	4.24 (21)	1.97	.46 (35)	.652
Adult Literacy	76.13 (16)	14.74	59.55 (21)	14.37	3.44 (35)**	.002
Child Literacy	88.78 (16)	13.27	74.65 (21)	15.86	2.88 (35)**	.007
Road Length per km ²	.078 (16)	.045	.032 (21)	.009	3.99 (16)**	.001
Malaria	.020 (16)	.009	.028(21)	.021	-1.27 (35)	.212
Household Size	4.31 (16)	.94	4.91 (21)	.93	-1.93 (35)	.061
Population Under 14	38.06 (16)	8.14	42.95 (21)	5.89	-2.12 (35)*	.041
Total Population	4.62M (16)	2.08M	3.17M (21)	1.08M	2.54 (21)*	.019
Life Expectancy	50.06 (16)	2.82	50.26 (19)	2.56	-.221 (33)	.827
Education Index	.73 (16)	.22	.50 (21)	.26	2.96 (35)**	.006
HDI	.50 (16)	.08	.44 (21)	.11	1.71 (35)	.096
Gini	.47 (16)	.06	.46 (21)	.06	.60 (35)	.550
Poverty Severity	.077 (16)	.047	.144 (21)	.08	-3.05 (32)**	.005
Divorce/Separation	2.30 (16)	2.10	2.47 (21)	1.90	-.26 (35)	.797
Gender Empowerment	.257 (16)	.110	.186 (21)	.125	1.79 (35)	.081
Females Watch TV	49.56 (16)	19.19	28.52 (21)	20.27	3.20 (35)**	.003
Crime Rate	.206 (16)	.125	.086 (21)	.066	3.50 (21)**	.002

* value significant at $p < 0.05$, ** value significant at $p < 0.01$, *** value significant at $p < 0.001$

APPENDIX E

NIGERIA

		Pop. Density	Gini	Crime Rate
Pop. Density	Pearson <i>r</i> Significance	1	.536** .001	.412* .011
Gini	Pearson <i>r</i> Significance	.536** .001	1	.338* .041
Crime Rate	Pearson <i>r</i> Significance	.412* .011	.338* .041	1

* value significant at $p < 0.05$, ** value significant at $p < 0.01$, *** value significant at $p < 0.001$ Bolded values were referred to in Chapter 5

INDONESIA

		Pop. Density	Unemp loy.	Gen. Ratio	Pop. Growth	Gen. Power
Pop. Density	Pearson <i>r</i> Significance	1	.373* .033	-.037 .836	-.138 .443	.062 .730
Unemployment	Pearson <i>r</i> Significance	.373* .033	1	.031 .866	-.019 .917	-.257 .150
Gender Ratio	Pearson <i>r</i> Significance	.037 .836	.031 .866	1	.685*** .000	-.070 .697
Pop. Growth	Pearson <i>r</i> Significance	-.138 .443	-.019 .917	.685*** .000	1	-.356* .042
Gen. Empower	Pearson <i>r</i> Significance	.062 .730	-.257 .150	-.070 .697	-.356* .042	1

* value significant at $p < 0.05$, ** value significant at $p < 0.01$, *** value significant at $p < 0.001$ Bolded values were referred to in Chapter 5