University of North Carolina Asheville
Journal of Undergraduate Research
Asheville, North Carolina
May 2018

Blood, Soil, Terrorism: An Analysis of Domestic Terrorism through the Lens of Citizenship Laws

Kayli Nichols
Political Science
The University of North Carolina Asheville
One University Heights
Asheville, North Carolina 28804 USA

Faculty Advisor: Dr. Peter Haschke

Abstract

This paper examines why some countries experience more domestic terrorist attacks than others. It explores whether nationality law type is a determinant. Ethnic and religious fractionalization, regime type, poverty and population have been previously identified as determinants and are used as controls. This paper hypothesized that countries that practice *jus soli* nationality laws will experience fewer terrorist attacks. There was no evidence that nationality laws affected the frequency of domestic terrorism. In some of the regression models, the relationship of *jus soli* laws was negatively related to attacks, while other models showed it was positive. Additionally, India was observed longitudinally due to their change in citizenship laws in 1987. These data supported the hypothesis overwhelmingly; during *jus soli* years, 226 fewer attacks were observed. While the data supported the hypothesis, more research is needed to substantiate the claim that citizenship laws drive the incidence of terrorist attacks.

1. Introduction

The phenomenon of terrorism is commonplace in the news, but how quickly can one identify terrorism when an act is not already labelled so? Wikipedia reports 146 incidents of terrorism that have occurred in January 2018. That's an average of almost 5 attacks per day. Ignoring the fact that the data is provided by Wikipedia, it is wildly misleading. Upon which criteria is an act determined to be considered terrorism? In situation A, a plane leaving from Mallorca to Frankfurt is hijacked and brought to Somalia. In situation B, a handful of children die in a school shooting. In situation C, a group of perpetrators attacked various parts of a city, leaving 130 people of 18 different countries dead. Consider which of these three acts are terroristic in nature. Now, which would be classified as domestic terrorism? This is much harder to answer. Much more information is needed to properly define and classify an act as domestic terrorism. This uncertainty of what constitutes domestic terrorism provides the basis of this paper. A definition will later be provided in order to create a uniform system of identification, but domestic terrorism will be further explored in terms of frequency among countries to better understand its occurrence.

Citizenship type laws are identified as a determinant to explain how domestic terrorism fluctuates. This paper hypothesizes that countries with *jus soli* citizenship laws will experience fewer domestic terrorist attacks than in *jus sanguinis* countries. Population, poverty, regime type, and degree of fractionalization are identified from other research to be used as controls. To test the hypothesis, a series of regressions were executed, including and excluding countries that did not report a terrorist incident and interaction effects. A longitudinal study of India was also conducted. Overall, the regressions yielded mixed results. At times law type exhibited a negative effect, which supported the hypothesis; at other times the relationship was positive, which contradicted the hypothesis. When looking at the fractionalization interaction with law type, it was the degree of fractionalization that determined the number of attacks rather than the law type. Looking at the raw data, *jus soli* countries experience approximately 1.5 more attacks than *jus sanguinis* countries on average.

This paper will first review the literature on domestic terrorism, examining previously tested explanations for terrorism and civil wars. This brief literature review will help outline controls that are factored in during the tests. Thereafter, relevant definitions will be provided as related to the subject matter. Then, the hypothesis will be explained and tested several ways. At the conclusion, the findings will be recapped and any problems and shortcomings in the research will be addressed.

2. Literature Review

The research on domestic terrorism is fairly sparse. The existing terrorism literature typically does not distinguish domestic from transnational incidents. 9/11 was over 15 years ago, but the field's literature has not kept abreast with the growing public interest. This may be partially due to the lack of available data. This paper collects domestic terrorism data from the GTD database, developed only in 2010. The database separates terrorist incidents as transnational, domestic or uncertain. Enders et al. collected data from ITERATE and the GTD databases, and then scrutinized the data under new definitions. This process will be further discussed in the following section. The database that these researchers created is crucial for any terrorism research going forward. While this paper does not contrast domestic and transnational terrorism, it would be a useful distinction for advancing the understanding of terrorism.

Woo's research is most similar to this paper. He hypothesizes that *jus soli* countries will demonstrate a more accepting perception toward migrants than *jus sanguinis* countries.[10] His experiment involves a survey administered in the United States and Japan, which practice *jus soli* and *jus sanguinis* nationality laws, respectively. Woo found that "citizenship law carries a significant and noticeable effect in formulating people's perception toward migrants[10]". This result provides evidence for this paper's hypothesis and attempt to help rectify the lack of research on the role of citizenship laws in terrorist attacks. Woo's paper is the only available research that discussed citizenship laws having any sort of effect, let alone on terrorism. The only other paper pertaining to nationality laws was written nearly a century ago. In his research, Scott does little more than outline *jus soli* and *jus sanguinis* laws.[7] Other than the work done by these two scholars, there have been no other publications investigating the effects of nationality laws.

Due to this deficiency of domestic terrorism research, several papers on civil wars were consulted, likening the outbreak of violence in those instances to domestic terrorism. This will be discussed in section three.

3. Definitions

A brief description is provided here to inform the reader how the concepts of citizenship and terrorism are defined throughout this paper.

Scott summarized the frustration regarding citizenship, stating that there is "no single principle which the nations appear willing to accept as a test of their laws on the matter of nationality".[7] A citizen can receive citizenship in one of two ways, excluding naturalization or a combination of the two. Citizenship is either bestowed through *jus soli* and *jus sanguinis* laws.

Jus soli is the Latin equivalent of right of soil. This means that any individual who is born within the state that practices *jus soli* receives citizenship. Parents and ethnicity are irrelevant. The majority of countries do not have this type of birthright nationality laws. The United States and Canada are the only developed countries with *jus soli* laws; many *jus soli* countries are in South America.

On the other hand, *jus sanguinis* laws stipulate a right to citizenship through blood or ancestry. The citizenship of the parent is the determining factor that grants the child citizenship. For example, Austria adheres solely to *jus sanguinis* laws. Imagine that two foreigners are living in Austria and give birth to a child. This child will receive a birth certificate from Austria, but Austrian citizenship is not simultaneously granted. This child will receive the same citizenship as its parents, despite being born and raised in Austria. Naturalization would be a possibility, but it is contingent on a variety of stipulations that vary from country to country.

Equally important to understanding citizenship laws in this paper is terrorism. The definition tends to vary across research, which makes consolidating and comparing data more difficult. Enders and his colleagues state the following to define terrorism:

> Terrorism is the premeditated use or threat to use violence by individuals or subnational groups against noncombatants in order to obtain a political or social objective through the intimidation of a large audience beyond that of the immediate victims.[3]

This definition is very similar to that of the US State Department. Enders et al. stress several caveats with the definition: perpetrators are individuals, not state-sponsored; there is a difference between politically/socially motivated attacks and criminal acts; and victims are civilians, officials or non-combatants.[3] From this definition an attack is further investigated to determine if it is domestic or transnational terrorism. Domestic terrorism is homegrown in which the venue, target, and perpetrators are all tied to the same state.

Enders et al. developed a typology to discern domestic from transnational terrorism. First and foremost, a domestic act of terrorism involves "the venue, target, and perpetrators...all from the same country".[3] To further investigate attacks, an incident must pass the additional four conditions listed below to be considered domestic terrorism. Failure to do so results in it being classified as transnational terrorism. The conditions are: the nationality of the victim(s) must match the venue country, the target type should not be diplomatic in nature, any incident that involves US related entities outside the US are automatically considered transnational, and any incident involving more than one country in the completion of the attack is also considered transnational.[3]

4. Theory

4.1. Citizenship Laws

While terrorist attacks are common, they are more common in some places than others. One reason for this may be dependent upon the citizenship laws of individual countries. There has been very little research done at this point looking specifically at such a relationship. However, Woo has explored the relationship between citizenship laws and perceptions of migrants in a case study of the United States and Japan. Citizens of the US, representing *jus soli* laws, are found to have a more favourable attitude toward migrants compared to citizens of *jus sanguinis* laws. Similarly, countries practicing birth-citizenship laws will be more acceptable of others' cultures neighboring their own, making it less likely to result in conflict. Persons of all races, genders, religion and economic level are guaranteed citizenship upon birth in countries of *jus soli* laws. Not only does this make communities diverse, but it also makes equality much more blatant in the day-to-day lives of citizens. This diversity creates a much more fluid image of a citizen, whereas one might find a different result in blood law countries. While conflict might arise between groups or individuals, every individual is entitled to citizenship and protection of the law in equal parts to one another, reducing the salience of difference between citizens. With a more enhanced notion of equality, political attacks are likely to be less frequent, as the 'other' factor is more reduced among citizens in countries where everyone is similarly bonded to citizenship. While there is diversity in every community and country, this paper argues that soil citizenship laws make physical, observable differences among citizens irrelevant for the purpose of citizenship and create a higher sense of unity. This unity will lead to more goodwill amongst citizens, while simultaneously lowering the opportunity for conflict. The imposed unity reduces the otherness factor among citizens, which make domestic terrorist attacks far less likely in these nations.

For example, *jus soli* laws creates a homogeneous environment, making the difference between citizen A and B irrelevant. Instead, they are able to recognize similarities in each other more easily, which stems from the acknowledgement that they are the same in the eyes of the law; each is entitled to the same things, because they were both born on the same soil. Recognizing fellow citizens as brethren, one citizen is less likely to raise arms against another. results in lower levels of terrorism among citizens. In contrast, one does not expect this in states that practice *jus sanguinis* laws. Citizenship is a right established through blood, i.e. family. These familial ties build communities with recognizable traits. Outsiders to such communities will be more easily distinguishable and those traits carry meaning and may lead to marginalization as 'other'. Such distinctions will create tensions between groups, which will lead to conflict. It is in these societies that conflict will escalate to violence more readily, resulting in more frequent attacks of terrorism among citizens. As such, the following hypothesis is deduced:

H1: Countries that practice jus soli laws will experience less domestic terrorism.

The literature on terrorism has identified additional determinants of domestic terrorism. Below a list of alternate hypotheses will follow.

Piazza identified minority economic discrimination as a "root [cause] of terrorism".[6] Due to the lack of literature on domestic terrorism, Piazza borrowed from Gurr's theory of relative deprivation.[4] Piazza acknowledges that the theory is applied to rebellions, riots and civil wars, but he finds it applicable to terrorism as well. He identifies "group

grievance and organizational opportunity" as the causal link between minority economic discrimination and terrorism".[6] He notes that the alienation that minorities suffer will create identities of "otherness"[6] which then leads to conflict when paired with opportunity. Blimes analysis focuses on civil war and reached a similar conclusion. He identifies the ability that ethnic groups possess to overcome the collective action problem.[2] Groups that are alienated build stronger, more cohesive ties with their communities. These strong connections make it easier to organize, which leads to violence when tension exists between different ethnic groups. While this is plausible, the theory in this paper draws away from ethnic fractionalization, so an alternate hypothesis, *AH1a*, is provided. Birthright citizenship breaches the gap amongst ethnic groups, while simultaneously establishing a notion of equality among citizens regardless of fractionalization.

AH1: Higher levels of ethnic fractionalization leads to more frequent incidents of domestic terrorism.

AH1a: The frequency of domestic terrorism in a jus soli country will be lower than in jus sanguinis countries, regardless of its fractionalization levels.

Additionally, the degree of democracy that a state possesses has been studied to explain acts of terrorism. Shahrouri theorizes that nations with democratic institutions experience fewer incidents of terrorism, because "more democracy means more individual freedom, therefore, less discontent among a country's citizens."[8] Citizens that have a voice and the ability to air their grievances are less likely to resort to violence to affect change. While Shahrouri finds evidence to support his theory, he also notes that his work contradicts some of the research done by others.[8] Other researchers have examined how democracy and its freedoms create a breeding ground for terrorists in comparison to a state that exhibits authoritarian qualities. For the purposes of this paper, the following is hypothesized:

AH2: Democratic states will experience fewer domestic terrorist attacks in comparison to countries with authoritarian regimes.

Moreover, researchers have found a correlation between population size and terrorism frequency. In larger populations there are more people that interact with each other, which when met with conflict can lead to acts of terrorism.[9]

AH3: Countries with larger populations will experience more domestic terrorist attacks.

Furthermore, recent scholarship has also explored the possibility of a relationship between poverty and terrorism. However, studies are inconclusive or unable to substantiate this relationship. This paper will be re-testing the hypothesis that poverty rates affect terrorism to confirm the previous when exclusively looking at domestic terrorism.[1]

AH4: Poor states will experience more terrorism than wealthier states.

5. Research Design

Unable to manipulate citizenship laws, an observational study is conducted to observe the occurrence of domestic terrorism in individual countries during the year 2007. The independent variable of interest is the citizenship law type of a country; the dependent variable is the corresponding frequency of domestic terrorism that the country experiences. While the primary variable is the citizenship laws of countries, the controls, as outlined in other research and discussed above, will also be consulted. These variables include population, fractionalization, GDP per capita and regime type. Already existing data was used. Using the GTD database, the number of terrorist attacks that each country suffers in 2007 was able to be ascertained. NumbersUSA outlines countries that practice *jus soli* nationality laws, transitioning states and those that are not. Population and GDP per capita databases are accessible from the World Bank. The Polity Project provides the degree of democracy for countries. The CIA World Factbook reports ethnic and religious composites of countries, which is used to inform the fractionalization levels of a country in this study.

5.1. Citizenship Laws (IV)

It is necessary to determine whether or not states practice *jus soli* or *jus sanguinis* citizenship laws. This information was accessible through *Nations Granting Birthright Citizenship.* The database lists countries and their nationality laws, while also providing source links and highlights countries that have switched their citizenship law types in the past 30 years. First using the above mentioned list, each country was coded and assigned a numerical value depending on their law type. *Jus soli* countries are labelled 1, while *jus sanguinis* countries are assigned 0. The sample includes the data of 123 countries. As shown in Figure 1 below, there are far more countries with *jus sanguinis* laws than there are *jus soli.* Soil birthright countries only make up 18.3% of the total sample, less than one-fifth.

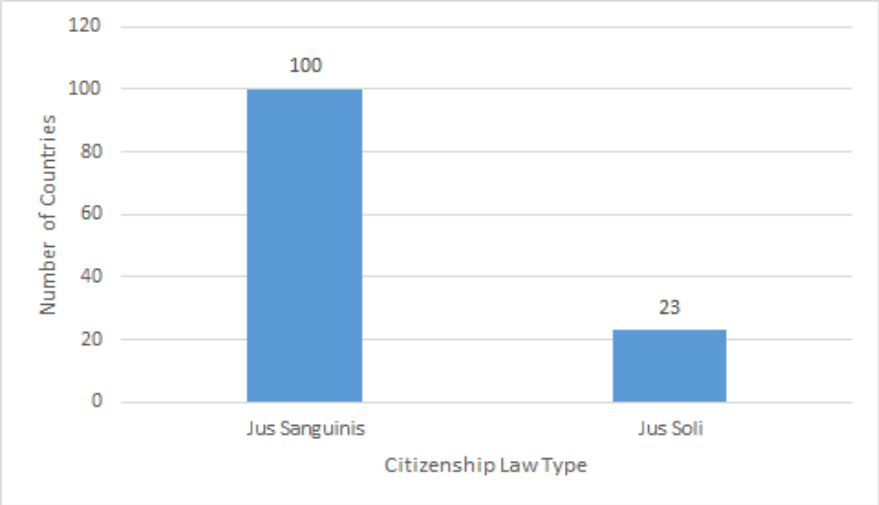

Figure 1: Citizenship Law Type of Countries

Figure 1 shows whether the countries studied in this research have *jus soli* or *jus sanguinis* nationality laws.

5.2. Domestic Terrorism (DV)

Enders et al. created a database where they distinguished domestic attacks of terrorism from transnational ones. These data are used to determine the number of terrorist attacks a country experiences in a given year. As shown in Figure 2 39 countries experienced domestic terrorism; Figure 3 further breaks this down by law type. Six of the 39 countries practice *jus soli* laws, and the remaining 33 exhibit *jus sanguinis* laws. 68.3% of countries report 0 incidents of terrorism, regardless of citizenship type. Additionally, Figure 4 shows the distribution of terrorist attacks. According to the GTD database, there are 801 reports of domestic terrorist incidents in 2007. 177 of those attacks occur in *jus soli* countries, representing 22% of all attacks.

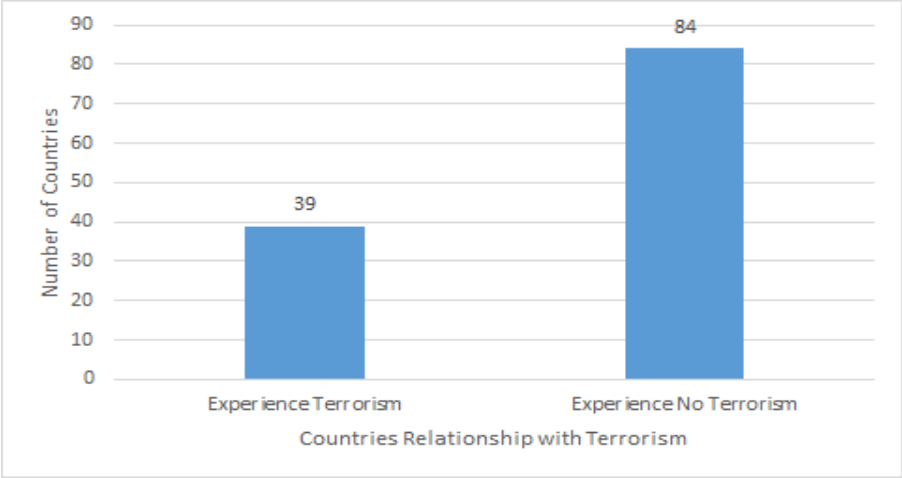

Figure 2: Countries with Domestic Terrorism Incidents in 2007

Figure 2 shows the distribution of terrorism. More than half of the countries report 0 incidents of terror for 2007. Terrorism is confined within 39 countries in 2007. These 39 countries will be looked at more closely in the following section

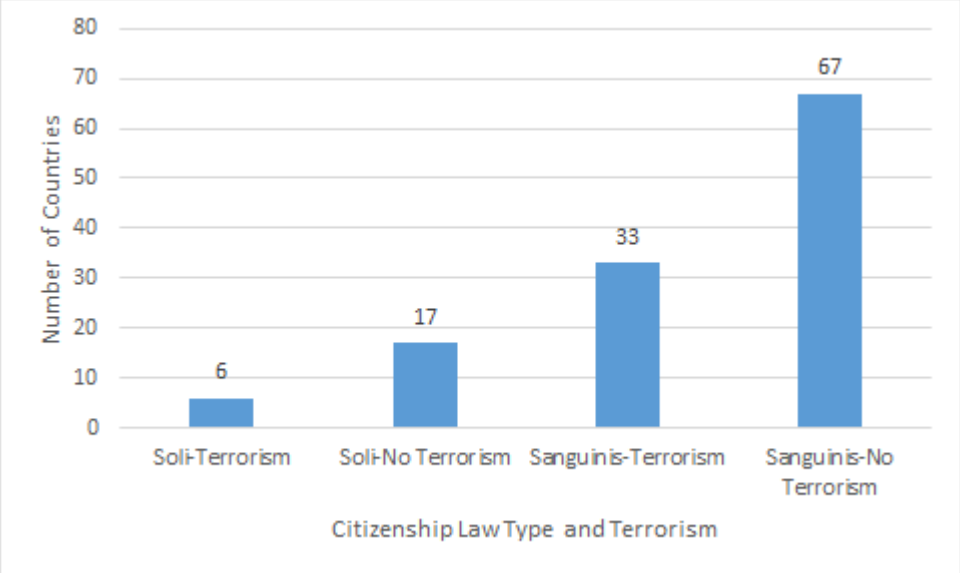

Figure 3: Distribution Breakdown Looking at Citizenship Laws

Figure 3 organizes the data to show the categorization of countries based off both nationality law type and whether or not they experienced terrorism in 2007.

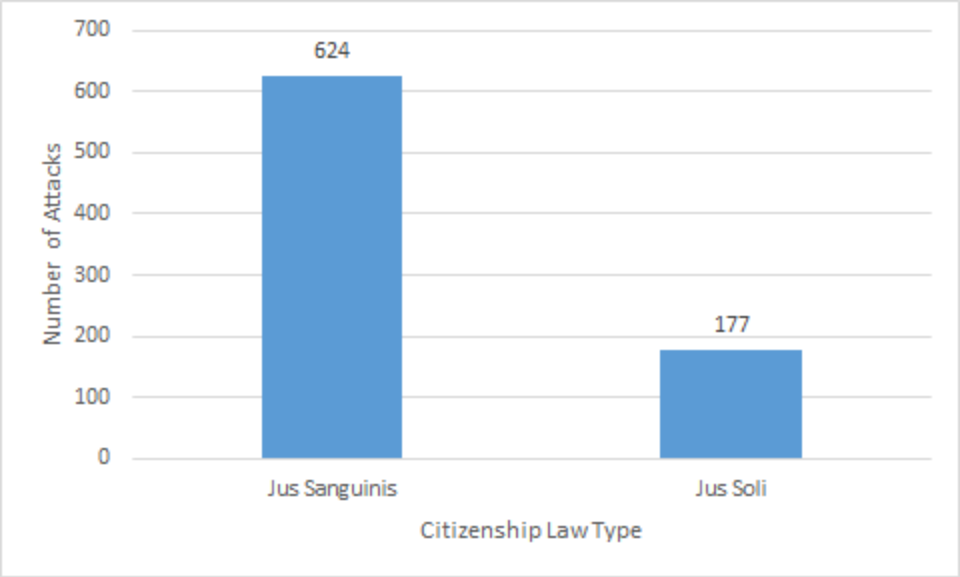

Figure 4: Total Number of Terrorist Attacks in 2007

Figure 4 shows the total amount of attacks in 2007. Data is categorized depending on the type of country of the attack, *jus soli* or *jus sanguinis.*

Table 1 below reports the summary statistics- average, median, mode, minimum and maximum, distinguishing between the different categories and overall. The major differentiation between the categories are the maxes. Pakistan has *jus soli* nationality laws and experienced 160 attacks in 2007. This is an outlier however. If Pakistan were omitted, the average would drop down to 1.29 attacks. While the statistical data is not clearly shown in Figure 5, one can see the outliers for both citizenships laws far more clearly than Table 1 can visually demonstrate

Table 1: Compiled Statistical Data Terrorism Attacks Categorized by Citizenship Law Types

Jus Soli	Jus Sanguinis	All
Average: 7.70 Median: 0 Mode: 0 Min: 0 Max: 160 n=23 countries	Average: 6.24 Median: 0 Mode: 0 Min: 0 Max: 211 n=100 countries	Average: 6.51 Median: 0 Mode: 0 Min: 0 Max: 0 n=123 countries

Table 1 explores how terrorism is distributed among countries depending on their law type.

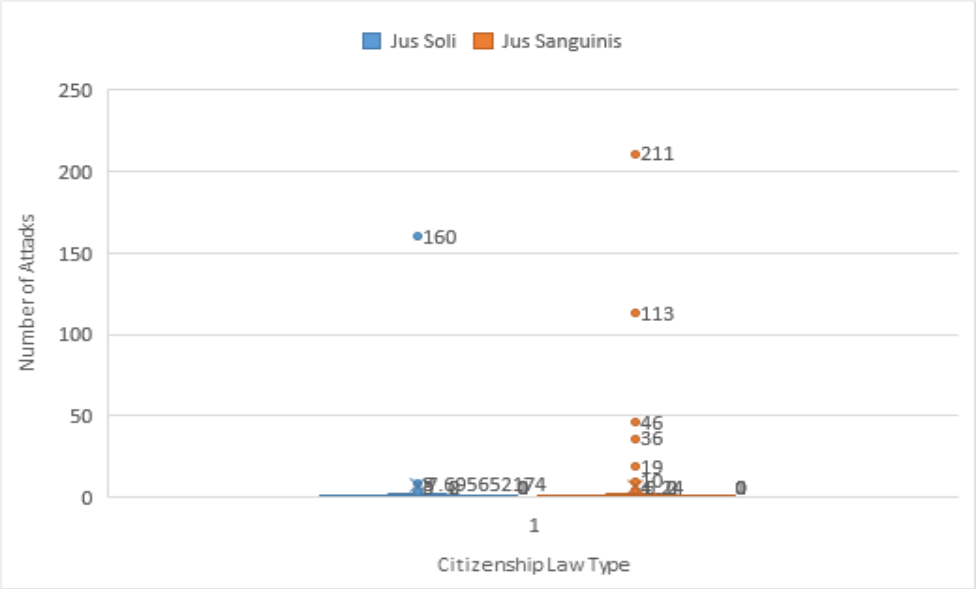

Figure 5: Terrorist Attacks According to Citizenship Law Type

Figure 5 is able to show the outliers that lie in the data set. Each point represents the number of attacks a single country faced. Due to the large range of data it is difficult to discern any other information other than the outliers.

5.3. GDP

The data for GDP per capita was gathered from the World Bank. Table 2 shows the distribution of wealth depending on the country's nationality laws. The range of wealth in *jus soli* countries is much tighter, falling within the *jus sanguinis* range.

Table 2: Compiled Statistical Data of GDP Per Capita Categorized by Law Type

Jus Soli	Jus Sanguinis	All
Average: $8,291	Average: $14,018	Average: $12,947
Median: $4,078	Median: $3,325	Median: $3,778
Min: $918	Min: $170	Min: $170
Max: $48,061	Max: $106,018	Max: $106,018

Table 2 outlines the GDP Per Capita of the countries. The data was gathered from the World Bank dividing the population by the overall GDP, so that a more equal representation can be processed. From the data one can gather that *jus sanguinis* countries are wealthier, but their range is also far greater than that of *jus soli* countries.

5.4. Population

Population data was retrieved from the World Bank for each of the individual countries for 2007. In Table 3 the medians fall within a tight range, but the outliers stand out in the *jus sanguinis* countries; this is better depicted in Figure 6. The United States has the largest population with 301,231,207 in the *jus soli* categorization. One might be able to guess that China holds the leading population.

Table 3: Compiled Statistical data for Population Categorized by Law Type

Jus Soli	Jus Sanguinis	All
Average: 41,365,348 Median: 7,707,972 Min: 747,869 Max: 301,231,207 n=23	Average: 48,156,342 Median: 8,926,188 Min: 311,566 Max: 1,317,885,000 n=100	Average: 46,886,482 Median: 8,295,487 Min: 311,566 Max: 1,317,885,000 n=123

Table 3 shows how population is distributed amongst countries. On average *jus sanguinis* countries have a population of almost seven million more than *jus soli.*

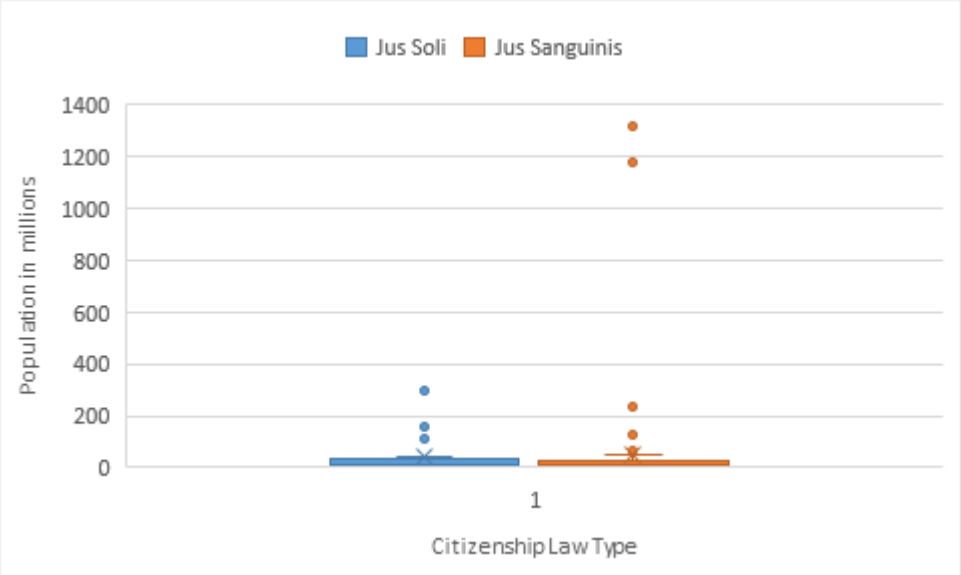

Figure 6: Population Distribution between Citizenship Laws

Figure 6 shows the population distribution between the citizenship laws more clearly. Series 1 or Blue represents the population of *jus soli* countries, and series 2 or Orange represents *jus sanguinis* countries.

5.5. Regime Type

In order to determine the regime type, the Polity IV: Regime Authority Characteristics and Transitions Database is used. Countries with a score of 7 or higher are considered a democracy and will be ascribed as 1. Countries with a score of 6 or lower are authoritarian regimes and are assigned 0. Figure 7 below displays the regime type break up for the entire dataset. Figure 8 provides further insight by taking the citizenship laws into account. In Figure 8 one is able to discern that regime type is heavily skewed toward democracies in *jus soli* countries. Democracies make up 78% of the regimes in *jus soli* nations. In *jus sanguinis* countries, the data is only slightly skewed toward authoritarian regimes with 56%.

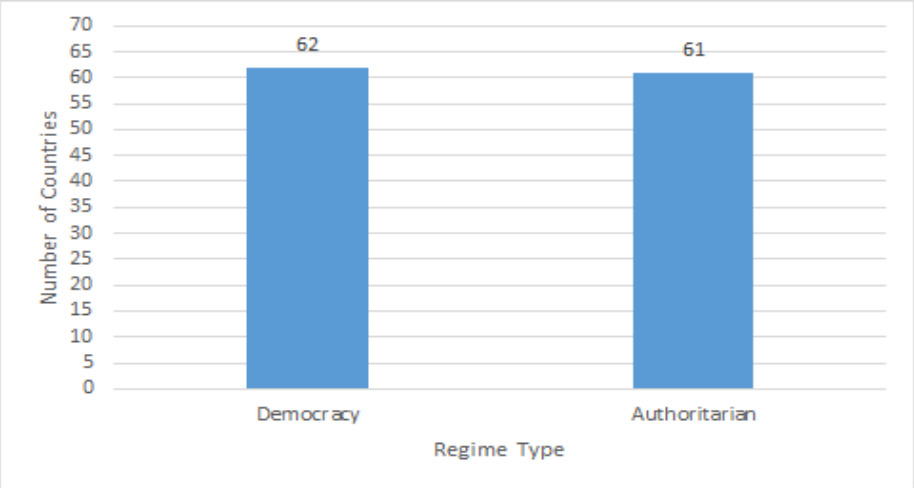

Figure 7: Regime Type

Figure 7 shows the regime type of the countries, regardless of their nationality laws. In this manner the distribution appears to be even

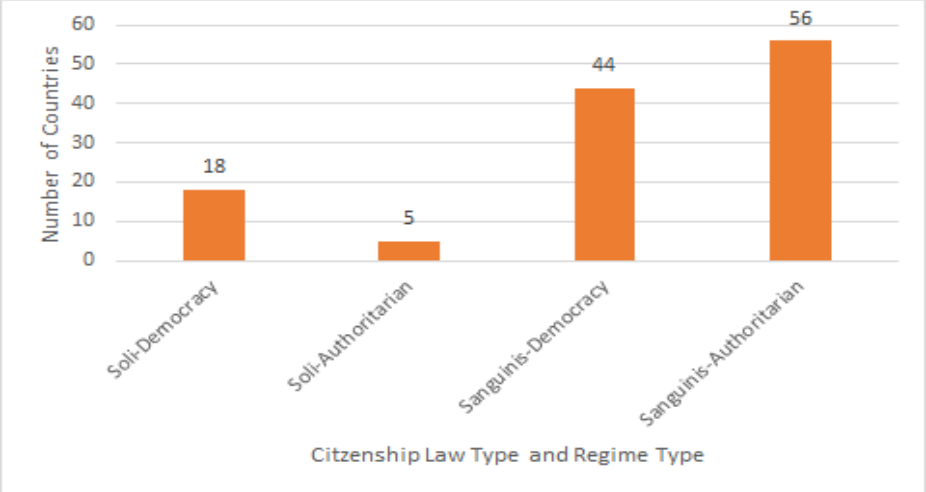

Figure 8: Democracy between *Soli* and *Sanguinis*

Figure 8 further investigates the regime type of countries by adding the nationality laws as an additional categorization.

5.6. Fractionalization

Religious and ethnic fractionalization is coded using statistics from the CIA World Factbook. The site provides factual profiles for country, breaking down geographic, demographic, economic, security information and more. One of the sections provides information as to the ethnic and religious composition of a country's population. For these measures, I record the largest group per category is recorded. That number represents the degree of fractionalization for a country. Religion and ethnicity are looked at on an interval from 0 to 1. 0 is seen as highly diverse, while 1 is seen as completely homogenous. For example, Canada's ethnicity is broken down as follows: Canadian 32.2%, English 19.8%, French 15.5%, Scottish 14.4%, Irish 13.8%, German 9.8%, Italian 4.5%, Chinese 4.5%, North American Indian 4.2%, other 50.9%. When inputting the data, I would only record the 32.2% statistic. It is clear that there is not an ethnic group larger than 32.2%, which implies that there are more ethnic groups that are represented in the total population, and so the assumption is made that Canada is largely ethnically diverse.

All countries fall within this measure for religious and ethnic fractionalization. Figures 9 and 10 show these distributions. In both figures, the data follows a sort of ascending order. This shows that the countries are skewed more towards homogeneity than they are diverse. This is especially prominent in Figure 9, with more than 25% of countries falling into a category of 91%-100% homogenous. Figure 10, depicting religious homogeneity shows a similar ascension, but it is much more gradual in comparison.

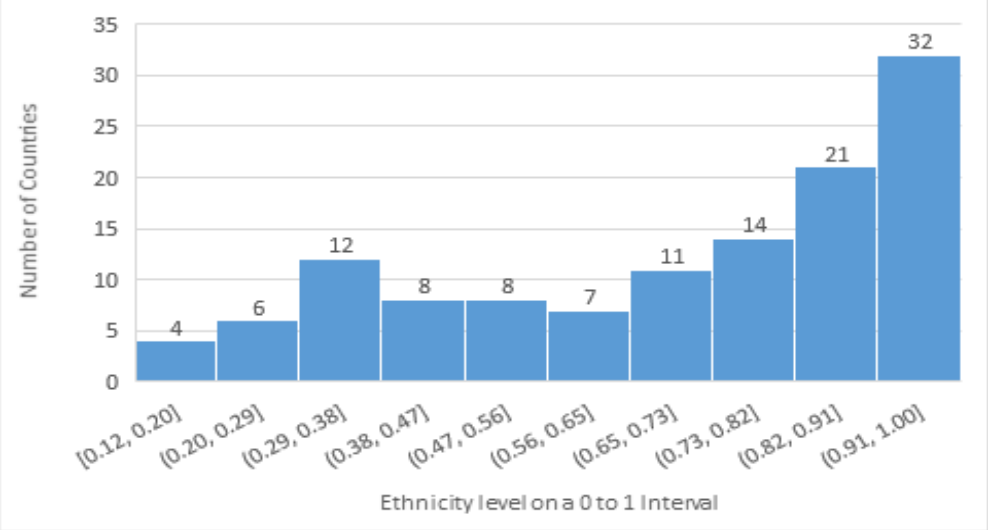

Figure 9: Ethnicity Diversity of Countries

Figure 9 shows the degree of ethnicity a country possess. A low score would indicate that the diversity of a country is high, which many different ethnic groups. The countries that are in bin (0.91, 1.00) are considered to be highly homogenous.

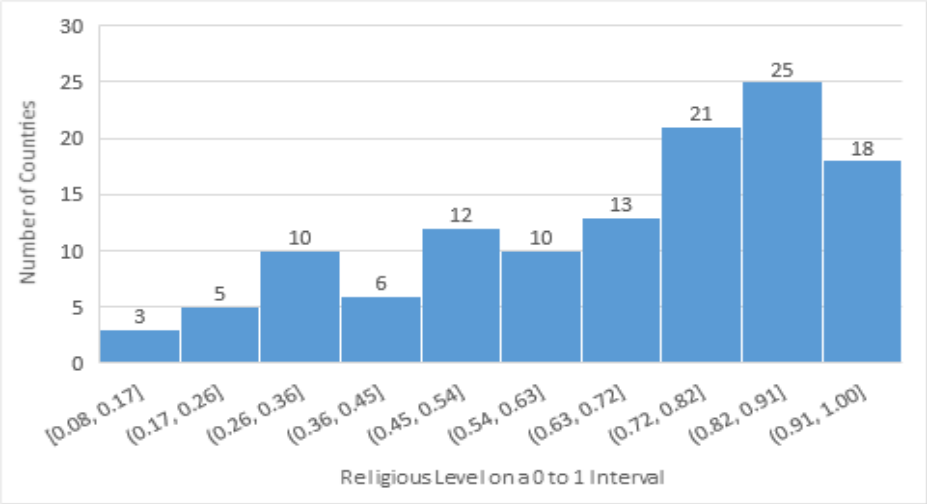

Figure 10: Religious Diversity of Countries

Figure 10 shows the religious diversity of a country. The data is heavily skewed to the right indicating that many countries have fairly a fairly homogenous religious identity.

6. Analysis

6.1. T-Test

First, a t-test is performed to assess if citizenship laws have an effect on domestic terrorism. According to the hypothesis, the difference of the means should be negative, because it is expected that there are more terrorist attacks in *jus sanguinis* countries than in *jus soli*. The null hypothesis would return a difference of 0, because there would be no difference between blood laws and soil laws, signifying that citizenship laws have no effect on terrorism.

A difference of means returned a difference of 1.46. In other words, *jus soli* countries experience almost 1.5 more attacks on average than blood law countries. Countries of *jus sanguinis* experience fewer terrorist attacks than *jus soli* countries. Because this data looks solely at the total number of attacks and nothing more, the following sections will explore this notion in a variety of tests.

6.2. Regression-Only Countries Reporting Terrorist Attacks

Next, a regression is conducted to take into account the controls when assessing the hypothesis. The number of terrorist attacks are modelled as a function of the independent variable and controls. The observations in this section only include countries that reported at least one terrorist attack. Observations that do not experience terrorist attacks in 2007 are excluded.

As shown in Table 4, population is the only the variable that is statistically significant at the 5% level. A p-value of less than 0.05 would be needed to be able to be confident that any effect is discernable from zero.

Substantively, it is expected that law type have a negative sign according to the hypothesis. A negative coefficient is expected to show that *jus soli* countries experience less domestic terrorism than *jus sanguinis* countries. Instead, *jus soli* countries experience 9.645 more terrorist attacks than their counterpart on average. The positive relationship contradicts the hypothesis.

While not statistically significant, the effects of democracy, and ethnicity all occur as expected. There is a negative relationship between democracies and terrorism. On average, democracies will suffer 29 fewer attacks. A unit shift to complete ethnic homogeneity would result in 4.4 fewer terrorist attacks. In other words, ethnically diverse countries will experience more terrorism than those that are ethnically homogeneous. GDP per capita returned a result of 0.00. This is the result that other researchers have hypothesized previously. There is no relationship between poverty and terrorism.

Population was predicted to have a positive relationship. An increase of attacks is expected to correspond with larger populations. However, like GDP per capita, population reported a coefficient of 0.000. There is no relationship between population and terrorism.

Surprisingly, religion does not follow the same negative correlation as ethnicity. These variables were expected to behave in a similar manner. Instead a country that reports 100% religious homogeneity experiences 47.122 more attacks than a country with zero homogeneity. This result is fairly dramatic. This data set includes a sample size of 39 units. 9 of those units report a rate of religious homogeneity of 94% or higher. Combined these 12 countries represent 415 of the total 801, or 51.8% total terrorist attacks for this data sample. Only six countries report a homogeneity level of under 50%. These data are heavily skewed which would explain the high coefficient.

Table 4: Regression Results for Countries That Reported Terrorism in 2007

Variables	Coefficient	Standard Error	P-value
Intercept	-9.877	30.235	0.746
Law Type	9.645	18.874	0.613
Democracy	-24.624	15.573	0.124
Population	0.000	0.000	0.008
GDP Per Capita	0.000	0.000	0.845
Ethnicity	-4.488	27.551	0.872
Religion	47.122	31.982	0.150

Table 4 details the statistical results after running a regression model. Data is limited to countries that reported at least one incident of terrorism in 2007.

6.3. Regression with All Countries

As a second cut, this dataset is expanded to include countries that reported zero terrorist attacks as well. The dataset now has 123 observations.

Once again as seen in Table 5, the regression estimates a positive rather than negative effect for citizenship law type. In this dataset, *jus soli* countries will experience 3.4 more attacks on average than countries with blood citizenship laws. The opposite is expected based on the hypothesis. The estimated coefficient is not statistically significant however.

Both population and religion are statistically significant. Population's effect on terrorism followed the hypothesis and resulted in a positive relationship. 1,000,000 people are considered one unit, and one unit change results in an increase of 0.052 attacks of terrorism. While population appears to be statistically significant, its effect is substantively small, i.e. it is not meaningful.

Religion is also statistically significant and yields a more noticeable effect compared to population. However, as in the previous relationship, it contradicts the hypothesis. Religion results in a positive rather than negative relationship. According to the coefficient, the more homogeneously religious a country is, the more terrorist attacks it will experience. A country with a completely homogeneous religion will experience 21.5 more attacks of terrorism than a completely heterogeneous. Countries with smaller, more diverse religious communities will experience less terrorism.

GDP per capita ethnic fractionalization and democracy met the expectations of their respective hypotheses. GDP per capita has a negative coefficient of -0.024, which provides evidence that as countries become wealthier, they will experience less terrorism- 0.024 fewer attacks per $1000USD to be exact. This effect is small as the average county has a GDP of about 13 which does not come close to equating to one attack.

The effect of ethnicity is negative with a coefficient of -1.508. Countries that are ethnically homogenous will experience 1.5 fewer terrorist attacks. The effect of democracy is estimated as predicted as well. Table 5 calculates democratic countries with to experience 5 fewer terrorist attacks than countries under an authoritarian regime. Unfortunately none of these effects are statistically significant at the 5% level.

Table 5: Regression Results for Countries and Terrorism (including reports of zero Incidents)

Variables	Coefficient	Standard Error	P-value
Intercept	-6.942	8.992	0.442
Law Type	3.428	6.191	0.581
GDP Per Capita	-0.024	0.116	0.840
Pop	0.052	3.622	0.000
Ethnicity	-1.508	9.203	0.870
Religion	21.533	9.627	0.027
Democracy	-5.321	5.066	0.296

Table 5 presents the statistical data including all reports of terrorism. Unlike Table A, Table B emits the linguistic variable to keep a larger sample size.

6.4. Multiplicative Regressions

So far pertaining to the hypothesis of interest, the results are mixed or inconclusive. The following equations look at how fractionalization (religion and ethnicity) interact with citizenship laws.

6.4.1 law type and religious fractionalization

Table 6: Equations for Interaction between Law Type and Religion

Law Type and Religion Equation:

y = Law Type(x) + Religion(x) + Law Type*Religion(x) +*GDP(x) + Population(x) + Ethnicity(x) + Regime Type(x) + b*

1. **2.875** = -16.353(0) + 17.497(0.5) + 29.508(0) - *0.014(12.947) + 0.051(46.886) - 2.409(0.695) - 5.336(0.504) - 3.720*
2. **9.173** = -16.353(0) + 17.497(0.86) + 29.508(0) - *0.014(12.947) + 0.051(46.886) - 2.409(0.695) - 5.336(0.504) - 3.720*
3. **1.276** = -16.353(1) + 17.497(0.5) + 29.508(0.5) - *0.014(12.947) + 0.051(46.886) - 2.409(0.695) - 5.336(0.504) - 3.720*
4. **18.197** = -16.353(1) + 17.497(0.86) + 29.508(0.86) - *0.014(12.947) + 0.051(46.886) - 2.409(0.695) - 5.336(0.504) - 3.720*

TABLE 6 predicts the number of terrorist attacks a country may experience under certain conditions. Equations 3 & 4 predict *the* number of terrorist incidents in *jus soli* countries, and equations 1 & 2 in *jus sanguinis*.
*Italicized part of the equation are variables that are not manipulated through 'tests'.
**X's for constant variables are the median value for their respective category.

Table 7: Regression Results for Interaction between Law Type and Religion

Variables	Coefficient	Standard Error	P-value
Intercept	-3.720	9.464	0.695
Law Type	-16.353	19.372	0.398
Religion	17.497	10.316	0.093
Law*Religion	29.508	27.227	0.281
Population	0.051	0.014	0.000
GDP Per Capita	-0.014	0.116	0.907
Regime Type	-5.336	5.062	0.294
Ethnicity	-2.409	9.234	0.795

Table 7 provides the statistical data for the equations in Table C above. Law type and religion are used to create an interaction effect to further assess the data.

Equations 1 and 3 shown in Table 6 report low almost indistinguishable incidents of terrorism. While they differ in citizenship law type, they use the same level of religious homogeneity, 0.86. 0.86 is the third quartile of the dataset, representing 'high homogeneity' in religious fractionalization. Similarly, Equations 2 and 4 report low levels of homogeneity, 0.504 the first quartile, with a higher frequency of terrorist attacks. The numbers, while both are high, do differ. Blood law countries report just over 9 attacks, while soil-based nationality countries report double that with 18.197 attacks. These results defy the alternate hypothesis *AH1a*, especially equation 4. It is expected that Equations 3 and 4 would be responsible for the lowest reported incidents. These equations correspond with *jus soli* citizenship laws, which regardless of the level of fractionalization should result in fewer terrorist incidents. In this interaction, law type finally has a negative effect as shown in Table 7. *Jus soli* countries will experience 16 fewer attacks. However, the chart also estimates the interaction of religious homogeneity and law type to be positive, contributing 30 more attacks.

6.4.2 Law type and ethnic fractionalization

Table 8: Equations for Interactions between Law Type and Ethnicity

Law Type and Ethnicity Equation:

y = Law Type(x) + Ethnicity(x) + Law Type*Ethnicity(x) +*GDP(x) + Population(x) + Regime Type(x) + Religion(x) + b*

1. **4.965** =36.995(0) + 4.557(0.476) - 48.769(0) - *0.052(12.947) + 0.050(46.886) - 4.608(0.504) + 22.844(0.670) - 11.858*
2. **6.970** =36.995(0) + 4.557(0.916) - 48.769(0) - *0.052(12.947) + 0.050(46.886) - 4.608(0.504) + 22.844(0.670) - 11.858*
3. **18.746** =36.995(1) + 4.557(0.476) - 48.769(0.476) - *0.052(12.947) + 0.050(46.886) - 4.608(0.504) + 22.844(0.670) - 11.858*
4. **-0.707** =36.995(1) + 4.557(0.916) - 48.769(0.916) - *0.052(12.947) + 0.050(46.886) - 4.608(0.504) + 22.844(0.670) - 11.858*

TABLE 8 predicts the number of terrorist incidents in *jus sanguinis* countries in equations 1 & 2, and *jus soli* in equations 3 & 4.
*Italicized part of the equation are variables that are not manipulated through 'tests'.
**X's for constant variables are the median value for their respective category.

Table 9: Regression Results for Interaction Effect between Law Type and Ethnicity

Variables	Coefficient	Standard Error	P-value
Intercept	-11.858	9.322	0.206
Law Type	36.995	19.745	0.064
Ethnicity	4.557	9.727	0.640
Law*Ethnicity	-48.769	27.268	0.076
Population	0.050	0.014	0.001
GDP Per Capita	-0.052	0.116	0.653
Regime Type	-4.608	5.034	0.362
Religion	22.844	9.565	0.019

Table 9 provides the statistical data for the equations in Table 8 above. Law type and ethnicity are used to create an interaction effect to further assess the data.

The set of equations shown in Table 8 also tests how citizenship laws and fractionalization interact, but in the form of ethnicity. Equation 4 reports approximately one fewer terrorist attack in *jus soli* countries with high ethnic homogeneity. That being said, *jus soli* countries with diverse ethnicity reports the highest incidents of terrorist attacks in this bunch. Equation 3 is not in line with the hypothesis. According to the hypothesis, the fractionalization should not have any effect in *jus soli* countries. Seeing as they report very different number of incidents, this is not true and not in line with the hypothesis. In opposition, countries with blood laws report similar incidents of terrorism regardless of ethnic diversity levels.

Table 9 shows the opposite effects as talked about in regard to Table 7. Law type in this equation is estimated to incur almost 37 more attacks in *jus soli* countries, but the interaction between law type and ethnicity is estimated to be negative, 48 fewer attacks.

6.5. India

India is observed to further investigate the relationship of citizenship laws and domestic terrorism. In 1987 India shifted its nationality laws from *jus soli* to *jus sanguinis.* Data is available for the 11 years pre and post transition. As ethnicity, religion and democracy type stay the same, they are constants and have been removed from the regression model.

The results in Table 10 are consistent with the hypotheses. It is statistically significant and reflects a negative correlation between law type and domestic terrorism. India during its *jus soli* years will experience 226.729 fewer terrorist attacks on average than during the *jus sanguinis* time frame. This results is the expected negative relationship, see Figure 11. While these data supports the hypothesis, more research is needed to substantiate this relationship. The original shift from *jus soli* to *jus sanguinis* laws came from an uprising in Hindu nationalism (Daniyal 2017). The political dominance of one group is sure to cause friction among minority groups which might explain the rise of terrorist attacks, but other explanations may also exist.

As mentioned, the effect of all variables follow the predicted effect. GDP has a negative effect, and GDP is also statistically significant. The wealthier India is, the fewer terrorist attacks India suffers. Population has a positive effect. India will experience an increase of .577 terrorist attacks per millions of people. The larger the population, the more terrorist attacks will occur. This coefficient is not statistically significant, however.

Table 10**:** Statistical Data on India from 1976-1998*

Variables	Coefficients	Standard Error	P-value
Intercept	369.326	233.347	0.131
Law Type	-226.729	53.046	0.000
Population	0.577	0.543	0.302
GDP Per Capita	-1293.256	600.481	0.045

Table 10 reports on the statistical data of citizenship laws on terrorism in India from '76-'98, while taking into account population and GDP per capita.
*Data for 1987 is not included.

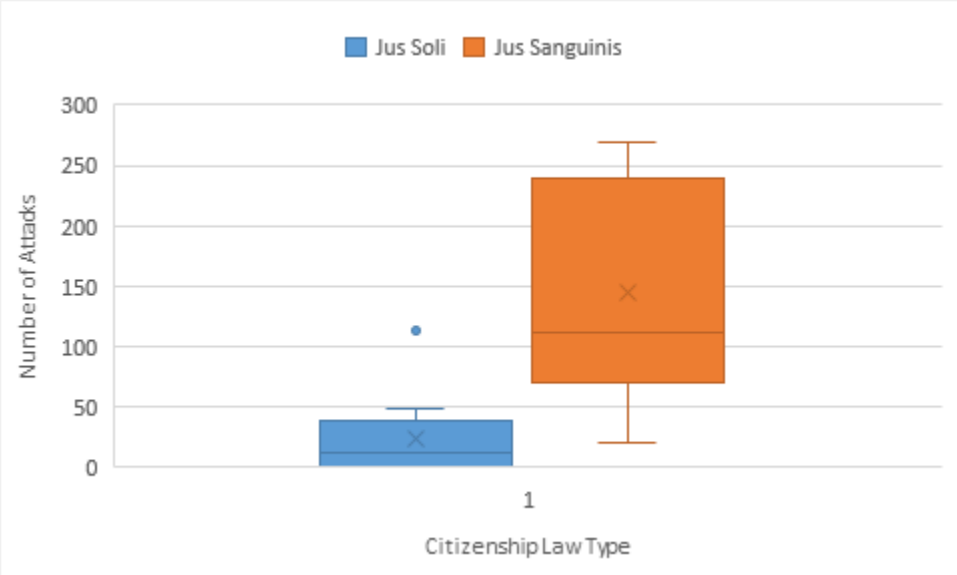

Figure 11: Citizenship Type and Terrorist Attacks in India

Figure 11 shows the negative relationship between citizenship law type and the number of terrorist attacks India suffers. As expected, *jus soli* years, which is coded as 1, experienced less terrorism than the years of *jus sanguinis* citizenship laws, which is coded as 0.

7. Discussion

After looking at the data in various ways, the conclusions pertaining to the hypothesis are mixed. It was only in looking at the interaction effect between law type and religious fractionalization that an isolated negative relationship was exhibited for law type. This relationship is not statistically significant however. In the cluster of equations performed

to look at the effects, it is the equations that report the lower end of religious homogeneity that reports fewer incidents of terrorism, regardless of the country's nationality type.

While the statistical results were mixed, the theory should not be dismissed without further thought. The dataset expands across over a hundred countries, but it only looks at the terrorist attacks in 2007. In a future study researchers may choose to expand these data and create a panel, as to explore incidents of terrorism across countries for several years.

Using the GTD database there are 1689 domestic terrorist attacks in 2007 spread amongst 53 countries. The database separates terrorist incidents into three categories: transnational, domestic, and uncertain. There are 39 attacks reported as uncertain for the year 2007. While the database is very comprehensive, there are uncertainties and there is the possibility that incidents were not reported or recorded. As such, any conclusions have to be qualified.

In this study, societal divisions were operationalized in terms of ethnic and religious fragmentation. Linguistic fragmentation was also taken into account, but this variable was later dropped due to the lack of available data. The two fractionalization measures were coded based on the data provided by the CIA World Factbook. While this works for religion and ethnicity, future studies should seek to assess the effects of linguistic differences by relying on a more comprehensive database, so it could be included in future regression models.

It may also be the case that the validity of the measure of citizenship law type may be revisited in a future study. *Jus sanguinis* countries were coded as 0 and *jus soli* as 1. The data for this was provided by NumbersUSA. While birthright law countries are clearly outlined, *jus sanguinis* countries are not as clear. NumbersUSA distinguishes its categories as countries that have retained *jus soli* and countries without *jus soli*, as opposed to countries with *jus sanguinis.* In most cases, countries that are not *jus soli* and not completely *jus sanguinis* countries are mixed to accommodate for stateless persons or refugees. Because of these circumstances countries without *jus soli* are acknowledged as primarily *jus sanguinis* in normal circumstances and coded them as such. However, future researchers may want to further explore these distinctions and see if a different operationalization produce different results.

Another approach used was to look at India's shift from *jus soli* to *jus sanguinis* citizenship laws. Due to the timing of the shift, the available data ranges 11 years prior to and post 1987. The results here are favorable, providing evidence for the theory. However as previously mentioned, these results should not be blindly accepted. Several other countries have made a similar switch in the last twenty five years, including Australia, New Zealand, Ireland, and France. Once the data becomes available for these countries, it would be important to run regressions and look at how terrorism changes in these countries as their laws change.

8. Conclusion

Terrorism is a phenomenon that affects everyone, directly or indirectly. Procedures, like the ramped up airport security, are put in place to mitigate the risks of such attacks. Some countries experience little to no attacks, while other countries experience almost two attacks a day of just domestic terrorism. This paper recognizes that terrorism affects different countries at different frequencies and introduces citizenship law type as a possible determinant.

This paper theorized that countries with *jus soli* laws in place would experience fewer attacks of domestic terrorism. In countries that practice birthright citizenship laws, it is hypothesized that outwardly characteristics of difference would be less salient than they are in blood law countries. This argument recognizes that in nations with *jus sanguinis* laws, citizenship is privileged by blood relation. In *jus sanguinis* countries certain characteristics are likely to be defining as the citizen is born into a family, which is part of a community which further contributes to the identity of the country as a whole.

Using data compiled by NumbersUSA, the independent variable, citizenship laws, is categorized as either 0 or 1. The number of terrorist attacks that a country experienced in 2007 was the dependent variable. To assess the hypothesis a number of regression models are estimated, while controlling for alternate causes such as fractionalization, controlled for both religious and ethnic fragmentation. Countries with *jus soli citizenship* laws were expected to experience the same amount of attacks, despite the level of homogeneity. When looking at the interaction effect between law type and religious fractionalization, however, the level of homogeneity was important whereas law type seemed to have little, if any effect.

The unit of analysis were different countries in 2007. Separately, the hypothesis is examined exploring variation in India over time. In 1987 India's nationality laws changed from *jus soli* to *jus sanguinis.* In this scenario the eleven years leading to the switch and the eleven years thereafter were observed. The results here were quite dramatic, supporting the hypothesis. India, during its *jus soli* years, experienced 226 fewer attacks than during later time periods. The exponential increase of attacks requires further investigation, because it is not expected that citizens' perceptions

to change as dramatically as the effects. While this is result is consistent with the hypothesis, more research is needed substantiate it and rule out alternative explanations. There are several other countries that have switched from birthright to blood right laws. Ideally, a panel would be created to look into the various different countries simultaneously, but as of right now the data still needs to be collected.

When running the regressions on the 2007 data, the data contradicted the expectations of this paper. The relationship which should have been negative was positive. When looking at the relationship between law type and fractionalization, law type had a negative coefficient when interacting with religion, but it was positive with ethnicity. The results are mixed, but more research and scrutiny of the hypothesis are necessary if the hypothesis is to be rejected. This paper offers another avenue to explore the rate of frequency in which domestic terrorism occurs.

9. References

1 .Abadie, Alberto. 2006. "Poverty, Political Freedom, and the Roots of Terrorism." *The Economics of National Security*, 96(2): 50-56.

2 .Blimes, Randall J. 2006. "The Indirect Effect of Ethnic Heterogeneity on the Likelihood of Civil War Onset." *The Journal of Conflict Resolution,* 50(4): 536-547

3. Enders, Walter and Todd Sandler and Khusrav Gaibulloev. 2011. "Domestic versus transnational terrorism: Data, decomposition, and dynamics." *Journal of Peace Research* 48 (3):319-337.

4. Gurr, Ted Robert. 1993. "Why minorities rebel: A global analysis of communal rebellion and conflict since 1945." *International Political Science Review*, 14(2): 161-201

5. NumbersUSA. 2009. "Nations Granting Birthright Citizenship." Retrieved: Feb. 2, 2018, from the NumbersUSA website: https://www.numbersusa.com/content/learn/issues/birthright-citizenship/nations-granting-birthright-citizenship.html.

6. Piazza, James A. 2011. "Poverty, minority economic discrimination, and domestic terrorism." *Journal of Peace Research*, 48(3): 339-353.

7. Scott, James Brown. 1930. "Jus Soli or Jus Sanguinis." *The American Journal of International Law,* 24(1): 58-64.

8. Shahrouri, Nahla. 2010."Does a link exist between democracy and terrorism?" *International Journal on World Peace,* 27(4): 41-77

9. Tavares, J. 2004. "The open society assesses its enemies" *Journal of Monetary Economics, 51(5):1039-1070*

10. Woo, Yu Jin. 2017. "Public Perception Toward Migrants: Citizenships Laws Matter?" *Stanford University.*