# Stuck in Traffic: The Effects of Regional Trade on Human Trafficking

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#### Abstract

Human trafficking represents one negative side affect of an increasingly interconnected, globalized world. What characteristics of regional trade drive bilateral human trafficking flows? Resource dependent states, or states with an economy established primarily through resource exports, interact with more industrialized states to push and pull populations into human trafficking schemes as a byproduct of economic and political linkages. The adverse conditions of resource dependence push populations into trafficking networks while traffickers and trafficking victims are drawn to economic opportunity in more stable regional trade partners. This theory is tested using ordinal logistic and OLS regression, utilizing cross sectional and time series datasets that capture both trafficking flows and state efforts to combat trafficking. The analyses support the theoretical expectation that economic linkage between resource dependent states and industrial states is positively associated with human trafficking rates for both destination and source countries. In conclusion, different causal factors for human trafficking may be at work in source and destination states.

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#### Introduction

Human trafficking is an issue that has captured the attention of Hollywood, the media, and governments across the planet. Some consider trafficking a threat to global security, as countless numbers of individuals are moved across state borders without the knowledge of sovereign countries (Shaw 2004; Dinan 2008). Many see it as a human rights issue, where victims are pushed into coercive situations by poverty and abusive regimes (Cho 2011b; Kelly 2005). Others see it as an organized crime network seeking to exploit vulnerable populations to make a profit, much like any drug or gun trafficking ring (Williams 2008; Icduygu 2002). Still, some researchers see the issue as an inevitable byproduct of the modern international political economy (True 2012; Kyle 2011). Each approach improves our understanding of the causes and consequences of trafficking, but scholars still have an incomplete understanding of the phenomenon.

In this paper, I seek to help improve our understanding of trafficking patterns by investigating whether or not resource-dependent states create a socioeconomic structure that promotes trafficking into their more developed, secondary producing trade partners. When discussing trafficking routes and destinations, a region transcends national boundaries by including the resource dependent state and any regional trade partners. While most research has focused on human rights or criminal justice systems when analyzing the causes and effects of human trafficking, I determine if the economic relationship of resource dependent states and their trading partners promote trafficking. Some other national characteristics examined here include: 1) economic characteristics,

such as: wealth in terms of GDP per capita or state of industrialization for each state respectively; and 2) political characteristics of both the source and destination states, such as levels of corruption, income inequality, or institutional strength. Understanding what kind of political and economic characteristics allows traffickers to function will help researchers better understand why traffickers operate more heavily in some areas and less heavily in others. This research has potential policy implications by identifying the unique trafficking mechanisms present in source and destination states, thus allowing governments to more efficiently apply their counter-trafficking efforts.

## **Literature Review**

# Section 1- Definitions for Trafficking

Although trafficking has drawn the attention of numerous governments and international organizations, there is little consensus on definitions differentiating human trafficking from human smuggling. It is important, however, to clearly distinguish between the two so that future research, and this project in particular, can build upon current and past literature without having to argue whether or not they are separate phenomena.

One of the most accepted official definitions for human trafficking comes from the Palermo Protocol, or the United Nations Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, adopted by the United Nations General Assembly in 2000. The Protocol defines human trafficking as:

"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.

In this paper, human trafficking differs from human smuggling when the individuals transitioning across borders are exploited for the financial gain of the traffickers upon arrival or during the transit phase (Kyle 2011; Gallagher 2002; Salt

1997; Raimo 2003; Apap 2002, Balarezo 2013). It is also worth noting that traffickers use the people they traffic as "goods" to be sold or exploited. To avoid normative questions in this paper, these trafficked individuals are primarily referred to as victims, though it is still important to understand the profit-minded nature of human trafficking. This is not intended to belittle the value of human life, but to emphasize the primary drivers of human trafficking from an objective standpoint.

Traffickers often function within the context of a network, wherein an individual, other than the guide, will receive the victims and move them into exploitive situations (Icduygu 2002; Kyle 2011; United Nations 2010; Dinan 2008; Raimo 2003; Lee 2011; Simmons 2010). Trafficking involves three main steps: recruitment of vulnerable populations, transportation of victims across borders or sub-national regions, and exploitation of victims for private monetary gain (United Nations 2010; Von Lampe 2003). In this paper, I will focus on both the trafficking of humans within and across national borders, the last two steps in the process above.

Though not explicitly tested for in any of the models in this paper, sex trafficking often flourishes under the same conditions as labor trafficking. Other forms of human trafficking can include child labor (EUROPOL 2011), organ trafficking (Bowden 2013, Balarezo 2013), or forced marriages (Hossain 2001, Balarezo 2013). Labor trafficking, which is the focus of this paper, is the movement of people to be used as forced labor, whether by the state, rebel groups, or private agents. (EUROPOL 2011; Jägers 2014; ILO 2005; Bales 2007, 2009).

The International Labor Organization proposes several indicators for forced labor, including: threats or actual physical harm, restriction of movement, debt bondage, withholding of wages, retention of passports, or threat of denunciation to the authorities (Bales 2009, 34). The majority of trafficked men will be moved for this purpose, though children and women also represent a significant portion of labor trafficking victims (Jägers 2014). These trafficked victims and those under forced labor represent significant hidden populations in many states, and their presence likely have very real social, political, and economic ramifications. Many labor victims begin as illegal migrants or partners in an employment contract, but have their identification documents taken from them upon arrival. They are then told that they have incurred a "debt" that they must pay off. The individuals are forced to work and live in poverty for little to no pay so that they can never escape the system (Kyle 2011; Bales 2009). Globalization, notwithstanding the aggregate benefits, has given rise to this new group of people, known as "survival migrants" (Bimal 1998). Many of these migrants will quickly become victims of labor trafficking in developing states with new industrial sectors hungry to meet the needs of supply and demand.

#### Section 2- Theoretical Approaches

The three main theoretical approaches to human trafficking are: the human rights/victim approach, the criminal justice/trafficker approach, and the political economic/business approach. The human rights approach emphasizes the role of poverty and abusive regimes in pushing people into trafficking schemes (Cho 2011b; Gallagher 2002; Kelly 2005). This approach is the most well known, as media outlets have repeatedly drawn attention to sex trafficking. It has an inherent normative tone, as prostitution, sex slavery, and the idea of a "perfect victim" appeal to both religious and gender rights groups (Uy 2011). Because this approach focuses mainly on sex trafficking

and gender rights, it does not describe the full realm of causal mechanisms for human trafficking.

The criminal justice approach more closely examines the criminal networks that make up trafficking organizations and the prosecution and/or prevention methods of governments (Salt 2002; Lee 2010; Raimo 2003; Felsen 2005). This approach tends to focus exclusively on failures of national security apparatuses, such as border security (Chacon 2009). The policy recommendations of this approach are to strengthen border security, strengthen immigration procedures, and more clearly document immigrant workers. This approach ignores the fact that many trafficking victims are coerced, and therefore enter a country using legal documentation. It also does not analyze the causal mechanisms of human trafficking for either the traffickers or the victims, and instead treats human trafficking as a failure of the state national security system.

Finally, the political economic approach examines human trafficking as a business. This approach operates on the assumption that traffickers' behavior is driven by a desire to maximize their profits (Aydan 2011; Belsar 2011; Raimo 2003). Traffickers will operate in regions and countries where they can get the most for their "goods". This approach captures the driving factors for both traffickers and victims, while also including the systemic mechanisms that make trafficking profitable and possible.

While each approach offers a new perspective and offers different policy recommendations, my theory asserts that the political economic approach most clearly addresses the systemic causes of human trafficking. This study expands upon existing political/economic human trafficking literature and provides a more fully developed view of the core economic driving factors behind human trafficking between trading partners. Building off of the findings of Balarezo (2013) and the political/economic human trafficking literature, I argue that highly corrupt states with porous borders, high levels of income inequality, and strong economic linkages with neighboring states will have higher rates of human trafficking. Since industrial states need access to cheap labor to make their goods, businessmen and corporations might seek the aid of traffickers in cutting down labor costs (Aydan 2011). As less developed states seek to maximize their economic output, they turn their focus towards gaining a comparative advantage over other developing states. Some research suggests that using forced labor can provide those states with said advantage (Busse 2002; Belser 2011). One of the goals of this project is to fill a gap in the human trafficking literature by considering the effects of resource dependence within states.

## Section 3- Effects of Resources on States

Reliance on natural resource export rents as the primary form of state income can create the national and subnational characteristics that make trafficking more likely in a region. In this paper, resource dependence is not defined by a specific threshold, but by percent of GDP generated from resource exports rents relative to the second state in a trade dyad. The distinction between the resource dependent (or primary producer) and manufacturing state (or secondary producer) will be further explained in the theory section. The resource dependent state can be all three types of trafficking hubs: source, transit, and destination. I argue, however, that the resource dependent state is most likely to be the source country, while the secondary producer will be the destination. Victims will likely be moved out of the economically weak state and into a more developed,

stable state that needs access to cheap labor. Thus, it is important to understand some of the broad effects resources can have on a state.

Natural resources are a valuable economic tool for developing states. The Middle East has taken great leaps towards modernization on the back of oil revenues. Malaysia, Thailand, and China have all used their natural resources to transition into semi-industrial or industrial economies. Brazil used its wealth of resources to develop into a more modernized society. Resources provide raw materials upon which to develop a functioning economy, yet many seem to suffer from economic downturn nonetheless. One explanation for this phenomenon is that the discovery of resources in a state will pull capital and investment away from non-resource sectors (Leite 1999; Tornell 1999). Traffickers can draw those suffering from this transition into coercive labor schemes. Also, the state often begins to invest heavily in resource-sector infrastructure, while ignoring other public goods (Leite 1999; Tornell 1999). The ensuing rent-seeking by public officials and drop in labor demand provides access to vulnerable populations for traffickers to exploit. This can also lead to the weakening of institutions, allowing traffickers to operate with impunity. Sachs and Warner, amongst other researchers, argue that resource dependent states may even democratize later than other countries and are more likely to have corrupt, autocratic regimes (Sachs1999; 2001; Prichard, 2014). Unfortunately, only high levels of democratic institutionalization are able to combat the ensuing corruption, and opportunities for trafficking (Frederick 2011; Mehlum 2006).

Reliance on resources can also lead to increases in corruption (Leite 1999, 2002; Ades 1999; Treisman 2000; Isham 2005; Aslaksan 2007). Under these conditions private actors and politicians will begin a campaign of rent-seeking behavior that encourages high levels of corruption as a way to purchase support from the elite (Hodler 2006; Frederick 2011). Even high-level political leaders are not immune. Robinson argues that politicians can use resource-sector rents to get reelected (if in a democracy) or remain in power (if in an autocracy), thus further weakening democratic institutions (2006). High levels of corruption and the ensuing effects of rent-seeking can cripple a state, especially in their efforts to combat human trafficking. Though the connection between resource dependence and human trafficking has not been studied, to my knowledge, I argue here that the effects of resource dependence create the conditions that can facilitate trafficking. My goal in this project is to bridge the gap in the existing literature on resource dependence, regional trade, and the existing literature on human trafficking.

### Theory

I theorize that resource dependent states are partners in a vicious cycle with secondary producing states in driving populations into human trafficking schemes as a byproduct of regional trade. Resource dependent states exert "push" pressures that facilitate human trafficking while secondary producers create "pull" effects on the populations of their resource suppliers. I build of the work of Balarezo and argue that traffickers respond to the economic forces of supply and demand (2013). I also assume that traffickers' behavior is driven by a rational choice perspective concerning their "businesses". In other words traffickers will evaluate the utility of their decisions based on two things: 1) Traffickers seek to maximize their profits; 2) Traffickers seek to minimize risk to themselves and their business.

# Section 1- The Push Factors

States that focus the majority of their economy on resource extraction and development suffer from several common effects: 1) high levels of corruption, 2) government rent-seeking, 3) high levels of income inequality, 4) economic instability, and 5) low institutional strength (Leite 1999; Hodler 2006; Robinson 2006; Frederick 2011). I propose that each of these effects are theoretically linked with human trafficking and serve as facilitators for the industry itself.

Resource dependence increases corruption within states, which is often seen as the primary mechanism for facilitating the operations of trafficking networks

(Bhattacharyya 2010). Traffickers bribe immigration officials, business leaders, and politicians, whether through monetary bribes or sexual favors from their victims, to allow their goods to safely pass along trafficking routes (Salt 1997).

Reliance on primary resources also leads to an increase in rent-seeking behavior. Resource rents are the excess profits that can be made from cheaply extracting natural resources and then selling them at a much higher price than the cost of production (Barma 2012). Rent seeking is when individuals, governments, or companies dominate a market and use the profits for personal gain. Rent-seeking acts as a centralizing force in the economic sector and leads to severe deprivation of capital and investment from other aspects of the economy (Leite 1999). As government spending on infrastructure outside of the resource industry declines, economic opportunities for large swathes of the population become limited (Nankani 1979). I argue that this lack of opportunity pushes many to seek employment opportunities abroad. Complex immigration laws and resistance by foreign governments forces many of these people to seek the help of agents within illicit trafficking networks, as legal immigration is often not an option.

Furthermore, rent-seeking and corruption contribute to severe income inequality (Hodler 2006). Combined with the volatile nature of the resource market, income inequality can quickly lead to severe social inequality. I theorize that as economically marginalized populations are excluded from many aspects of government and society, they are pushed into trafficking schemes and away from their homelands. Additionally, state dependence on resource exporting rents can increase economic instability. If the value of any resources drops due to an increase in supply in other countries or a decrease in demand, state income will suffer. This can contribute to the "push" of vulnerable

populations in the direction of traffickers as they seek economic stability in other countries.

Natural resource-based economies can also severely weaken the institutional strength of the government (Hodler 2006). As the state increases its reliance on resource exporting rents, the government no longer depends on the people regarding taxation or contribution to the economy. This can lead to decreases in welfare and public good spending. State officials can use resource export rents to stay in power through patronage, bribes, or monetary gifts to the elite. This further erodes the state's capacity to combat corruption and prevent traffickers from crossing national borders. As the quality of institutions begins to erode, the government loses its connection to the public, and vice versa. This can provide traffickers the freedom to exploit and transport groups seeking more social benefits in other countries. These populations, ostracized by their own states, cannot seek the help of foreign governments once they have been trafficked. If they do, they run the risk of being arrested or deported as illegal immigrants. This strengthens the traffickers' hold on their victims across both destination and transit states.

I posit that corruption, rent-seeking, income inequality, economic instability, and weakened institutions work in tandem to push populations away from resource dependent states. If these populations stay in their home countries, they face a severe lack of economic opportunity and government aid. Under these conditions, populations attempt to leave the country in order to find greater opportunity in other states. This leads to my first four hypotheses.

*H1*) The higher the ratio of resource rent exports to total GDP in a state, the higher the amount of trafficking out of a state.

# Section 2- The Pull Factors

I specify in hypothesis 1 that I expect an increase in trafficking outflows from the source state. Logically, an increase in outflows in one state should lead to an increase in inflows in another. I theorize that the regional trade partners of the resource producing state will pull traffickers and their victims into their country. These trading partners are likely using the resources of the resource dependent state to create secondary. manufactured products. If traffickers seek to maximize their profits, then it is intuitive for them to seek out buyers in wealthier states where there is a demand for cheap labor. These secondary producing states will seek to attain a comparative advantage against other manufacturing states, increasing the demand for cheap labor. Developing states are also more likely to have low labor standards in the proverbial "race to the bottom" (Davies 2013), making it easier for traffickers to hide their victims amongst other laborers in an already poorly-regulated industrial sector. This manifests itself broadly in poor regulatory quality within the secondary producing state. The government chooses not to regulate the economy or grow the private sector. In many ways, as these states are pressured to lower the costs of their goods while also increasing production, we see mechanisms of globalization facilitating the expansion of human trafficking.

I argue that traffickers drawing their victims from resource dependent states will also target regional trading partners because close political, economic, and cultural ties result in relatively more porous and increase the ease of access into states (Balarezo 2013). I assume in this paper that traffickers will seek out the safest routes, or routes in which they are the least likely to get caught by the authorities (Balarezo 2013). I also argue that they will seek the easiest routes, or routes that will allow for quick and cheap transportation of victims (Balarezo 2013). The easiest routes are more than likely going to include the shortest possible distance between source and destination country, especially if the majority of the travel will be in the form of walking or driving. This may seem counter-intuitive, since more conventional, short routes, like guarded border crossings, airports, or train stations are often the most heavily monitored. The traffickers must evaluate which routes give them the most utility in terms of profitability and secrecy. These networks often operate within the same communities as their target populations. They may share a common culture and language, which allows traffickers to quickly manipulate potential victims into positions of vulnerability. This is why victims often give their consent to false job opportunities without realizing they might be falling victim to a trafficking scheme.

Victim consent is an effective tool for the traffickers. If they deceive their victims into believing that they are being offered a better life, then migrants are more likely to cooperate along the journey. This lowers the risk of detection for the traffickers and makes the transit phase much easier. Also, cooperation by the victims means that traffickers can choose the safest, more heavily monitored routes without significantly increasing the risk of detection. Uncooperative victims might force traffickers to transport them along less conventional means, like shipping containers on boats, mountain passes, or illegal routes outside regular border crossings. This eliminates most of the risk of detection but increases the risk of the death of the victims, thus nullifying their worth to the traffickers. It also increases the cost in monetary investment, mostly in the form of food, water, and shelter for the victims. Traffickers might also need consent to limit traveling duration, since mountain passes and illegal routes will take longer than public transit and increase operating costs (Lee 2011; Balarezo 2013). That being said, traffickers still resort to more abusive and forceful methods if it provides them the greatest utility.

I further theorize that two politically and economically linked states will lower travel barriers as they seek to encourage mutual trade. This dynamic can serve to facilitate new transit options for traffickers to exploit. The European Union is a clear example of this. Once inside the Schengen Zone, there are little to no travel restrictions between EU members. Traffickers will have less utility for illegal crossings, which are often more difficult and dangerous, when they can simply walk, drive, or ride a train across international borders. Often times, as economic ties increase, the two states will invest heavily in infrastructure to facilitate trade. This leads to an increase in border crossings, including bridges, roads, and other trade routes, each of which gives the traffickers another possible crossing point.

While these routes might still have some oversight by the government, traffickers have several ways to mitigate the risk of detection. Trafficking networks often disguise themselves as perfectly legitimate travel agencies or international businesses (Kyle 2011). They can forge documents for their victims (though most victims use their legal ones) to make the transition phase smoother. This places the victims into more of a "client" position throughout the transit phase, further increasing the perceived legitimacy of the trafficking operation.

This leads to the second hypothesis.

*H2)* The greater the economic/political links between a secondary producing state and its regional trade partners, the higher the rate of trafficking inflows to the secondary producer.

Once again, I specify that an increase in regional trade will lead to an increase in trafficking inflows for the secondary production state. Traffickers are responding to the pull effects of supply and demand for labor, much like any licit corporation would. Traffickers choose to make the secondary producers their destination states, fully recognizing the demand for labor and the potential for high profit margins.

# **Research Design and Methodology**

*Dependent Variable 1/Model 1-* The temporal domain for this model is the year 2006 and includes 408 dyads. This model is a cross-sectional ordered logit using an ordinal dependent variable from the work of Balarezo (2013). She recoded the "traffic linkage" variable used in the Cho 3P index into four categories: no flows, low flows, medium flows, and high flows (Cho 2011). The Balarezo variable, coded as "*HTflow*" in the dataset, is collected from the 2006 UNODC Global Report on Trafficking in Persons (2013). The report shows data on both transit and destination countries for actual recorded human trafficking events. This document is exclusive to the year 2006 and cannot be considered a complete record of human trafficking, as most of trafficking remains undetected. Additionally, the transit state may not be the actual source state for each observation, but, for lack of alternatives, will be considered the source state in this project.

**Dependent Variable 2/Model 2-** To make up for this lack of robustness and capture human trafficking over time, this paper includes a second time series analysis using OLS regression with the Cho 3P index (2011). This index measures the efforts of states to combat human trafficking through three categories: prevention, protection, and prosecution. There is also an aggregate score coded for each country on a 3-15 scale, which is what is used in the analysis, coded as "*overall\_3p*". Cho constructed this index to measure government efforts to combat human trafficking within their borders. Though far from a perfect measure for human trafficking flows, it is reasonable to think states that

score higher on the index will experience lower flows of human trafficking into and out of their borders. This model complements the first in helping us understand what causal mechanisms may influence trafficking rates in both destination and source countries from a slightly altered perspective. I incorporate independent variables in this model that could not be included in the first due to a small sample size and limited degrees of freedom. The temporal domain for this model ranges from 2000 to 2009 and includes 27,768 dyads. This temporal domain is used because it is the full range used in the Cho 3P Index.

The primary independent variable in both my models is recourse dependence. I also test several control variables in the models that the literature asserts are important mechanisms in facilitating human trafficking. They can be broken into two main categories: measures for the push effects of resource dependent states (hypothesis 1) and measures for economic linkages between countries (hypothesis 2). The first group of variables consists of factors that serve to push individuals into the schemes of traffickers as they seek greater economic and social stability outside their origin country.

### **Primary Variable**

1) Resource Dependence- This variable is operationalized as the total percentage of GDP per capita captured resource rent exports. This can be found in the World Bank Indicators and is coded in the dataset as *"resource\_dependence"*. Resource dependence is tested in both the OLS models as well as the Ordered Logit models.

# **Control Variables**

2) Corruption- Corruption is measured using the Corruption Perceptions Index (CPI hereafter), which uses a 0 (high corruption) to 100 (low corruption) scale. The variable is coded in the dataset as "*corruption*" using a 10-point scale in place of the 100-point scale. Corruption is commonly accepted as one of the most prominent causal factors of human trafficking.

**3) Income Inequality-** This variable is operationalized using the GINI Index in the World Bank Indicators. The index uses a 0 (perfect equality) to 100 (perfect inequality) scale, measured by the area between the Lorenz curve and a hypothetical line of absolute equality expressed as a percentage of the maximum area under the line. The variable is coded in the dataset as "*gindex*" using the 100-point scale. Income inequality is tested in the OLS model only. While it would be ideal to include it in both models, incorporating the gindex variable in the logit models significantly limits the *n* values in both source and destination states due to missing data.

The concept of institutional strength is broken into four variables, each of which tap into a different aspect of state institutional strength. They are all measured by the Worldwide Governance Indicators (available from the World Bank) on a -2.5 (weak) to 2.5 (strong) scale of government performance. They are: regulatory quality, rule of law, voice/accountability, and government effectiveness.

4) Regulatory Quality- This variable measures the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. It is coded as *"regulatory\_quality"* in the dataset. Regulatory quality is only tested in the ordered logit models, as those models are more economic focused

since they test the relationship of the independent variables on actual, measurable trafficking rates as opposed to the 3P proxy.

5) Rule of Law- This variable measures the extent to which agents have confidence in and abide by the rules of society. In particular, it caputres the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. It is coded as "*rule\_of\_law*" in the dataset. This variable is only tested in the OLS models, as those models capture government responses to human trafficking.

6) Voice/Accountability- This variable measures the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. It is coded as *"voice\_accountability"* in the dataset. This variable is only tested in the OLS models since it captures government effectiveness and response to human trafficking.

7) Government Effectiveness- This variable measures the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. It is coded as "government\_effective" in the dataset. Again, this variable is only tested in the OLS models.

The next major group of variables measures the level of economic linkage between countries. These economic linkages open up safer and quicker routes for traffickers to exploit when trafficking victims cross national borders.

8) Bilateral Trade- This variable is measured by the total value of bilateral trade in US dollars between two countries. The data comes from the Correlates of War

database using International Monetary Fund data reports on sovereign states and their trading partners. Bilateral trade is coded as "*totflow*" in the dataset. This variable is only tested in the logit models as it represents economic linkage between two states and severely limits the *n* in the other models. This variable is especially useful since it captures the total economic value of trade in a dyad, measuring the magnitude of economic linkage in each.

**9)** Free Trade Agreements- This variable measures the total number of free trade agreements each dyad is jointly a party to. The data was coded by Balarezo to measure theporousness of borders (2013). This paper builds on her research by not only testing for political and economic linkage through FTAs, but also using the total value of bilateral trade between each dyad. She coded this variable using a count ranging from 1 to 36. The original data used to conduct her coding comes from the Regional Trade Agreements Information System at the World Trade Organization. This variable is tested only in the logit models and is coded as "*Number\_RTAs*" in the dataset.

In addition to these independent variables, the models control for population, wealth, distance, and contiguity. Population and wealth are measured by the World Bank Indicators in total population and GDP per capita, respectively. Population is coded in the dataset as "population" and wealth is coded as "*gdppc*". Distance and contiguity limit the effects of great distances on human trafficking. Both are measured using the GeoDist dataset from CEPII (Centre d'Etudes Prospectives et d'Informations Internationales). This dyadic dataset measures the distance between a dyad as well as codes a dummy variable for contiguity. Distance is coded as "dist" in the dataset and contiguity is coded as "*contig*" in dummy format.

Data Collection Issues- The lack of consensus on definitions for trafficking, along with poorly collected or incomplete data, makes it difficult for researchers to progress in the accumulation of knowledge regarding human trafficking (Dunne 2012; Tyldum 2010). Some states consider all trafficking victims illegal immigrants, and therefore do not document them as trafficking victims (Gallagher 2002). Not only do states have different definitions and recording methods, the activity itself is highly clandestine and targets hidden populations in states with low institutional strength (Bales 2007; Tyldum 2010; Chakarova 2015). Traffickers operate almost everywhere, whether it is in the shadows of cities or the rural countryside of developing countries. Those that do escape from the trafficking system are marginalized as illegal immigrants in a foreign country. They might not speak the language and they likely fear the authorities. Even if they make it back to their homes, many of them face rejection from their families due to the stigma of being forced into prostitution or demeaning manual labor for little to no pay (Chakarova 2015). All of these factors, the clandestine nature of trafficking, the stigma of being a victim, recruitment from states with low institutional capacity, lack of transparency within states' record keeping, corruption levels in government, and lack of standardized definitions for trafficking, make it less likely that states or researchers will be able or willing to document victims of trafficking (Salt 2002). Without this documentation, most statistical analysis must be done on a state-by-state or regional level. For this reason, my study exclusively focuses on regional trade, as trafficking across longer distances is poorly documented.

#### Results

Table	1:(	Ordered	Logit	for S	Source	States
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Trafficking Flows	Coefficient	P> z
# of FTAs	0.036	0.000***
Regulatory Quality	0.696	0.010**
Total Bilateral Trade	0.000	0.000***
Resource Dependence	-0.001	0.823
Corruption	-0.250	0.053
Notes: ***p<.001; **p<.05	N=408	

There are a number of striking results from this model, which analyzes the relationship between human trafficking flows and the total value of bilateral trade for 408 dyads in the year 2006. Keep in mind that these first two models capture relationships within source and destination states separately. First, hypothesis 2 is supported by the positive relationship between # of FTAs and total bilateral trade with high flows of human trafficking. Table 1 shows that the higher number of trade agreements a state has, the more likely it is to be the source of higher flows. Both are found to be statistically significant factors in predicting high trafficking flows from a source state. Secondly, both resource dependence and corruption are found to be statistically insignificant. This is surprising for several reasons. Corruption is widely held to be a strong causal mechanism in source states for human trafficking, yet it is insignificant in this model. Resource dependence, which I argue causes high levels of corruption, income inequality, and rent-

seeking behavior, was also found to be insignificant. Finally, regulatory quality was found to have a positive relationship with human trafficking.

Trafficking Flows		Coefficie	P> z
	nt		
# of FTAs		-0.031	0.020**
Regulatory Quality		0.762	0.003**
Total Bilateral Trade		0.000	0.000***
Resource Dependence		0.116	0.058
Corruption		0.222	0.015**
Notes: ***p<.001; **p<.05	N=408		

# **Table 2: Ordered Logit for Destination States**

For destination states, resource dependence is not statistically significant, as shown in table 2. The relationship is positive, however, where there was a negative relationship for source states. Interestingly, the relationship of # of FTAs and human trafficking is negative in the case of destination states. Regulatory quality becomes positively correlated with human trafficking in this model, supporting my argument that traffickers will seek out more economically stable countries for their destination states. Corruption is significant in this model, but counter to the literature, has a negative relationship with human trafficking.

Total 3P Score	Coefficien	<b>P</b> > z
	t	
Rule of Law	-15.737	0.000***
Voice and Accountability	1.870	0.020**
Corruption	-0.856	0.047**
Resource Dependence	-1.002	0.000***
GINI Score	-0.281	0.000***
Effectiveness of Government	14.598	0.000***

# **Table 3: OLS Regression for Source States**

Notes: \*\*\*p<.001; \*\*p<.05 N=27,768

All variables were found to be statistically significant in this model for source states, as displayed in table 3. Surprisingly, rule of law was found to have a strong negative relationship with 3P scores. This was the only measure of institutional quality found to have a negative relationship in source states, which means there could be a fault in the data or the model. Voice and accountability and the effectiveness of the government are both positively correlated with strong government action against trafficking, which supports both hypotheses. Hypotheses 1 and 2 are also supported by these findings, as the effects of resource dependence include high resource export rents, high levels of corruption, and high income inequality.

Total 3P Score	Coefficien	P> z
	t	
Rule of Law	-15.567	0.000***
Voice and Accountability	-1.731	0.065
Corruption	-5.194	0.000***
Resource Dependence	-1.136	0.000***
GINI Score	-1.003	0.000***
Effectiveness of Government	26.023	0.000***

# **Table 4: OLS Regression for Destination States**

# Notes: \*\*\*p<.001; \*\*p<.05 N=27,768

Interestingly, rule of law and accountability were both found to have a negative relationship with 3P scores in destination states, though accountability was not statistically significant. Table 4 shows how relationship of corruption and income inequality to 3P scores was much stronger in this model, which supports the idea that corruption and social inequality are causal factors driving human trafficking in both destination and source countries. Government effectiveness also had a greater impact on 3P scores in this model.

### **Analysis and Conclusions**

Many of the findings in the ordered logit models run counter to my theoretical expectations. The results are highly volatile, however, which could be attributed to a low number of observations. Many of the results from these models were not supplemented by similar findings in the OLS model. For instance, the OLS model found that corruption was statistically significant and positively associated with human trafficking in both source and destination states. The logit model, however, found corruption to be insignificant in source states and negatively correlated with human trafficking in destination states. This could be due to limitations of the trafficking data, higher corruption reporting in more developed countries, higher reporting of trafficking events in non corrupt states, or even a product of the dyadic measures used in this project. In fact, the logit model consistently supports only hypothesis 2.

The inconsistencies in the results could be due to data limitations, but could also illustrate that separate mechanisms exist in source and destination states. Source states seem to experience higher levels of human trafficking when they share a high number of FTAs with their trade partners, but destination states show the opposite. Corruption is statistically insignificant in source states, but is negatively correlated with trafficking flows into destination states. Perhaps this is simply because destination states tend to be more developed, and corruption manifests self somewhat differently than in these states. These states may have lower levels of corruption, but the presence of corruption is still a key factor in allowing trafficking to occur. Due to the dyadic nature of the data, the

corruption level might simply just be higher relative to the source state. Though counter to the literature, these findings may indicate that corruption needs to be further studied in the human trafficking literature.

The OLS model had significantly more consistent results across source and destination countries. This model supported both of the hypotheses. Resource dependence, income inequality, low institutional quality, and corruption were all negatively associated with human trafficking (with the exception of rule of law). The inconsistencies across models could be attributed to the use of the 3P Index, which does not measure actual trafficking events, and the large disparity between sample sizes, but there does seem to be support for the presence of very real, and very distinct, push and pull factors at work across source and destination states. The inconsistency of the findings show that a single model cannot accurately account for both trafficking inflows and outflows. Instead, political scientists must narrow their research to the push or pull factors on a state-by-state basis. According to this study, economic and political linkages allow traffickers to operate, but the causal mechanisms for inflows and outflows are very different. Each should be researched independently so as to better understand which socioeconomic structures facilitate inflows over outflows or vice versa. This would allow trafficking scholars and governments alike to better understand the behavior of victims and traffickers. Scholars should also re-evaluate the role of widely accepted causal mechanisms such as corruption and income inequality in regards to human trafficking. Corruption is an important factor in allowing trafficking to occur, but it seems to interact with trafficking rates differently in source vs. destination states.

As political scientists move forward with empirical research on human trafficking, it is vital that they focus on improving data collection. Current data is severely limited in both scope and consistency. Most data is coded using annual qualitative government yearly reports. These reports sometimes focus narrowly on only one aspect of human trafficking and rarely directly measure actual human trafficking rates. So long as political scientists are unable to determine the magnitude or direction of trafficking flows, it will be difficult to empirically research causal mechanisms beyond the national level of analysis. While this may provide useful information to practitioners and scholars, it gives little perspective on what is a very globalized issue. Without more systematic data, it will be difficult for researchers to make significant progress into the understanding of human trafficking flows.

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