The correlates of sex trafficking in the United States

and the effect of legislation to prosecute traffickers

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Abstract

Human trafficking for labor and sexual services is a serious crime that incurs severe personal and social costs. Anecdotal evidence and qualitative research indicate that demand for sex trafficking in the U.S. is fueled by increases in the number of migrant workers and the use of internet advertising services, along with the presence of a large military population and a strong local economy. Concern over an apparent growth in trafficking led the U.S. Congress to pass legislation in 2000 designed to strengthen anti-trafficking efforts. However, few studies exist that analyze data on trafficking and that assess the impact of legislative responses. This study addresses this research gap by using fixed effect models to analyze the effect of factors relating to demand for the illegal sex trade on the incidence of trafficking and to analyze the effect of the Victims of Trafficking and Violence Protection Act of 2000 on federal trafficking prosecutions. Preliminary results show that trafficking charges are significantly and positively associated with increases in foreign-born populations and numbers of military personnel. Preliminary results also show statistically significant increases in the number and percentage of trafficking charges filed since the passage of the TVPA.
I. Introduction

Trafficking of men, women, and children into the United States for labor and sexual services is a serious crime that incurs severe personal and social costs. These costs are borne primarily by women and children. Federal law enforcement officials estimate that of those individuals trafficked into the U.S. in recent years, 70 percent were female victims who were forced into the commercial sex trade (Dalrymple, 2008). More recent estimates are even higher, indicating that almost 83% of reported trafficking incidents involved forced sexual services, with the remaining incidents concerning construction, farming, or domestic servitude (Kyckelhahn, Beck, and Cohen, 2009). Given that the majority of human trafficking involves the illegal sex trade, this study focuses on sex trafficking in particular, and uses the word “trafficking” to indicate sex trafficking, unless otherwise specified.

In this study, I use fixed effect models to analyze the effect of factors relating to demand for the illegal sex trade on the incidence of trafficking, using federal judicial districts as the unit of analysis and charges filed in trafficking cases as a measure of incidence. I also use the fixed effects approach to analyze the effect of the Victims of Trafficking and Violence Protection Act of 2000 (TVPA) (22 U.S.C. §§ 7101-7112) on federal trafficking prosecutions nationwide.

A. Debates over definitions

As of 2007, although 25 states had enacted anti-trafficking legislation, relatively few trafficking cases had been prosecuted at the state level (Center for Women Policy Studies, 2007). Instead, because trafficking operations frequently cross state and national borders, and because trafficking cases require extensive resources to investigate and prosecute, these cases are typically handled at the federal level.
Under federal law, a variety of longstanding statutes define and criminalize involuntary servitude, peonage, the slave trade, forced labor, and sex trafficking (see, e.g., 18 U.S.C. §§ 1581 et. seq. and 18 U.S.C. §§ 2421 et. seq). However, many of these statutes fail to reach “the more nuanced forms of coercion often used by modern traffickers to force victims into service, such as brainwashing, psychological coercion, or . . . blackmailing . . . .” (Venkatraman, 2003, pp 35-36).

Recognizing these limitations, Congress passed the TVPA in 2000, providing prosecutors with additional options for prosecuting trafficking cases involving psychological coercion. For example, the TVPA and its reauthorizations in 2003, 2005, and 2008, defined “severe forms of trafficking in persons” as:

(A) sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such act has not attained 18 years of age; or
(B) the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery (22 U.S.C. §§ 7102(8), emphasis added).

The act defines “coercion” as:

(A) threats of serious harm to or physical restraint against any person;  
(B) any scheme, plan, or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person; or  
(C) the abuse or threatened abuse of law or the legal process (18 U.S.C. §§ 1591(c)(2) emphasis added).

The definition used in U.S. federal law is by no means universally accepted, leading to difficulties in estimating the scope of the problem. For example, individual states may have broader or narrower definitions (see Center for Women Policy Studies, 2006). A 2000 United Nations Protocol offers one of the broadest definitions of trafficking, expanding the definition beyond coercion to include:
(a) . . . 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, or the abuse of power or of a position of vulnerability . . . to achieve consent of a person having control over another person for the purpose of exploitation (United Nations Protocol, Art. 3, 2000, emphasis added).

Moreover, on a global level, disagreement over the appropriate breadth of trafficking definitions has caused victim advocates, research groups, and non-governmental organizations to be openly hostile to one another (Bales, 2000). Many of these disagreements have their roots in diametrically opposed views of prostitution. Some groups argue that prostitution and related sex activity can be legitimate choices for some women (Kempadoo, 2005), while others argue that prostitution and sex trafficking represent violence or an abuse of power against women that is driven primarily by male sexual demands (Raymond and Hughes, 2001; Farr, 2005).

Trafficking definitions under U.S. law have also been the subject of considerable debate. For example, in the 110th Congress, the House and Senate provided different versions of the definition in their 2008 bills reauthorizing the TVPA (see H.R. 3887 and S. 3061, 110th Congress, 2008). Again, much of the debate centered over the inclusion of the terms “force” and “coercion” in the definition of trafficking (see, e.g., Women’s Policy, Inc., 2008).

Proving force and coercion in the prosecution of sensitive cases such as rape and sex trafficking has long been problematic (Kelly, 2003). Thus, some researchers and victims’ advocates have argued that proof of force or coercion should not be required in these cases (Anderson, 2005). The House reauthorization of the TVPA followed this argument, treating acts of trafficker fraud, force, or coercion as grounds for enhanced punishment, not as a baseline proof requirement for conviction. However, the definition that ultimately prevailed used the language of the original 2000 act, maintaining the requirement of such proof.
While acknowledging these definitional debates and the limitations inherent in the definitions used under U.S. law, this study focuses on trafficking and trafficking-related crimes as defined under current federal statutes. Such a focus is necessitated in part because enforcement of federal law is tracked in several databases and these databases provide the only available source of quantitative information regarding the enforcement of anti-trafficking measures in the U.S.

B. Prevalence of trafficking

In addition to definitional debates, an understanding of the prevalence of trafficking may also be complicated by media reports that confuse human trafficking with human smuggling. Although both crimes involve transporting people across national borders, smuggling typically suggests consent of the parties involved to be transported. In contrast, trafficking crimes include some element of deception, force, fraud, coercion, or exploitation on the part of the trafficker. Smuggling, however, may escalate into trafficking if the smuggler uses coercive or deceptive techniques to exploit a smuggled victim (Schauer and Wheaton, 2006). Estimates from national government and non-governmental organizations may group smuggled and trafficked persons together, further confusing the issue.

In considering trafficking victims alone, however, U.S. government officials estimate that between 14,500 to 17,500 people, primarily women and children, are trafficked into this country annually (United States Department of State, 2007). According to additional estimates, the U.S. ranks as the world’s second largest destination, after Germany, for women and children trafficked for sexual exploitation (Mizus et. al., 2003).

Despite the widespread use of these figures in trafficking research and reports, accurate estimates of the nature and extent of trafficking in the U.S. are difficult to obtain. The U.S.
Justice Department itself has noted the difficulty of developing accurate figures, arguing that such difficulties “reflect the challenges of quantifying the extent of victimization in a crime whose perpetrators go to great lengths to keep it hidden” (Schauer and Wheaton, 2006, p. 153). Although few criminal enterprises operate openly, trafficking of people is particularly covert. Trafficked victims are a mobile population that is moved by traffickers between states and countries, making interdiction difficult. Further, the potential for illegal profit is enormous, adding to traffickers’ need for secrecy. The United Nations estimates human trafficking to be a $5 to $9 billion-a-year industry worldwide, second only in profiteering to the illegal sale of drugs and armaments (United Nations Economic Commission, 2004). Indeed, Schauer and Wheaton (2006) argue that human trafficking is more lucrative than drug trafficking, in part because it holds fewer risks and because, unlike illicit drugs, humans may be sold and re-sold.

Public and legislative concern over the prevalence of human trafficking, particularly trafficking in women, has surfaced periodically throughout U.S. history. For example, in the late 19th and early 20th centuries, alarm over the expansion of prostitution and so-called “white slavery” led the 1910 Congress to pass its first anti-trafficking law, known as the Mann Act (Keire, 2001). Although the Mann Act “embodied the widespread belief that an organized interstate traffic in women existed,” that belief was never definitively proven (Keire at 11). In addition, hampered in part by the lack of prosecutorial resources at the U.S. Justice Department, the Mann Act failed to be the “regulatory revolution” that its proponents had hoped for (Teifenbrun, 2005).

Concern over human trafficking arose again in the mid- to late- 1990s, as scholars, anti-trafficking advocates, and government and legislative officials raised the alarm that trafficking was on the rise (see, e.g., Schauer and Wheaton, 2006; Raymond and Hughes, 2001; Farr, 2005).
Again, the increase has not been definitively proven. Instead, some researchers argue that this renewed emphasis on trafficking in general, and sex trafficking in particular, is being driven by white, intellectual feminists in the U.S. and Europe, and is clouded by elitist, cultural, and moralistic biases (Kempadoo, 2005). A few media reports have also countered the trafficking alarm, saying available evidence does not support alarmists’ concerns (see, e.g., Davies, 2009; Pratt, 2008).

Nevertheless, the belief that trafficking is increasing is widespread. Researchers and victims’ advocates have cited the increasing ease of global travel and immigration, along with the spread of the internet, as key factors behind the increase (see, e.g. Farr, 2005; Raymond and Hughes, 2001). Advocates further charge that the Justice Department, as at the turn of the century, has been hampered by either a lack of resources or insufficient political will to prosecute trafficking cases (Schauer and Wheaton, 2006). Despite the lack of firm quantitative evidence, government and law enforcement officials, along with victims’ advocates, are rarely contradicted when they state that human trafficking in general, and sex trafficking in particular, is one of the fastest-growing and most serious of all international crimes in this century (Schauer and Wheaton, 2006).

C. Associated factors

Although anecdotal evidence seems to indicate that organized crime groups in the U.S. and abroad control most trafficking operations, recent statements by public officials reflect a growing belief that small groups or even individual “entrepreneurs” control a higher percentage of the trafficking business. Schauer and Wheaton (2006) maintain that most trafficking into the U.S. is controlled by loosely connected groups of organized specialists. To facilitate their trafficking operations, these specialists appear to take advantage of certain geographic and
economic characteristics in a given area. For example, many reports indicate that the presence of heavily-traveled interstate highways and international seaports or airports help traffickers establish operations in nearby cities (see, e.g., Sheehan, 2006; Spener, 2001). Also, the presence of a U.S. military base tends to attract the same infrastructure of sex-oriented businesses that proliferate near military bases abroad (see, e.g., Sturdevant and Stoltzfus, 1992). This infrastructure often serves as the ostensible legal front for sex trafficking enterprises (Venkatraman, 2003; Raymond and Hughes, 2001).

In general, urban areas with well-established transportation systems and areas near military bases appear to have the stable economies and male-dominated populations that spur demand for the illegal sexual services that traffickers provide (Hughes, 2003). Trafficking in these areas also appears to be facilitated by the spread of internet advertising. Easily accessible internet advertising services such as Craigslist assist sex traffickers in expanding their operations (Raymond and Hughes, 2001; Walsh and Chanen, 2008). Craigslist officials themselves have recognized the problem. In 2008, under pressure from attorneys general in 40 states, Craigslist agreed to implement a variety of measures to discourage sex operators from using the service for illegal purposes (Stone, 2008).

In addition to geographic and economic factors, the incidence of sex trafficking also appears to be related to growth in the number of foreign-born migrant workers in certain regions (Demleitner, 2001; Raymond and Hughes, 2001; Vargas, 2008). According to FBI officials, roughly 23 percent of people trafficked into the U.S. arrive in the Southeast (Dalrymple, 2008), as a disproportionate share of migrant workers move into the region. This growth in migrant labor may be associated with an increase in human trafficking overall as well as sex trafficking specifically. For example, law enforcement officials in North Carolina and Georgia have
investigated cases of sex trafficking operations in isolated houses and trailers that traffickers have established in rural areas near migrant farm worker camps (Sheehan, 2006).

The women who are caught in these and other trafficking operations primarily come from Mexico, Asia, and former Soviet bloc countries, although the U.S. is a destination country for women from every source country of the world (Kyle and Koslowski, 2001). Of course, U.S.-born women and children, especially runaway minors, are victims of trafficking as well, particularly when the presence of “force, fraud, or coercion” converts a prostitution case into one of sex trafficking (Schauer and Wheaton, 2006).

D. Problems with prosecuting

Prosecuting the perpetrators of these trafficking operations can present more complex and difficult issues than those raised in the prosecution of other federal crimes. Prosecution of trafficking cases requires overwhelming amounts of paperwork and the full-time dedication of numerous investigators and U.S. Attorneys (Tiefenbrun, 2005). Further, trafficking victims, many of whom are in the U.S. illegally and who have a limited ability to speak and read English, are often afraid to appear in court. Investigators may have to work for months to convince a single victim to testify (Price, 2009). When prosecutors have required women to testify against “powerful, brutal traffickers,” their cases tend to fall apart because the women “crack and have a meltdown on the witness stand” (Freyer, 2008). The prosecution of trafficking cases is further complicated by the need to prove the element of force or coercion (see, e.g., Collins, 2007), and by a lack of training and knowledge among local police in differentiating between prostitution and trafficking (see, e.g., Schauer and Wheaton, 2006; Sweet, 2006). Given these difficulties, when compared with other federal crimes, prosecution of trafficking cases is relatively uncommon.
In light of concerns over possible increases in trafficking, difficulties in prosecuting trafficking cases, and a lack of resources to cope with the problem, Congress passed the TVPA in 2000 by an almost unanimous vote in both houses. Not only was the act designed to make prosecution of trafficking easier, it toughened penalties for traffickers, in addition to providing immigration, witness protection, and other types of services for trafficking victims (22 U.S.C. §§ 7101-7112). Advocates noted that following the TVPA’s implementation, benefits and services to victims did increase (Tiefenbrun, 2005). However, it is not clear whether the additional criminal provisions in the TVPA have made any significant impact on the arrest and prosecution of traffickers. According to at least one U.S. Attorney, the act has made it significantly easier for prosecutors to try sex trafficking cases (Tiefenbrun, 2005). In addition, the number of trafficking prosecutions under all relevant statutes, not just the TVPA, has increased since the TVPA’s passage. However, because the number of prosecutions for federal crimes in general – not just trafficking crimes - has increased since passage of the TVPA (Motivans, 2006), the overall impact of the TVPA on trafficking prosecutions remains unclear.

E. Prior research; justification for current research

That experts argue over the extent of trafficking in the U.S. and the impact of the TVPA on prosecutions is not surprising due to the lack of reliable qualitative and quantitative research on the topic in both government and academic circles. For instance, prior to 2003, the U.S. State Department had estimated that as many as 50,000 women and children were trafficked into the U.S. annually (United States Department of State, 2002). Officials revised those estimates downward following the adoption of better estimation techniques, yet some non-governmental organizations believe the figures to be even higher than the State Department’s original estimates (Schauer and Wheaton, 2006).
To date, with the exception of Motivans and Kyckelhahn (2006), little published research exists that quantifies and analyzes trafficking data, particularly longitudinal data. Few research dollars have been allocated towards funding longitudinal investigations into the causes of trafficking and assessments of the impacts of different policy responses (Laczko, 2005). For example, no statistical analysis has been conducted on the extent of trafficking nationwide, the correlates of trafficking across states, or the impact of the TVPA on trafficking prosecutions.

Recognizing the need for more quantitative data and studies related to trafficking, the federal government and some international organizations have recently responded with several data collection efforts. For example, Congress required biennial reporting on human trafficking in its 2005 reauthorization of the TVPA. In response, the U.S. Justice Department created a reporting system that collects data from state and local authorities relating to trafficking incidents; Kyckelhahn, Beck, and Cohen (2009) have summarized the first year of data collected under that reporting system. In addition, the Population Council’s Demographic and Health Survey incorporated trafficking-related questions in its most recent survey in the Ukraine, and the International Organization for Migration has also begun collecting detailed trafficking data as part of its broader migration work.

These data collection efforts remain incomplete. Thus, most previously published work on the trafficking has been anecdotal or grounded in qualitative studies or legal analyses of trafficking legislation (see, e.g., Raymond and Hughes, 2001; King, 2004; Farr, 2005; Chuang, 2006). Additional published work has been anecdotal, primarily in the form of periodicals and books documenting the stories of specific women in sex trafficking cases (see, e.g., Malarek, 2004). Other researchers have noted the need for independent, quantitative evaluations of the correlates of trafficking and of the impact of counter-trafficking laws (Laczko, 2005). Without
this research, they argue, policies and interventions are likely to be ineffective at addressing the problem (Tyldum and Brunovskis, 2005). This study begins to fill in the gap in quantitative research on the subject.

II. Theoretical framework

A. Demand for trafficking

Because previous research and literature on trafficking indicate that the crime has been fueled primarily by demand for victims’ work, this study examines the correlates of modern-day trafficking in the U.S. under the theory that it is likewise driven by demand. Thus, the models in this study examine specific demographic and economic factors that, based on previous research and government and news accounts, may be related to demand for the exploitative sexual services that trafficking victims provide.

Trafficking cases typically begin with an investigation of a potential trafficking crime by local, state, or federal law enforcement officials. If successful, the investigation leads to the arrest of a suspected trafficker and the filing of a charge against the trafficker by a prosecutor, usually in a federal court. At the filing stage, each charge represents an incident in which a U.S. Attorney has determined that probable cause\(^1\) exists that a defendant has violated a federal statute. Thus, an arrest and filing of a charge represent the first stage at which the government has officially determined that a reasonable person could believe a crime has been committed. This study therefore uses the filing of a trafficking charge as a proxy for the probable existence of an underlying incident of trafficking. No other quantitative measure of trafficking in the U.S. is currently available.

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\(^1\) As it is typically defined, probable cause “exists where the facts and circumstances would warrant a person of reasonable caution to believe that an offense was or is being committed.” Black’s Law Dictionary (2000). St. Paul, MN: West Publishing Co.
The study next examines the demographic and economic characteristics previously described that drive demand for trafficking. Demographic characteristics include the presence of a large military population, a factor which has long been thought to be associated with the illegal sex trade (see, e.g., Raymond and Hughes, 2001). Also, because demand for sex trafficking may be greater in areas with a higher proportion of migrant workers, the study analyzes the effect of the percentage of the population that is foreign born. However, the foreign-born population alone is not associated with trafficking. Instead, trafficking appears to be connected to the illegal immigration activity that may be associated with large foreign-born populations (see, e.g., Demleitner, 2001). Thus, the study includes changes in immigration-related crime as a demand factor as well.

Other criminal activity, such as the presence of organized crime syndicates and high levels of criminal drug activity, are also thought to be associated with trafficking (Kyle and Koslowski, 2001). However, organized crime and drug trafficking are likely to be related to the supply of trafficked persons, rather than to the demand for their exploitation. Thus, in its analysis of demand characteristics, the study does not include measures of drug trafficking and organized crime. In addition, geographic characteristics that are associated with trafficking, such as the presence of interstate highways and international seaports and airports, are likewise related to the supply of trafficked persons and are not be included in the analysis.

The study also examines economic characteristics that may increase trafficking demand, such as a strong local economy that permits the proliferation and purchase of illegal sex services, and the increasing availability of untraceable internet advertising, using services such as Craigslist, for sex-oriented businesses (see, e.g., Gutierrez, 2007).
Other factors that may affect the filing of a trafficking charge include prosecutorial discretion, state anti-trafficking statutes, and state task forces that have been developed to coordinate trafficking investigations and prosecutions. For example, in states that have passed anti-trafficking statutes, district attorneys may choose to prosecute traffickers at the state rather than federal level, a choice that would affect the number of federal trafficking charges filed. In addition, the presence of a task force to coordinate local, state, and federal law enforcement efforts may affect the number of federal charges filed if task force members recommend delegating cases to state prosecutors instead of their federal counterparts. Further, the very decision to file a charge is subject to a prosecutor’s discretion, discretion that may vary from case to case.

Although state anti-trafficking laws, state task forces, and prosecutorial discretion do not drive demand for trafficking, they do affect the likelihood that prosecutors will file a federal trafficking charge. Thus, the models used in the study control for these three factors so that their presence will not confound an examination of the characteristics relating to trafficking demand.

B. The effect of the TVPA

This study also examines the effect of the TVPA on federal trafficking prosecutions. Congress designed the TVPA, in part, to facilitate the prosecution of traffickers by U.S. Attorneys. As a result, the expectation among law enforcement officials, policymakers, and anti-trafficking advocates was that the number of charges filed in trafficking cases would increase following the TVPA’s passage. Because the number of trafficking charges filed had been increasing even prior to the TVPA (see discussion of data, below), no study has confirmed that subsequent increases in trafficking charges filed are attributable to passage and implementation
of the TVPA. This study therefore examines the effect of the TVPA on trafficking charges filed, while controlling for other factors that are associated with changes in trafficking demand.

III. Data and empirical models

To analyze the correlates of trafficking and the effect of the TVPA, this study uses panel data in a longitudinal, quasi-experimental research design, with federal judicial districts serving as the unit of analysis. The map in Appendix 1 shows the boundaries of these districts. Within the U.S., 27 states comprise a single judicial district, while 24 others contain two or more districts within their boundaries. Using judicial districts as the unit of analysis permits the use of statistical models, described below, that can control for time-invariant factors unique to each district. The unique district factors that are related to the incidence of trafficking can be termed a “district effect.”

Unfortunately, the use of judicial district-level analyses can lead to difficulties in collecting data for demographic and economic control variables. Where the boundaries of a judicial district and a state are the same, state-level data can serve as district-level data. Because state-level data are commonly available, control variables for these types of districts are relatively easy to obtain. But where a state contains two or more judicial districts within its boundaries, collecting district-level data becomes more difficult. Demographic and economic data typically are not collected at the level of a federal judicial district. Still, each judicial district comprises individual counties, and no judicial district crosses a county border. Thus, county-level data may be aggregated to compose district-level data. The availability of county-level data, however, is more limited than state-level data. The data used to test the hypotheses described in this study are therefore restricted by the availability of county-level data.

A. Hypotheses tested
First, I hypothesize that, after controlling for the presence of state anti-trafficking laws and task forces and the time-invariant factors unique to each judicial district, the number of trafficking charges filed is positively associated with increases in measures of the following demand characteristics:

1) the percentage of the population that are active-duty military personnel
2) the percentage of the population that is foreign born
3) immigration-related federal crimes
4) the strength of the district’s economy
5) the availability of free internet services for advertising illegal sex services

Next, I hypothesize that, after controlling for these factors, passage of the TVPA is associated with increases in the number and percentage of trafficking charges filed, in accordance with the act’s legislative purpose.

B. Data sources

To test these hypotheses, I use publicly-available data from the U.S. Bureau of Justice Statistics for 1994-2006, the entire time period for which data are available. These data include statutory references for each charge filed by a U.S. Attorney in each federal judicial district during that 13-year period.

The primary trafficking statutes examined in this study include 8 U.S.C. § 1328, 18 U.S.C. § 1591, and 18 U.S.C. §§ 2421-2424. Appendix 2 sets forth the texts of these statutes. These six statutes criminalize a variety of actions relating to trafficking. Several permit prosecution for transporting individuals for the purpose of prostitution even where coercion may not be present. Nevertheless, prosecutors file charges in trafficking cases under these non-coercion statutes, probably when the elements of coercion, force or fraud may be difficult to prove (see, e.g., United States Immigration and Customs Enforcement, 2009). I therefore include these statutes in the analysis.
This study uses other data compiled from the U.S. Census Bureau, the federal labor and defense departments, and Craigslist. A compilation of state trafficking laws and states with anti-trafficking task forces is available online from the Center for Women Policy Studies (2006 and 2007).

C. Measurement of variables

Summary statistics for the dependent and independent variables are presented in Appendix 3, Table 1.

1. Trafficking charges filed

The dependent variables used this study measure the crime of trafficking in incident units, with each incident being represented by a trafficking charge filed in federal court, as described earlier. The study uses not only raw numbers of charges filed as an outcome measure, but also the percentage of all charges filed in a judicial district that are represented by trafficking. The latter measure can be viewed as the percentage of all the federal crime within a judicial district that is trafficking-related. Using a percentage measure helps to control for variation between districts in the total number of federal charges filed. But because each trafficking charge filed represents the prosecutor’s reasonable belief that a crime has occurred, the actual number of charges filed is a more appropriate measure of the underlying incidence of the crime.

The summary statistics in Table 1, Appendix 3, show that although the number of trafficking charges filed from 1994 to 2006 ranges as high as 112, the average number is only about four. This number represents a very small percentage - .3% - of the total federal charges filed by prosecutors during the time period.
The additional tables in Appendix 3 provide other perspectives on changes in the number and percentage of trafficking charges filed from 1994 to 2006. For example, Tables 2 and 3 show that over the 13-year period, both the number and percentage of trafficking charges filed by prosecutors nationwide has been increasing. However, wide variation in charges filed exists between judicial districts. For example, as Table 4 shows, out of all federal judicial districts, prosecutors in Georgia’s southern judicial district filed the lowest average number of trafficking charges between 1994 and 2006 – an average of less that one charge each year. In contrast, prosecutors in Georgia’s northern judicial district, which includes the Atlanta metropolitan area, filed an average of almost 25 charges per year during the 13-year period, the highest number of any judicial district. Districts in Colorado and southern Ohio fall in the middle range, with an annual average of about two filings, while districts in Maine and Rhode Island, with yearly averages of less than one, join southern Georgia at the lower end.

As Table 5 shows, charges filed under the TVPA since its enactment in 2001 still represent a small proportion of the overall total number of trafficking charges filed, though the proportion has been increasing. Last, the maps in Appendix 5, showing the numbers of charges filed in judicial districts for selected years, confirm that the charges filed in trafficking cases appear to have increased across the U.S. in general. Further, with a few exceptions, trafficking charges over time appear to be concentrated in judicial districts with heavily-populated urban areas.

2. Military population

The first demand factor I use as an independent variable is the percentage of the adult population in a judicial district that are active-duty military personnel. I measure military personnel as a percentage of the adult population rather than as a percentage of the total
population. I exclude children under age 18 and focus on the population age 18 and over to more accurately measures the effect of the portion of the population – that portion composed of adults - that drives demand for trafficking.

I filed a Freedom of Information Act request with the U.S. Department of Defense to obtain data on numbers of active-duty military personnel over time. The department complied with the request and provided longitudinal data on the numbers of military personnel stationed in the U.S. by zip code. I then aggregated the number of personnel in each zip code area to the judicial district level. The percentages in each district during the time period studied range from zero to 40%, with an average of about .8% (Appendix 3, Table 1).

3. Foreign-born population

The next demand factor I use in the study is the estimated foreign-born population\(^2\) in each U.S. county, aggregated to the judicial district level. As shown in the summary statistics, this percentage ranges among judicial districts from about .7% to 32%, with an average of about 7%. The U.S. Census Bureau provides county-level estimates of the foreign-born population only in the decennial census reports. State-level estimates are available for years 2002-2006, but not 2001. The potential problems associated with the availability of this data are described in the limitations section, below.

4. Illegal immigration activity

An additional demand factor to be used as an independent variable is immigration-related crime.\(^3\) As with the trafficking measure, I measure these crimes in both raw numbers of charges filed and as a percentage of the total charges filed in each district. Appendix

\(^2\) The Census Bureau indicates that its estimates of the foreign-born population includes persons residing in the U.S. legally and illegally.

\(^3\) The 10 immigration charges to be examined in this study are: 8 U.S.C. §§ 1321-1327, 8 U.S.C. §§ 1252-1253, and 18 U.S.C. § 1546. These charges are felony offenses, carrying minimum prison sentences of at least one year.
3, Table 1 shows that immigration charges are far more common than trafficking charges and range from zero to about 65% of all charges filed in a district.

5. District economy

Another demand factor I use as an independent variable is the strength of a district’s economy. The only general economic measurement available at the county level over time is the unemployment rate, available from the U.S. Bureau of Labor Statistics. Thus, I use county-level unemployment rates, aggregated to the judicial district level and calculated as the percentage of the district’s labor force that is unemployed and seeking work. The average unemployment rate among judicial districts from 1994-2006 is about 5%, with a range of .7 to 11% (Appendix 3, Table 1).

6. Internet advertising

The final demand factor to be used as an independent variable is the availability of free internet advertising for the commercial sex trade. To measure this factor, I use a dummy variable representing the presence of Craigslist in a given judicial district. The use of Craigslist is appropriate because it appears to be the primary internet advertising service used by traffickers (Stone, 2008; Raymond and Hughes, 2001).4 At the start of the time period studied, no judicial district was served by Craigslist, but by 2006, 84% of districts contained cities with Craigslist advertising.

7. State anti-trafficking laws and state task forces

Although state laws and task forces do not affect demand for trafficking, as noted earlier, they do affect the likelihood a prosecutor will file a federal trafficking charge. I measure

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4 Craigslist began in San Francisco in early 1995 and rapidly expanded into cities throughout the U.S. during the next decade (Craigslist, 2008). The cities that Craigslist selected for expansion, and the dates on which the service began, vary over the time period studied and are available online from Craigslist itself.
these factors with dummy variables indicating the presence or absence of a state law or task force.

Because the period between the initial investigation of a federal crime and the filing of a related charge is typically about 12 months, I will lag the variables described above, except for the measure of immigration crime, by one year when estimating their effect on trafficking charges. I do not lag the immigration crime variable because the criminal activity that resulted in the charge likely occurred in the previous year (Scalia and Sabol, 1999; Price, 2009).

D. Fixed effects model

To test the hypotheses described above, the study incorporates these variables into a regression model. However, simply pooling the data over the available 1994-2006 time period and estimating a standard ordinary least squares regression model could result in biased estimates. In particular, such a model may be vulnerable to unobserved heterogeneity from unmeasured, time-invariant factors within a federal judicial district that contribute to trafficking. One approach for controlling for such time-invariant factors is a fixed effects model. The fixed effects approach can control for unobserved characteristics in a judicial district that do not vary over time but that affect trafficking in the district nonetheless. These factors may include longstanding and influential political, cultural, or religious beliefs that are shared among the population, the experience of local law enforcement officers in investigating trafficking, the propensity of prosecutors to file charges in trafficking cases, and the prosecutors’ choice of trafficking statutes for charging. The fixed effects approach permits these unmeasured characteristics to be correlated with the other explanatory variables in the model, a correlation which is likely in this model.
Using this approach, the model tests the first hypothesis that demand factors are positively associated with increases in trafficking charges. The model also tests the second hypothesis that passage of the TVPA in 2000 is associated with increases in trafficking charges filed. The dependent variable used is either the raw number of charges filed or the percentage of all charges filed that are related to trafficking. The dependent variable, measured over time, is regressed on the independent variables described above, also measured over time. The model includes year dummy variables to estimate the effect of the passage of the TVPA in 2000 and indicators for the presence of state anti-trafficking laws and task forces. It is represented by the following equation:

\[
(district \text{ trafficking charges})_{dt} = \beta_1(demand \text{ variables})_{dt} + \beta_2(state \text{ law})_{dt} + \\
\beta_3(state \text{ task force})_{dt} + \alpha(district \text{ effect})_d + \gamma(year \text{ effect})_t + e_{dt}
\]

where the subscripts \( d \) and \( t \) represent observations for each judicial district and year, \( \beta, \alpha, \) and \( \gamma \) are parameters to be estimated, and \( e \) is the error term.

IV. Preliminary results

Preliminary results for this model are shown in Appendix 5, Tables 1 and 2. I use robust standard errors to correct for heteroskedasticity and adjust the standard errors for clustering at the district level. Table 1 shows results for the model using numbers of trafficking charges as the outcome measure. The coefficients for the percentage of the population that is foreign-born and the percentage of the adult population that is military are positive and significant at the 1% level. The coefficients for years 2001, 2005, and 2006, following passage of the TVPA, are also positive and significant when compared to the baseline year of 1994.

Table 2 displays results for the model using the percent of trafficking charges filed as an outcome measure. In this model, none of the demand factors are significant at the 5% level. However, most of the year indicators are significant when compared to the baseline year of 1994.
Starting with year 1999, all subsequent years have positive and significant coefficients at the 1% level; 1998 is significant at the 5% level.

V. Discussion

This preliminary fixed effects analysis supports several aspects of my hypotheses that certain demand factors are positively associated with increases in trafficking charges. For example, I hypothesized that an increase in a judicial district’s military or foreign-born population in one year would be associated with an increase in the number of trafficking charges filed in the subsequent year. The results in Appendix 5, Table 1, confirm this hypothesis. These results show that a percentage point increase in the percentage of a district’s population that is foreign-born is associated with a statistically significant increase of about two additional trafficking charges in the district in the following year, holding other relevant factors constant. Further, a percentage point increase in the percentage of the district’s adult population that is serving in the military is associated with a statistically significant increase of .4 trafficking charges filed in the following year. Because partial charges cannot be filed, a more natural interpretation of the coefficient would be that a three percentage point increase in the military population is associated with one additional trafficking charge in the subsequent year, again holding all other relevant factors constant. The coefficients on the remaining demand factors are non-significant at the 5% level.

The coefficients on the year variables shown in Appendix 5, Table 1, provide some support for my hypothesis that the TVPA has led to an increase in trafficking charges, while holding other demand factors constant. For example, the year 2001, the year following passage of the TVPA in 2000, is associated with a statistically significant increase in almost three additional trafficking charges when compared with the baseline year of 1994. Years 2005 and
2006 show similar significant increases. These results indicate that the TVPA has been associated with an increase in the number of trafficking charges filed by prosecutors under all trafficking statutes, even when controlling for changes in demand factors that could have increased the incidence of the underlying crime.

These results are supported by the model using the outcome measure of trafficking charges filed as a percentage of all federal charges. As Table 2 in Appendix 5 shows, the coefficients for all years following passage of the TVPA are positive and significant when compared to the 1994 baseline year. However, the coefficients for the year of the TVPA’s passage, as well as the two prior years, are also positive and significant. Thus, a trend towards filing an increased percentage of trafficking charges appears to have been in place prior to the TVPA’s passage. Such a trend does not necessarily indicate that the TVPA was ineffective. Rather, the trend could have been a reflection of the increased attention given to trafficking prosecution as the result of efforts to introduce and pass the legislation.

When combined with the results of the first model, this preliminary analysis provides evidence that introduction and passage of the TVPA has been associated with an increase in trafficking prosecutions under all relevant statutes, even in the presence of changes that may have affected the underlying incidence of the crime. Alternatively, the increase may not have been a result of the TVPA itself, but of the increase in attention to trafficking that passage of the TVPA generated. Future work will include analyzing the legislative history of the TVPA to better pinpoint the timeframe in which lawmakers and other government officials began pressing for spending greater prosecutorial resources on trafficking cases.

That prosecutors appear to be devoting more resources to trafficking cases in recent years is a positive finding of this study. In contrast, the strong association between foreign-born and
military populations and trafficking cases is a disturbing result. These preliminary findings confirm years of anecdotal evidence showing the same links, links that lawmakers and other government officials have yet to properly address.

VI. Limitations

The research design used in this study has several limitations. First, trafficking charges are an imperfect measure of the presence of trafficking and represent only a portion of the underlying crime. Because trafficking cases involve extensive resources and time, U.S. Attorneys probably charge defendants only in those cases in which the facts clearly support the elements of trafficking and witnesses are readily available (Price, 2009). Trafficking incidents that are more difficult to prove are less likely to be charged and prosecuted, and therefore cannot be examined. Thus, because this study uses a dependent variable that indicates charges filed in trafficking cases, it likely focuses only on the most severe cases of trafficking or those cases with the most compelling evidence. At the present time, however, no other data is available to measure the incidence of trafficking. Further, this limitation is shared by almost all measures of criminal activity.

Other data limitations relate to county-level estimates of the foreign-born population. The Census Bureau only tabulates county-level estimates of the foreign-born population in its decennial census reports. Moreover, state-level estimates are only available for years 2002-2006. In the fixed effect models described above, I estimated district-level foreign-born populations for years 1994-1999 using a simple linear extrapolation of the population change between 1990 and 2000. I used the same linear extrapolation from 2000 to 2001 for 2001 estimates.
The availability of state-level data for years 2002-2006 provides greater accuracy in the estimates for that time period. For those states that comprise a single judicial district, I used the state-level population estimates. For those states comprising two or more judicial districts, I assumed that the county-level distribution of the foreign-born population in 2000 remained the same during the 2002-2006 time period, and distributed the state-level estimates among the counties using that assumption.

Two problems may result from these approaches. First, the linear extrapolation would nullify the effect any dramatic, year-to-year changes in the foreign-born population between 1994-1999 and 2000-2001. Further, the distributional assumption for states with more than one judicial district in years 2002-2006 may not be valid. However, no data source exists other than the Census Bureau for estimates of the nation’s foreign-born population. In addition, dramatic, year-to-year fluctuations in the foreign-born population seem unlikely and would appear to be inconsistent with normal migration patterns.

In addition, the models I use could be vulnerable to omitted variable bias due to the unavailability of accurate data regarding prostitution arrests nationwide and over time. Controlling for prostitution arrests may be important in a trafficking analysis because local law enforcement officials often lack the training and experience to distinguish between prostitution and sex trafficking (Sweet, 2006; Louwagie, 2008). Government officials and victims advocates suspect that as a result, many trafficking cases are disposed of as simple prostitution cases (Sweet, 2006; Vargas, 2008). If such results are widespread, judicial districts with a relatively high incidence of trafficking operations may not see high numbers of charges filed, but may experience relatively high rates of prostitution cases instead.
Local law enforcement agencies do report prostitution arrests to the FBI as part of the FBI’s Uniform Crime Reports, but because reporting is voluntary, arrest data varies widely in coverage and accuracy. For example, Appendix 6 shows the variation in reported prostitution arrests in selected federal judicial districts in the South between 1995 and 2005. Such dramatic changes in arrests are likely the result of the failure of local law enforcement agencies to report arrests, rather than a sharp drop in arrests or in the underlying incidence of the crime. Thus, the unreliability of the data precludes its inclusion in the models used in this study.

Last, the standard fixed effects model used in this study may not provide the best fit for the independent and dependent variables as measured. For example, the number and percentages of trafficking charges filed and the foreign-born and military population percentages are not strictly continuous variables but instead, are count variables. Zero is the lowest value these variables can assume, and their distributions are skewed, with zero being the most common value. Given this distribution, a negative binomial model would likely provide a better fit, and my next research steps will include an analysis of the data using such a model.
VII. Works Cited


Appendix 1: Map of federal judicial districts within the United States
Appendix 2: Texts of federal sex trafficking statutes


The importation into the United States of any alien for the purpose of prostitution, or for any other immoral purpose, is forbidden. Whoever shall, directly or indirectly, import, or attempt to import into the United States any alien for the purpose of prostitution or for any other immoral purpose, or shall hold or attempt to hold any alien for any such purpose in pursuance of such illegal importation, or shall keep, maintain, control, support, employ, or harbor in any house or other place, for the purpose of prostitution or for any other immoral purpose, any alien, in pursuance of such illegal importation, shall be fined under title 18, or imprisoned not more than 10 years, or both. The trial and punishment of offenses under this section may be in any district to or into which such alien is brought in pursuance of importation by the person or persons accused, or in any district in which a violation of any of the provisions of this section occurs. In all prosecutions under this section, the testimony of a husband or wife shall be admissible and competent evidence against each other.


a) Whoever knowingly—
   1) in or affecting interstate or foreign commerce, or within the special maritime and territorial jurisdiction of the United States, recruits, entices, harbors, transports, provides, or obtains by any means a person; or
   2) benefits, financially or by receiving anything of value, from participation in a venture which has engaged in an act described in violation of paragraph (1), knowing that force, fraud, or coercion described in subsection (c)(2) will be used to cause the person to engage in a commercial sex act, or that the person has not attained the age of 18 years and will be caused to engage in a commercial sex act, shall be punished as provided in subsection (b).

b) The punishment for an offense under subsection (a) is—
   1) if the offense was effected by force, fraud, or coercion or if the person recruited, enticed, harbored, transported, provided, or obtained had not attained the age of 14 years at the time of such offense, by a fine under this title or imprisonment for any term of years or for life, or both; or
   2) if the offense was not so effected, and the person recruited, enticed, harbored, transported, provided, or obtained had attained the age of 14 years but had not attained the age of 18 years at the time of such offense, by a fine under this title or imprisonment for not more than 40 years, or both.

c) In this section:
   1) The term “commercial sex act” means any sex act, on account of which anything of value is given to or received by any person.
   2) The term “coercion” means—
      A) threats of serious harm to or physical restraint against any person;
      B) any scheme, plan, or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person; or
      C) the abuse or threatened abuse of law or the legal process.
   3) The term “venture” means any group of two or more individuals associated in fact, whether or not a legal entity.


Whoever knowingly transports any individual in interstate or foreign commerce, or in any Territory or Possession of the United States, with intent that such individual engage in prostitution, or in any sexual activity for which any person can be charged with a criminal offense, or attempts to do so, shall be fined under this title or imprisoned not more than 10 years, or both.


a) Whoever knowingly persuades, induces, entices, or coerces any individual to travel in interstate or foreign commerce, or in any Territory or Possession of the United States, to engage in prostitution, or in any sexual activity for which any person can be charged with a criminal offense, or attempts to do so, shall be fined under this title or imprisoned not more than 20 years, or both.

b) Whoever, using the mail or any facility or means of interstate or foreign commerce, or within the special maritime and territorial jurisdiction of the United States knowingly persuades, induces, entices, or coerces any individual who has not attained the age of 18 years, to engage in prostitution or any sexual activity for which any
person can be charged with a criminal offense, or attempts to do so, shall be fined under this title and imprisoned not less than 5 years and not more than 30 years.

18 U.S.C. § 2423. Transportation of minors

a) Transportation With Intent To Engage in Criminal Sexual Activity.— A person who knowingly transports an individual who has not attained the age of 18 years in interstate or foreign commerce, or in any commonwealth, territory or possession of the United States, with intent that the individual engage in prostitution, or in any sexual activity for which any person can be charged with a criminal offense, shall be fined under this title and imprisoned not less than 5 years and not more than 30 years.

b) Travel With Intent To Engage in Illicit Sexual Conduct.— A person who travels in interstate commerce or travels into the United States, or a United States citizen or an alien admitted for permanent residence in the United States who travels in foreign commerce, for the purpose of engaging in any illicit sexual conduct with another person shall be fined under this title or imprisoned not more than 30 years, or both.

c) Engaging in Illicit Sexual Conduct in Foreign Places.— Any United States citizen or alien admitted for permanent residence who travels in foreign commerce, and engages in any illicit sexual conduct with another person shall be fined under this title or imprisoned not more than 30 years, or both.

d) Ancillary Offenses.— Whoever, for the purpose of commercial advantage or private financial gain, arranges, induces, procures, or facilitates the travel of a person knowing that such a person is traveling in interstate commerce or foreign commerce for the purpose of engaging in illicit sexual conduct shall be fined under this title, imprisoned not more than 30 years, or both.

e) Attempt and Conspiracy.— Whoever attempts or conspires to violate subsection (a), (b), (c), or (d) shall be punishable in the same manner as a completed violation of that subsection.

f) Definition.— As used in this section, the term “illicit sexual conduct” means

1) a sexual act (as defined in section 2246) with a person under 18 years of age that would be in violation of chapter 109A if the sexual act occurred in the special maritime and territorial jurisdiction of the United States; or

2) any commercial sex act (as defined in section 1591) with a person under 18 years of age.

g) Defense.— In a prosecution under this section based on illicit sexual conduct as defined in subsection (f)(2), it is a defense, which the defendant must establish by a preponderance of the evidence, that the defendant reasonably believed that the person with whom the defendant engaged in the commercial sex act had attained the age of 18 years.

18 U.S.C. § 2424. Filing factual statement about alien individual

a) Whoever keeps, maintains, controls, supports, or harbors in any house or place for the purpose of prostitution, or for any other immoral purpose, any individual, knowing or in reckless disregard of the fact that the individual is an alien, shall file with the Commissioner of Immigration and Naturalization a statement in writing setting forth the name of such individual, the place at which that individual is kept, and all facts as to the date of that individual’s entry into the United States, the port through which that individual entered, that individual’s age, nationality, and parentage, and concerning that individual’s procuration to come to this country within the knowledge of such person; and

   Whoever fails within five business days after commencing to keep, maintain, control, support, or harbor in any house or place for the purpose of prostitution, or for any other immoral purpose, any alien individual to file such statement concerning such alien individual with the Commissioner of Immigration and Naturalization; or

   Whoever knowingly and willfully states falsely or fails to disclose in such statement any fact within that person’s knowledge or belief with reference to the age, nationality, or parentage of any such alien individual, or concerning that individual’s procuration to come to this country—

   Shall be fined under this title or imprisoned not more than 10 years, or both.

b) In any prosecution brought under this section, if it appears that any such statement required is not on file in the office of the Commissioner of Immigration and Naturalization, the person whose duty it is to file such statement shall be presumed to have failed to file said statement, unless such person or persons shall prove otherwise. No person shall be excused from furnishing the statement, as required by this section, on the ground or for the reason that the statement so required by that person, or the information therein contained, might tend to criminate that person or subject that person to a penalty or forfeiture, but no information contained in the statement or any evidence which is directly or indirectly derived from such information may be used against any person making such statement in any criminal case, except a prosecution for perjury, giving a false statement or otherwise failing to comply with this section.
Appendix 3:

<table>
<thead>
<tr>
<th>Table 1. Summary statistics</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variables (continuous)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>number of trafficking charges</td>
<td>3.89</td>
<td>7.39</td>
<td>0</td>
<td>112</td>
</tr>
<tr>
<td>% of all charges that are trafficking</td>
<td>0.33</td>
<td>0.61</td>
<td>0</td>
<td>8.63</td>
</tr>
<tr>
<td><strong>Explanatory variables (continuous)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>number of immigration charges</td>
<td>181.66</td>
<td>545.67</td>
<td>0</td>
<td>4692</td>
</tr>
<tr>
<td>% of all charges that are immigration</td>
<td>6.47</td>
<td>9.46</td>
<td>0</td>
<td>65.16</td>
</tr>
<tr>
<td>% of adult pop that is military</td>
<td>0.76</td>
<td>2.09</td>
<td>0</td>
<td>40.78</td>
</tr>
<tr>
<td>unemployment rate</td>
<td>4.83</td>
<td>1.47</td>
<td>0.70</td>
<td>10.70</td>
</tr>
<tr>
<td>% of total pop that is foreign-born</td>
<td>6.65</td>
<td>6.69</td>
<td>0.73</td>
<td>32.23</td>
</tr>
<tr>
<td><strong>Explanatory variables (dummy)</strong></td>
<td>Percent in 1994</td>
<td>Percent in 2006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>district in state with anti-trafficking law</td>
<td>0</td>
<td>26%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>district in state with anti-trafficking task force</td>
<td>0</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>district served by Craigslist</td>
<td>0</td>
<td>84%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: summary statistics are calculated for years 1993-2006; N=1170
Table 2. Total Trafficking Charges Filed, 1994-2006

Table 3. Trafficking as a Percentage of Federal Charges Filed
Table 4. Average # of Charges Filed Per Year, 1994-2006
Districts with Low, Medium, and High Averages

<table>
<thead>
<tr>
<th>District Abbreviation</th>
<th>Average # of Charges per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAS</td>
<td>0</td>
</tr>
<tr>
<td>ME</td>
<td>10</td>
</tr>
<tr>
<td>RI</td>
<td>15</td>
</tr>
<tr>
<td>CO</td>
<td>20</td>
</tr>
<tr>
<td>OHS</td>
<td>25</td>
</tr>
<tr>
<td>CAC</td>
<td>30</td>
</tr>
<tr>
<td>FLS</td>
<td>35</td>
</tr>
<tr>
<td>GAN</td>
<td>40</td>
</tr>
</tbody>
</table>

District Abbreviation Key:
- GAS = southern district of Georgia
- OHS = southern district of Ohio
- ME = district of Maine
- CAC = central district of California
- RI = district of Rhode Island
- FLS = southern district of Florida
- CO = district of Colorado
- GAN = northern district of Georgia

Table 5. Charges Filed Under the TVPA in Relation to Other Trafficking Charges

<table>
<thead>
<tr>
<th>Year</th>
<th>TVPA Charges</th>
<th>Non-TVPA Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>300</td>
<td>400</td>
</tr>
<tr>
<td>2001</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>2002</td>
<td>450</td>
<td>550</td>
</tr>
<tr>
<td>2003</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>2004</td>
<td>450</td>
<td>550</td>
</tr>
<tr>
<td>2005</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>2006</td>
<td>550</td>
<td>650</td>
</tr>
</tbody>
</table>
Appendix 4. Federal trafficking charges nationwide, selected years

1. Charges filed, 1995:

![Map of charges filed in 1995](image1)

2. Charges filed, 1999

![Map of charges filed in 1999](image2)
3. Charges filed, 2003

4. Charges filed, 2006
### Appendix 5: Results of preliminary fixed effects models

Table 1. Fixed effects analysis: Effect of demand factors on number of trafficking charges filed

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Description</th>
<th>Year 1994 Reference</th>
<th>R-squared = 0.18</th>
</tr>
</thead>
</table>

| % of adult pop that is military (lagged one year) | 0.406*** | (0.096) |
| % of total pop that is foreign-born (lagged one year) | 2.383*** | (0.504) |
| % of adult pop that is military | -0.002 | (0.001) |
| Unemployment rate (lagged one year) | 0.031 | (0.193) |
| % of adult pop that is military | -0.002 | (0.001) |
| % of total pop that is foreign-born (lagged one year) | 2.383*** | (0.504) |
| District in state with anti-trafficking law | -2.072 | (1.470) |
| District in state with anti-trafficking task force | -1.305 | (1.177) |
| District served by Craigslist (lagged one year) | 0.327 | (0.883) |
| Year 1995 | -0.074 | (0.445) |
| Year 1996 | -0.703** | (0.342) |
| Year 1997 | -0.938* | (0.481) |
| Year 1998 | -0.482 | (0.740) |
| Year 1999 | -0.164 | (0.583) |
| Year 2000 | 0.119 | (0.981) |
| Year 2001 | 2.655** | (1.106) |
| Year 2002 | 1.391 | (0.904) |
| Year 2003 | -0.017 | (0.711) |
| Year 2004 | 1.340 | (0.926) |
| Year 2005 | 1.748** | (0.860) |
| Year 2006 | 2.670** | (1.191) |

Note: * significant at 10%; ** significant at 5%; *** significant at 1%
N = 1170; # of groups (judicial districts) = 90; R-squared = 0.18
a year 1994 is the reference category
Table 2. Fixed effects analysis: Effect of demand factors on percent of trafficking charges filed

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of all charges that are immigration (lagged one year)</td>
<td>-0.0039</td>
<td>(0.0041)</td>
</tr>
<tr>
<td>% of adult pop that is military (lagged one year)</td>
<td>0.0054</td>
<td>(0.0061)</td>
</tr>
<tr>
<td>Unemployment rate (lagged one year)</td>
<td>0.0290</td>
<td>(0.0450)</td>
</tr>
<tr>
<td>% of total pop that is foreign-born (lagged one year)</td>
<td>0.0417</td>
<td>(0.0321)</td>
</tr>
<tr>
<td>District in state with anti-trafficking law</td>
<td>-0.1394</td>
<td>(0.1029)</td>
</tr>
<tr>
<td>District in state with anti-trafficking task force</td>
<td>0.0303</td>
<td>(0.0955)</td>
</tr>
<tr>
<td>District served by Craigslist (lagged one year)</td>
<td>-0.0169</td>
<td>(0.0917)</td>
</tr>
<tr>
<td>Year 1995</td>
<td>0.0620</td>
<td>(0.0456)</td>
</tr>
<tr>
<td>Year 1996</td>
<td>0.0360</td>
<td>(0.0388)</td>
</tr>
<tr>
<td>Year 1997</td>
<td>0.0775</td>
<td>(0.0520)</td>
</tr>
<tr>
<td>Year 1998</td>
<td>0.1571**</td>
<td>(0.0701)</td>
</tr>
<tr>
<td>Year 1999</td>
<td>0.2404***</td>
<td>(0.0694)</td>
</tr>
<tr>
<td>Year 2000</td>
<td>0.2644***</td>
<td>(0.0988)</td>
</tr>
<tr>
<td>Year 2001</td>
<td>0.3525***</td>
<td>(0.1140)</td>
</tr>
<tr>
<td>Year 2002</td>
<td>0.3221***</td>
<td>(0.0905)</td>
</tr>
<tr>
<td>Year 2003</td>
<td>0.3227***</td>
<td>(0.0740)</td>
</tr>
<tr>
<td>Year 2004</td>
<td>0.4540***</td>
<td>(0.1364)</td>
</tr>
<tr>
<td>Year 2005</td>
<td>0.4264***</td>
<td>(0.0900)</td>
</tr>
<tr>
<td>Year 2006</td>
<td>0.5082***</td>
<td>(0.1124)</td>
</tr>
</tbody>
</table>

Note: ** significant at 5%; *** significant at 1%
N = 1170; # of groups (judicial districts) = 90; R-squared = 0.09
* year 1994 is the reference category
Appendix 6: Variation in reported prostitution arrests

Local Prostitution Arrests
Selected Southern Judicial Districts and Years

District Abbreviation Key:
ARE = eastern district of Arkansas
ARW = western district of Arkansas
NCE = eastern district of North Carolina
NCM = middle district of North Carolina
NCW = western district of North Carolina
GAN = northern district of Georgia
GAM = middle district of Georgia
GAS = southern district of Georgia