

ON THE IMPACT OF LOCAL ECONOMIES ON SUB-FEDERAL IMMIGRATION LAWS
IN THE U.S. AND HOW THESE LAWS AFFECT AGRICULTURAL LABOR FORCE

by

XUEQIAN LU

ABSTRACT

(Under the Direction of Genti Kostandini and Cesar Escalante)

A surge of sub-federal immigration laws have been enacted since the late 2000s. Most of previous studies have focused on how these laws affect the local economy. This study examines how the local economy and demographic composition affect whether local governments sign immigration laws. Furthermore, given labor shortages in agriculture due to immigration laws, we examine how sub-federal immigration laws affect the number of H-2A visa applications, which is a tool for bringing foreign seasonal agricultural workers in the U.S. We find that per capita unemployment compensation insurance, per capita total number of jobs, and the share of Hispanic male population to total male population within a county are positively associated with whether a local government chooses to sign immigration laws. In addition, we find that the enactment of state-wide immigration laws decrease H-2A visa applications.

INDEX WORDS: Immigration laws, 287(g), H-2A visa, Probit Model, Difference in Differences

ON THE IMPACT OF LOCAL ECONOMIES ON SUB-FEDERAL IMMIGRATION LAWS
IN THE U.S. AND HOW THESE LAWS AFFECT AGRICULTURAL LABOR FORCE

by

XUEQIAN LU

B.A., Shanghai Normal University, China, 2013

A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment
of the Requirements for the Degree

MASTER OF SCIENCE

ATHENS, GEORGIA

2016

© 2016

Xueqian Lu

All Rights Reserved

ON THE IMPACT OF LOCAL ECONOMIES ON SUB-FEDERAL IMMIGRATION LAWS
IN THE U.S. AND HOW THESE LAWS AFFECT AGRICULTURAL LABOR FORCE

by

XUEQIAN LU

Major Professors: Genti Kostandini
Cesar Escalante

Committee: Joshua Berning
Brady E. Brewer

Electronic Version Approved:

Suzanne Barbour
Dean of the Graduate School
The University of Georgia
May 2016

DEDICATION

I would like to dedicate this thesis to my parents, Miao Lu and Yunli Lu, and my beloved Zhuokang Jia, for their love and support.

ACKNOWLEDGMENTS

I would like to thank my major professors, Dr. Genti Kostandini and Dr. Cesar Escalante, for their kindness and patience. I would never have completed this thesis without their help. Their broad knowledge on immigration laws and statistical modeling guided me throughout the whole process of this thesis, and I am grateful on their earnest attitudes towards academic research.

I would further like to thank my committee members, Dr. Joshua Berning and Dr. Brady E. Brewer, for their helpful advice and valuable time.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	V
LIST OF TABLES	VIII
LIST OF FIGURES	IX
CHAPTER	1
1 INTRODUCTION	1
2 BACKGROUND AND LITERATURE REVIEW	5
2.1 Background on Sub-Federal Immigration Law Enforcements	5
2.2 Background on H-2A Program	9
2.3 Literature Review on U.S. Sub-Federal Immigration Laws and the Agricultural Sector	11
3 METHODOLOGY AND DATA	15
3.1 Methodology	15
3.2 Data	19
4 RESULTS	22
4.1 The RE Probit Model Results	22
4.2 The DD Model Results	24
5 CONCLUSIONS	29
REFERENCES	31
APPENDICES	35

I LAW ENFORCEMENTS ON THE E-VERIFY PROCESS IN THE SOUTHEAST REGION	35
--	----

LIST OF TABLES

	Page
Table 1 287(g) Programs Signed in the Southeast Region	7
Table 2 Definitions of Variables in the Probit Model.....	16
Table 3 Definitions of Variables in DD model.....	19
Table 4 Summary Statistics	21
Table 5 Random Effects Probit Model Results.....	22
Table 6 DD Regression Results with Certified Number of Workers.....	25
Table 7 DD Regression Results with Number of Workers Requested	26

LIST OF FIGURES

	Page
Figure 1 DD Model.....	18

CHAPTER 1

INTRODUCTION

The problem of shortages of temporary or seasonal agricultural workers has been a longstanding issue and has attracted more attention, especially in the late 2000s with the passage of some strong immigration laws in the U.S. The Los Angeles Times described the situation as “a nationwide farm worker shortage threatening to leave fruits and vegetables rotting in fields,” (Martin P. , 2007). The labor shortage in U.S. agriculture may be a result of several factors that include, among others, lower wage rates compared to other industries and intense working conditions. As a consequence, demand for farm labor in the U.S. is often supplied by foreign workers. According to the National Agricultural Workers Survey from the U.S. Department of Labor, over the last 15 years, about half of workers in the U.S. agricultural sector have been illegal (i.e. workers who do not have a legal status) (Carroll, Georges, & Saltz, 2011). Recently, the introduction of stricter immigration laws has led to large departures, whether forced by deportation or voluntary, of illegal immigrants (Bohn, Lofstrom, & Raphael, 2014).

Historically, immigration laws were primarily regulated by the federal government. However, new regulations were enacted aiming at sanctioning illegal workers at the state or even sub-state level since 2003 (Pham & Van, 2010). For example, in 2011, Alabama and Georgia approved state-level anti-illegal immigration bills called Alabama HB 56 and Georgia HB 87, respectively. The two bills have similar provisions that allow police to demand “papers” proving citizenship or legal immigration status during traffic stops based on “reasonable suspicion” (American Civil Liberties Union, 2016). In addition, some states have also signed mandatory E-verify laws. E-verify is an internet-based system operated by the U.S. Citizenship and

Immigration Services (USCIS) in partnership with the Social Security Administration (SSA) (NumbersUSA, 2015). E-verify enables all employers to verify if the employee is legal to work in the U.S. and if his (her) Social Security Number is valid. This is a voluntary program; however, by February, 2015, there are four states (Alabama, Arizona, Mississippi and South Carolina) that have signed strict legislation making E-verify mandatory for all employers (NumbersUSA, 2015).

Another important piece of legislation is the Immigration and Nationality Act (INA) Section 287(g). Section 287(g) allows the U.S. Immigration and Customs Enforcement (ICE) deputy director to enter into agreements with state and local authorities, permitting local officers to check the legal status of people who are stopped by authorities. (Kostandini, Mykerezi, & Escalante, 2014).

With the strengthening of law enforcement towards illegal farm workers, farm employers are left with limited hiring alternatives to fill their labor demands. Employers could resort to hiring domestic farm workers, or to apply for a legal working status for the foreign workers who are expected to fulfill the intensive farm work requirements. In addition, farm employers could change their crop patterns to less labor-intensive crops (Luo & Kostandini, 2015).

The H-2A Agricultural Guest Worker Program is one of the available suitable employment alternatives. Authorized under the Immigration and Nationality Act (INA), the H-2A temporary agricultural program allows agricultural employers who claim a shortage of domestic workers to bring in nonimmigrant foreign workers to the U.S. to perform temporary agricultural work or services. Agricultural employment is of a seasonal nature as operations are tied to a certain time

of the year by an event or pattern, such as a short annual growing cycle, and requires labor levels above what is necessary for ongoing operations.

The Southeast region of the U.S. is an important agricultural area that depends on H-2A labor visa issuances for its labor needs. Due to the geographic attributes of the southeast region, farm work is more labor-intensive as more weeding and pest management operations are required because of the mild winter, hot summer and the humid climate all year around (Escalante & Wu, 2013). In the 2013 fiscal year, there were 7,736 H-2A applications approved in the U.S., and 3,678 of them originated from the Southeast region, which is 47.54% of the total number of certified applications (United States Department of Labor, 2015)¹. In addition, the Southeast region has passed a considerable amount of immigration laws. Given these considerations, this study will focus its analyses on the ten states of the Southeast region in the U.S.: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee.

This study has two objectives. First, we examine the economic factors that influence the probability of a county to pass immigration laws. Since immigration has become a popular, widely discussed topic, there are some studies that have examined the effect of immigration laws on the local economy. For example, Pham and Van (2010) examined how county-level anti-immigrant laws affect non-farm industries. Kostandini, Mykerezi, and Escalante (2014) examined the effects of the 287(g) program implementation on the agricultural sector. However, to our knowledge, no research has examined factors that affect the decision on a local community to sign and enforce a sub-federal immigration law. In general, previous research on immigration laws examined their impact on different economic sectors.

¹ 1 H-2A application may contain several positions.

Second, we analyze the impact of county and state level immigration laws on H-2A applications in the Southeast region. H-2A farm work visas are ideally needed by farm business owners to fill in their requirement for agricultural workers, but many farm employers contend that the processing period is too long and too complicated and that the program has not effectively addressed their needs (CBS Money Watch, 2010). In this study, we analyze the possible effects of immigration laws on H-2A workers in demand based on individual H-2A application cases from the Southeast region from 2006 to 2014.

The rest of the study is organized as follows. Chapter 2 provides background and literature review. Chapter 3 contains the methodology, data collection, and the empirical models. Results are discussed in Chapter 4. Conclusions are provided in Chapter 5.

CHAPTER 2

BACKGROUND AND LITERATURE REVIEW

2.1 Background on Sub-Federal Immigration Law Enforcements

The U.S. government used to have an open door policy for immigrants. Before 1915, there were no regulations imposing limitations on the number of undocumented immigrants (Miller, 1996). In 1917, Congress passed a law regarding a mandatory literacy test on all immigrants when a large number of immigrants came to the country from Russia, Poland, and Italy (Miller, 1996). The mandatory literacy testing was followed by two more laws: the Quota Act of 1921 and the Immigration Act of 1924, which set up a quota system on immigrants (Miller, 1996). This original system was terminated in 1965 when the 1965 Immigration Act was signed (Triadafilopoulos, 2010).

Immigration laws remained unchanged from 1965 to the 1980s, until illegal immigration became a political issue in the U.S. (Davis, 2013). Due to large inflows of immigrants, many agreed that the number of immigrants had to be regulated and controlled. The Select Commission on Immigration and Refugee Policy (SCRIP) was set with the aim to remedy the immigration problem (Martin, 1982). SCRIP was the first immigration law that explicitly targeted undocumented immigrants (Miller, 1996), and it sponsored the Immigration Reform and Control Act of 1986 (IRCA) (Triadafilopoulos, 2010), which prohibited hiring illegal immigrants and tightened the border control with Mexico (Pear, 2007).

The Immigration and Nationality Act (INA) was originally signed in 1952. It was a

compilation of existing law provisions and reorganized them into the basic framework of immigration laws (U.S. Citizenship and Immigration Services, 2013). In 1996, INA was thoroughly amended. It added stricter limitations on illegal immigrants, and its main concern was illegal activities such as those involving crime and drugs. This led to a flow of state-level and county-level anti-immigrant laws (Escalante, Kostandini, & Mykerezi, 2014). Immigration and Nationality Act (INA) Section 287(g) was added to INA in 1996. Section 287(g) allows the federal government to reach agreements with state and local law enforcement agencies (Lakayo, 2010). It gave the authority to some of the state and local officers, making them able to check the legal status of people involved in crime and drugs and arrest potential undocumented people after being trained by the U.S. Immigration and Customs Enforcement (ICE) officials (Capps, Rosenblum, Chishti, & Rodríguez, 2011).

Although the 287(g) program was passed in 1996, the first sub-federal law that physically enacted a 287(g) agreement was in 2002 by the Florida Department of Public Safety (Lakayo, 2010). Between 2002 and 2011, 69 U.S. jurisdictions signed 287(g), including 10 states (including Alabama, Florida, Georgia and Tennessee) and 47 counties (such as Cobb County, Georgia) (Kostandini, Mykerezi, & Escalante, 2014). Table 1 presents the states and counties with 287(g) agreements in the Southeast region. Under 287(g) restrictions, 186,000 undocumented immigrants were forced to leave the U.S. by 2011 (Parrado, 2012). While the initial purpose of the 287(g) program was to target illegal immigrants who had committed crimes, the program was enforced to apprehend many foreigners who were not involved in felonies (Capps, Rosenblum, Chishti, & Rodríguez, 2011).

Table 1 287(g) Programs Signed in the Southeast Region

Jurisdiction	Law Enforcement Agency	Date
State-level enforcement		
Florida	Florida Department of Law Enforcement	2-Jul-02
Alabama	Alabama Department of Public Safety	10-Sep-03
Georgia	Georgia Department of Public Safety	27-Jul-07
Tennessee	Tennessee Highway Patrol/Department of Safety	25-Jun-08
County-level enforcement		
Arkansas	Benton County Sheriff's Office	26-Sep-07
Arkansas	City of Springdale Policy Department	26-Sep-07
Arkansas	Rogers Policy Department	25-Sep-07
Arkansas	Washington County Sheriff's Office	26-Sep-07
Florida	Collier County Sheriff's Office	6-Aug-07
Florida	Bay County Sheriff's Office	15-Jun-08
Florida	Jacksonville Sheriff's Office	8-Jul-08
Georgia	Cobb County Sheriff's Office	13-Feb-07
Georgia	Whitfield County Sheriff's Office	4-Feb-08
Georgia	Hall County Sheriff's Office	29-Feb-08
Georgia	Gwinnett County Sheriff's Office	15-Oct-09
North Carolina	Mecklenburg County Sheriff's Office	27-Feb-06
North Carolina	Alamance County Sheriff's Office	10-Jan-07
North Carolina	Cabarrus County Sheriff's Office	2-Aug-07
North Carolina	Gaston County Sheriff's Office	22-Feb-07
North Carolina	Henderson County Sheriff's Office	25-Jun-08
North Carolina	Wake County Sheriff's Office	25-Jun-08
North Carolina	City of Durham Police Department	1-Feb-08
South Carolina	York County Sheriff's Office	16-Oct-07
South Carolina	Beaufort County Sheriff's Office	25-Jun-08
South Carolina	Charleston County Sheriff's Office	9-Nov-09
South Carolina	Lexington County Sheriff's Office	19-Aug-10
Tennessee	Davidson County Sheriff's Office	21-Feb-07

Source: (Lacayo, 2010)

In addition to section 287(g), there are other types of laws at the state-level that target illegal immigrants. The Legal Arizona Workers Act (LAWA) was passed in 2007, and was arguably one of the strictest state-wide immigration laws, which required all employers use the federal E-verify system to identify the legal status of their employees (Bohn, Lofstrom, & Raphael, 2014). After the enactment of LAWA, Arizona passed the well-known Arizona SB 1070. Arizona SB 1070 was put in effect in April 2010 (Hyder & Orlando), and it gave the police authority to apprehend people just based on their appearance (Hyder & Orlando). If they do not

have proper documentation to prove their legal status, they could be regarded as undocumented immigrants and get deported (Hyder & Orlando). In addition, Arizona SB 1070 set up penalties for employers who intentionally hire illegal immigrants (Escalante, Kostandini, & Mykerezzi, 2014). After the enactment of Arizona SB 1070, several similar laws were passed. There were three states within the Southeast region that had these state-level laws: Georgia (HB 87), Alabama (HB 56), and South Carolina (SB 20). All of them were passed in 2011, and were similar to Arizona SB 1070.

However, the Alabama Taxpayer and Citizen Protection Act (HB 56) was even stricter because it added more restrictions than the Arizona SB 1070 (Peralta, 2011; Davis, 2013). For instance, under HB 56, it is illegal to offer undocumented people public elementary and secondary education benefits. In addition, it is illegal to transport or provide residence to illegal immigrants (Davis, 2013). Georgia HB 87 and South Carolina SB 20 were similar to Alabama HB 56: all the three state governments signed these stricter laws to control the population of illegal immigrants.

In addition, more and more state governments have mandated the Verify Employment Eligibility (E-Verify) process on employers, which is another way of restricting illegal immigrants. As a fast internet-based system, E-verify is provided as a free service to employers and is available in all 50 states (NumbersUSA, 2015). As mentioned earlier, E-verify provides access to a federal government database, making it convenient for employers to check the legal status of the newly hired employees. Although this process is voluntary, some states have set up regulations, requiring employers to use E-verify. For instance, in 2008, Mississippi passed Senate Bill 2988 (SB 2988), also known as the "Mississippi Employment Protection Act" (Mississippi Legislature, 2008). The bill required all public and private employers in the state of

Mississippi to apply for E-verify when hiring new job candidates by 2011 (NumbersUSA, 2015). Also, Georgia HB 87 added the E-verify process for private businesses with more than 10 employees (NumbersUSA, 2015). Appendix I lists all the states requiring the E-verify process in the Southeast region.

The stricter law enforcement could possibly lead to shortages of labor supply, and as documented by Bohn, Lofstrom, and Raphael (2014), more illegal foreign workers could move to other places where there are no strict immigration laws to make a living.

2.2 Background on H-2A Program

The origin of H-2A stems back to the Bracero Accord, which was signed between Mexico and United States during World War II (Danger, 2000). The Bracero Accord was an effort to address the labor shortage in the U.S. and was responsible for bringing over 400,000 Mexican workers who came to the U.S. as foreign temporary agricultural workers (Williams, 1995). The Bracero Accord protected basic working conditions of temporary guest workers and was terminated in 1964 (Danger, 2000). The enactment of the Immigration and Nationality Act of 1952 created the H-2 program, which authorized the Attorney General to certify certain type of visas for foreign workers when there were no eligible workers in the United States (Danger, 2000). In 1986, the Immigration Reform and Control Act of 1986 (IRCA) was passed, which separated the H-2 program into two types: H-2A for agricultural workers and H-2B for nonagricultural workers (Danger, 2000). Furthermore, the passage of the 1986 IRCA added new regulations to punish employers who knowingly hired undocumented farm workers and approved 3 million illegal workers' status (Escalante, Kostandini, & Mykerezzi, 2014).

The H-2A visa program makes it legal for foreign workers to perform full-time temporary or seasonal farm work, but it has many restrictions. First of all, farmers have to provide evidence

of the unavailability of domestic farm workers. In the past, farmers needed to indicate that they tried to hire eligible domestic workers, but no one fitted the position well. Before approval, the farmer is required to file applications with the Department of Labor, stating that there are no sufficient workers who are able, willing, qualified, and available, and the employment of foreign workers will not have an effect on wages and the working environment of local U.S. workers (H-2A Temporary Agricultural Program, 2009).

Furthermore, for the minimum wage requirement, the employer must pay H-2A workers at least the higher amount of the adverse effect wage rate (AEWR), the prevailing wage, or the applicable federal or state minimum wage. The AEWR is based on a labor survey conducted by the U.S. Department of Agriculture (USDA) annually. It is the minimum wage that will not affect the employment opportunities for each state in the U.S. The prevailing wage rate comes from the survey funded by the U.S. Department of Labor (DOL) (Mayer, 2008).

In addition, the employer is required to offer acceptable living conditions. This includes free standardized housing if the worker is not able to commute back and forth, and three meals a day for free. The alternative is to furnish a free kitchen for workers to cook by themselves (H-2A Temporary Agricultural Program, 2009). For transportation, the amount paid by the employer shall be no less than the most economical and reasonably similar alternative mode to the transportation charges for the distances involved (H-2A Program (Agricultural), 2007).

Some of the detailed regulations have also been revised. For example, the employers are required to state all the duties required for the position, which could make the process of applying for an H-2A visa more complicated (Souza, 2010). The 50 percent rule was also added recently, saying that if a qualified domestic worker applied for the job after the certification of H-2A, the employer is required to hire a replacement domestic worker as long as the foreign

worker has not reached half of the total working period. As a result, the foreign worker can be sent back to his/her country of origin.

In addition, the application process can be complicated, costly, and time-consuming. All the potential candidates must be outside of the country at the time when employers fill applications forms. After being approved, foreign employees are required to apply for an H-2A visa in their own country (Center for Global Development, 2016). The required H-2A fee is \$325 (U.S. Citizenship and Immigration Services, 2016), and the approximate processing time is 3-8 months (Migration Expert, 2016).

Obviously, the minimum living condition requirements are aimed to protect the welfare of foreign agricultural workers, whereas the application process and regulations towards hiring foreign agricultural labors protect domestic seasonal farm workers. As a consequence, the process of hiring aliens to conduct seasonal agricultural work is complicated and costly. Despite many restrictions, the number of issued H-2A visas has been increasing every fiscal year (Lowell, 2011), which means there are still many farmers who are willing to help foreign workers outside the U.S. get legal working status via H-2A program.

2.3 Literature Review on U.S. Sub-Federal Immigration Laws and the Agricultural Sector

Whether the strict sub-federal immigration laws really affect the labor market has been debated for a long time. On one side, there are studies claiming that these laws could hurt local economies and result in labor shortages in the farm sector. For instance, Baxter (2011) wrote a report in October 2011 saying that the passage of Georgia (HB 87) will lead to “a \$300 million loss in harvested crop statewide in Georgia.” The author claimed that agriculture is a critical part of Georgia’s economy and is easily affected by migrant workers, who are important due to the “berries” pattern of Georgia’s agricultural economy (Baxter, 2011). The author concluded that

agriculture-intensive states cannot benefit from anti-immigrant laws as expected (Baxter, 2011). However, others argue that the claim of labor shortage does not really exist. For instance, Martin (2007) reported little evidence on the claim that U.S. has a labor shortage problem (Martin P. , 2007). The author found there were no unproportional increase in farm workers' salaries based on reports from USDA, which contradicted plausible assumptions between labor shortages and wage rates that lack of farm workers would increase wage rates (Martin P. , 2007).

There are also some studies that focus on examining the effects of sub-federal immigration laws on the U.S. economy using economic and statistical models. For example, Pham and Van (2010) conducted a study under the assumption that the county-level 287(g) program has effects on local labor markets. Data was collected from the Census Bureau's CBP database, which is updated annually and provides important non-farm information (Pham & Van, 2010). The authors used a Difference in Differences (DD) model to investigate if the passage of 287(g) program had some effects on labor supply. They found that restrictive immigration laws do have an overall negative effect on economic activity (Pham & Van, 2010). They also focused on industries that traditionally rely heavily on labor and found that the immigration laws have a small negative effect on these industries (Pham & Van, 2010).

Pham and Van's (2010) research is basically an analysis related to non-farm economic activities. As agricultural is an important industry in the U.S., Kostandini, Mykerezi, and Escalante (2014) analyzed the effect of county-level 287(g) program on the farm sector. The study can be separated in two parts. First, the authors used individual-level data from American Community Survey (ACS) to examine if there was a negative effect on the number of non-citizens within counties that signed 287(g) agreements. Second, the authors used county-level data collected from the U.S. Census of Agriculture's farm survey data to see if

agricultural patterns (such as labor use and payments, fuel expenses, and crop choices) had changed due to the enactment of 287(g) agreements. Using a Difference-in-Differences model, the study found a decrease in the share of non-citizens after 287(g) agreements. The decrease in labor supply increased agricultural wages. In addition, they found a decrease of farm incomes, a decrease of labor expenses as a share of total expenditures, and a decrease in the number of workers hired (Kostandini, Mykerezzi, & Escalante, 2014).

In addition to economic sectors, Bohn, Lofstrom and Raphael (2014) further conducted a study, which focused on the relationship of immigration laws and the number of noncitizen Hispanics in Arizona (Bohn, Lofstrom, & Raphael, 2014). The 2007 Legal Arizona Workers Act (LAWA) was one of the strictest immigration laws. The authors examined if the passage and implementation of LAWA resulted in a change in the share of Hispanic noncitizens (Bohn, Lofstrom, & Raphael, 2014). Using data from the monthly Current Population Survey (CPS), the authors constructed a data-driven search to find comparable states instead of simply choosing states adjacent to Arizona. Using a Difference-in-Differences model, the authors found that the proportion of the Arizona population who are Hispanic noncitizens declined significantly after the passage of LAWA, whereas there were no such phenomena in other comparable states. Furthermore, rental vacancies increased in Arizona at the time of post-LAWA. The result of this study showed that strong state immigrant laws could affect population composition within the state.

Fan, Gabbard, Pena and Perloff (2015) published a study that examines the reason for the existence of fewer migrated agricultural workers nowadays. Using data from the National Agricultural Worker Survey (NAWS), which has “basic demographic characteristics, legal status, wage, and working conditions from a sample of farmworkers in several cycles each year” (Fan,

Gabbard, Pena, & Perloff, 2015). Fan, Gabbard, Pena and Perloff (2015) used the linear probability model to analyze labor migration for each year of the sample, and then decompose the drop of migrated workers into two parts: the “structural” change, which results from economic conditions, government regulations in both U.S. and Mexico, and “demographic composition” change (Fan, Gabbard, Pena, & Perloff, 2015). The research results indicate that the newly-enacted immigration laws contributed significantly to the demographic composition change. Since migrant agricultural workers are important suppliers of seasonal labor, the authors called for the attention to the negative effect of immigration laws on agriculture.

Research on H-2A visas is very limited. One of the existing papers on H-2A visas and farm work was conducted by Escalante and Wu (2013). The authors analyzed U.S.’s organic farms’ dependence on seasonal farm workers prior to the strict immigration laws’ enactment. Organic farms rely more on labor due to less dependence on pesticides and other chemicals, more soil enhancement investments, and usually the small scales of business makes organic farms less likely to be highly dependent on machinery support (Escalante & Wu, 2013). Escalante and Wu (2013) used data from the 2002 Organic Farm Research Foundation (OFRF) national survey along with wage and employment data from the Bureau of Labor Statistics, and applied several empirical models. While their study focused on early 2000s prior to the strict immigration laws and right after the September 11 terrorist attacks, the authors found that certain demographic and structural factors such as education, age, type of business organization, and enterprise types could significantly affect the hiring decision in favor of foreign seasonal agricultural workers (Escalante & Wu, 2013). Also, wage is an important factor for attracting workers (Escalante & Wu, 2013).

CHAPTER 3

METHODOLOGY AND DATA

3.1 Methodology

One of our hypotheses is that certain county-level socio-economic characteristics may have an influence on whether a county passes immigration laws. For instance, the poverty rate within a county could possibly increase the possibility of signing 287(g) agreements. We use county-level data to examine the factors that may affect the decision of a county to sign any anti-immigration laws.

In addition, the passage of sub-federal law enforcements may be driving illegal immigrants away. Having a higher risk of being arrested and then deported from the U.S., these illegal immigrants may move from the adopted county (or state) to a county (or state) that is more lenient on anti-immigrant law enforcement (Kostandini, Mykerezi, & Escalante, 2014). Thus, filing an H-2A visa application seems to be a good way to both legalize the status of undocumented employees and save some cost on farm labor expenses. Under this circumstance, our second hypothesis is that strict sub-federal law enforcements will increase the total number of H-2A applications.

To analyze the probability of a local government signing anti-immigrant laws makes the dependent variable binary, because these laws can be either “passed” or “not passed.” Thus, we use a probit model with random effects to analyze how certain economic factors affect the probability of enacting an immigration law. The random effect model assumes that the correlation of consecutive error terms is constant, and hence it is regarded as an ‘equicorrelation’

model (Arulampalam, 1999).

The empirical model for the first part of our study is:

$$everpostc_{ct} = \alpha + X_{ct}\beta + \gamma_{ct} + u_{ct} \quad (1)$$

Where $everpostc_{ct}$ indicates whether county c signed 287(g) program in time t . $everpostc_{ct} = 1$ denotes the passage of 287(g) while 0 denotes otherwise. In this case, we remove counties where the state signed the 287(g) program, and leave all counties where there was no state-wide 287(g) program passed. X_{ct} denotes county-level socioeconomic variables. In this study, we use county-level poverty rate, percentage of Hispanic males to total male population within a county, real per capita personal income, per capita total number of jobs, and real per capita unemployment insurance compensation. We also add a dummy variable called Urban that takes a value of 1 when the county belongs to a Metropolitan Statistical Area (MSA), and 0 otherwise. γ_{ct} denotes the random effects error term by county c at time t , and u_{ct} is the error term. We then derive the average marginal effect of each variable to determine the predictors of probabilities when each variable changes one unit, holding other variables constant. In this model, we apply data from 2000 to 2013. Variable descriptions are displayed in Table 2.

Table 2 Definitions of Variables in the Probit Model

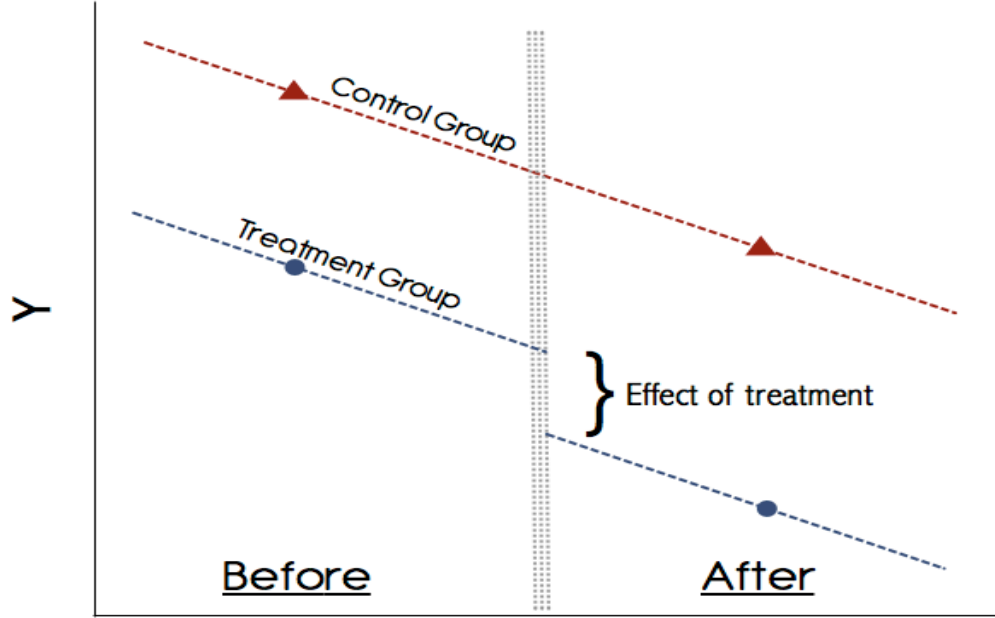
Variable	Description	Unit
poverty	County-level poverty rate	Percentage
rpersonalinc	Real personal income	'000 2009 USD
rpcunemplcomp	Real per capita unemployment insurance compensation	(2009 USD)
pctotjobs	Per capita number of total full-time and part-time jobs	Percentage
hispanicpct	Total number of Hispanic male / total male population	Percentage
Urban	=1 if a county is in an Metropolitan Statistical Area (MSA)	1 or 0
rpcunemplcomp	Real per capita unemployment insurance compensation	(2009 USD)

To analyze the impact of sub-federal immigration laws on H-2A visa applications, we use a Difference-in-Differences (DD) model and control for several factors that may influence the

dependent variable. For example, many people lose their jobs during recession times, so reasonable assumptions have been made that the demand of foreign labor could decrease due to the increase of domestic labor supply. In this case, the number of H-2A visa applications might also be decreasing, which is not a result of immigration laws. Another problem is, the difference of H-2A visa applications between a treatment group (where there are sub-federal anti-immigrant laws enacted) and a control group (no enforcements) may not always be the same, but it is not the laws causing this problem (Pham & Van, 2010).

Under certain assumptions, the DD estimation makes it possible to only analyze the effect of stricter laws on H-2A visas. We assume that observations in both treatment and control group have the same pre-trends when no treatment is added as shown in Figure 1. In addition, we assume that the difference between the two groups does not change over time. In our study, this means that the trends of county-level H-2A applications during the pre-adoption of sub-federal immigration laws are the same for all counties in the Southeast region. We set the states and counties that do not have anti-immigrant law enforcement as the control group, whereas those areas where sub-federal laws have been passed belong to the treatment group. Due to this study's sample of geographic units that are in close proximity to each other, we assume that all the states and counties in the Southeast region have similar agriculture patterns.

Figure 1 DD Model



Because the assignment of 287(g) program is not a random selection, it is necessary to add county fixed effects and year fixed effects to the model, which makes the model unbiased by controlling for “time-invariant” factors. County fixed effects help us control “time-invariant differences” across counties, and year fixed effects help to control macro trends (Pham & Van, 2010).

The empirical model for the second part of this study is:

$$Y_{ct} = \alpha + \beta Postc_{ct} + \rho Posts_{ct} + \lambda t + unemlag_{ct} + \epsilon_{ct} \quad (2)$$

Here, we build two DD models in order to separately examine how sub-federal immigration laws affect number of workers requested through H-2A visa applications and certified within a county. Since the application could be withdrawn or denied, number of requested workers is always greater than or equal to number of workers certified. Thus, Y_{ct} denotes two dependent variables: requested and certified number of H-2A workers. In cases where the employer's county is different from the working place's county, we consider the employer's county. α_c

denotes the county fixed effect, λt denotes the year fixed effects. $Postc_{ct}$ and $Posts_{st}$ are two dummy variables where $Postc_{ct} = 1$ if the corresponding county signed 287(g), $Posts_{st} = 1$ if the corresponding state signed an anti-immigrant law, and 0 if otherwise. In the case when both dummies are equal to 1, we set $Posts_{ct} = 0$ because county-level immigration law could be more powerful. $unemlag_{ct}$ is the variable for lagged unemployment rate, and is added as a control variable, because the previous year's unemployment rate may play an important role in explaining the hiring decision in favor of foreign agricultural workers. ϵ_{ct} is the error term.

The total number of farmland acres for each county is added as a weight. It is commonly assumed that the more acres of farmland a county has, the more labor a county demands. Adding this variable will help identify the impacts that anti-immigrant law enforcements have on the total number of visa applications regardless of how much land a county has. Data includes H-2A visa applications from 2006 to 2014. The variable information for the DD model is listed in Table 3.

Table 3 Definitions of Variables in DD model

Variable	Description
requested	Total number of H-2A workers requested by farm employers
certified	Total number of H-2A workers fully certified
t	Year (2006-2014)
postc	=1 if a county signed 287(g)
posts	=1 if a county is in a state that signed anti-immigrant laws
unemlag	Lag of unemployment rate
landarea	Land in farms (acres)

3.2 Data

The main data for this paper comes from the farm-level H-2A visa applications of the Southeast region from 2006 to 2014 posted on the website of the Department of Labor (DOL). It contains the total number of H-2A workers for every employer in a specific year. We identified the county that the employer belongs to based on the 5-digit zip code provided for every

employer. To analyze if the anti-immigrant laws affect the number of H-2A visas issued at the county-level, we summed the total number of workers that were requested and also added number of workers that are fully certified (i.e. the number of workers that were granted H-2A visas). There might be some individual application factors that made the specific employer get turned down by the government. The total number of applications requested (filed) is more likely to reflect employers' desire on hiring undocumented farm workers.

For immigration law enforcement, we use county and state level data. For counties, we use 287(g) agreements. For states, we have both 287(g) agreements and other immigration laws, such as the E-verify² type laws described previously and all others adopted from 2000 to 2014. The source of 287(g) data is from the U.S. Department of Homeland Security.

Unemployment rates are found on the Bureau of Labor Statistics website. Information on poverty rate and population are found on the U.S. Census Bureau. Other economic data such as unemployment insurance compensation per capita and personal income per capita come from the Bureau of Economic Analysis. All these datasets are at the county-level.

For the agricultural data collection, we use county-level tabulations from the Census of Agriculture, which is conducted every five years by the United States Department of Agriculture National Agricultural Statistics Service (USDA NASS). Given the panel nature of this study's dataset, we only use the variables that are collected yearly except for acres of farmland in a county, which is collected by the Census of Agriculture. We use the 2002, 2007 and 2012 census data on farmland acres as a weight in our DD model, and it is assumed that acres of farmland do not change much between consecutive years. Table 4 presents the summary statistics of all the variables in both the Probit and DD model.

²All legislations that require mandatory E-verify can be found on:
<https://www.numbersusa.com/content/learn/illegal-immigration/map-states-mandatory-e-verify-laws.html>

As we can see in Table 4, on average, Hispanic males constitute around 4% of the male population within a county. In addition, 35% of the counties in our sample belong to an Metropolitan Statistical Area, which generally have less farm land acres. Mean value of *posts* is greater than *postc*, which means that more immigration laws come from the state level. Also, there is a big difference in farm land areas for counties, with a standard deviation of 95,932.77, since some states (E.G. Georgia) have a large number of counties.

Table 4 Summary Statistics

Variable	Description	Mean	Standard Deviation
Probit Model			
poverty	Poverty rate in a county	19.16%	6.14
rpcpersonalinc	Personal income divided by resident population (\$ per capita)	28,719.71	5,382.62
rpcunemplcomp	Unemployment insurance compensation divided by resident population (\$ per capita)	184.85	117.74
pctotjobs	Total number of jobs divided by resident population	0.46	0.13
hispanicpct	Share of Hispanic male to total male population	3.79%	0.04
Urban	=1 if a county belongs to an MSA	0.35	0.48
DD model			
postc	=1 if a county signed immigration laws	0.018	0.13
posts	=1 if a state signed immigration laws	0.33	0.47
unemlag	Lag of unemployment rate	8.21	2.88
Requested	Number of H-2A Applications requested	158.70	539.15
Certified	Number of H-2A Applications Certified	136.77	480.59
landarea	Acres of farmland in a county (acres)	143,186	95,932.77

CHAPTER 4

RESULTS

4.1 The RE Probit Model Results

In the probit model, parameter estimates indicate the probability that the dependent variable equals to 1, which is the probability that a county will sign 287(g) program in our study. Table 5 presents these coefficient estimates.

Table 5 Random Effects Probit Model Results

Parameter	Estimate	Standard Error	z	P > z
poverty	-0.02	0.02	-0.83	0.406
rpcpersonalinc	4.37e-06	0.00002	0.25	0.804
rpcunemplcomp	0.003	0.0005	5.07	0.000
pctotjobs	1.63	0.67	2.43	0.015
hispanicpct	25.58	2.62	9.76	0.000
Urban	9.04	203.85	0.04	0.965
Intercept	-14.34	203.85	-0.97	0.944
Marginal Effect				
	dy/dx	Standard Error	z	P > z
poverty	-0.0003	0.0004	-0.83	0.407
rpcpersonalinc	7.10e-08	2.86e-07	0.25	0.804
rpcunemplcomp	0.00005	8.46e-06	5.93	0.000
pctotjobs	0.03	0.01	2.42	0.015
hispanicpct	0.42	0.04	9.91	0.000
Urban	0.15	3.31	0.04	0.965
Number of Observations		5026		

Results suggest that the real per capita unemployment insurance compensation (rpcunemplcomp), share of Hispanic male (hispanicpct) and per capita total number of jobs (pctotjobs) significantly affect the probability of a county having a 287(g) agreement. Real per capita unemployment insurance compensation has a positive effect, which means that when the unemployment insurance compensation increases, the probability of a county signing 287(g) program increases. A plausible explanation could be that when unemployment insurance compensation increases, more workers are not working. Instead, they stay unemployed and get compensated from the insurance program. Thus, the county could possibly pass local anti-immigrant laws to drive undocumented workers away so that more residents would be employed. When labor supply decreases, employers have to increase the base wage rate. Higher wage rate may attract more legal workers going back to work.

For shares of Hispanic males, the coefficient implies that a higher population of Hispanic males results in a higher probability for local governments signing stricter immigration laws. Certain assumptions were made that most of the illegal immigrants in the U.S. are Hispanic (Bohn, Lofstrom, & Raphael, 2014; Davis, 2013), and most agricultural workers are male due to the harder working conditions in the agricultural sector. Under the previous assumptions, the parameter estimate suggests that a higher share of Hispanic male population to total male population can be a plausible explanation that the county has potentially more illegal workers. This could make the local government take efforts to tighten the laws towards undocumented people and thus try to protect legal workers.

The per capita total number of jobs is also a significant variable, and it has a positive effect, suggesting that the probability of having a 287(g) increases when the per capita total number of jobs available in a county increases.

To analyze the magnitude on how each explanatory variables predicts the probabilities of signing county-level 287(g) agreements, holding other variables constant, the marginal effects are also provided in Table 5. The results suggest that among all three significant variables, the share of Hispanic male population contributes most to the decision on whether to sign local immigration laws. A 1% increase in the share of Hispanic male population will result in a 0.42% increase in the likelihood of a county signing anti-immigrant laws. The marginal effect of per capita total number of jobs suggests that an increase of 0.03% on the probability of signing a 287(g) program will occur when per capita total number of jobs increases by 1 unit. The other significant variable (*rpcunemplcomp*) has very little influence on the probability of a county government to sign 287(g) program due to the low magnitude of the coefficient estimates.

4.2 The DD Model Results

As some research points out, undocumented workers might walk away from areas where strict immigration laws were signed (Kostandini, Mykerezi, & Escalante, 2014). Instead, employers may apply for an H-2A visa to legally attract temporary foreign agricultural workers. As a result, our expectation is that H-2A visa applications could increase after the enactment of immigration laws.

Table 6 presents the coefficient estimates of the DD model when the dependent variable is the total number of applications certified, whereas Table 7 presents coefficient estimates when the dependent variable is the total number of applications requested by employers.

Table 6 DD Regression Results with Certified Number of Workers

Parameter	Estimate	Standard Error	t	P > t
Postc _{ct}	-3.38	23.70	-0.14	0.887
Postsc _{ct}	-48.01	12.82	-3.74	0.000
unemplag	7.29	3.49	2.15	0.032
Intercept	77.81	26.19	2.97	0.003
Number of Observations	3052			
R-Square	0.89			
Adj R-Square	0.87			

The parameter estimates in Table 6 indicate that *Postc_{ct}* is insignificant. This means that county-level 287(g) agreements do not have an effect on the approved H-2A applications in the Southeast region. However, counties in states with stronger immigration laws appear to file less H-2A applications after the laws were passed. The same result is also found when the dependent variable is the number of H-2A visa applications requested by employers in Table 7.

Table 7 DD Regression Results with Number of Workers Requested

Parameter	Estimate	Standard Error	t	P > t
Postc _{ct}	-85.71	76.90	-1.11	0.265
Posts _{ct}	-45.23	17.69	-2.56	0.011
unemplag	13.92	5.08	2.74	0.006
Intercept	44.23	41.74	1.06	0.289
Number of Observations	3235			
R-Square	0.87			
Adj R-Square	0.84			

From the two tables, except for the intercepts, the parameter estimates produce the same signs and significant levels. Surprisingly, *Postc_{ct}* is insignificant in both models, which contradicts our previous assumption: passage of local immigration laws will increase the H-2A applications because employers need workers and will try to avoid penalties by the government if they hire illegal immigrants. A plausible explanation for this result could be that there are too few counties that signed 287(g) programs in the Southeast. In fact, only 13 out of 534 counties that applied for H-2A visas passed 287(g) program. In addition, many of these counties are urban counties. For instance, Cobb County in Georgia signed 287(g) agreement in 2007 to control the population of undocumented immigrants, but there are not many acres of farmland in the county. Thus, there are few H-2A applications filed by Cobb County farm employers. Actually, only 10 applications were made in Cobb County, Georgia in 2006, when there were no county-level immigrant laws signed yet.

Contrary to *Postc_{ct}*, the coefficients estimates of *Posts_{ct}* in both models are statistically

significant. We expect the parameter of $Postset$ to be positive because we assume more employers will apply for a visa for their illegal employees due to the restrictions added by the law. However, the coefficients are negative indicating that after the passage of state level immigration laws employers reduce the number of workers that they request through the H-2A visa program. For example, the coefficient on the number of certified workers is -48, which indicates that, after the passage of immigration laws, farmers in counties where states passed strong immigration laws, requested on average, 48 less workers compared to the control group after the passage of laws relative to the period before the passage. A plausible explanation is that after the enactment of immigration laws, many undocumented residents migrated to areas that do not have strict laws targeted towards them, or new immigrants do not move to areas with strict immigration laws, thus the total number of illegal immigration have decreased in the adopted states and counties. Once an employer needs to hire farm workers and promises to apply for a legal status, they are not willing to relocate again to the states that have immigration laws. And it is possible that the illegal immigrants could find a job in the new place they moved to with equivalent working conditions and compensation. However, an employer can always hire foreign workers who are outside of the country, and the potential farm workers abroad might be willing to apply for the H-2A visa and then migrate to the U.S. even when the working place has strict anti-immigrant laws. Another explanation is probably because employers in the adopted area changed their enterprise type to less labor-intensive crops, or they adopted more machines to solve the problem of labor shortage (Luo & Kostandini, 2015). Thus, the passage of statewide anti-immigrant laws has resulted in a negative effect on county-level number of H-2A visa applications.

In addition, the negative sign of $Postset$ could also result from the biases of the estimation.

There might be some other variables that are significant but not included into the DD model. As a consequence, the existence of these variables makes the error term correlated to *Post_{sect}*. However, because this study has a panel data, there are few data sources that have county-level data for each year from 2006 to 2014. Tests on pre trends could be conducted in future research to validate the parallel trend assumption.

Another significant variable is the lag of unemployment rate, which has a positive effect on the total number of H-2A workers. The increase of previous year's unemployment rate signals more labor supply. Thus, the labor shortage in the agricultural sector may provide some relief to the unemployment conditions, and usually farmers do not need to apply for a temporary working visa for illegal immigrants because there could be more domestic workers available. We assume the higher lag of unemployment rate will decrease total number of H-2A workers requested. However, the opposite result is obtained in this analysis. It is possible that unemployed workers still do not tend to work in agriculture due to the relatively uncomfortable working conditions in the sector. In fact, there is anecdotal evidence that domestic workers do not prefer agricultural jobs. In addition, it is possible that farm employers still want to hire undocumented foreign labor because they tend to work harder and are more likely to stay in the farm until the end of the busy season.

CHAPTER 5

CONCLUSIONS

In this study, we examine the relationship between some conditions of the local economy and sub-federal immigration laws, and then we further examine the possible effect that local immigration law enforcements have on foreign seasonal agricultural labor supply, which is measured by the total number of H-2A visa applications.

We use a Random Effect Probit model to examine the first objective. Our results indicate that real per capita unemployment insurance compensations, per capita total number of part-time and full-time jobs, and the share of Hispanic males to total male population within a county have a positive effect on the probability that local governments will sign county-level 287(g) agreements. This finding provides evidence that local economic conditions and share of Hispanic population do have some effects on whether county governments consider signing immigration laws or not.

We further use a Difference in Differences (DD) model to examine if the passage of sub-federal immigration laws could have some effects on the number of H-2A visa applications. We find that state-level strict immigration laws have a negative effect on the number of H-2A visa applications, which contradicts our previous assumption. This may suggest that farm employers could have considered shifting to the production of crops that are less labor-intensive, could have employed more machines as a substitute for the inadequate labor input, or that the H-2A program is long and costly. Thus the state-wide strict immigration laws have not increased the total number of H-2A visa application as expected.

Overall, this thesis provides some contrary evidence to those obtained in previous studies that focused on how sub-federal immigration laws could have influenced the local economy and labor force. In addition, this study examines if the enactment of local immigration laws could contribute to increases in the number of applications for H-2A visas. As a wave of local immigration laws have been passed since the late 2000s, more in-depth research efforts on immigration laws could provide additional implications for the business viability of firms in the agricultural sector, as well as in the entire U.S. economy.

REFERENCES

- American Civil Liberties Union. (2016). *State and Local Immigration Laws*. Retrieved from American Civil Liberties Union:
<https://www.aclu.org/immigrants-rights/state-anti-immigrant-laws>
- Arulampalam, W. (1999). A note on estimated coefficients in random effects probit models. *Oxford Bulletin of Economics and Statistics* 61.4 , 597-602.
- Baxter, T. (2011). *How Georgia's anti-immigration law could hurt the state's (and the nation's) economy*. Retrieved from Center for American Progress:
<https://www.americanprogress.org/issues/immigration/report/2011/10/04/10486/how-georgias-anti-immigration-law-could-hurt-the-states-and-the-nations-economy/>
- Bohn, S., Lofstrom, M., & Raphael, S. (2014 йил May). Did The 2007 Legal Arizona Workers Act Reduce The State's Unauthorized Immigrant Population? *The Review of Economics and Statistics* 96(2) , 258-269.
- Capps, R., Rosenblum, M. R., Chishti, M., & Rodríguez, C. (2011). *Delegation and divergence: a study of 287 (g) state and local immigration enforcement*. Washington, DC: Migration Policy Institute, 2011. Retrieved from Migrant Policy Institute:
<http://www.migrationpolicy.org/research/delegation-and-divergence-287g-state-and-local-immigration-enforcement>
- Carroll, D., Georges, A., & Saltz, R. (2011). Changing characteristics of US farm workers: 21 years of findings from the National Agricultural Workers Survey.
- CBS Money Watch. (2010 йил 27-September). *Despite Economy, Americans Don't Want Farm Work*. Retrieved 2016 from CBS Money Watch:

- <http://www.cbsnews.com/news/despite-economy-americans-dont-want-farm-work/>
- Center for Global Development. (2016). *Center for Global Development*. Retrieved 2016, from H-2A Program for Temporary Agricultural Workers:
- http://www.cgdev.org/doc/migration/H-2A_Fact_Sheet8.6.pdf
- Danger, C. (2000). The H-2A Non-Immigrant Visa Program: Weakening its Provisions Would be a Step Backward for America's Farmworkers. *The University of Miami Inter-American Law Review* .
- Escalante, C., & Wu, Y. (2013). The U.S. Organic Farm's Dependence on Foreign Seasonal Farm Workers in the Post 9/11 Drive Against Illegal Immigration.
- Escalante, C., Kostandini, G., & Mykerezi, E. (2014). The Decentralization of Immigration Enforcement and Implications for Agriculture.
- Fan, M., Gabbard, S., Pena, A. A., & Perloff, J. M. (2015). Why Do Fewer Agricultural Workers Migrate Now? *American Journal of Agricultural Economics* 97.3 , 665-679.
- Hyder, S., & Orlando, A. (n.d.). *Arizona Senate Bill 1070*. From John Jay College of Criminal Justice: http://johnjay.jjay.cuny.edu/files/academics/8eth_eng_Jodie_Roure_Poster_by_Shahzeb_H__Ashley_O.pdf
- Kostandini, G., Mykerezi, E., & Escalante, C. (2014). The Impact Of Immigration Enforcement On The U.S. Farming Sector. *American Journal of Agricultural Economics* 96.1, 172-192.
- Lakayo, E. (2010). The Impact of Section 287(g) of The Immigration and Nationality Act on The Latino Community.
- Lowell, L. (2011). Growing Modern American Guestworkers: The Increasing Supply of Temporary H-2A Agricultural Workers. Washington, DC, United States.

- Luo, T., & Kostandini, G. (2015). The Effect of Stringent Immigration Policy on Agricultural Innovation and Mechanical Adoption.
- Martin, P. (2007 йил November). *Farm Labor Shortages: How Real? What Response*. From Center for Immigration Studies:
<http://www.cis.org/sites/cis.org/files/articles/2007/back907.pdf>
- Martin, P. L. (1982). Select Commission Suggests Changes in Immigration Policy - A Review Essay.
- Mayer, G. (2008). *Temporary Farm Labor: The H-2A Program and the U.S. Department of Labor's Proposed Changes in the Adverse Effect Wage Rate(AEWR)*.
- Migration Expert. (2016). *U.S. Seasonal Agricultural Worker Visa (H-2A) Information*.
 Retrieved from Migration Expert:
https://www.migrationexpert.com/frequently_asked_visa_questions/us_faq_work_seasonal_agricultural_worker_visa/
- Miller, E. W. (1996). United States immigration: A reference handbook.
- Mississippi Legislature. (2008). *SB 2988*. Retrieved from Mississippi Legislature:
<http://billstatus.ls.state.ms.us/documents/2008/html/SB/2900-2999/SB2988PS.htm>
- NumbersUSA. (2011, Oct 20). *MAP OF STATES WITH MANDATORY E-VERIFY LAWS*.
 Retrieved from NumbersUSA:
<https://www.numbersusa.com/content/learn/illegal-immigration/map-states-mandatory-e-verify-laws.html>
- Parrado, E. A. (2012). Immigration Enforcement Policies, the Economic Recession, and the Size of Local Mexican Immigrant Populations. *The Annals of the American Academy of Political and Social Science*, 641(1) , 16-37.

Pear, R. (2007 йил 12-June). *'86 Law Looms Over Immigration Fight*. From New York Times:

http://www.nytimes.com/2007/06/12/washington/12immig.html?_r=0

Peralta, E. (2011 йил 10-June). *Friends And Foes Call Alabama's Immigration Law The Nation's*

Toughest. Retrieved 2016 from npr:

<http://www.npr.org/sections/thetwo-way/2011/06/10/137107117/friends-and-foes-call-alabamas-immigration-law-the-nations-toughest>

Pham, H., & Van, P. (2010). Economic Impact of Local Immigration Regulation: An Empirical Analysis. *Immigration and Nationality Law Review* , 687.

Souza, C. (2010, Feb 17). *Farmers say new H-2A rule adds cost, complexity*. Retrieved from

Agalert: <http://www.agalert.com/story/?id=1483>

Triadafilopoulos, T. (2010). The Limits of Deliberation: Institutions and American Immigration Policy.

U.S. Citizenship and Immigration Services. (2016). *H-2A and H-2B Nonimmigrant Worker*

Classifications. Retrieved 2016, from U.S. Citizenship and Immigration Services:

https://www.uscis.gov/sites/default/files/USCIS/Resources/Resources%20for%20Congress/Congressional%20Reports/2011%20National%20Immigration%20%26%20Consular%20Conference%20Presentations/H-2A_and_H-2B_Visas.pdf

U.S. Citizenship and Immigration Services. (2013). *Immigration and Nationality Act*.

Retrieved from U.S. Citizenship and Immigration Services:

<https://www.uscis.gov/laws/immigration-and-nationality-act>

United States Department of Labor. (2015). *FY 2013 Annual Report Performance Data*.

Retrieved from United States Department of Labor:

<https://www.foreignlaborcert.doleta.gov/map.cfm?year=2013>

APPENDICES

Appendix I Law Enforcements on The E-verify Process in the Southeast Region

State	Law Enforcement	Year Passed	Description
Alabama	HB 56	2011	Requires all businesses, public and private, to begin using E-Verify by April 2012
Georgia	SB529	2006	Requires public employers, contractors and subcontractors with 500 or more employees to participate in E-Verify for all new employees
Georgia	HB87	2011	Requires all private businesses with more than 10 employees
Louisiana	HB 342	2011	Requires all state and local contractors to use E-Verify
Louisiana	HB 646	2011	HB 646 requires private employers to either use E-Verify
Mississippi	SB2988	2008	Requires public and private employers to participate in E-Verify with full participation by July 2011
North Carolina	SB1523	2006	Requires all state agencies, offices, and universities to use E-Verify.
North Carolina	HB36	2011	Requires all employers with more than 6 employees to use E-Verify.
South Carolina	HB4400	2008	Requires the mandatory use of E-Verify for all employers by July 1, 2010.
Tennessee	HB1378	2011	Requires all employers with at least 6 employees to use E-Verify.

Source: (NumbersUSA, 2011)