U.S. CITIZEN CHILDREN IN IMMIGRANT FAMILIES: EFFECTS OF STATE LAWS ON SOCIAL SAFETY NET ENROLLMENT

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ABSTRACT OF THE DISSERTATION

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Background: Laws that constrain eligibility for social safety net programs can have the unintended consequence of discouraging eligible citizens from enrolling. This "chilling effect" of laws at the federal level such as the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), has been previously established by the literature. At the state level, there are an increasing number of restrictive laws using immigration status as an inclusion or exclusion criteria. There has also been an increase in the number of citizen children in the United States that are part of immigrant families, and these children are more likely to be living in poverty or near poverty, experience food hardship, be uninsured, and be in poor health than their counterparts in native families. However, there is little research that has looked at whether these state laws also create an unintended chilling effect on U.S. citizen children in immigrant families. Therefore, this series of studies is designed to test whether restrictive immigration-related state laws passed during 2000 to 2008 had a chilling effect on enrollment in Medicaid, SCHIP, and

food stamp benefits by eligible immigrant families where at least one child is a U.S. citizen. Twenty states were chosen for these studies based on their large immigrant population as a percent of the total state population or because of substantial immigrant population growth over the time period of the analysis.

Aims: The specific aims of these three studies are to: 1) Characterize demographic, economic, and political drivers of state adoption of these restrictive laws. These factors can both be used to address policy endogeneity in studies two and three, and offer insight for state level immigrant advocates. 2) Identify whether there is a negative effect of state level restrictive laws on the enrollment in public insurance of U.S. citizen in immigrants' families. Identify additional factors such as citizenship that may interact with state laws to create lower enrollment for eligible children in immigrant families compared to native families. 3) Understand if there is a chilling effect of restrictive state laws that may lead to lower enrollment in food stamp benefits for immigrant families in a restrictive state policy environment compared to similar families not impacted by these laws.

Results: The first study identified two state economic factors, net revenue and unemployment rates, two demographic factors, the state population's education level and percent of immigrants that are not citizens, and political congruence in the state governing bodies as drivers behind state adoption of restrictive laws. State restrictive laws created a chilling effect that reduced uptake of Medicaid/CHIP among U.S. citizen children in immigrant families compared to children in native families. There was also an

identified impact of the mother's citizenship on child enrollment. No chilling effect was observed for family food stamp enrollment. However, independent of state laws, immigrant families were less likely to enroll in food stamp benefits compared to their native counterparts.

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Introduction

Statement of Problem

Restrictive state policies have been viewed as creating an atmosphere of distrust and fear that hinders immigrant assimilation into the larger community. Immigrant families that face economic difficulties also lack access to services from the social safety net, which places them at a disadvantage compared to native families. While some public policies are meant to hinder service use by undocumented immigrants or certain types of legal immigrants, the "chilling effect" posits that the impact of such restrictive provisions will not only affect those immigrants targeted by the law, but will also have the unintended consequence of discouraging participation by individuals in immigrant families who may in fact be eligible for the safety net services. For example, in analyses of the impact of welfare reform legislation of the 1990's (the Personal Responsibility and Work Opportunity Reconciliation Act or PRWORA), this chilling effect was shown to have an impact on U.S. citizen children in immigrant families by discouraging enrollment in safety net services for which they were eligible (Kaushal & Kaestner, 2005; Van Hook & Balistreri, 2006). The studies of these changes to social welfare legislation that altered access for newly-entered legal immigrants have shown that all immigrant families were affected, not just the intended target of the policy change. The impact of such policies

would be due to both the actual barriers created by the laws and the perceived barriers among immigrants, which yields the chilling effect of these laws.

In the aggregate, children in immigrant families are already vulnerable to poor health outcomes due to socioeconomic considerations. The chilling effect could have important implications for both the rights and health status of children who represent the most vulnerable population group in our society. Decreased access to the social safety net from restrictive laws could contribute to both poor health and to increased food insecurity among those children living in poverty. If eligible U.S. citizen children in low-income immigrant families exhibit lower rates of access to safety net benefits across states with restrictive laws targeted toward immigrants compared to children in native families, such a disparity may reflect an unintended consequence of the chilling effect. As a result, such policies could lead to further disadvantages for already at-risk children and differential treatment for U.S. citizens based on the birthplace of their parents.

Research Questions

This study will test whether restrictive state laws related to immigration status had a chilling effect on enrollment in Medicaid, SCHIP, and food stamp benefits by immigrant families where at least one child is a U.S. citizen and is likely to be eligible for services based on family income. Those state laws implemented during the years 2000 to

2008 will be considered. This period is selected so as to avoid confounding any state legislative effects with the earlier federal implementation of the PRWORA legislation noted above. This time period is also consistent with a period of strong growth in state legislation around immigrant issues more generally. I will estimate the effect of this restrictive state legislation on immigrant families' enrollment in safety net services, using eligible non-immigrant families in the same states as a control group over the same time period.

Chapter One, Immigrants Raising U.S. Citizens: Chapter one will introduce the problem statement and will provide background and context on the status and experience of immigrant families in the United States. The chapter will identify state and federal policies that affect immigrants' access to safety net services and will explore how the chilling effect has been used in previous research. In addition, it will provide a demographic description of immigrant families in the U.S. during the study time-period.

Chapter Two, Interstate Variation in Restrictive Immigrant Related Legislation: The research objective of chapter two is to enumerate state laws that directly impact immigrants' social integration and access to safety net services through the use of immigration status as an inclusionary, exclusionary, or screening categorization. The chapter will also classify these laws as restrictive or non-restrictive of immigrant

integration and access. Additionally, the laws will be categorized as addressing education, regulation, or social welfare. The education category deals with laws regarding public education and funding for secondary education based on immigration status. The regulation category deals with laws that screen individuals based on immigrant status and can affect access to jobs and drivers' licenses. The social welfare category includes laws that affect access to means-tested programs based on immigration status. This categorization will occur for all laws that were enacted at the state level for the identified states between the years of 2000 and 2008 and will thus provide an understanding of the policy environment in the states under analysis.

State laws will be used to assess the impact of the chilling effect. Since such laws are not randomly distributed across states, the analysis will seek to identify factors that influence the enactment of this legislation. This will assist in understanding the legislative climate of each state and also in identifying potential confounders that may be correlated with adoption of state laws and with the outcomes of interest in the subsequent analysis of decisions by immigrants to enroll their children in safety net programs. Failure to control for such confounders can introduce bias into the estimates of the impact of such laws. To implement this analysis, state-level economic, political and demographic characteristics hypothesized to affect the adoption of legislation for the years and states

under consideration will be identified. These characteristics will be used in a regression analysis to identify statistically significant variables associated with the enactment of restrictive legislation. Ultimately, as discussed below, these significant variables will be used in models to assess the possible impact of the chilling effect

Chapter Three, The Effects of State Laws on Enrollment in Medicaid and CHIP by U.S. Citizen Children in Immigrant Families: The objective of chapter three is to examine the impact of state laws within the education, regulation, and social welfare categories on the decision by low-income immigrant families to enroll their U.S. citizen children in public programs that increase their access to health care. The decision to enroll such children in Medicaid and SCHIP will be examined over time among states using differences in the presence of restrictive state laws to identify their impact on enrollment decisions.

To examine this issue, a multivariate, regression-based difference-in-differences (DD) analysis will be applied, comparing the likelihood of enrollment by a "treatment" group of low-income U.S. citizen children in immigrant families to a "control group" of low-income children in native families. It is expected that over time as states adopt more restrictive legislation, the chilling effect will result in a reduction in the likelihood of

safety-net public health insurance enrollment by low-income U.S. citizen children in mixed status families compared to children in low-income native families.

Chapter Four, The Effects of State Laws on Enrollment in the Food Stamp Program by U.S. Citizen Children in Immigrant Families: The research objective of chapter four is to identify and estimate the effect of state legislation targeting immigrants on enrollment in the food stamp program by low-income immigrant families with U.S. citizen children. To do so, a similar DD modeling approach will be applied. Food stamp use will be examined using variation in the presence of restrictive laws over time among states to identify the legislation's impact. The control group for this analysis will be low-income native families with children in the analysis states.

Chapter Five, Summary-Is There a Chilling Effect and What are the Implications for U.S. Citizen Children in Immigrant Families? Chapter five will summarize the key findings of the analyses and discuss the policy implications of the effect of these laws on social safety net enrollment. It will also compare the results to published literature and develop next steps for further research on this issue.

Significance to Public Health

Overall, these chapters will identify key factors in the state's political and economic environment that help to explain the process of adoption of these laws and will

also seek to identify whether an unintended consequence of these laws is a "chilling effect" that reduces the use of needed social services that contribute to the health and well-being of U.S. citizen children in immigrant families. The chilling effect of laws related specifically to immigrants' use of social services for which they have legitimate access has been established at the federal level. By focusing on laws at the state level, this study will be one of the few to consider whether state laws also create an adverse chilling effect on social service access. Previous studies of the chilling effect mostly looked just laws that directly restricted social service use, while this study explores the effect of a broader set of state laws related to immigrant integration into the community. By doing so, this study will examine whether the laws have had unintended consequences on U.S. citizen children in immigrant families who otherwise would have legitimate access to such safety-net benefits. Through this study, the implications of these laws in terms of citizen's rights and public health outcomes may become clear.

Changing demographics mean that an increasing number of children in the United States are part of immigrant families, and these children are more likely to be living in poverty than their counterparts in native families (Dinan, 2005). The federal PRWORA legislation let the states' policy decisions determine in large part immigrant access to the social safety net. As immigration into the U.S. increases, states that

traditionally did not have a large population of immigrants are experiencing significant growth and the traditional immigrant-receiving states continue to see large immigrant populations. This change in population is fueling an already existing debate over the role of immigrants in U.S. society, and is being played out in the pages of the newspapers as well as the halls of government. This debate concerns the impact of immigration on the employment and earnings of the native workforce, on the integration of immigrants into U.S. society and culture, and on our country's security. The concrete outcomes of this debate include legislation that both expands and restricts immigrants' ability to integrate and function in their adopted country. Laws aimed at certain segments of the immigrant population at the federal level have been shown to result in restricting access by U.S. citizen children in immigrant families to the social safety net through a chilling effect.

The chilling effects of state level laws have not yet been fully explored, nor has there been much research on the effects of policies outside of the specific social service eligibility domain. Yet laws that restrict access to employment or make it more difficult to obtain valid identification can create an atmosphere where an immigrant may feel unsafe and uncertain about interacting with government representatives or make it difficult for them to move freely in their neighborhoods. This icy climate may have a similar effect on the use of the safety net as seen in federal legislation and federal enforcement efforts.

The unintended consequences of these laws on U.S. citizens created by a chilling effect can have potential implications for health outcomes. These laws can act as barriers for healthy living, health promotion and healthcare access for vulnerable children. An understanding of the possible unintended consequences of these laws can assist in developing outreach efforts for this vulnerable group of children and their parents. This study will look specifically at the chilling effect on uptake of food stamps as well as insurance access through Medicaid and SCHIP. In addition, the study will catalogue laws by state that could reasonably create this chilling effect and explore state level determinants associated with the adoption of these policies.

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Chapter One: Immigrants Raising U.S. Citizens

Demographic Characteristics of Immigrant Families in the U.S.

Immigrant families in which one or both parents are foreign-born and some family members are United States (U.S.) citizens are increasing in number in the U.S. Foreign-born parents may be naturalized U.S. citizens, legal aliens (legal permanent residents, have a humanitarian visa, or a temporary visa), or undocumented immigrants. In this paper the terms "foreign-born", as seen in U.S. Census and American Community Survey data, are used interchangeably with "immigrant". Many times, some or all the children in immigrant families are U.S. citizens due to birthright citizenship. Birthright citizenship is based on the 14th Amendment to the U.S. Constitution, which was passed in 1868. The amendment grants automatic citizenship rights to anybody born in the U.S. This amendment also explicitly mentions the role of the states in upholding the rights of citizens when it forbids them to "deny to any person within its jurisdiction the equal protection of the laws" (U.S. Const. amend. XIV). The varied composition of families, where one or more of the parents are immigrants, may have implications for policy because laws aimed at immigrants can have an effect on U.S. citizens within immigrant families. This can be seen in the extreme cases of mixed-status families when parents are

deported, leaving U.S. citizen children the choice of staying in their country or staying with their parents.

Immigrants in U.S. 2000-2008

The demographic nature of the American family is changing over time and this is partially due to the increase in immigration as well as the higher birthrates of immigrant families (Mendoza, 2009). The total foreign-born population in the U.S. changed from 31.1 million in 2000 to 38 million in 2008 (Velasco & Dockterman, 2010). Of the foreign-born population in the U.S. in 2000, 40% were naturalized citizens and 60% were non-citizens. The majority of the foreign-born population was born in Latin America (52%) and Asia (26%). Of the population ages 25 and older, the majority did not have advanced schooling, with 33% being less than a high school graduate and 22% with a high-school degree or equivalent (Malone, Baluja, Costanzo & Davis, 2003). The general demographic characteristics of the foreign-born population in the U.S. did not shift significantly over time, despite the overall increase in this population. Of the foreign-born population in the U.S. in 2008, 43% were naturalized citizens and 57% were non-citizens. Latin America (53%) and Asia (27%) still dominated as the regions of origin. In 2008, 30.7% of the foreign-born population had less than a high-school diploma and 25.6% had a high-

school degree (U.S. Census Bureau, 2008b; U.S. Census Bureau, 2008c; U.S. Census Bureau, 2008d).

The 2000 Census showed that there was a total of 13.5 million children under the age of 18 living in immigrant families, where at least one of the parents was foreign-born. This number includes children that were both native and foreign-born. Of this total, 10.3 million were native children in immigrant households (Beavers & D'Amico, 2005). The 2008 data from the American Community Survey (ACS) shows that there were 16.3 million children under 18 in immigrant families, which constitutes 23% of the children under 18 in the U.S. Of those, 13.9 million were native children with at least one foreign-born parent. (U.S. Census Bureau, 2008a). This indicates that there are a considerable number of children in the U.S. that can be affected by legislation aimed at immigrants.

While the majority of these immigrant parents are in the country legally, either through visas or changes to citizenship (Passel & Cohn, 2011), approximately 8% of the babies born in U.S. in 2008 were the children of undocumented immigrants (Passel & Taylor, 2010). The total percentage of children in the U.S. that are part of an immigrant family has been showing a steady increase since the 1990's, from 13% of all U.S. children in 1990 to 23% of all U.S. children in 2008. The majority of these children are U.S. citizens (Mather, 2009). As shown by Table 1 below, the number of children in the states under

analysis that are part of an immigrant family, where one or more of the parents is foreign born, has substantially increased over time. The lowest growth (California and New York) was generally shown among states that had a large number of children in immigrant families at the beginning of the study period. The one exception was Rhode Island, which had both a small population of children in immigrant families and a small growth rate. Tennessee saw the highest growth, over 100%, but Delaware, North Carolina, South Carolina, and Arkansas all saw over an 80% increase in the number of children in immigrant families in their states during the time period of this analysis.

Table 1: Children in Immigrant Families by State in Study

State	(2000)	(2008)	# Change from 2000 to 2008	% Change from 2000 to 2008
Alabama	39,000	67,000	28,000	71.8
Arizona	345,200	504,000	158,800	46.0
Arkansas	35,700	66,000	30,300	84.9
California	4,197,600	4,464,000	266,400	6.3
Connecticut	135,800	173,000	37,200	27.4
Delaware	17,400	34,000	16,600	95.4
Florida	942,700	1,162,000	219,300	23.3
Georgia	235,200	431,000	195,800	83.2
Illinois	660,200	779,000	118,800	18.0
Kentucky	32,200	52,000	19,800	61.5
Massachusetts	286,700	346,000	59,300	20.7
Michigan	214,000	252,000	38,000	17.8
Nevada	147,100	239,000	91,900	62.5
New Jersey	559,100	652,000	92,900	16.6
New York	1,372,100	1,467,000	94,900	6.9
North Carolina	178,200	341,000	162,800	91.4

State	(2000)	(2008)	# Change from 2000 to 2008	% Change from 2000 to 2008
Rhode Island	52,700	54,000	1,300	2.5
South Carolina	46,900	88,000	41,100	87.6
Tennessee	65,900	132,000	66,100	100.3
Texas	1,584,700	2,126,000	541,300	34.2

* Data from the 2000 Census and the 2008 American Community Survey

Immigrant Families and Poverty

Studies show that children living in immigrant households are somewhat more likely to be living in poverty than their counterparts in native households (21% vs. 17% respectively). Additionally, almost half of children in immigrant households (49%) in 2007 lived below 200% of the federal poverty line compared to 36% of children in native households (Mather, 2009). The 2006 to 2008 American Community Survey (ACS) showed that 3.4 million children under the age of 18 with at least one foreign-born parent were living below 100% of the federal poverty line. This was 28.4% of the total number of children living in poverty, slightly higher than their representation in the total population. There were 4.5 million children living in immigrant families that were between100-199% of the federal poverty level in that same time period, which means that 30.8% of children in immigrant households are living in near poverty (U.S. Census Bureau, 2006-2008b). This may be in part due to the socio-demographic characteristics of the children's parents, since a greater number of immigrants compared to native workers

have less than a 9th grade education. Because of this, many immigrants work in non-skilled and low-wage jobs (Capps & Fortuny, 2006).

State and Federal Roles in Immigration

The role of the federal government and the states in immigration has evolved over time. Unlike in the past when immigrants were generally concentrated in a few states, states with traditionally little history of immigration have experienced a large growth of immigrants over time. The federal government controls immigrants' access into the United States, but states are largely responsible for the way these immigrants are absorbed into the local community. State laws have practical consequences for the lives of immigrants and their families.

The role of the federal government in immigration is based on the U.S. Constitution where it states that Congress has the power to establish the rules for naturalization, and further codified in the fourteenth amendment, which established birthright citizenship as well as equal protection under the law (Chacon, 2014). The federal government began to devolve enforcement power to the local level in 1996, through the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) which included clause 287(g). This allowed state, county, and city law enforcement to develop partnerships with the federal government to enforce civil violations of federal

immigration law. The first agreement was signed with the state of Florida in 2002(Capps, Rosenblum, Rodriguez, & Chishti, 2011; Varsanyi, Lewis, Provine, & Decker, 2012). This program evolved to allow states options for participation in immigration enforcement. Watson (2010) investigated the effect of immigration enforcement on Medicaid participation among eligible children of non-citizens and found that increased federal immigration enforcement had a chilling effect on participation between 1993 and 2002, independent of changes to welfare law.

Another way that state legislators are involved in immigrant policy is through statement legislation, which urges the federal government to take action on immigration policy. The third way that state legislation intersects with immigration is when they create laws and policies that are not directly related to the immigration powers reserved for the federal government, but instead focus on areas related to immigrant integration into the community. This third interaction at the state level will be the focus of this investigation.

History of Federal and State Laws Related to Social Service Access by Immigrants

Immigrant access to joint federal and state safety net programs are affected by both federal and state legislation. A prime example of this is the 1996 passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). During President Clinton's second term in the late 1990's there were many changes to federal

welfare provisions under the umbrella of PRWORA. The Act contained restrictions specifically aimed toward the legal immigrant populations in the United States and constituted a radical departure from the past when legal immigrants had the same access to basic welfare provisions and services as citizens. PRWORA changed the access to these programs and gave states the authority to make up these lost provisions for legal immigrants or keep tight restrictions in place. This serves as another example of devolution of authority over immigration provisions from the federal government to the states. After PRWORA became law, citizenship as well as the year that an individual entered the country became important qualifiers for the receipt of social welfare. The immigrant provisions within the act were contained under Title IV and affected means-tested federal benefits including Food Stamps, Medicaid, Supplemental Security Income (SSI), and Temporary Assistance for Needy families (TANF).

Specifically, the PRWORA legislation prohibited legal immigrants who arrived in the U.S. after August 22, 1996 from receiving any means tested federal assistance for their first five years in the country. The legislation permanently barred legal immigrants who arrived after this date from receiving Food Stamps (now known as Supplemental Assistance Nutrition Program – SNAP) and Supplemental Security Income (SSI) unless they became U.S. citizens. The exceptions to this legislation included refugees, individuals

granted political asylum, veterans of the U. S. armed forces, and people who had worked in the U. S. for at least 40 calendar quarters. Refugees and asylees however were limited to seven years of SNAP benefits. In 2002, Congress relaxed the restrictions on the SNAP program so that disabled legal immigrants could receive SNAP regardless of their year of entry. Additionally, legal immigrant children became eligible even within the five-year initial residency period and legal adult immigrants who had been in the U.S. for five years were once again eligible for SNAP. Some individual states set up state-only funded programs for legal immigrants in order to restore services. Once Congress relaxed the restrictions, states had the choice whether or not to expand coverage to these groups (Wasem & Richardson, 2002). Undocumented immigrants have always and continue to be barred from all federally funded benefits, except for medical emergency assistance.

Multiple studies of the changes implemented by PRWORA have been conducted to assess their effect on immigrant household use of services. According to Fix and Passel (2002), decreases in public benefit use after PRWORA enactment were greater for immigrant than nonimmigrant households. The greatest differences were seen for participation in the SNAP and Temporary Aid for Needy Families (TANF) programs. The decline in Medicaid enrollment over that time period was similar for native and immigrant households (Fomby & Cherlin, 2004). Some researchers believe that a

percentage of the decline in immigrant household use of safety net services was due to a robust expansion in the economy (Haider, Schoeni, Bao, & Danielson, 2004; Lofstrom & Bean, 2002). However, even though eligibility was changed for just a small percentage of immigrants, a decline was seen in all immigrant families' use of these services.

In a national survey of community health center patients, it was found that Hispanic respondents were 23 times more likely to be eligible but not enrolled in Medicaid than white respondents and also were likely to report immigration fears as a barrier to enrollment (Stuber, Maloy, Rosenbaum, & Jones, 2000). While overall Medicaid enrollment rates for children in immigrant families are similar to native families, this picture changes when looking at certain subgroups. The subgroups that are at higher risk for lower participation in Medicaid include mixed-status families where one parent is undocumented and families that have language barriers (Berk, Schur, Chavez, & Frankel, 2000; Ku & Waidmann, 2003). In a survey of immigrant families in Los Angles and New York City, close to half of survey respondents did not understand program eligibility requirements for welfare programs and thought that using the programs would adversely impact their ability to become naturalized citizens (Capps, et al, 2002).

In the food stamp program, the value of food stamps received is based on the number of eligible family members, which means that citizen children in families where

some immigrant members became ineligible due to PRWORA received a reduced amount of benefits. This suggests that legislation aimed at immigrants may have a direct effect on U.S. citizen children and that citizen children may receive differential safety net assistance depending on their family composition (Fix & Zimmermann, 2001). Federal legislation aimed at immigrants has been shown to have an effect on U.S. citizen children in immigrant families through multiple mechanisms, including misunderstanding eligibility, fear of the legal implications of accessing services, and changes to eligibility requirements that affect service provision.

Federal immigration law can set the tenor for the immigration discussion and create a framework within which the states negotiate community rights and benefits for immigrants. In 1996, two additional federal immigration laws were passed besides PRWORA, The Anti-Terrorism and Effective Death Penalty Act (ATEDPA) and The Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA). ATEDPA was concerned with making it easier to detain and deport aliens convicted of crimes and to refuse asylum requests without proper documentation. In addition to border and employer immigration enforcement, IIRIRA also linked sponsorship of family members with benefits. This law raised the amount of income required for an individual to sponsor family members to immigrate and made the sponsor financially responsible if the new

immigrant used welfare benefits within a defined time period (Martin & Midgley, 2006). This law could potentially create an impediment for an immigrant to access the social safety net due to fears that it would negatively impact on the immigrants' sponsor, who is often a family member.

State Laws related to Immigration Status

While immigration policy is regulated by the federal government, the complex interaction between the individual and resources necessary for integration into the community, including access to driver's licenses, commercial enforcement of labor laws and the like are controlled by state legislation. There are many laws that govern immigrant inclusion and exclusion in U.S. society, including laws around educational rights, employment regulation, and social service use. Beginning in 1996 with the passage of PRWORA, some states began to fill in the gaps left by the lack of federal coverage for previously covered immigrant groups while others tightened the restrictions further. In 2005, 300 bills dealing with immigration were introduced across all states while 38 laws were enacted. The number of state bills dealing with immigrants continues to increase over time. In 2006 there were 570 pieces of legislation concerning immigrants that were brought before state legislatures and 84 of those in 32 states were actually signed into law. In 2007 this more than doubled to 1,562 state bills introduced of which 240 laws related

to immigration were enacted. In 2008 the strong legislative state action around immigration continued with 1,305 state bills considered, of which 206 were enacted (Morse, 2009). These state laws cover both restrictive and protective legislation toward immigrants. In this context, protective legislation is anything that preserves or expands immigrant's rights or access to services.

Social service access and health outcomes of children in immigrant families

Parental nativity had been shown to play a role in children's health care access, food security, and health status. Children of non-citizen parents are more likely to be reported as being in poor health, and among children in low-income families, children with non-citizen parents are more likely to be uninsured (Huang, Yu, & Ledsky, 2006). The number of low-income citizen children with health insurance has been shown to be significantly lower among children in immigrant families compared to children in native families (Ku, 2007). This may be due to the fact that immigrant parents are more likely to have low-wage jobs that do not offer health insurance coverage and are more likely to work less than full time (Capps, Fix, Henderson, & Reardon-Anderson, 2005; Hernandez, 2004). An analysis of the 1999 National Survey of American families, looking at U.S. citizen children who had one or more foreign-born parents, showed that they look more like foreign born children in terms of lack of access to usual sources of care and lack of

access to health insurance (Huang, Yu, & Ledsky, 2006). In a study by Perirea, et al. (2012) looking at immigrant family access to health and human service programs at the state level, application processes that included questions about legal status and requested social security numbers discouraged immigrant parents from applying, even for eligible citizen children. Often, parents incorrectly assumed that they could not apply for benefits even on behalf of an eligible child.

According to the 2002 National Survey of America's Families, 39% of children in immigrant households reported food hardship, which means that they ran out of food, skipped meals, or ran out of money for food, compared to 27% of children in native families (Capps & Fortuny, 2006). In 2001, approximately 62% of all individuals eligible to participate in the food stamp program actually did participate. This number goes down by half (37% participation) when looking at eligible citizen children living with noncitizen adults (Cunnyngham, 2004). In a study looking at the SNAP participation rate in 2008, only 55% of eligible children living in a family with a non-citizen, compared to 86% for all eligible children, participated in SNAP benefits (Skinner, 2011).

The relative socioeconomic disadvantage of children in immigrant families, due to language barriers, lack of access to healthcare, and poverty, among other factors put them at particular risk for poor health outcomes. Despite the fact that children in immigrant

families are more likely to need a social safety net, they have lower participation rates in all public benefit programs than children in native families, with the exception of public health insurance coverage which is similar nationally across native and immigrant households, but does vary by state (Fix & Passel, 2002). In 2002, children living in immigrant families were twice as likely to be reported in fair or poor health as were children in native families, 10% vs. 4%, respectively (Capps & Fortuny, 2006). The picture that this data paints is of U.S. citizen children in immigrant families vulnerable to poor health outcomes, yet less likely to access the safety net services that may ameliorate these outcomes. Federal law has been shown to create an unintended chilling affect among this at-risk population. The question that will be explored in the following chapters is whether state laws aimed at immigrants also create a chilling effect that may negatively impact access to services for U.S. citizen children in immigrant families.

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Chapter Two: Interstate Variation in Restrictive Immigrant-Related Legislation

The question of why certain states adopt restrictive laws related to immigrant inclusion can inform an analysis of safety net outcomes for children in immigrant families. This analysis explains both the legislative climate of the states and also factors that may affect both legislation adoption and independently, the likelihood of children in these families enrolling in safety net programs. It may also be possible to affect policy outcomes by understanding the drivers behind those outcomes.

The way that theory looks at why states adopt legislation has to do with the demand for policies to meet the identified needs, changes to that policy deemed necessary due to experience with implementation, as well as the diffusion of policy innovations across states. There is considerable literature looking at why states adopt certain types of laws over time looking at issues such as tobacco laws, same sex-marriage restrictions, and death penalty laws among others (Shipan & Volden, 2006; Barclay & Fisher, 2003; Mooney & Lee, 1999). However, there is little research as to why states may adopt legislation aimed at restricting immigrant integration into the community. Ramakrishnan & Lewis (2005) used key informant interviews with local government and law enforcement, as well as immigrant advocacy and civic groups in order to understand why municipalities may adopt certain housing and law enforcement related polices. They

found no economic or demographic characteristics that consistently related to study outcomes besides the percent of the foreign-born population in the city. Another unpublished paper by Ramakrishnan & Wong (2007) looking at adoption of local ordinances around immigration found again that demographics were not a significant factor, but that the political affiliations of the local politicians (Republican vs. Democrats) were. Chavez and Provine (2009) authored a study that looked at state passage of restrictive or protective immigrant legislation passed among all 50 states in 2005 and 2006 using the Migration Policy Institute database. They included demographic data such as ethnicity and percent foreign born, economic data, and crime data in their analysis. None of the demographic factors were found to be significant for passage of restrictive legislation, but states that enacted protective immigrant legislation had a larger Hispanic and foreign-born population. They did not find that political party control of the government was significantly related to state restrictive legislation adoption. The findings on factors related to adoption of restrictive immigrant policy and legislation is inconsistent, but this may be due to the short time frame of the one state-level study, the differences in the type of policies and laws explored, as well as the fact that there may different drivers behind adoption of local and state laws.

For this study, the laws in the states under analysis for the years 2000 to 2008 were categorized and factors identified through a literature review as affecting legislative outcomes were analyzed. The laws were categorized as falling under regulation, social welfare, or education provisions. The largest category, regulation, included among other things restrictive regulation of employment and access to firearms, and was by the far the type of law most likely to be passed by states during this analysis time period. The second largest category was those laws that address social welfare. However, over half of the laws addressing social welfare passed by states were actually protective in nature, expanding access for certain categories of immigrants. The smallest category of laws involved access to public education and education funding.

Alabama, Arizona, and South Carolina passed the largest number of restrictive legislation during the time period under analysis, 26 laws, 28 laws and 19 respectively. Arizona, which passed the highest number of restrictive laws, also passed the greatest number of laws related to immigrants over the eight year time period. Two of the three states, Alabama and South Carolina, experienced significant growth in their immigrant population over the time frame of the analysis. Based on this analysis, across states that passed restrictive legislation, multiple state-level factors were found to have an impact on the number of restrictive laws passed by each state. This included whether Republicans or

Democrats were the majority party and having congruence in party across the legislative governing bodies of the House, Senate, and Governor's office, as well as state net revenues, unemployment rates, percent of non-citizens, education levels, and the year.

Methodology of Law Identification

The analysis is restricted to states in the continental United States that (1) in 2000 and 2008 were at or above the U.S. average for percentage of foreign-born population (13 total), and (2) states that ranked in the top 10 percent in terms of change in foreign-born population from 2000 to 2008. The top ten percent of states experienced an increase of above 48% on average in immigrant population from 2000 to 2008 (Migration Policy Institute, 2010). This criterion was applied to identify states that had reason to enact legislation due to a large population of immigrants and to also consider states with significant growth in their immigrant populations over time. This population change could lead to legislation to address growing concerns in the state regarding immigrants in the community. Twenty states were included in the analysis based on these criteria. States representing criteria one include: Arizona, California, Connecticut, Florida, Illinois, Massachusetts, New Jersey, New York, Rhode Island and Texas. Sates representing criteria two include: Alabama, Arkansas, Delaware, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee. Nevada meets both criteria

for inclusion. Table 1 below shows the number of laws for each state over the target time period that met the inclusion criteria.

Identification and categorization of State Laws

To identify the applicable state laws, a search was conducted through the Lexis Nexus Federal and State Codes, Advanced Legislative Service-50 states, DC, PR, and VI combined. The terms used,

alien OR immigra! OR "nonimmigra!" or citizenship OR noncitizen OR "non-citizen" OR "not a citizen" OR undocumented OR "lawful presence" OR "legal! presen!" OR "legal permanent residen!" OR "lawful permanent resident" OR migrant OR "employment eligibility" OR "unauthorized worker" OR "human trafficking" OR refugee AND date > 31 December 1999 AND date <01 January 2009,

were based on legislative searches conducted by the Migration Policy Institute (Laglagaron, Rodriguez, Silver, & Thanasombat, 2008).

Inclusion and Exclusion Criteria

The first part of the legislative analysis eliminated legislation from the search that did not involve any active change dealing with immigrants in the year that the bill was passed. Many times bills will be approved in order to affect small changes to the wording or add clarification that does not in any way impact on immigrants. These bills were excluded from the analysis as they did not reflect any active changes to the state law

affecting the population of interest. In addition, each bill was checked to make sure that it was passed by the governor and in states with line item vetoes that the part of the legislation dealing with immigrants was not vetoed.

For this analysis a number of laws were excluded from consideration. The legislation that was excluded includes program funding bills, laws for the purpose of celebration or commemoration, laws that regulate alien business or taxes, development of taskforces or studies, legislation related to divestment, laws regarding migrant housing and education, laws related to child support, adoption, or custody, laws related to selective service, and those laws related to identity theft (except as specific to fraudulent citizenship or visa identification). If two versions of a bill are passed the same year that offer the same language and/or impact on immigrants within the state, for example similar laws passed in the same year in the house and senate, then the law was only counted once.

Then the legislation was checked to make sure that it met inclusion criteria. The year of the legislation is the year that the bill was passed into law. The law had to have been passed within the 2000 through 2008 legislative sessions in one of the twenty states under analysis. The law must either restrict or expand access, rights, or community integration related activities based on immigration status. The remaining legislation was

then classified to determine if the law affected education, regulation, or social welfare, and then further to classify the law as restrictive or non-restrictive regarding immigrant rights and access.

Education refers to laws that either allow for or restrict immigrants from receiving funding for secondary education, and also restrict or protect undocumented immigrant access to the public education system. This legislation would have a direct impact on the ability of immigrants over time to develop the human capital and credentials necessary to obtain access to well-paying employment and health benefits. *Regulation* refers to laws that authorize and/or require law enforcement, government workers, and private citizens to screen individuals for legal status. An example of this would be an employer who is required to screen their employees to ensure that they are permitted to work in this country. It also includes limitations on access to identification such as driver's licenses and requiring or prohibiting local law enforcement to check for legal status during routine traffic stops and other similar events. In addition, this category includes restriction on employment categories, such as requiring the employee to be a U.S. citizen. These laws may make it difficult for an immigrant to gain access to jobs either directly or due to employer or immigrant fears, and may restrict access to transportation, banking, etc. These restrictions can have a direct effect on the ability of the immigrant to integrate

into the community and provide for themselves and their family. Both categories of these laws may also have a chilling effect, creating a climate of fear whereby restrictive legislation in the areas of education and regulation create an environment where immigrant families will choose not to access social safety net programs. Finally, *Social Welfare* refers to state measures that grant additional access to means-tested programs or further restricts access to means-tested programs from federal regulations. An example of this would be regulations that restore Medicaid eligibility after the federal five-year waiting period and/or provide state sponsored healthcare for immigrants who do not qualify for federal assistance. If there were multiple parts of one bill that fall under these categorizations, such as in an omnibus bill, each part was counted separately if it could have separate effects on the immigrant population in the state.

Table 1: Laws that fit criteria for selected states in the time period 2000-2008

2000-2008	Total laws that meet criteria	Large Immigrant population	Immigrant population growth over time
Alabama	33		X
Arkansas	12		X
Arizona	42	X	
California	32	X	

2000-2008	Total laws that meet criteria	Large Immigrant population	Immigrant population growth over time
Connecticut	23	X	
Delaware	12		X
Florida	33	X	
Georgia	18		X
Illinois	24	X	
Kentucky	9		X
Massachusetts	5	X	
Michigan	30		X
Nevada	26	X	X
New Jersey	10	X	
New York	18	X	
North Carolina	12		X
Rhode Island	11	X	
South Carolina	24		X
Tennessee	20		X
Texas	20	X	

Descriptive Statistics: Discussion of Laws by State and Over Time

Education Laws

The education category has the least number of total laws passed in this eight-year period under analysis. There were a total of 23 laws passed over the eight years in the twenty states that fit within this category. Of these 23 laws, 10 expanded the access of immigrants to higher education and 13 restricted access. The majority of laws in this category address in-state tuition requirements and financial aid to colleges. Some laws are related to grants, scholarship, and/or loan forgiveness for specific high-need professions working in underserved areas such as teachers and social workers. Only one law was related to primary education. In Massachusetts, in 2002, a law was passed stating that immigrant students could no longer be taught in bilingual or native language classes and instead had to attend English-only classrooms.

Social Welfare Laws

In the period of 2000-2008 there were a total of 97 laws passed in the 20 states that dealt directly with immigrants and access to social services. Out of those 97 laws, 59 (across 15 states) expanded access to the public safety net. These laws expanding access generally restored access to legal immigrants who no longer qualified for federal funds due to the PRWORA legislation. In some cases this restoration was only for specific

groups such as pregnant women, the disabled, or the elderly. These expansions in some states included access to all public benefits and in some laws addressed specific access to programs such as Medicaid and TANF. No states gave access to social services for undocumented immigrants except in the case of domestic violence and human trafficking. There were five laws passed that specifically guaranteed access to public services regardless of immigration status to individuals who were victims of domestic violence (CA, 2006; NY, 2008) and human trafficking (NJ, 2005; CA, 2006; NY, 2007; NC, 2007).

The restrictive legislation limits the access of legal immigrants to social services including cash assistance, disability services, and healthcare across 14 different states. As can be seen from these numbers, some states passed both expansive legislation, usually for a specific sub-group of immigrants, and restrictive legislation. For example, California passed one law restricting some access to Medicaid but passed 10 laws related to expansion of services such as food stamps, supplemental security income and healthcare. In one particularly interesting law, California required a notice to go out with applications for free and reduced price school lunches stating specifically that no information on the application would be shared with immigration services, in an attempt to encourage use of this social service among immigrant families. This demonstrates the

state's awareness that fear of immigration consequences can keep children in immigrant families from accessing needed basic services.

Regulation Laws

Regulation is the most wide-ranging category of the three types of laws. Its major focuses includes regulating specific job categories to either expand immigrant access for certain skilled jobs in underserved areas such as physicians, dentists, and teachers, or restricting immigrant access to jobs requiring licensing such as contractors, bail bondsman, brokers, and cosmetologists. The mechanism to restrict access in these cases is the application for a license to practice the profession in the state. Additional legislation aimed at employment includes required verification of workers' immigration or citizenship status. There are 108 laws, across 20 states, which deal directly with regulation of the employment of immigrants. Access to firearms is another type of regulatory law, with 11 laws across eight states, all of which restrict immigrant access.

There are a number of regulations aimed at protection of immigrants against human trafficking and predatory legal services. The human trafficking laws expand the scope of coercive practices to include things such as confiscating immigration documents and/or threating to contact immigration authorities. These laws create criminal penalties for engaging in human trafficking. Some laws also target the international bride trade.

There are 21 laws across eleven states regarding consumer protection from fraudulent or predatory immigration legal services by notary publics.

There are regulations that deal with non-citizen in the courts and jail systems, including some designed to ensure that prisoners know how a conviction may affect their ability to stay in the country as well as mechanisms for deporting prisoners and parolees. There has been a lot of media attention to the regulation of IDs such as driver's licenses for immigrants, and 31 laws regarding IDs were passed over the eight year time span. The majority of these (22) were restrictive.

Excluded Laws and Resolutions

Laws and resolutions not included in the analysis may still reflect the climate of the state. Studies and commissions were not included in the analysis because while they may lead to legislative change at a later date, they have no practical impact on the residents of the state. They can however be indicative of the climate of the legislature. Non-binding resolutions can indicate negative feelings toward immigrants' impact on state's budget and social services. For example, a 2000 resolution in Kentucky called for the state to investigate the impact of immigration on public services. Another example is the 2008 Alabama resolution calling for the President and Congress to "secure the

borders and protect the workforce." The majority of these non-binding resolutions reflect a distrust of the immigrant population and its impact on the country.

The difficulty of passing legislation in an environment where the governor and the legislature fail to agree can be seen in the power of the line-item veto. For example, in 2004 in Massachusetts the governor vetoed a law allowing in-state tuition for legal immigrants who were in high school for three years in the state. That same year the Massachusetts governor also vetoed provision of social services to disabled legal immigrants who did not qualify under federal law. Massachusetts was the only state included in the analysis where the governor exercised the line-item veto power on laws related to immigrants within the study period. Because the laws were blocked from going into effect they are not reflected in enumeration of the state laws. Nevada, North Carolina, and Rhode Island are the only states out of the 20 included where the governors do not have some form of line-item veto power. Even in these states however the governor can choose to veto the entire piece of legislation (National Conference of State legislatures, 2008).

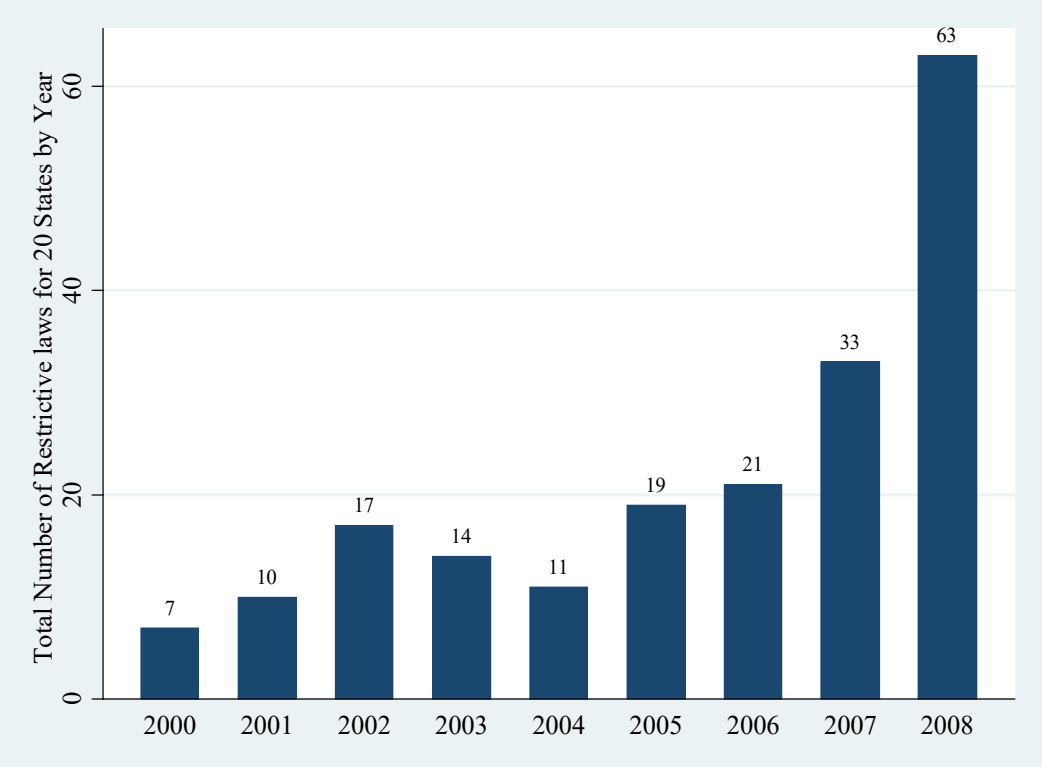
Descriptive Analysis

The absolute number of restrictive legislation aimed toward immigrants has steadily increased over the time period for analysis, with the category of regulation having

the highest number of restrictive laws passed. The number of state laws creating restrictions on social services has remained consistently low over the time period of analysis. This may be because federal regulations (PRWORA) already provide a baseline for restrictions on access by immigrants.

Interestingly, it is the states that have been experiencing a growth of their immigrant population over the study period that seem to have passed the largest number of restrictive laws. This may be because states with consistently high numbers of immigrants have previously established legislation in this area, or it may be because the pressure from integrating an increasing number of immigrants created an atmosphere where restrictive legislation was developed and passed into law. The notable exceptions to this are Arizona and Florida. Both states have consistently large immigrant populations over time and they passed a large number of restrictive legislation. They also have had conservative political leadership over the time period of analysis. Whether the political leadership is a significant factor in determining the passage of restrictive legislation will be explored in the analysis of why states adopt restrictive legislation.

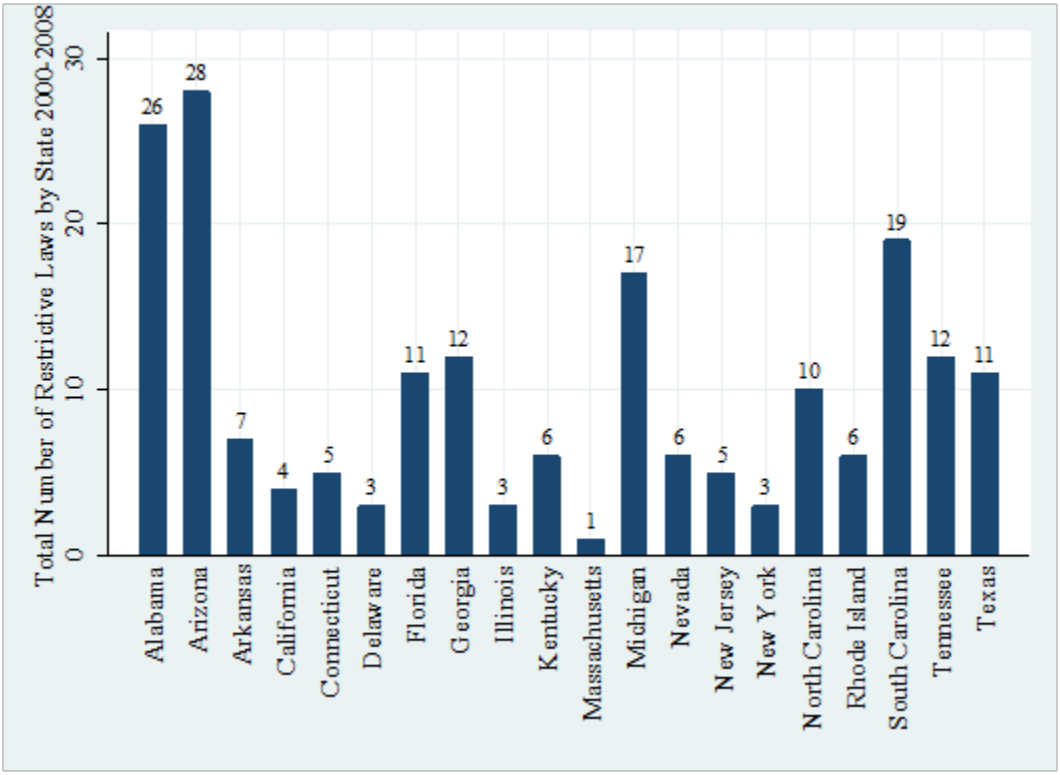
Figure 1: Total Number of Restrictive Laws for 20 States by Year



As can be seen from the graph above, the number of restrictive laws passed is increasing over time, with the smallest numbers seen in 2000 and the largest numbers in 2008. The outliers by state in terms of restrictive legislation overall are Arizona and Alabama at 28 and 26 restrictive laws passed in the time period under analysis respectively. They are followed somewhat closely by South Carolina and Michigan at 19 and 17. The low end of the spectrum is given to Massachusetts with one piece of

restrictive legislation followed by Delaware, Illinois, and New York with three restrictive laws passed each between 2000 and 2008 each (Figure 2).

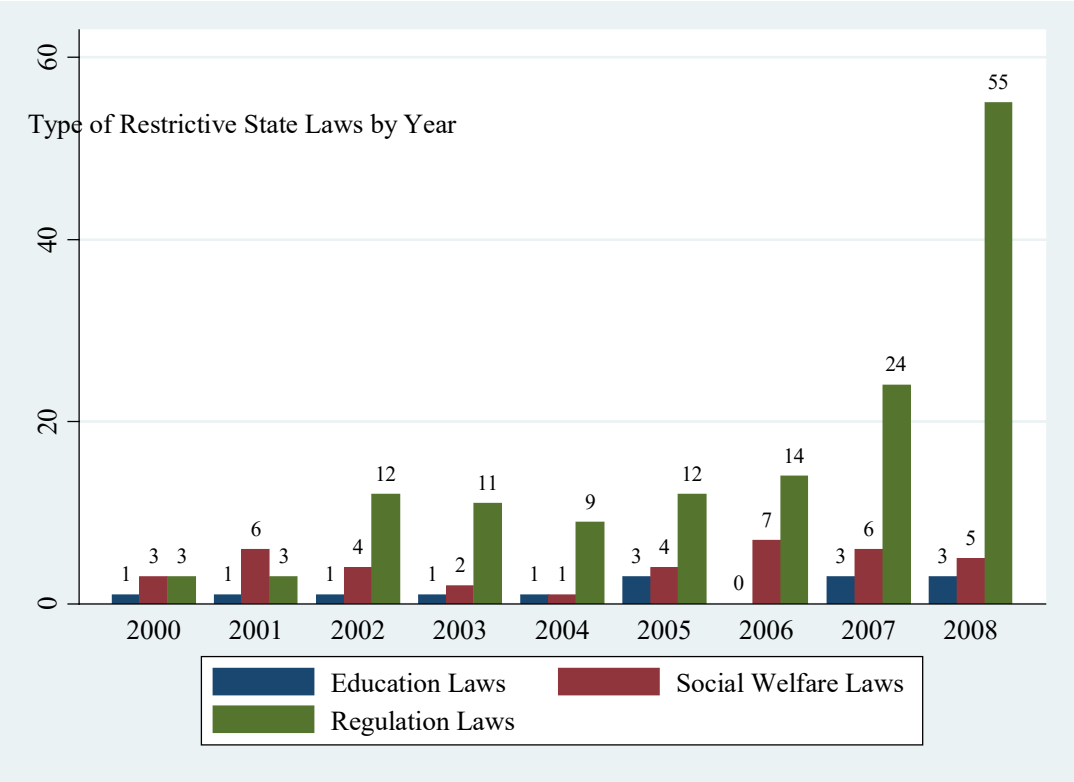
Figure 2: Total Number of Restrictive Laws by State 2000-2008



As can be seen in the graph below, the vast majority of restrictive legislation involves regulation of employment, government issued identification, and firearms access (Regulation Laws). The number of restrictive laws in the Regulation category has increased steadily over the time period of the study. The number of restrictive social welfare and education laws remained small during all the years of the analysis but did

show an increase over time. For social welfare legislation, 2006 had the largest number of restrictive laws passed. In 2000-2004 there was only one restrictive law passed in the education category in each year, while in 2005-2008 there were three passed each year.

Figure 3: Types of Restrictive State Laws by Year



Methodology of Analysis to Identify Factors Associated with State Immigration Legislation

Independent and Dependent Variables

The policy context governing interstate variation in restrictive immigration legislation must be understood in order to consistently estimate the effect of the policies on U.S. citizen children in immigrant families. Policymakers are pursuing certain outcomes with the enactment of legislation and therefore specific policies cannot be treated as randomly distributed across states. The ability to attribute causality of state policies to outcomes of interest will be compromised, and biased estimates will be obtained should unobserved or omitted factors that vary across states be correlated with the adoption of such laws and with the outcomes under consideration. Additionally, should states adopting greater numbers of restrictive immigration laws differ in unobserved and unmeasured ways from states that adopted fewer restrictive laws and should these unobserved factors also be associated with the outcomes of interest, the impact of state laws on immigrant enrollment in safety net programs will also be biased. Since all states in this analysis have adopted at least some laws related to the regulation of immigrants, this exploration will allow the identification of factors that account for variation in the number and restrictiveness of state level policy adoption. Any statistically

significant correlates of enacting restrictive legislation will be used as control variables in the regression models looking at the take up of social welfare programs among U.S. citizen children in immigrant families, in order to avoid potential bias from factors associated with the adoption of these laws and the outcomes of interest.

This initial analysis looks at predictors for why states adopt restrictive legislation. The dependent variable for this analysis is the total number of restrictive laws for each state at time t (t=2000 to 2008). Previous studies have shown that the enactment of state legislation will respond to state level economic, demographic and political variables (Berry, 1994; Stream, 1999; Volden, 2006; Monheit, Cantor, DeLia, & Belloff, 2011).

Demographic Variables

Theories about the causes of state differentials in immigration policy focus on the race and ethnicity of the immigrants and total population of immigrants or immigrant pressure[1] in the state (Hero and Preuhs, 2007; Graefe, DeJong, Hall, Sturgeon, VanEerden, 2008). The total foreign-born population in the state is considered as a percentage of total population (p_forborn) per year. Immigrants that change the ethnic and cultural makeup of the receiving state may create a different policy environment. The discordance in culture, race, and ethnicity is approximated by looking at the origin of the

[1] Immigrant pressure is defined here as immigrant population growth (percent of state population that is an immigrant) over time.

foreign-born population in the state. The variable *p_origin* is based on the percent of the foreign-born population in the state at time t that was born in a country other than Europe or North America. This variable captures the immigrant population in the state that was born in Mexico, Central and South America, the Caribbean, Asia, Africa, and Oceania. The overall education level of the state may indicate that there is less competition for unskilled labor position or a higher level of education may equal greater tolerance for diverse immigrant groups. The assumption was that the greater the education level of the population the less likely the state will be to enact restrictive legislation. Thus, the percent of the population that graduated from high school (*p_hsgrad*) and the percent that graduated from college or above (*p_collgrad*) are included in the model.

In addition, the level of integration of the immigrants into everyday society could affect the willingness of the state to pass restrictive legislation. To estimate the level of integration of the immigrant population two variables were used. One was the percent of foreign-born in the state at time t that are not citizens (p_noncitizen) and second was the percent of residents in the state five years and older that spoke a language other than English at home and whose spoken English was classified as "less than very well" (*LimitedEnglish*).

Economic Variables

In the economic category this study looked at state level unemployment rates (*unemprate*), state income per capita (*medhshdinc*), and whether the state has a budget surplus in each year from 2000-2008 (*netrev*). The underlying assumption was that high levels of unemployment may create anti-immigrant sentiment as well as reduce the willingness of the state to expend the money to expand services. This variable was measured as the annual state unemployment rate. Hard economic times, as shown by state revenue and expenditures as well as income per capita, would be expected to increase anti-immigrant sentiment and decrease the states' willingness to spend on services, which may be reflected in the adoption of restrictive immigrant related policies. These variables include net revenues, derived by looking at yearly state revenue minus expenditures, and the median income by state at time t.

Political Variables

To capture the state's political environment, this study looked at the effect of the political affiliation of the governor and state legislature. Research shows that party affiliation can have a significant effect on policy outcomes (Berry, 1994; Besley & Case, 2000). Republican control of the government would be expected to result in more restrictive immigrant legislation due to party stances on immigration control and social

service restriction, so the majority party of both legislative branches and the governor's office are included in the model (*n_gov, n_house, n_senate*)[2]. These variables take a value of 0 if they are Republican and 1 if they are Democrat. In addition, concordance between parties in the state senate, house, and the governorship would make it easier to pass legislation. Therefore, two variables were created looking at the level of party concordance between these three bodies. *Concordance* takes a value of 0 if all three do not have a majority of the same party, 1 if all three are Republican, and 2 if all 3 are Democratic. *Legconcord* takes a value of 0 if the state house and senate have different majority parties, 1 if both Republican, and 2 if both are Democratic.

Statistical Analysis

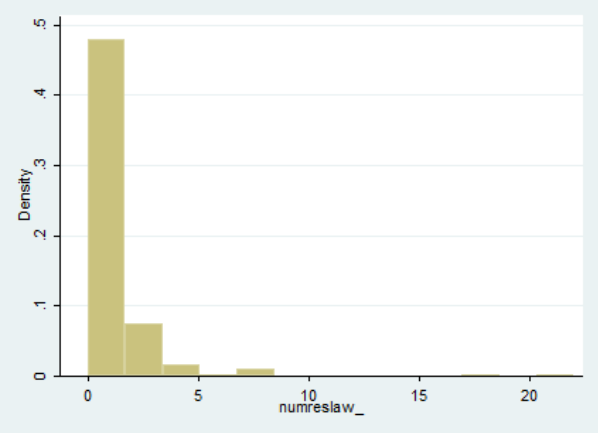
The dependent variable for this analysis is an event count variable, the number of restrictive laws adopted in each state in each year under consideration. In general, ordinary least squares (OLS) analysis is not used on event count data because it fails to take into account the heteroscedastic nature of these event counts. Instead the Poisson model (a log-linear model) is often used. One concern with the fit of the Poisson model is the idea that political events like passing laws may present a positive contagion and violate the assumption under the Poisson model that there is a constant rate of event

[2] Data taken from National Conference on State Legislator State Partisan Composition

occurrences. This is because passing restrictive legislation once during a year may make it more likely for another piece of restrictive legislation to be passed, as it may generate copycat legislation or encourage the propagation of similar restrictive laws. This could result in over-dispersion of the data, in which case a negative binomial regression would be more appropriate.

In order to test which model is the best fit for the data first a histogram of the dependent variable was created in order to look at the data. The histogram clearly shows that the data is strongly skewed toward the left, meaning that an OLS would be inappropriate.

Figure 4: Histogram of Number of Restrictive Laws



Next, looking at the variance and the mean of the variable t there is a variance of 5.8 so it is necessary to run additional tests to see whether a Poisson regression rather than a negative binomial regression may be appropriate.

```
. summarize  numreslaw_, detail

                        numreslaw_
-------------------------------------------------------------
      Percentiles      Smallest
 1%           0             0
 5%           0             0
10%           0             0       Obs                 180
25%           0             0       Sum of Wgt.         180

50%           0                     Mean           1.083333
                      Largest       Std. Dev.      2.430888
75%           1             7
90%           3             8       Variance       5.909218
95%           4            17       Skewness       5.542042
99%          17            22       Kurtosis       42.13652
```

As a final test, the data was run using a negative binomial regression and the small value of the chi-square for the Likelihood-ratio test of alpha=0 indicated that the simple Poisson model was the best fit and that over dispersion was not an issue.

Therefore, the model for predictors of number of restrictive immigration laws enacted by a state will be:

$$Prob\ (Y_{st}\,|\mathrm{x_{st}}) = \frac{e^{-\lambda st}\ \lambda st^{Yst}}{y_{st}!} + \varepsilon_{st,},\ Y_{st}=0, 1, 2, \ldots$$

Where Y_{st} is the number of restrictive state laws adopted in state s at time t. This means that the expected distribution of restrictive state laws and the corresponding distribution of regression residuals, depend on the fitted mean count, λ_{st}. The measures of the explanatory variables are the set of demographic, economic and political variables listed

above. This analysis will help to explain the characteristics that are associated with a state adopting additional restrictive polices related to immigrants. This model was also run looking at the number of laws in specific categories of policies (as defined above) to explore if the state characteristics associated with legislative adoption differ depending on the type of restrictive laws passed.

A second model was also developed to see whether there are demographic, political, and economic factors governing the likelihood that a state would adopt any restrictive legislation during the year. This model takes the form of logistic regression with the dependent variable being any adoption of restrictive legislation in state s during time t, using the same independent variables as described above:

$$\text{Reslaw}_{st} = Bo + \beta 1x1 + \beta 2x2 + \ldots + \beta n_{xn} + \varepsilon_{st}$$

Results: Factors That Influence Adoption of Restrictive State Laws

Based on the Poisson regression analysis a number of factors can be predictors of a state's decision to enact additional restrictive legislation (see Table 2). Within the time period under analysis, states were more likely to adopt restrictive legislation over time.

On the political side having Republican control across all of the governing bodies was significant at the 10% level in increasing the likelihood of additional restrictive

legislation being passed compared to mixed control of governor's office and the legislature. This may be driven by Republican control of the legislative bodies, as if Republicans are in control of both the House and the Senate in any given year the state is more likely to adopt restrictive legislation aimed at immigrants ($p<.01$) compared to mixed control of the legislature. If Democrats have control over all three governing bodies the state is less likely to pass restrictive legislation aimed at immigrants compared to mixed control ($p<.01$).

In terms of economic factors, the unemployment rate and net revenue of the state appear to be drivers in the passage of restrictive legislation. As the net revenue increased states were less likely to adopt restrictive legislation. The unemployment rate was also a significant factor in adoption. As the unemployment rate increased the chances of adopting restrictive legislation decreased. The median household income was not a significant driver of state adoption.

Few demographic factors played a role in state adoption of more restrictive legislation. The education level in the state was marginally significant ($p\leq.1$), showing that as the number of individuals in the state that had a college degree or more fewer restrictive laws were adopted. There was no association between the number of laws adopted and the percent of foreign born in the state or the percent of immigrants that

were of non-North American or European origin. Of the two factors used as proxies for integration of the immigrant population into the community, the most significant demographic factor in adoption of restrictive legislation was the percent of immigrants who were not citizens. There was an increase in the likelihood of restrictive state legislation being passed as the percent of non-immigrants in the state increased. The percent of the population that did not speak English very well did not seem to have an affect on legislative outcomes.

Looking at predictors of the passage of restrictive legislation for the specific categories of laws (Table 2), it was not possible to find significant factors associated with added education laws due to the small number of laws passed within this category. However correlates of the number of restrictive legislation adopted in regulation (column 3), the category with the greatest number of laws, largely looked like the estimates for all restrictive legislation. The one significant difference has to do with the education levels of the population. College graduation rates for the population is no longer significant in reducing the number of restrictive laws passed, but high school graduation is significant ($p \leq 0.05$) in increasing the number of laws passed. Looking at the category of restrictive social welfare legislation the percent of the population that are college graduates or above is significant in reducing the number of laws passed. Having a Republican legislature

(state House and Senate) is statistically significant in increasing the number of restrictive social welfare laws passed.

Looking at the odds ratios of the logistic model two, exploring correlates of states who adopted or did not adopt restrictive legislation, there are no significant factors within the demographics, politics, or economics of the states.

Table 2: Unexponentiated State Drivers of Number of Restrictive Laws Adopted

20 State Analysis	**All Restrictive Legislation**	**Restrictive Social Welfare Legislation**	**Restrictive Regulation Legislation**
Year	0.227***	0.054	0.268***
	(.0494)	(.1151)	(.0614)
Education			
% H.S. grad	0.103 *	.089	0.143**
	(.0571)	(.1138)	(.0732)
% Coll. grad or above	-0.076 *	-0.265***	-0.051
	(.0399)	(.1002)	(.0489)
Imm Demographics			
% Foreign born	-0.009	-0.153	0.036
	(.0855)	(.1822)	(.1088)
% Non-Citizen	0.073***	0.017	0.102***
	(.0256)	(.0551)	(.0319)
% Non-N. Amer/ Euro	-0.027	-0.060	-0.013
	(.0230)	(.0533)	(.0274)
Limited English	0.022	0.279	-0.064
	(.0970)	(.2039)	(.1249)
State Economics			
Unemployment rate	-0.181**	0.010	-0.253**
	(.0919)	(.1870)	(.1153)
State net revenue	-0.000***	0.000	-0.000***
	(.0001)	(.0002)	(.0001)
State income per capita	0.000	0.000	-6.170
	(.0000)	(.0001)	(.0000)

20 State Analysis	All Restrictive Legislation	Restrictive Social Welfare Legislation	Restrictive Regulation Legislation
Political Affiliation			
Governor's Office Dem.	-0.605	-2.073	-.745781
	(.3959)	(1.330)	.472017
State Senate Dem.	-0.496	-2.873**	-.3211835
	(.3867)	(1.304)	.470065
State House Dem.	-1.669**	-3.379*	-1.741063**
	(.6739)	(1.897)	.7870073
No 3 controlled by one party	---	---	---
All 3 Republican	0.829 *	2.616*	0.885
	(.5097)	(1.485)	(.6267)
All 3 Democrat	-1.291 ***	-2.855*	-1.493***
	(.5027)	(1.537)	(.6005)
Mixed legislature	---	---	---
legislature Republican	2.005***	4.036**	1.896**
	(.6838)	(1.848)	(.8069)

*p≤.1, **p≤.05, ***p≤.01

Discussion

These results show that a combination of factors is associated with the number of restrictive laws that states adopt. The small number of restrictive laws close to 2000 may be due to the passage of PRWORA. Because of the restrictive nature of the federal legislation many states may have not felt the need to pass additional laws in the subsequent time period. In addition, the time period of 2002 to 2003 saw the beginnings of an economic downturn in the U.S., which may be another reason for the increasing restrictive legislation shown over the time period of analysis. The increasing pace of restrictive legislation may also be due to state diffusion. As some states pass these types of

laws, there can be diffusion across states with similar characteristics (Miller, 2004; Voldern, 2006; Karch, 2007).

An interesting finding from this analysis is that the percent of non-citizens among the foreign-born population is strongly correlated with the number of restrictive state legislation adopted when all laws are considered, and then again looking specifically at laws categorized under regulation. This may reflect three issues. One is that the general climate of the state is unwelcoming to new immigrants and therefore immigrants in that state are less likely to be able to achieve citizenship. Another is that the less immigrants are willing and able to integrate into the community the more likely the state political climate will be willing to restrict immigrant access. If a high percentage of foreign-born residents are unable to vote then politicians do not need to take the immigrant community into account. The third possibility is that this number is picking up a higher number of undocumented immigrants who would not qualify for citizenship and that the restrictive legislation is reacting to the number of undocumented immigrants in the state.

While education levels in the state have an effect on the amount of restrictive legislation passed, this effect appears to be different depending on the category of law. The percent of high school grads, indicating an overall lower level of education within the state, is positively correlated with greater numbers of regulation laws that affect access to

identification documents and specifically restrict access to certain jobs for specific categories of immigrants. This may be because immigrants tend to disproportionately work in the low wage workforce (Capps, Fix, Passel, & Perez-Lopez, 2003). Therefore, immigrants would be more likely to be competing for jobs with the existing workforce in a state with lower education levels. For states that are passing social welfare related laws, a well-educated population acts as a protective factor against passage of restrictive legislation in this category, perhaps because more a more highly education population may be more tolerant of immigrants, and the realization that lack of access to social services could have significant personal and monetary costs at a later date.

State economic factors as a driver of the number of restrictive laws adopted appear to be a factor within the regulation category. Net revenue and unemployment rates do not seem to be a significant factor in the number of restrictive social welfare laws adopted but are a factor in regulating employment and access to identification. Increasing net revenue acts as a protective factor, making it less likely that a state will adopt additional laws within the regulation category. This may reflect that as a state has more resources they feel better able to absorb and integrate an immigrant population. As unemployment rates increase states are also less likely to adopt more restrictive laws. While this may at first glance seem counter intuitive, it could potentially reflect legislative priorities. When

dealing with higher levels of unemployment the government puts its efforts toward legislation that will work to reduce unemployment in the state.

There is a strong and consistent effect of party affiliation on adoption of restrictive legislation. Under Democratic control of governing bodies states are significantly less likely to adopt more restrictive legislation, while having Republican control of the legislature means that more restrictive laws are likely to be passed. This may reflect underlying values of the state, as polls show that voters who identify as Republicans tend to view immigrants as a burden to American society (Ehrenfreund, 2016). Differences in partisan views about immigrants have increased over time, with people who identify as Republican increasingly viewing immigrants as a negative influence on U.S. society and an economic burden, according to Pew Research polls (Jones, 2016).

The implications of this analysis are that state characteristics do affect the number of restrictive state laws adopted. The question of any adoption of restrictive legislation being influenced by state characteristics seems to be the wrong question to ask, likely because all the states in this analysis were chosen based on having either a large or a growing immigrant population. Therefore, all states within this eight-year time frame adopted at least one law looking at immigrants within the community. The question of state characteristics appears to be in the intensity of legislative priorities around

immigration being definitively related to state demographic, economic, and political factors.

Therefore, when testing for the chilling effect on the uptake of social services among U.S. citizen children in immigrant families, the variables will include the state unemployment rate, the state net revenue, the percent of non-citizens among the foreign-born population, state education variables, and whether there is political party congruence in the legislative bodies.

If restrictive legislation impacts on the ability of immigrants and their families to access social safety net programs, then the health of multiple actors in the state may be in jeopardy. By looking at the drivers behind the adoption of this type of legislation, advocates can help in devising solutions that work to address perceived issues. For example, since the net revenue of the state is a driver then developing solutions that are revenue neutral or demonstrating the negative financial impact of delayed or untreated communicable diseases may change the climate in the legislature. Understanding which parties are more likely to adopt this type of legislation can correctly target education and advocacy groups. This information can be the building blocks to assist in effectively translating public health research into legislative action that works toward the public health goals of a healthy society.

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Chapter Three: The Effects of State Laws on Uptake of Medicaid and CHIP by U.S. Citizen Children in Immigrant Families

Chapter three examines the impact of state laws governing education, regulation, and social welfare on the decision by low-income immigrant families to enroll their U.S. citizen children in public programs that increase their access to healthcare. More specifically, this will be examined by looking at the parents' decision to enroll these children in Medicaid and the Children's Health Insurance Program (CHIP) using variation in the presence of restrictive state laws over time and across states to identify their impact. Health insurance is one critical factor that contributes to health outcomes. Research regarding children and Medicaid has shown consistently that Medicaid results in increased access to healthcare and improved health outcomes among low-income children (Howell & Kenney, 2012; Paradise & Garfield, 2013; Buchmueller, Ham, & Shore-Sheppard, 2016). One study by Bronchetti (2014) showed that Medicaid/CHIP eligibility expansions specifically increased immigrant children's use of preventive and ambulatory care and decreased emergency care in hospitals. Health insurance significantly reduces financial barriers to accessing healthcare and therefore leads to increased use of primary care. Multiple studies looking at the Medicaid and CHIP

expansions have shown a significant reduction among children for unmet medical care needs (Hill, et al, 2013).

Thus, state laws that affect eligible children's enrollment in this safety net program can have a large impact on health care access and outcomes. Whether this holds true for a particularly vulnerable group, children in immigrant families, will be examined through a difference in differences (DD) analysis. This chapter will provide an historical overview of Medicaid and CHIP, look at the impact of changes to these programs on immigrant families, provide a description of the population in the study, and use the DD approach to assess the impact of restrictive state laws on U.S. citizen children's access to Medicaid/CHIP

Overview of Medicaid and CHIP

Medicaid was created in 1965 as a joint federal and state program in order to provide health insurance to certain categories of low-income individuals. The federal contribution to financing Medicaid program costs (the match rate contributing to financing state Medicaid programs) is no less than 50% of the cost but can be as high as 83%. The additional percentage above 50% is determined by the relative per capita income of the state (Morrisey, 2008), so that states with lower per capita income and consequently a higher percentage of residents likely to qualify for Medicaid pay a lower

percentage of program costs. Because each state established its own program eligibility and scope within broad federal guidelines, individuals who qualify for Medicaid in one state may not qualify in another, and the type of services available to enrolled individuals may also vary.

Services that are required to be covered under Medicaid during the time-frame of this analysis in order for states to receive federal matching funds include: hospital services; pregnancy-related services; vaccines for children; physician services; laboratory and x-ray services; pediatric and family nurse practitioner services; nurse-midwife services; medical dental services; federally qualified health center (FQHC) and rural health center services; early and periodic screening, diagnostic, and treatment (EPSDT) services for children under age 21 (Klees, Wolfe, & Curtis, 2011). Each state however retains broad discretion about the level of provided services within these mandated categories. These services are provided at a minimum to low-income individuals who are pregnant women, adults in families with children, children, the elderly, and individuals with disabilities (Morrisey, 2008). These requirements changed again under the Affordable Care Act (ACA) beginning in 2014. The rules and regulations that will be discussed in this chapter however are those that were in effect during the period of

analysis, prior to the passage of the ACA. The income eligibility requirements for Medicaid vary by category and state and are based on the federal poverty level (FPL).

The Children's Health Insurance Program (CHIP) was created in 1997 as part of the Balanced Budget Act in order to address the issue of uninsured children where the parents' income was too high to qualify for Medicaid. [3] CHIP provided federal matching funds for the provision of health insurance to children up to 200% of the FPL as part of a capped amount of funding to each state, during the time period of this analysis. [4] The program provides a higher federal matching rate than the Medicaid program, with the federal government paying 70% and state paying 30% of program costs on average. States can choose to participate by expanding Medicaid, developing a separate CHIP program, or a combination of the two. Children in separate CHIP programs are not entitled to coverage; states can stop enrollment (creating waiting lists for the program) and/or change benefit levels at any time. In addition, states can impose premiums and cost sharing as part of the separate CHIP program. Cost sharing cannot exceed more than 5% of family income (Wooldridge et. al., 2005).

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[3] CHIP was formerly known as the State Children's Health Insurance Program (SCHIP)

[4] 200% FPL was for the time period under analysis; current CHIP program provides full matching for up to 300% of FPL and Medicaid matching for anything above 300% of FPL (Centers for Medicare & Medicaid Services, ND).

All U.S. citizens who meet income and categorical eligibility requirements have access to these public insurance programs. Undocumented immigrants have never been eligible for Medicaid or CHIP. Historically however, lawfully-present non-citizen immigrants (LPI) were eligible until the passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in 1996 which restricted access for LPI immigrants based on their immigration status and years in the U.S. (USDHHS Office of the Assistant Secretary for Planning and Evaluation, 2012). Some few states chose to extend Medicaid to previously eligible LPI immigrants or certain groups of immigrants that were excluded under the 1996 PRWORA using state only funds.

Eligibility During the Analysis Period

This sub-section addresses general Medicaid eligibility and effects for the low-income population it was designed to assist during the period of analysis (2000-2008). Then, in the next section of the chapter, I will look specifically at immigrant families' access to public insurance.

Under Medicaid, states are required to cover children up to federal minimum income thresholds that vary based on the age of the child. The federal requirement for the period I study (2000-2008) was coverage for children up to 100% of the FPL, except for children under age six who were covered up to 133% of the FPL. After the passage of

CHIP in 1997, states had the option to cover uninsured children with higher incomes. By 2000 all states had CHIP eligibility for children that went up to 185% of the FPL, and all states but two had their eligibility set at 200% of the FPL. Those two states had 200% FPL eligibility by 2008.

While only U.S. citizen children are included in this analysis, immigrant families often have members with different immigration statuses and therefore different access to public insurance. In 2004, twelve of the 20 states under analysis provided some state only funded coverage for immigrants that were not qualified under federal Medicaid/CHIP laws. Florida and Texas provided public insurance for legal immigrant children only, Michigan and Arkansas provided coverage for legal immigrant pregnant women only, and eight states (CA, CT, DE, IL, MA, NJ, NY, RI) provided coverage for legal immigrants that would qualify under categorical and income qualifications except for immigration status (Fremstad & Cox, 2004).

Public Insurance and Health

Uniformly, studies show that Medicaid and CHIP expansions result in a reduction in the number of uninsured children (Howell & Kenney, 2012). Increased coverage leads to increased health care access. Multiple studies show that low income children enrolled in Medicaid are more likely to have had an annual physical exam and that public health

insurance improves utilization of preventive care (Fisher & Mascarenhas, 2007; Currie, Decker, & Lin, 2008). Bronchetti (2014), using the National Health Interview Survey, found that eligibility expansions for Medicaid/CHIP between 1998 and 2009 increased immigrant children's use of preventive and ambulatory care and decreased emergency care in hospitals. Regular access to preventive care increases the health stock of the child, which will have long term impacts on health outcomes.

Twelve studies looking at enrollment in Medicaid and CHIP find a reduction in unmet need for medical care (Howell & Kenney, 2012). A study of population level effects of CHIP expansion in California shows that the expansion resulted in a significant reduction in hospitalizations for ambulatory care sensitive conditions among children, including dehydration, asthma, cellulitis, epilepsy, ruptured appendix, gastroenteritis, and kidney or urinary tract infection (Bermudez & Baker, 2005). This is consistent with the previously cited research showing a reduction in unmet needs and increased preventive services access, which would result in decreased hospitalizations for conditions that could be identified and treated in ambulatory care. Medicaid and CHIP function as intended to decrease the lack of coverage among children and increase access to appropriate health care.

Immigrant Families and Public Insurance

Access

Multiple studies have shown that PRWORA created a chilling effect on eligible immigrants' enrollment. One study of pre-and post PRWORA showed that Medicaid enrollment among qualified immigrants dropped equally in states that did and did not offer state- only replacement insurance coverage for immigrants that no longer qualified under federal law. The authors speculate that this was driven by political and environmental factors other than Medicaid enrollment policy, such as the large anti-immigrant push in California, which did maintain state-only Medicaid enrollment but had a number of other non-citizen anti-immigrant measures that were passed in the same time-period (Kandula, Grogan, Rathouz, & Lauderdale, 2004). This lends support to two ideas. One is that legislation can have unintended consequences on populations that were not targeted for restriction in public insurance access due to the chilling effect of the laws. The second is that even laws that are not directly aimed at social services access of immigrants can potentially create a chilling effect on this access.

This chilling effect can equally be seen in the coverage of native children with immigrant parents. Remember that native children are always eligible for public insurance if they meet income requirements. Yet, in 2001 among citizen children with

non-citizen parents 26% were uninsured compared to 16% of children with citizen parents (Ku & Waidmann, 2003). Kaushal and Kaestner (2005) found that PRWORA itself was at least partially responsible for this difference in coverage. Their study showed that PRWORA lowered the Medicaid coverage of native children with foreign born parents by 18 percentage points compared to five percentage points for children with native parents. This provides further support for the idea that laws targeting immigrants can create a chilling effect that results in differential enrollment for eligible individuals in immigrant families.

Medicaid and CHIP enrollment by eligible children varies by state due to differences in state outreach, enrollment, and eligibility practices. Because of expansions to the Medicaid and CHIP programs for low-income citizen children, access is more an issue of participation than eligibility. However, across all states children in immigrant families are more likely to be uninsured. An analysis of Current Population Survey (CPS) data shows that 24% of low-income citizen children in immigrant families were uninsured in 2005 compared to 15% in nonimmigrant families (Ku, 2007). Multiple studies show higher rates of uninsured children in immigrant families compared to native families, as well as state differentials in access by immigrant families (Acevedo-Garcia & Stone, 2008; Seiber, 2013; Yu, Huang, and Kogan, 2008). In addition, the makeup of the

immigrant family in terms of native vs. non-native parents has been shown to have an effect on children's insurance access. This effect is differential by state (Siber, 2013; Yu, Huang, and Kogan, 2008). This indicates that state political characteristics and the environment toward immigrants may pay a role in the likelihood of U.S. citizen children in immigrant families accessing safety net insurance services.

One alternative explanation proposed is that the difference in employer-based insurance is what drives the insurance differential between immigrant and native families. One study looking at differences in insurance coverage between immigrants and native citizens found that the difference is largely driven by non-citizen immigrants and access to employer-based insurance (Buchmueller, LoSasso, Lurie & Senesky, 2007). While access to employer-based insurance contributes to the lack of coverage among immigrant families, research supports that differential access to public insurance is also a factor. This is especially important among low-income children who have access to public insurance that adults do not due to categorical eligibility in Medicaid and CHIP income eligibility expansions.

In support of the idea that both differential access to employer-sponsored insurance and public insurance plays a role in access to health insurance for immigrant families, a study by Borjas (2003) found that employer-based insurance did play a role in

making up for cuts to coverage due to PRWORA legislation. However, employer-sponsored insurance was only able to partially make up for the drop in public insurance due to PRWORA and children in immigrant families experienced unequal access to health insurance compared to native families. In data looking at the time from PRWORA adoption (1996) through 2001, citizen children in both native and immigrant families experienced a 2% decrease in uninsurance due to Medicaid/CHIP enrollment (Ku & Waidmann, 2003). This decline in uninsurance is likely due to the implementation of CHIP during that same time period. Considering the period from CHIP implementation to 2000, Buchmueller, LoSasso & Wong (2008) showed that take-up among children with foreign born parents was the same as for children with native parents. In the same time period, non-citizen children experienced an 8% increase in uninsurance, with a 12% decrease in access to public insurance offset slightly by a 4% increase in access to employer-based insurance (Ku & Waidmann, 2003). The increase in employer-based insurance could not fully make up for the decrease in public insurance access caused by PRWORA.

A study by Bronchetti (2014) used the National Health Interview survey to look at children of immigrants. The results indicate that eligibility increases in Medicaid/CHIP increased enrollment among children in immigrant families by 23 percentage points and

led to a concomitant increase in use of preventive and ambulatory care and decreased hospital emergency room use. Public insurance is a key safety net program for children in immigrant families. Thus, addressing the paucity of research looking at the mechanisms for the differential in public insurance uptake is critical.

Family Level Factors that Affect Immigrant Enrollment

A study of enrollment in Medicaid and CHIP in California in 2000, the first year of this study, showed that time in the United States and language spoken in the home was not associated with enrollment. Immigrant status and citizenship of parents, as well as ethnicity was significantly associated with enrollment (Kincheloe, Frates & Brown, 2007). This was echoed in a study of low-income families in Boston, San Antonio, and Chicago. The study showed that children with non-citizen caregivers are less likely to have health insurance coverage than children with native caregivers. Race and ethnicity in the initial analysis had an independent effect, but the effect disappeared when the city of residence was controlled for. The authors suggest that this argues for the importance of state policy effects (Angel, Frias & Hill, 2005), which may alter enrollment outreach that interacts with race/ethnicity.

In the California study, it was possible to determine if the child had undocumented parents. This study found that non-citizen parents were less likely to

enroll their eligible children in Medicaid than children with two citizen parents. The lowest enrollment was not in families with undocumented parents but actually for children of parents with permanent legal residency or "green-card" status (Kincheloe, Frates, & Brown, 2007). This may reflect the perception that use of social safety net programs could affect citizenship applications, although the use of Medicaid or CHIP does not count toward a public charge (National Immigration Law Center, 2014).[5] Other studies have shown that naturalized Latinos had the same Medicaid coverage rates as non-Hispanic whites (Shah & Carrasquillo, 2006). This further reflects the fact that citizenship is a large factor in take-up of public insurance. Because parents' citizenship and ethnicity have been shown in multiple studies to have an effect on enrollment in insurance, these factors will be included in the analysis.

State Characteristics and Immigrant Family Enrollment

In terms of state characteristics that may affect enrollment in public insurance, Siber (2013) posited that state differences in immigrant family Medicaid enrollment should reflect traditional gateway vs. new destination states,[6] with gateway states being

[5] A public charge is defined as a person who is considered dependent on the government for cash or long-term care. An immigrant who is found likely to become a public charge may be denied lawful permanent resident status.

[6] Traditional gateway states are long-established destinations for immigrants while new destination states are states experiencing fast immigrant growth. For the purpose of this analysis, traditional gateway states were defined as states that in 2000 and 2008 were at or above the U.S. average for percentage of foreign born population. New destination states were defined as those that ranked in the top 10 percent in terms of change in foreign born population from 2000 to 2008.

better at enrollment. Interestingly, he actually finds that there is no significant difference along those lines. In his study of American Community Survey (ACS) data, traditional immigrant-receiving states were both among the best and the worst at enrolling eligible children in immigrant families. Therefore, this state characteristic does not appear to have any consistent effect on enrollment.

Methodology of Analysis

The challenge facing this analysis is to identify whether restrictive state laws that target immigrant status have a causal effect on the outcome of interest: enrollment by U.S. citizen children in immigrant families in Medicaid /SCHIP. To identify this effect, the study treats the implementation of such state laws as a natural experiment and uses variation in the timing of adoption and the nature of the laws across states and over time to identify their impact. To do so, the study applies the quasi-experimental difference-in-differences (DD) estimation approach. This approach considers whether over the period encompassing 2000 to 2008, the enactment of restrictive laws had a differential effect on the enrollment in Medicaid/SCHIP by a "treatment" group of U.S. citizen children in immigrant families compared to a control group of U.S. citizen children in native families and U.S. citizen children in immigrant families in states that did not adopt restrictive legislation. It is posited that through the chilling effect, immigrant parents may be less

likely to enroll their citizen children in Medicaid/SCHIP compared to the control group that is not likely to be affected by the laws.

The DD identification strategy eliminates the influence of any unobserved, time-invariant differences between states that adopted and did not adopt social safety net legislation that may have constrained enrollment by non-native immigrants. This eliminates any time-invariant differences between the states that might be correlated with the adoption of such legislation and the outcome of interest and would yield biased estimates of the impact of the state laws. This will be further controlled for through the use of state fixed effects, which control for unobserved heterogeneity across states and yields estimates of the within-state change in the outcome of interest. Additionally, the DD approach controls for unobserved time-varying differences that are common to both sets of states. It was expected that in years that states adopted more restrictive legislation, the chilling effect would result in a reduction in the likelihood of safety-net public health insurance enrollment by low-income U.S. citizen children in immigrant families compared to enrollment by children in low-income native families.

The main dataset used for this analysis is the March Supplement of the Current Population Survey (CPS). The March Supplement to the CPS is the annual socioeconomic supplement to the U.S. government's monthly labor force survey and is

both nationally and state-level representative. The data collected in the March Supplement oversamples minorities and therefore does a good job representing immigrant populations in the dataset. For these reasons it is regularly used in studies that look specifically at immigrant populations. The information needed to identify immigrants including country of birth, citizenship, and year of entry is part of the CPS dataset, and family data is linked so that it is possible to identify immigrant parents with U.S. citizen children. In March of every year the sample size for the CPS is increased and additional data is collected. For this analysis the key variables include information on income and health insurance, including participation in public insurance. The CPS data was merged with the state dataset created in the first analysis (see Chapter 2) that includes the law data by state and year and state specific characteristics by year.

Defining Treatment and Control Groups

The analysis is restricted to twenty states at or above the U.S. average for percentage of foreign-born population (traditional gateway states) or a state that ranked in the top 10 percent in increase in foreign-born population (new destination states) from 2000 to 2008. This reflects the idea that states that have a large population of immigrants or states that are experiencing a surge in the immigrant population may seek to address such increases through legislation. States representing criteria one (traditional gateway

states) include: Arizona, California, Connecticut, Florida, Illinois, Massachusetts, New Jersey, New York, Rhode Island and Texas. States representing criteria two (new destination states) include: Alabama, Arkansas, Delaware, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee. Nevada meets both criteria for inclusion.

The treatment group consists of children in the analysis states where at least one parent is an immigrant to the U.S. Buchmueller, Sasso, and Wong (2008), in their analysis of CHIP coverage of children in immigrant families, showed that identifying children in immigrant households in this way provides the same results as the method used by Borjas (2003) of identifying these children by the nativity of the head of household. Children for whom it was not possible to identify the nativity of their parents were excluded from the analysis. Any children that were not U.S. citizens were also excluded from the analysis. The treatment group was thus restricted to children, 18 and under, who are U.S. citizens by naturalization or birth, who are in families with income 200% of the federal poverty level or below for the year under analysis, and who have at least one immigrant parent, regardless of the parents' citizenship. The reason for restricting the analysis to U.S. citizen children is that it is the only way to be sure of eligibility, since the CPS does not differentiate between legal and undocumented immigrants. The control group consists of

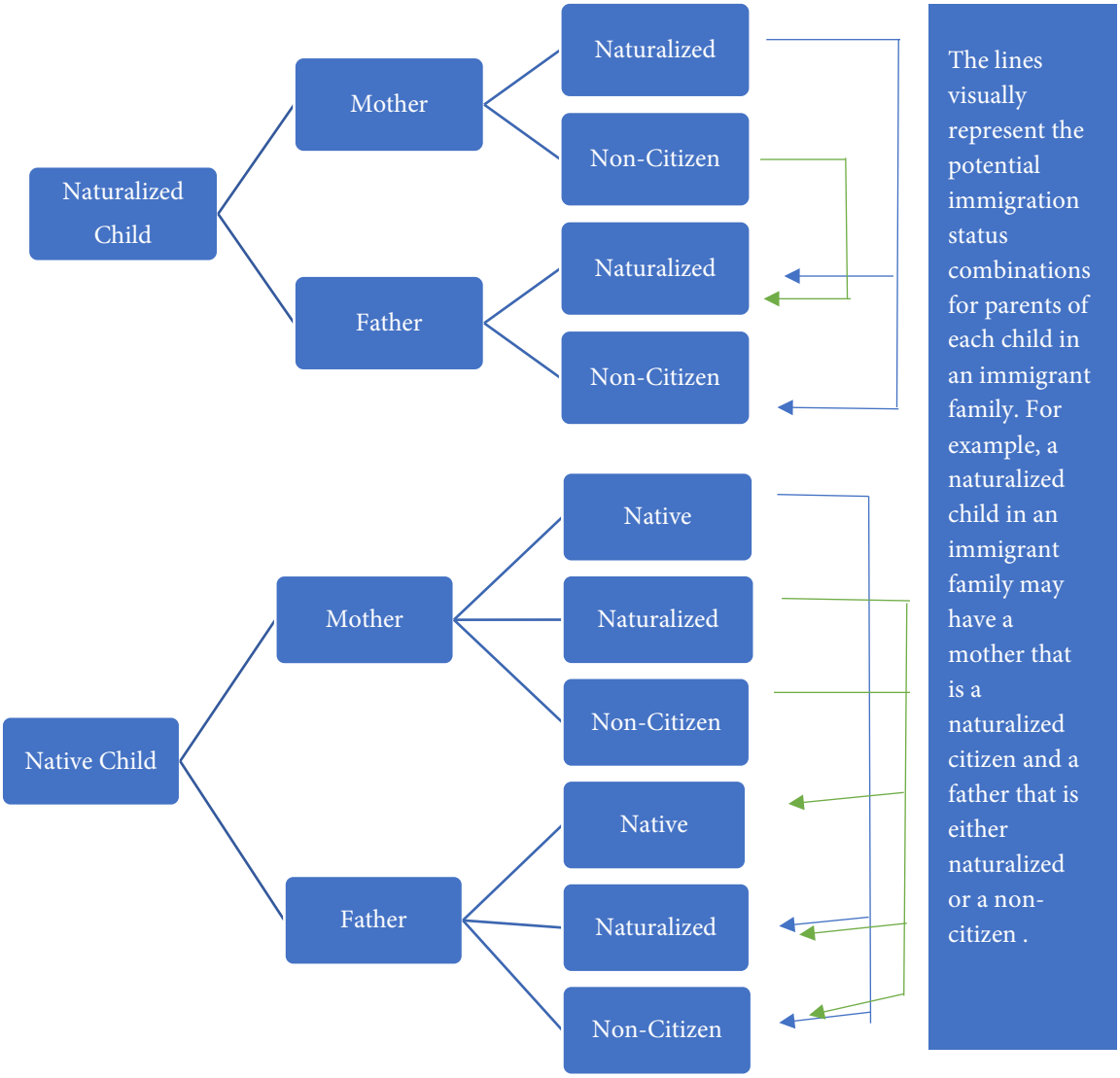
children, ages 18 and under, in the same twenty states with two native parents as well as U.S. citizen children in immigrant families in a state where there were no restrictive laws passed, both with family income of 200% of the federal poverty level or below.

Eligibility for Medicaid/CHIP is presumptive based on family income. Medicaid and CHIP are combined because of the multiplicity of ways that public insurance for children is managed in each state; some states have expanded Medicaid, some have combined programs and/or one-stop application processes, and some have separate CHIP programs. For all states included in the analysis in 2000, the eligibility for children into CHIP, which has the most expansive income eligibility of the two programs, was 200% of the FPL or below, except for Illinois and South Carolina where income eligibility was 185% or below of FPL. Note that Illinois raised the eligibility threshold to 200% of FPL or below in 2003 and South Carolina raised it to 200% of FPL in 2008.

The data thus defined were pooled for all years (2000-2008) in order to study the changes in enrollment over time. The child is used as the unit of analysis as there may be families where one or more of the children do not qualify for public insurance because of the child's immigration status or age, while other children in the family may qualify. The outcome measure reflects the likelihood that a child in a family within the income criteria has enrolled in public insurance.

The foreign-born population includes naturalized US citizens, non-U.S. citizens here legally, and non-U.S. citizens here undocumented. The children in the sample can potentially fall under the following classifications: native child with both parents native (native family, control group) or native/naturalized child with one or more immigrant parents (immigrant family, treatment group). For a breakdown of the possible citizenship and immigrant status configurations of an immigrant family please see Figure 1 below.

Figure 1: Immigrant Families Configurations



The Current Population Survey has a non-random, complex survey design so sampling weights to produce estimates that would be nationally representative. The State Health Access Data Assistance Center (SHADAC) hosts the CPS dataset and created a weight for use with summary health insurance variables (the outcome of interest) in the

CPS (HINSWT) that corrects for imputation bias in the March supplement (CPS IPUMS, 2016). In addition, the standard errors have been obtained accounting for clustering of children at the state level. As noted, the DD estimator nets out the effect of any unobserved and time-invariant differences between states that had restrictive laws and those that did not in any one year, and together with the other controls for the endogeneity of legislation, allows for a casual interpretation of the results.

Descriptive Statistics

Over half (64%) of the children in this study are part of native families while 36% are part of immigrant families.[7] Children living in immigrant families in this sample are slightly more likely to be above the federal poverty line than children in native families. This may be due to the fact that the mother of the child in an immigrant family was significantly more likely to be married and therefore part of a two-income family. Mothers of children in immigrant families were also more likely to not have completed high school (21.5% of mothers of children in native families compared to 52.6% in immigrant families). The mothers of children in immigrant families are much more likely to identify themselves as white Hispanic, while mothers of children in native families are more likely to be Black or white non-Hispanic. In terms of family size, the percentages for

[7] As a reminder to the reader, all children in this study are 200% of the federal poverty level or below.

both immigrant and native family mothers with five or more children are identical, although children's mothers in immigrant families are slightly more likely to have three or four children than mothers in native families (48.1% and 42.2% respectively). These demographic differences (see Table 1) are consistent with information from other nationally representative surveys such as the American Community Survey (Seiber, 2014).

Focusing on the subsample of immigrant families (Table 3), children with naturalized citizen mothers are more likely to be living above 100% of the FPL (65.2%) compared to children with both native (55.5%) and non-citizen (54.8%) mothers. This may be due to the requirements for obtaining citizenship.[8] Hispanic mothers are overwhelming more likely to be non-citizens. The majority of mothers of children in immigrant families identify as white and the majority of Asian mothers of children in immigrant families are naturalized citizens. The majority of both native and naturalized mothers of children in immigrant families have a high school education or greater (63.5% and 60.5% respectively). The majority of non-citizen mothers have less than a high school education (63.7%) and are not likely to have some college education or a college degree (only 12.9% have attained such schooling). In sum, this demographic analysis shows that

[8] A green card is a perquisite for citizenship and a green card is most often obtained through employment status, family eligibility, or refugee status.

even within immigrant families there are significant demographic differences between families with mothers who are native, naturalized, or non-citizens. Thus, it is important to control for these differences in an analysis of children's enrollment in Medicaid/CHIP.

Table 1 Descriptive Statistics of Children in CPS Sample of Low-Income Families

Full Sample	**Children in Native Family**	Column %	**Children in Immigrant Family**	Column %	**Total**
Poverty Level					
100% or Below FPL	31,320	45.4	16,568	43.5	47,888
101-150% FPL	18,470	26.8	11,671	30.6	30,141
151-200% FPL	19,185	27.8	9,882	25.9	29,067
Mother's Ethnicity					
Not Hispanic	49,343	84.4	7,797	22.4	57,140
Hispanic	7,248	12.4	25,111	72.0	32,359
Puerto Rican	1,547	2.7	1,958	5.6	3,505
Marital Status of Mother					
Married	25,911	44.3	23,604	67.7	49,515
Married-Spouse Absent	1,270	2.2	876	2.5	2,146
Not Married	31,268	53.5	10,399	29.8	41,667
Education of Mother					
Less than High School	12,556	21.5	18,345	52.6	30,901
High School Grad	23,820	40.8	9,625	27.6	33,445
Some College	17,774	30.4	4,932	14.1	22,706
College Graduate	4,289	7.3	1,976	5.7	6,265
Race of Mother					
White	39,445	67.5	29,237	83.8	68,682
Black	17,580	30.1	2,660	7.6	20,240
American Indian	1,152	2.0	474	1.4	1,626
Asian	271	0.5	2,505	7.2	2,776
Num. of Own Children (Mother)					
1	9,218	15.8	4,104	11.8	13,322
2	19,327	33.1	10,468	30.0	29,795
3	16,694	28.6	10,999	31.5	27,693
4	7,930	13.6	5,772	16.6	13,702
5	3,092	5.3	2,169	6.2	5,261
6+	2,188	3.8	1,367	4.0	3,555

The distribution of all demographic characteristics were significantly different between children in native and immigrant families at $p \leq .01$ based on chi-square analysis.

Note: Sample consists of U.S. citizen children (18 and under) from the 20 states under analysis in the time period of 2000-2008 whose family income is 200% of the FPL or below.

Table 2 Weighted Descriptive Statistics of Children in Low-Income Families: 20 States 2000-2008 (Numbers reported in millions)

Full Sample	Childre n in Native Family	Children in Immigran t Family	Total
Poverty Level			
100% or Below FPL	51	24	75
101-150% FPL	29	17	46
151-200% FPL	30	14	44
Mother's Ethnicity			
Not Hispanic	79	13	92
Hispanic	11	35	46
Puerto Rican	1.8	2.1	4.0
Marital Status of Mother			
Married	40	34	74
Married-Spouse Absent	2.1	1.3	3.4
Not Married	51	15	65
Education of Mother			
Less than High School	20	26	46
High School Grad	38	14	52
Some College	28	73	35
College Graduate	6.5	3.0	9.5
Race of Mother			
White	59	41	100
Black	31	4.4	36
American Indian	1.8	.68	2.4
Asian	.42	4.4	4.8
Num. of Own Children (Mother)			
1	15	6.2	21
2	30	15	46
3	26	15	42
4	13	8.3	21
5	4.8	3.2	8
6+	3.3	2.0	5.4

Note: Numbers weighted at the person level weight to account for March supplement complex survey design and the known distribution of the entire population according to age, sex, and race.

Table 3: Descriptive Statistics of Children in Low-Income Immigrant Families by Mother's Citizenship Status

Children in Immigrant Families	**Native Mother**	Column %	**Naturalized Mother**	Column %	**Non-Citizen Mother**	Column %	**Total**
Poverty Level							
100% or Below FPL	3,295	44.5	2,666	34.8	8,962	45.2	14,923
101-150% FPL	2,159	29.1	2,427	31.7	6,215	31.4	10,801
151-200% FPL	1,954	26.4	2,561	33.5	4,640	23.4	9,155
Mother's Ethnicity							
Not Hispanic	2,336	31.5	2,747	35.9	2,714	13.7	7,797
Hispanic	3,166	42.7	4,871	63.6	17,074	86.2	25,111
Puerto Rican	1,898	25.6	32	0.4	28	0.1	1,958
Marital Status of Mother							
Married	3,770	50.9	5,164	67.5	14,670	74.0	23,604
Married-Spouse Absent	218	2.9	226	3.0	432	2.2	876
Not Married	3,420	46.2	2,264	29.6	4,715	23.8	10,399
Education of Mother							
Less than High School	2,704	36.5	3,025	39.5	12,616	63.7	18,345
High School Grad	2,489	33.6	2,491	32.6	4,645	23.4	9,625
Some College	1,760	23.8	1,433	18.7	1,739	8.8	4,932
College Graduate	454	6.1	705	9.2	817	4.1	1,976
Race of Mother							
White	6,312	85.2	5,514	72.0	17,411	87.9	29,237
Black	681	9.2	791	10.3	1,188	6.0	2,660
American Indian	128	1.7	103	1.4	243	1.2	474
Asian	287	3.9	1,245	16.3	973	4.9	2,505
Num. of Own Children (Mother)							
1	995	13.4	792	10.4	2,317	11.7	4,104
2	2,173	29.3	2,342	30.6	5,953	30.0	10,468
3	2,271	30.7	2,464	32.2	6,264	31.6	10,999
4	1,259	17.0	1,182	15.4	3,331	16.8	5,772
5	395	5.3	563	7.4	1,211	6.1	2,169
6+	315	4.2	311	4.1	741	3.7	1,367

The distribution of all demographic characteristics were significantly different between children based on mother's citizenship status at p<.01 based on chi-square analysis.
Note: Sample consists of U.S. citizen children (18 and under) from the 20 states under analysis in the time period of 2000-2008 who have at least one foreign born parent, and whose family income is 200% of the FPL or below.

Regression Analysis

As noted previously, the data in this study are obtained from the Current Population Survey's (CPS) March Supplement. Using children as the units of observation, I fit linear probability models and obtain difference-in-differences (DD) estimates of the impact of restrictive state laws on enrollment in safety net health insurance.

The following linear probability model was initially used to assess the impact of state's adoption of restrictive laws on children's enrollment in Medicaid/CHIP (Model One):

$$Y_{cst} = \beta 0 + \beta 1 X_{cst} + \beta 2 Z_{st} + \beta 3 RESLAW_{st} + \beta 4 IMMIGRANTFAMILY_{cst}$$

$$\beta 5 RESLAW_{st} * IMMIGRANTFAMILY_{cst} + \beta 6 STATE_{ct} + \beta 7 YEAR_t + \varepsilon_{cst}$$

Dependent Variable

The outcome (Y) will take a value of one if child c in state s at year t enrolls in Medicaid or CHIP and is zero otherwise. This is a constructed variable from SHADAC and it indicates whether respondents were covered by Medicaid, SCHIP, or some other non-Medicare, non-military public insurance program (SHADAC, 2015).

Independent Variables

X is a vector of individual characteristics of the mother, Z is the vector of state-specific time-varying characteristics (both sets of variables are discussed below) and $RESLAW$ takes on a value of 1 if there were any restrictive laws passed in state s at any point during year t. $IMMIGRANTFAMILY$ takes on a value of 1 if either the mother or father of the U.S. citizen child is non-native. ε is a stochastic error term.

The unit of analysis in this study is the child targeted for enrollment in Medicaid/CHIP. Attributes of the mother (X) are the mother's race, ethnicity, citizenship, marital status, number of children and education, and the family's income in relation to the federal poverty line.

State Characteristics Variables (Z)

Since state laws reflect a response to economic and political considerations within a state, it is essential to control for factors that lead to adoption of the laws under consideration in order to address this policy endogeneity. Policy endogeneity is the idea that unobserved factors embedded in the model's error term could be correlated with the presence of restrictive legislation and with the outcome of interest. Failure to account for omitted and unobserved factors that may be correlated with the adoption of restrictive

legislation and outcomes of interest can yield biased impact estimates. Based on the statistically significant correlates of state legislative adoption in Chapter 2's analysis, the model includes state characteristics that may be factors in state adoption of restrictive legislation. These state characteristics are: percent of state residents that are immigrants,[9] the percent of state residents that are not citizens,[10] the percent of state residents over the age of 21 with a high school degree or above,[11] an indicator of state generosity with social service benefits to immigrants just previous to the analysis years,[12] and two constructed variables looking at political party concordance of the state legislature and all governing bodies.[13]

The variables discussed above represent immigrant integration into the community, community education levels, revenue available for state programs, and ease of passing legislation. Previous state generosity in providing social safety net programs to immigrants could affect the likelihood of passage of new anti-immigrant legislation which in turn affect the likelihood of Medicaid take up. For example, if in 1998 a number of laws were passed restricting immigrant access to the social safety net than the state may not

[9] Data source: American Community Survey Data, 2000-2008
[10] Data source: American Community Survey Data, 2000-2008
[11] Data source: American Community Survey Data, 2000-2008
[12] A constructed variable modified from an Urban Institute analysis. See Area Effects Section for detailed explanation.
[13] Data taken from National Conference on State Legislator State Partisan Composition to create the variable

feel the need to enact new legislation in 2001, but the chilling effect could still be seen. Therefore, an indicator of this is included in the analysis. Finally, it is necessary to correct for state time-varying economic conditions that might influence the economic situations of potential Medicaid recipients, and because state economic conditions can affect the resources that can be used to administer the program and support its financing. The state unemployment rate and state-specific fixed effects account for these differences in economic conditions across states.

Interaction Term

The estimated coefficient $\beta 5$ on the interaction term is the difference-in-differences estimator which tests whether citizen children in non-native families in states which passed restrictive laws are less likely to enroll in Medicaid/CHIP compared to a control group. The control group consists of children in native families in states that did not pass laws (a 0-0 combination of RESLAW and IMMIGRANTFAMILY), children in native families in states that passed restrictive laws (1 - 0 combination of RESLAW and IMMIGRANTFAMILY) and children in non-native families in states that did not pass laws (0- 1 combination of RESLAW and IMMIGRANTFAMILY). This can answer the question of whether U.S citizen children in non-native families in states that passed restrictive laws were less likely to enroll in Medicaid/CHIP compared to the control

groups noted above. A negative estimated coefficient $\beta 5$ would provide support for the chilling effect.

Year and State Fixed Effects

YEAR is a vector of year-specific dummy variables designed to capture the influence of time-specific change on the outcome on Medicaid/CHIP enrollment. State-specific fixed effects, captured by variable STATE, are also included in the model to control for time-invariant differences across all states. However, since the state fixed effects constrain the analysis to the effect of within state differences, findings were also tested in specifications without the state fixed effects to obtain estimates that capture differences across states.

Weights and Clustering

Sample weights are applied to account for any oversampling of population groups in the CPS sampling frame and make the cases reflect the population totals, in order to ensure that the estimated effect truly reflects the behavior of the population under consideration. Because of the potential for intra-group error correlation among observations in the same state, the standard errors were clustered at the state level. Estimation methods need to account for the clustering of observations within states, or the statistical significance of state-level coefficients (our outcome of interest) may be

overestimated. When intra-group correlation may occur at multiple levels in hierarchical data, it is standard practice to cluster at the highest level of aggregation, in this case the state. Because of the possibility of multiple children in one family being in the analysis, as a sensitivity test the models were also run clustered at the family level and substantive conclusions were unaltered.

Additional Analysis

The analysis was also run for any restrictive laws passed in state *s* at any point during year *t* for laws categorized as education, regulation, and as social welfare (as defined in Chapter 2) in order to determine if certain categories of laws had a significant effect on social welfare use. Since citizenship would be a key factor interacting with these laws, the analysis was also run in an immigrant family only sub-sample, looking at the mother's citizenship and interaction with restrictive state laws. In this analysis, the control group consists of children in states not passing laws and having non-citizen or naturalized mothers (a 0-1 combination of RESLAW and NATMOM and a 0-1 combination RESLAW and NONCITMOM), children with native mothers in states that did not pass laws (a 0-0 combination of RESLAW and NATMOM and a 0-0 combination RESLAW and NONCITMOM), and children in a state that passed restrictive laws and had a native mother (a 1-0 combination of RESLAW and NATMOM and a 1-0

combination RESLAW and NONCITMOM) The specification of this model takes the following form (Model Two):

$$Y_{cst} = \gamma 0 + \gamma 1 X_{cst} + \gamma 2 Z_{st} + \gamma 3 RESLAW_{st} + \gamma 4 NATMOM_{cst} + \gamma 5 NONCITMOM_{cst} + \gamma 6 RESLAW_{st} * NATMOM_{cst} + + \gamma 7 RESLAW_{st} * NONCITMOM_{cst} + \gamma 8 State_{ct} + \gamma 9 YEAR_{t} + \varepsilon_{cst}$$

One estimation challenge is that this analysis focuses on binary outcomes (enrolled in Medicaid/CHIP or not enrolled) and nonlinear models such as logit or probit are generally best fitted to analyze such outcomes. However, linear probability models have been used successfully to analyze binary outcomes in the context of DD estimation frameworks. For example, many studies looking at insurance market reform use linear probability models to study the effect a set of policy differentials across states since they provide coefficients that show direct estimates of marginal effects (Buchmueller & DiNardo, 2002; Monheit & Schone, 2004; Monheit, Cantor, DeLia, & Belloff, 2011). In a nonlinear model the coefficient of the DD model's interaction term cannot be interpreted as a marginal effect and the sign, and magnitude of the coefficient of the interaction term are not accurate, nor is the standard error for these effects (Ai & Norton, 2003). While marginal effects and their standard errors from interaction terms in non-linear models can be obtained following procedures outlined by Ai and Norton (2003), when large data

sets are involved (such as the Current Population Survey used in this analysis) obtaining such statistics are quite burdensome computationally. For this study, the marginal effect of restrictive state laws and their standard errors were obtained directly from linear probability models, and the marginal effect was compared to those derived from logit models and found to be the same.

Area Effects:

The restrictive laws enacted during the 2000-2008 time period under consideration may have been adopted on top of the restrictive laws that already existed at the state level prior to the beginning period of the study. Or potentially, restrictive laws may not have been adopted in the time period under analysis because they were already adopted in the prior time period. States may have for example passed multiple restrictive laws based on immigration status prior to the analysis period and therefore have a more restrictive environment for immigrants without it being captured in the number of restrictive laws being passed during the analysis period. In order to control for this state characteristic a variable was constructed based on state generosity toward immigrants in 1998, in the wake of welfare reform. The constructed variable is modified from an Urban Institute analysis (Zimmermann & Tumlin, 1999) based on the presence of state funded programs for immigrants to substitute for Medicaid, TANAF, SSI, and food assistance

during the five year ban period as well as cost sharing and restrictions on these services. The constructed immigrant generosity variable ranks states from 1-4 respectively as least available, less available, somewhat available, and most available for social safety net services for immigrants prior to the analysis period.

Sensitivity Tests

Two states among the 20 chosen are potentially influential outliers. Arizona is an outlier due to the large number of restrictive laws that were passed, and Massachusetts is as well, both because it has the least number of restrictive laws of the 20 states and because of Massachusetts' health reform passed in 2006. As stated previously, the states in this analysis were chosen based on both immigrant growth and total population of immigrants, in order to identify those states most likely to be active in adopting and implementing legislation that might constrain immigrant access to social services. Additionally, a requirement for the analysis is the necessity to have states with an adequate sample size of immigrant families. Since the states that are included with small numbers of laws may lead to an underestimate of the effect of these laws, the state with the smallest number of laws, Massachusetts, was excluded from the analysis in order to check the sensitivity of the findings. Since Massachusetts is unique among all the states in terms of its laws for health insurance, this exclusion will also address the sensitivity of the

finding to the health insurance mandate. Similarly, the analysis was also run excluding the state with the highest number of laws, which was Arizona. These analyses did not show Massachusetts and Arizona to be significant drivers of outcomes, so both states were left in the final analysis.

In order to understand if there was an effect based on the number of laws passed in each state in a year, Model One was run substituting *RESLAW* (any law passed) with the number of laws passed in state *s* in year *t* (*NUMRESLAW*). The interaction term was not included in the model with the quadratic dependent variable. *NUMRESLAW* was looked at as both total number of laws passed in any given year and as a quadratic expression to determine the marginal effect of an additional law in each year (Numreslaw^{2}st) and was found to be non-significant. The tests supported the current model as used in this analysis.

Other sensitivity tests included looking at a sub-sample that includes only low-income children in immigrant families (one or both parents foreign born), running the models with single-parent families vs. two-parent families, and looking at the models for families with one child vs. families with multiple children. The results of these sensitivity tests are presented in Tables 4 and 5.

Regression Results

Results presented in Table 4 indicate that restrictive laws have a small but statistically significant negative effect (1.8 percentage points less likely to enroll) on enrollment of U.S. citizen children in immigrant families into Medicaid and CHIP (Model One) compared to a control group not likely to be subject to the restrictive legislation. Looking at subsamples of children with and without siblings, children with siblings in immigrant families demonstrate a chilling effect of 2.1 percentage points (less likely to enroll than children with siblings in the control group). Children in immigrant married families are 2.9 percentage points less likely to enroll than children in native married families. This effect reflects the difference between the treatment and control groups in states where a restrictive law was passed. This effect becomes even more pronounced when looking at just social welfare related legislation (5.5 percentage points less likely to enroll if a child is in the control group). This stronger effect appears to be diluted when looking at all restrictive laws and likely is the driver behind the chilling effect (See Table 6).

The interaction term in Model Two looks at mother's citizenship status (Table 5) in a subset of immigrant families and shows that there is a 2.3 percentage point decrease in the likelihood of a U.S. citizen child with a non-citizen mother to be enrolled in

Medicaid or CHIP in a year in which any restrictive legislation was passed, compared to children with native mothers in immigrant families. This effect is stronger in children without siblings in immigrant families (10.6 percentage points less likely) and among children in non-married immigrant families (4.8 percentage point reduction in enrollment). Unlike when looking at the difference between immigrant and native families, within the immigrant sub-sample, restrictive social welfare legislation does not appear to be driving this chilling effect among children with non-citizen mothers, which is only significant when looking at overall restrictive legislation. Running the analysis with and without state-fixed effects (See Table 8) in order to look at the differences both within (model with state fixed effects) and between (model without state fixed effects) states showed no significant differences in outcomes. Therefore, the model with state fixed effect was chosen in order to control for average differences across states in any unobservable predictors and reduce the threat of omitted variable bias.

Looking socio-demographic barriers and facilitators to enrollment (Table 7) independent of the interaction effect, the research results indicate that a higher level of family income is negatively associated with the likelihood of children residing in these families to be enrolled in Medicaid or CHIP. Children living in families that were 101 - 150% of the FPL were 15.2 percentage points less likely than families at or below the FPL

to be enrolled, and children in families that were 151-200% of the FPL were 30.3 percentage points less likely to be enrolled. Children with mothers who were naturalized citizens were 9.5 percentage points less likely to be enrolled than children with citizen mothers. Children whose mother was not married were 11 percentage points more likely to be enrolled in Medicaid or CHIP than children whose mothers were married. Children whose mother was Black or Asian were more likely to be enrolled than children whose mother was white (5.5 percentage points and 4.6 percentage points respectively). With each additional child, there is a .8 percentage point increase in enrollment.

Almost all state characteristics proved to be statistically nonsignificant in explaining whether a child was enrolled. The only exception was the previous state generosity variable, which reveals that a child in a state where social services were most available to immigrants in the period prior to this analysis were 20.4 percentage points more likely to enroll in Medicaid or CHIP compared to states that were classified as having social services least available to immigrants. This is probably indicative of the fact that states that were generous with social services to immigrants are generous overall when it comes to social services. As would be expected, the magnitude of the effect of previous state generosity toward immigrants increased when looking at the immigrant only subsample, going from 21 percentage points more likely for child to enroll in most

generous state (previous state generosity variable) in the full sample to 32 percentage points more likely to enroll in the immigrant subsample.

Table 4: Effect of Restrictive State Laws on U.S. Citizen Children in Low Income Families Use of Medicaid/CHIP: 2000-2008

20 State Analysis	**All Children**	**Children Without Siblings**	**Children With Siblings**	**Children in Married Families**	**Children in Non-Married Families**
Restrictive Law	−0.004	−0.017	−0.001	0.005	-0.013
	(.0076)	(.0124)	(.0090)	(.0121)	(.0072)
Restrictive Law*Immigrant Family	−0.018*	0.000	−0.021*	-0.029*	0.009
	(.0097)	(.0168)	(.0102)	(.0157)	(.0193)
	0.030**	0.027	0.030**	0.059***	-0.009
Immigrant Family	(.0136)	(.0217)	(.0135)	(.0155)	(.0148)

*p≤.1, **p≤.05, ***p≤.01

Notes: All children includes all children 18 and under in state x at year y with families income 200% or below of federal poverty level. Includes state and year fixed effects. In this linear probability regression, data was weighted and the standard error was clustered at the state level. Regression controlled for: mother's citizenship, race, ethnicity, number of children, and education; family poverty level; State characteristics including, Unemployment rate, % of State Pop. Immigrants, % of State Non-Citizen Immigrants, % of State HS Grad. and above, State Net Revenue, State Gov. Party Concordance and Pre-Analysis State Generosity.

Table 5: Effect of Restrictive State Laws on U.S. Citizen Children in Low Income Immigrant Families' Use of Medicaid/CHIP: 2000-2008

20 State Analysis	**Children in Immigrant Families**	**Children w/out Siblings in Immigrant Families**	**Children with Siblings in Immigrant Families**	**Children in Married Immigrant Families**	**Children in Non-Married Immigrant Families**
Restrictive Law	-0.003	0.072*	−0.006	-0.010	0.026
	(.0143)	(.0357)	(.0156)	(.0172)	(.0274)
	-0.023**	−0.106**	−0.013	−0.008	−0.048*
	(.0108)	(.0406)	(.0125)	(.0196)	(.0260)

20 State Analysis	Children in Immigrant Families	Children w/out Siblings in Immigrant Families	Children with Siblings in Immigrant Families	Children in Married Immigrant Families	Children in Non-Married Immigrant Families
Restrictive Law*Non-Citizen Mother					
Restrictive Law*Naturalized Mother	-0.017 (.0111)	−0.092* (.0475)	−0.006 (.0111)	−0.012 (.0121)	-0.007 (.0359)

*p≤.1, **p≤.05, ***p≤.01

Notes: All children includes all children 18 and under in state x at year y with families income 200% or below of federal poverty level. Includes state and year fixed effects. In this linear probability regression, data was weighted and the standard error was clustered at the state level. Regression controlled for: mother's citizenship, race, ethnicity, number of children, and education; family poverty level; State characteristics including, Unemployment rate, % of State Pop. Immigrants, % of State Non-Citizen Immigrants, % of State HS Grad. and above, State Net Revenue, State Gov. Party Concordance and Pre-Analysis State Generosity.

Table 6: Differential Effects of Types of Restrictive State Laws on U.S. Citizen Children in Low Income Families' Use of Medicaid/CHIP: 2000-2008

20 State Analysis	All Restrictive Laws	Restrictive Education laws	Restrictive Regulation Laws	Restrictive Social Welfare Laws
All Families Sample				
Restrictive Law	−0.004 (.0076)	0.028 (.0172)	−0.006 (.0081)	0.011 (.0095)
Law*Immigrant Family	−0.018* (.0097)	0.009 (.0301)	-0.011 (.0130)	−0.055*** (.0140)
Immigrant family	0.030** (.0136)	0.022 (.0150)	0.026** (.0110)	0.031** (.0130)
Immigrant Families Sample				
Restrictive Law	-0.003 (.0143)	0.025 (.0361)	0.003 (.0237)	−0.021 (.0301)
Law*Non-Citizen Mother	-0.023** (.0108)	0.010 (.0310)	−0.018 (.0160)	−0.021 (.0350)
Law*Naturalized Mom	-0.017 (.0111)	0.031 (.0228)	−0.021 (.0198)	−0.035 (.0211)

*p≤.1, **p≤.05, ***p≤.01

Notes: All families includes all children 18 and under in state x at year y with family income 200% or below of federal poverty level. Includes state and year fixed effects. Immigrant families includes all children in an immigrant family (at least one non-native parent) 18 and under in state x at year y with family income 200% or below of federal poverty level.

Education refers to laws that either allow for or restrict immigrants from receiving funding for secondary education, and also restrict or protect undocumented immigrant access to the public education system. Regulation refers to laws that authorize and/or require law enforcement, government workers, and private citizens to screen individuals for legal status. Social Welfare refers to state measures that grant additional access to means-tested programs or further restricts access to means-tested programs from federal regulations.

In this linear probability regression, data was weighted and the standard error was clustered at the state level. Regression controlled for: mother's citizenship, race, ethnicity, number of children, and education; family poverty level; State characteristics including, Unemployment rate, % of State Pop. Immigrants, % of State Non-Citizen Immigrants, % of State HS Grad. and above, State Net Revenue, State Gov. Party Concordance and Pre-Analysis State Generosity.

Table 7: Comparing Outcomes for Models One and Two: Looking at Predictors of Medicaid/CHIP Enrollment and Interaction Effects of Restrictive State Laws

20 State Analysis	**All Children**	**Immigrant Families**	**Only Social Welfare Law (All Children)**	**Only Social Welfare Law (Immigrant Families)**
Restrictive Law	-0.007	0.003	0.011	-0.021
	(.0074)	(.0143)	(.0095)	(.0302)
Law*Immigrant Family	-0.018*	NA	–0.055***	NA
	(.0097)		(.0140)	
Law*Non-Citizen Mother	NA	-0.023**	NA	-0.021
		(.0108)		(.0350)
Law*Naturalized Mom	NA	-0.017	NA	-0.035
		(.0111)		(.0211)
Immigrant Family	0.030**	NA	0.031**	NA
	(.0136)		(.0130)	
Citizenship of Mother				
Naturalized	-0.095***	-0.092***	-0.096***	-0.095***
	(.0168)	(.0114)	(.0165)	(.0136)
Not a Citizen	-0.007	0.007	-0.008	-0.000
	(.0158)	(.0150)	(.0157)	(.0170)
Poverty Level				
101-150% of FPL	-0.152***	-0.142***	-0.153***	-0.143***
	(.0106)	(.0139)	(.0108)	(.0139)
151-200% of FPL	-0.303***	-0.281***	-0.304***	-0.281***

20 State Analysis	All Children	Immigrant Families	Only Social Welfare Law (All Children)	Only Social Welfare Law (Immigrant Families)
	(.0124)	(.0155)	(.0125)	(.0155)
Hispanic Mother				
Hispanic	0.048***	0.063***	0.048***	0.064***
	(.0121)	(.0185)	(.0122)	(.0184)
Puerto Rican	0.071***	0.095***	0.071***	0.095***
	(.0187)	(.0300)	(.0187)	(.0303)
Unknown	0.032	0.230***	0.032	0.227***
	(.0659)	(.0659)	(.0667)	(.0660)
Marital status of Mother				
Married-Spouse Absent	0.013	-0.031	0.013	-0.031
	(.0190)	(.0465)	(.0188)	(.0466)
Not Married	0.112***	0.077***	0.112***	0.077***
	(.0097)	(.0130)	(.0098)	(.0129)
Education of Mother				
High school Grad	-0.068***	-0.028	-0.068***	-0.028
	(.0107)	(.0181)	(.0107)	(.0182)
Some College	-0.100***	-0.054*	-0.100***	-0.054*
	(.0121)	(.0267)	(.0120)	(.0267)
College Graduate	-0.233	-0.093***	-0.233***	-0.093***
	(.0125)	(.0290)	(.0125)	(.0290)
Unknown	-0.212**	-0.426***	-0.211**	-0.425**
	(.0789)	(.0249)	(.0782)	(.0230)
Race of Mother				
Black	0.055***	0.013	0.055***	0.013
	(.0103)	(.0174)	(.0102)	(.0171)
American Indian	0.042	0.063**	0.043	0.064**
	(.0296)	(.0276)	(.0296)	(.0272)
Asian	0.046**	0.030**	0.045**	0.031**
	(.0172)	(.0137)	(.0171)	(.0138)
Other	-0.418***	-0.456***	-0.420***	-0.456***
	(.0177)	(.0145)	(.0170)	(.0120)
Number of Children (Mother)	0.008***	0.007***	0.008***	0.007***
	(.0016)	(.0020)	(.0016)	(.0020)
State Unemployment Rate	0.006	-0.002	0.004	-0.008
	(.0055)	(.0142)	(.0055)	(.0123)
% of State Pop. Immigrants	0.004	0.014	-.000	0.011
	(.0083)	(.0175)	(.0078)	(.0155)
% of State Non-Citizen Immigrants	0.000	0.001	0.001	-0.001
	(.0014)	(.0042)	(.0014)	(.0044)

20 State Analysis	All Children	Immigrant Families	Only Social Welfare Law (All Children)	Only Social Welfare Law (Immigrant Families)
% of State HS Grad. and above	-0.002	-0.011	-0.006	-0.020
	(.0060)	(.0126)	(.0061)	(.0122)
State Net Revenue	3.210	1.130	-4.720	4.370
	(1.3100)	(1.6600)	(1.3800)	(2.2200)
Governing Party Concordance (D)				
All Republican	0.038**	0.051	0.037**	0.057
	(.0167)	(.0359)	(.0152)	(.0347)
Mixed	0.005	0.008	0.003	0.007
	(.0075)	(.0151)	(.0075)	(.0142)
Pre-Analysis State Generosity				
Less Available	0.209*	0.293	0.169*	0.071**
	(.1050)	(.2060)	(.0973)	(.0275)
Somewhat Available	0.162***	0.210	0.199***	0.024
	(.0565)	(.1486)	(.0588)	(.3170)
Most Available	0.204***	0.317***	0.206***	0.118
	(.0418)	(.0839)	(.0404)	(.1726)

*p≤.1, **p≤.05, ***p≤.01

Notes: All children includes all children 18 and under in state x at year y with family income 200% or below of federal poverty level. Immigrant families includes all children in an immigrant family (at least one non-native parent) 18 and under in state x at year y with family income 200% or below of federal poverty level. Only Social Welfare law includes all children in the sample and also looks at the immigrant subsample, but just includes state measures that grant additional access to means-tested programs or further restricts access to means-tested programs. This was included since it was the only law subset that proved to be significant in previous models (See Table 5). Includes state and year fixed effects. In this linear probability regression, data was weighted and the standard error was clustered at the state level.

Table 8: Effect of Restrictive Laws with and Without State Fixed Effects

20 State Analysis	All Laws Within State	All Laws Across States	Social Welfare Within State	Social Welfare Across States
All Children				
Restrictive Law	-.004	-.002	0.011	.017
	(.0076)	(.0098)	(.0095)	(.0111)
Law*Immigrant Family	-.018*	-.018*	–0.055***	-.060***
	(.0097)	(.0097)	(.0140)	(.0122)
Immigrant family	.030**	.031**	0.031**	.031**
	(.0136)	(.0137)	(.0130)	(.0132)
Children in Immigrant Families				

20 State Analysis	All Laws Within State	All Laws Across States	Social Welfare Within State	Social Welfare Across States
Restrictive Law	-.003	-.002	-0.021	-0.009
	(.0143)	(.0163)	(.0302)	(.0294)
Law*Non-Citizen Mother	-.023**	-.015	-0.021	-0.016
	(.0108)	(.0113)	(.0350)	(.0326)
Law*Naturalized Mom	-.017	-.017	-0.035	-0.043*
	(.0111)	(.0111)	(.0211)	(.0222)

*p≤.1, **p≤.05, ***p≤.01

Notes: All children includes all children 18 and under in state x at year y with family income 200% or below of federal poverty level. Immigrant families includes all children in an immigrant family (at least one non-native parent) 18 and under in state x at year y with family income 200% or below of federal poverty level. Includes year fixed effects. In this linear probability regression, data was weighted and the standard error was clustered at the state level. Regression controlled for: mother's citizenship, race, ethnicity, number of children, and education; family poverty level; State characteristics including, Unemployment rate, % of State Pop. Immigrants, % of State Non-Citizen Immigrants, % of State HS Grad. and above, State Net Revenue, State Gov. Party Concordance and Pre-Analysis State Generosity.

Discussion

General Characteristics that Affect Enrollment

There are a number of factors that appear to play an independent role in whether an eligible child is enrolled in Medicaid or CHIP. Family poverty level is strongly associated with a child's enrollment, with poverty at 100% or below associated with increased likelihood of enrollment, despite the fact that general eligibility requirements are 200 percent of the federal poverty level or less. This may be due to multiple factors. Understanding of eligibility requirements may be less among the near poor (because of additional categorical eligibility restrictions) than among families that meet the FPL guidelines. In addition, families that meet FPL guidelines would fall under Medicaid,

which has low cost sharing, while children in families that are above the FPL, especially if they are over the age of 5, would be more likely to qualify for CHIP which tends to have a higher cost sharing that some families may be unable to afford. States use cost sharing with near-poor families' in public programs in order to address the perceived problem of crowd-out. Multiple studies demonstrate an increase in uninsured among low-income children as cost sharing rises (Hadley, Reschovsky, Cunningham, Kenney, & Dubay, 2006; Abdus, Hudson, Hill, & Selden, 2014; Kenney, Hadley, & Blavin, 2006). Lastly, higher family income may mean that one of more parents are full time employees and could have access to employer-sponsored insurance. This is also reflected in the differences in children's enrollment among married and non-married mothers. Children with mothers who were not married were more likely to be enrolled, reflecting both lower incomes among those families and lower chances of having a full-time employed parent with access to employer-sponsored insurance.

In terms of the mother's demographics, this analysis shows that children with Hispanic mothers were more likely to enroll their children in Medicaid or CHIP (an increase of 4.8 percentage points in full sample, 6.3 percentage points in immigrant sub-sample) than children with non-Hispanic mothers. Similarly, children with Puerto Rican mothers (an increase of 7.1 percentage points in full sample, 9.5 percentage points in

immigrant sub-sample) were more likely to be enrolled in Medicaid or CHIP than non-Hispanic mothers. In addition, children with Black mothers (5.5 percentage points) and Asian mothers (4.6 percentage points) were more likely to be insured by Medicaid or CHIP than children with white mothers in the full sample analysis. This is consistent with the decline in uninsurance among low-income Hispanic children seen from 1999 to 2002. In this period, the decline in uninsurance was greater for Hispanic and Black children compared to white children due to an increase in coverage in the Hispanic and Black population through Medicaid and CHIP (Kenney, Haley, & Tebay, 2003). However, in the immigrant family subsample the significance of race is moderated as a factor in children's coverage with American Indian (6.3 percentage points) and Asian (3 percentage points) mothers being more likely to enroll their children than white mothers. This may be because the negative effect on likelihood of being insured due to being in an immigrant family (Seiber, 2014; Seiber, 2013) reduces racial/ethnic differences in coverage. Or it may reflect the fact that American Indian mothers are likely to be U.S. citizens.

State characteristics that are associated with enrollment include party concordance and state generosity. An all-Republican state government is more likely to have children enrolled in Medicaid or CHIP then an all-Democratic state government.

This may seem counter-intuitive considering the feelings of Republican politicians about smaller government and restricted social services. However, there is some evidence to suggest that states with low per-person income levels and low median household income levels are more likely to vote Republican (Politifact, 2014). Therefore, the state government party make-up may reflect the overall economics of the state not captured by conventional income measures rather than attitudes toward public safety net insurance. The states that had the most available social services for immigrants prior to this analysis were significantly more likely to have higher Medicaid and CHIP enrollment then those states that had the least available services to immigrants, reflecting overall the generous nature of the state toward safety net services.

Immigrant Families and Restrictive State Laws

Being in an immigrant family in a state and year without a restrictive law means that there is a small but significantly higher likelihood of being enrolled in Medicaid or CHIP (Table 4) compared to native families. This may be due to the type of jobs that low-income immigrant parents are more likely to have, which are less likely to offer health insurance (Buchmueller, Lo Sasso, Luri, & Dolfin, 2007). Children in married immigrant families experienced the most significant decline in enrollment in states with restrictive legislation (2.9% points), followed by children with siblings (2.1% points) and all children

in immigrant families (1.8% points). Children with siblings may have experienced a significant decline because of the higher likelihood, compared to families with only one child where one or more siblings were not born in the U.S. The data shows that children in married families experience a larger chilling effect, which may reflect the fact that immigrant families are more likely to be married compared to native families in this sample.

Looking at children in a subset of only immigrant families (Table 5), the importance of the mothers' citizenship status on the child's enrollment becomes clear. Having a non-citizen mother and living in a state that passed a restrictive law significantly reduces the likelihood of a child's enrollment in public insurance by 2.3 percentage points, which goes up to 4.8 percentage points for children in non-married families and 10.6 percentage points or only children with non-citizen mothers. The effect of having a non-citizen mother in a restrictive law state is ameliorated by having siblings and by living in a married family, both of which would increase the chances that an additional citizen was present in the family. This speaks to the way that a mother's citizenship interacts with state regulation. Obtaining citizenship is a complex process reflecting multiple factors that include immigration status (need to be a legal permanent resident for at least 5 years), the cost of the process, and English language fluency (including

speaking, reading, and writing). The non-citizen category of mothers could also include undocumented immigrants who have the most to lose when accessing social services. A case in point is the arrest of a woman in Texas for presenting false identification at a well visit with her doctor (Barajas, 2015). These incidents may make undocumented mothers afraid to access services for their eligible children, especially in states with restrictive legislation aimed at immigrants.

Based on the reduction in coverage among immigrant families in states that passed a restrictive law in that year, I can estimate the number of children that had Medicaid/CHIP coverage in a state without restrictive legislation that would not be covered if the state had adopted restrictive legislation. Using the percentage point reduction as a numerator and the percent of children in immigrant families covered by Medicaid/CHIP in non-restrictive law states as the denominator there would be a 3.5% reduction in children in immigrant families that would have government sponsored health insurance coverage.[14] Using the weighted sample, this is equal to 5.6 million fewer US citizen children covered within these twenty states alone.

Types of Laws

[14] 20,936 children in the sample are from immigrant families in a state/year with no restrictive law. 52.13% were covered by Medicaid/CHIP. 0.018/0.521 =0.035 reduction in participation

The idea of breaking down restrictive laws by category is to see if there was any independent effect of different types of laws on enrollment is to be able to pinpoint whether laws not directly related to social welfare may have a still have a chilling effect on public insurance access. Looking at the interaction of restrictive laws and immigrant families (Table 7) it is clear that there is a strong interaction between restrictive social welfare laws being adopted and being in an immigrant family on children's access to Medicaid/CHIP. This strong negative interaction effect appears to be diluted by including regulation and education laws (neither of which had a significant interaction effect on their own). Therefore, the true interaction effect on immigrant families seems to be driven by restrictive social welfare laws. There would be a 10.6% reduction in children in immigrant families that would have government sponsored health insurance coverage in states that passed restrictive social welfare laws. Using the weighted sample 17 million fewer children would have Medicaid /CHIP coverage if all states had adopted restrictive social service welfare laws. Looking at U.S. citizen children in immigrant families compared to the control group, it seems that the difference in Medicaid/CHIP enrollment may be attributed to laws that specifically target social welfare access for immigrants.

Looking at the interaction between mother's citizenship and restrictive laws it is clear that the opposite is true. Here we can see a true chilling effect of having restrictive

legislation aimed in general at immigrants. Within the immigrant family subsample, the impact of having a non-citizen mother in a state with restrictive laws in a 2.3 percentage point reduction in enrollment for U.S. citizen children. This is despite non-significant results in each of the three categories of laws alone, showing that an overall negative legislative environment in the states towards immigrants (including laws related to job, ID, and welfare program access) creates this chilling effect. All restrictive state laws related to immigrants appear to have an interaction affect with mothers' citizenship status, which reduces enrollment, while specific social welfare restriction laws affect immigrant families in general. This both strongly supports the idea of a chilling effect and suggests the need for outreach and education to foreign-born parents in order to ensure that all eligible children are enrolled.

Limitations

One important limitation of the data in this study is that it is not possible to determine if the mothers are undocumented immigrants. The non-citizen category includes both legally present non-citizens and those non-citizens who are in the country without documentation. Parents' willingness to enroll their child in Medicaid/CHIP and their response to restrictive state laws may be different between documented and non-documented non-citizen immigrants.

Correctly reporting public insurance is a problem across multiple surveys. While uninsured estimates are relatively accurate across all surveys, the CPS does have problems with coverage misclassification, likely due to the yearlong recall period (Call, Davern, Klerman, & Lynch, 2013). One study comparing the CPS to the Medicaid Statistical Information System (MSIS) found that composite Medicaid/CHIP reporting (as used in this analysis) had a smaller reporting error than CHIP alone (Klerman, Plotzke, & Davern, 2012).

Enforcement of these laws is not possible to determine, and rigorous enforcement may create a greater chilling effect (Watson, 2014). Another limitation, which may be remedied through a further analysis, is the inability of this study to determine the cause of the chilling effect. It may be that media coverage of the restrictive legislation is the driver behind this effect, or it may be a generally anti-immigrant climate in the state. By analyzing media coverage at the time of the passage of the legislation and through polls and focus groups it may be possible to determine the mechanism of action of the identified chilling effect.

Conclusion

The key message from this chapter is that there is a chilling effect among immigrant families, which decreases their children's likelihood of enrollment in

Medicaid/CHIP related to the passage of restrictive legislation based on immigration status. As more and more states enact restrictive legislation related to immigration status, this could create a widening gap in health insurance coverage for eligible children who live in immigrant families compared to children in native families. A National Conference of State Legislatures Report showed that in 2015 there were 216 laws related to immigration passed across 49 states and Puerto Rico (Morse, Mendoza, & Mayorga, 2016). This is an ongoing issue that has unintended consequences for U.S. citizen children's access to public insurance.

This research is one of the first to specifically identify a chilling effect of restrictive state laws. Previously a chilling effect was mostly inferred from an overall drop in Medicaid enrollment after passage of federal laws, or enrollment disparities between Medicaid eligible citizen children with immigrant and non-immigrant parents (Seiber, 2013; Yu, Huang, & Kogan, 2008). The results from this analysis show a specific magnitude of effect of these laws and demonstrates that this chilling effect is not due to other potential factors like a change in state economic outlook, but instead directly attributable to these restrictive laws. In addition, the research indicates that laws aimed specifically at restricting social service access create this chilling effect for immigrant families, while laws aimed at education, job restriction, and social welfare have a

significant impact on access to pubic insurance for a particular subgroup-those children with non-citizen mothers.

State specific administration and eligibility for Medicaid and CHP benefits mean that there are differences in enrolment of eligible children by state. However, many states see differences in enrollment rates between citizen children depending on whether those children have immigrant or native parents. Using the American Community Survey, Seiber (2013) calculated the average predicted probability of being uninsured for each state based on whether a citizen child was in an immigrant or native family and identified states with the largest differential. Among the states that were considered for analysis in Seiber's study Alabama, Arizona, California. Connecticut, Florida, Georgia, Nevada, New Jersey, North Carolina, South Carolina, Tennessee, and Texas all showed significant differences in their average enrollment of citizen children in immigrant families into Medicaid compared to native families. That is twelve out of the 20 states included in this analysis. The largest significant differential among these states was Georgia, with citizen children in immigrant families being 9.4 percentage points less likely to be enrolled. The question then becomes, what are the drivers behind this state differential in enrollment between citizen children in immigrant and native families. PRWORA literature shows us the existence of a chilling effect created by federal laws aimed at restricting immigrant

access to social safety net services (Borjas, 2003; Kandula, Kersey, & Lurie, 2004). This study shows that the chilling effect at the state level is demonstrated for Medicaid and CHIP access.

Allen and McNeely (2017) looked at ten states with restrictive omnibus legislation using the national Health Interview Survey (2005-2014) to see if these restrictive laws influenced Medicaid enrollment among U.S. citizen Latino children. Their findings differ from this analysis, in that they found that omnibus legislation had no impact on Medicaid/CHIP enrollment for Latino citizen children with noncitizen parents, and that it actually led to temporary increases in coverage for Latino citizen children with at least one citizen parent. It is important to note that Allen and McNeely did not look at all state laws, just at omnibus legislation and that once it was passed they considered that state to be a restrictive state for the rest of the time period regardless of whether additional legislation was passed or not. They used as controls states that may have passed restrictive legislation but did not pass omnibus legislation. Additionally, they restricted their analysis to Latino children and included children that may have had immigrant parents (at least one citizen parent, which could mean that one or both parents were immigrants) as the control group. These methodological flaws may be why the researchers found no effect of the law on Medicaid and CHIP enrollment. Toomey, et al (2014) looked at 280

Mexican immigrant adolescents and their mother figures in Arizona after the passage of "Supporting Our Law Enforcement and Safe Neighborhoods Act" (SB 1070), an omnibus immigrant bill, and found that both public assistance use and preventive care utilization declined after passage of the law. This was a pre-post design, so no causality can be determined, but it does suggest that more research is needed to determine the chilling effect of these laws. Similarly, White, et al (2014) looked at Latino's use of the county health department for immunizations, STI detection and treatment, other communicable diseases, and family planning, which declined for adult Latino's after the passage of Alabama's omnibus immigration bill, Alabama Taxpayer and Citizen Protection Act (House Bill 56). It was not shown to decline for children under the age of 18 post enactment. This may be because this looks only at direct care use for mandated (immunizations) and urgent care needs (infectious disease) and many of these children are likely U.S. citizens.

The unintended consequence of restrictive state legislation aimed at immigrants is the reduction in access to Medicaid and CHIP by low-income U.S. citizen children living in immigrant families. This in turn decreases the chances that that these children will have well-child visits, increases the likelihood of emergency room visits (Eisert & Gabow, 2002), and increases unmet medical needs (Kempe, et al, 2005). Outreach programs need

to be aware of the impediments posed by living in an immigrant family, as well as the importance of the citizenship of the mothers in their willingness to sign-up their children for Medicaid/CHIP. It is important to acknowledge that the chilling effect stems from social welfare specific legislation but expands beyond the targeted population and negatively impacts children who should have access to these programs. It is also critical to understand a particularly vulnerable sub-set of this immigrant family population, those children with non-citizen mothers. Restrictive laws aimed at immigrants may have a negative effect on enrollment of their children in Medicaid/CHIP. While previous studies have looked at reduction in enrollment based on social service restrictions, this is first time that an independent chilling effect of any restrictive legislation at the state population level has been directly demonstrated.

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Chapter Four: The Effects of State Laws on Enrollment in the Food Stamp Program by U.S. Citizen Children in Immigrant Families

The Food Stamp (currently called SNAP[15]) program, the largest nutrition assistance program in the U.S., has been shown to address both hunger and food insecurity as well improving general health outcomes for children. SNAP accomplishes this through both direct provision of food needs and indirectly, by freeing scarce dollars that can be spent on necessities other than meeting basic food needs. The amount of the Food Stamp benefit is based on something called the "Thrifty Food Plan" which was developed to mimic a low-cost healthy diet for different sized households (Caswell & Yaktine, 2013). Under President Kennedy, the first modern pilot program for food stamp benefits was initiated in 1961 and the program became permanent as part of legislation passed in 1964. However, it wasn't until the 70's that national eligibility guidelines were established and until 1974 that the program began operating nationwide (USDA, 2014; Caswell & Yaktine, 2014). The program is administered federally under the U.S. Department of Agriculture (USDA) and provides Electronic Benefit Cards (EBT) to recipients that can be used at grocery stores, supermarkets, farmers' markets, and other authorized retailers. The Food Stamp program also provides nutrition education.

[15] The Food and Nutrition Act of 2008 changed the name of the Federal program from Food Stamps to the Supplemental Nutrition Assistance Program or SNAP as of Oct. 1, 2008. Since during the analysis time frame the program was called the Food Stamp program it will be referred to that way throughout the paper.

Federal and State Food Stamp Policy

Eligibility

The federal government fully funds the benefits that recipients receive under the Food Stamp program and has shared responsibility with the states for its administrative costs. The Food Stamp program has both income and asset eligibility tests. States can have an effect on enrollment in terms of administration of the benefits. Federal guidelines for Food Stamps extend benefits up to 130% of the federal poverty (FPL) level for gross income and include an asset test. By 2008, there were 12 states that did not require an asset test. Net monthly income, after deductions for housing costs and child care, must be less than or equal to 100% of the FPL (USDA, 2016).

As part of the Farm Security and Rural Investment Act of 2002 states gained flexibility in implementation by allowing them to lengthen certification periods, giving states the ability to exclude the value of family cars from the resource test, to expand categorical eligibility if the recipient receives non-cash benefits funded through TANF, and to waive face-to-face recertification. In addition, the amount and type of outreach to potential recipients varies by state. By changing these administrative hurdles, states can reduce barriers that impede access to Food Stamps.

Benefits

Participants were always expected to cover a portion of food expenses. The Food Stamp Act of 1977 directly tasked beneficiaries with purchasing some of their food stamps. However, this had a depressing effect on program participation and in 1979, participants were given the free portion of their benefits and expected to supplement the stamps with cash (30% of their net income) to reach the full food plan basket. The 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) made major changes to the food stamp program including adopting the EBT system, eliminating eligibility for legal non-citizen immigrants, and limiting eligibility for adults without dependents.

In 2000, according to Food Stamp administrative data, there were 17.2 million participants nationwide with an average benefit of $73 dollars per person per month. This monthly average benefit was $184 for households without any elderly. In 2000, slightly over half of all food stamp participants were children (Cunnyngham, 2001). By 2008 there were 28.2 million participants with and average benefit of $102 (Supplemental Nutrition Assistance Program, 2016). The number of children receiving benefits in that year was 13.4 million, about 18% of all children under 18 in the U.S. (Gray, Fisher, & Lauffer, 2016).

Food Stamp Program and Outcomes

One effect of Food Stamps is to lift families and children out of poverty. Since most families pool their income and redistribute it among their members, intra-household resource reallocation in response to a SNAP participation, could lead to gains in consumption of other goods and services such as housing and other family needs, increasing children's welfare. The Supplemental Poverty Measure counts food stamps as income, as do multiple other household income measures, and there are numerous studies that show that these benefits are effective in reducing poverty and extreme poverty (Center on Budget and Policy Priorities, 2013; National Poverty Center, 2012).

Multiple studies have shown that food stamp program participation lowers food insecurity in the household, although the magnitude of the effect varies by study (Yen, Andrews, Chen & Eastwood, 2008; Mykerezi & Mills, 2010; Ratcliffe, McKernan & Zhang, 2011; Mabli, Ohls, Dragoset, Castner & Santos, 2013). Food insecure households are those that report reduced quality, desirability, and variety of the household diet and there may be multiple indications of disrupted eating patterns and reduced food intake (USDA, 2016). Using the Panel Survey of Income Dynamics and applying an instrumental variable approach, Mykerezi and Mills (2010) estimate that participation in the Food Stamp program reduces by at least 19% the score for household food insecurity.

Ratcliffe, McKernan, and Zhang (2011) estimate that food stamp benefits reduced the likelihood of being food insecure by about 30% using the Survey of Income and Program Participation (SIPP) data, while Mabli et al. (2013) found that household that participated in the Food Stamp program for six months or more showed a decrease in food insecurity by about five to ten percentage points. Looking specifically at immigrant families using the CPS but expanding the scope to all cash benefits, food stamps, and Medicaid, Borjas (2004) found that a reduction in the percent of the population that receives these services results in an increase in the percentage of families with food insecurity.

One of the major problems with identifying health outcomes for participants in the food stamp program is selection bias, which makes it difficult to tease out the effects of the program from the fact that children in families that participate in the food stamp program tend to be in poorer health than children in non-participating families. Kreeder, Pepper, Gunderson and Jolliffe (2012) account for both selection and measurement errors using NHANES 2001-2006 data and find that the Food Stamp Program improves child health looking at measurements of self-reported health status, obesity, and anemia. Looking at the long-term effects of receiving food stamp benefits in early life (before age 5), Hoynes, Schanzenbach, and Almond (2012) find that access to food stamps in childhood leads to a reduction in obesity, high blood pressure, and diabetes in these

children as adults. Despite the difficulty in teasing out the effects of the food stamp program there is clear evidence that receipt of food stamps reduces household poverty, decreases food insecurity, and leads to better health outcomes. However, as I discuss in detail below, immigrant families are less likely to receive these benefits compared to native families with similar characteristics.

Immigrant Families and Food Stamps

According to data from the American Community Survey, children whose parents are foreign born and live in poverty are less likely than children with native parents living in poverty to be enrolled in the food stamp program. This is true whether or not the immigrant parents are U.S. citizens (Hanson, Koball, Fortuny & Chaudry, 2014). This data suggests that there are additional barriers that immigrant families face in enrollment compared to native families. According to the 2002 National Survey of America's Families, the children of immigrants have a significantly higher likelihood of living in a family with one or more food-security problems including running out of food or adults in the family skipping meals. (Capps, Fix, Ost, Reardon-Anderson, & Passel, 2004). Therefore, children with immigrant parents are at higher risk for food insecurity and hunger but have lower enrollment in the safety net program designed to address these issues.

Immigrants and Eligibility

There are additional eligibility requirements that apply to non-citizen immigrants. Food stamp benefits have never been available to undocumented non-citizens. By contrast, non-citizens who were admitted for humanitarian reasons such as refugees, asylees, and victims of trafficking and battered non-citizens have access to food stamps without a waiting period, as do non-citizen veterans or active duty family members and their families. Prior to PRWORA being passed in 1996, non-citizens legally in the United States were eligible for Food Stamp benefits with the same categorical eligibility as citizens. PRWORA includes the provision that some eligible non-citizens had a maximum benefit of seven years.

The Farm Security and Rural Investment Act of 2002 restored many legal immigrants access to food stamp benefits in 2003 including those residing in the US for at least five years, children under 18 regardless of date of entry, and individuals receiving disability benefits. After the 2002 Farm Bill granted eligibility after a five-year waiting period, this eliminated the seven year time limit. There are seven states that provide nutritional assistance to some or all immigrants that are not eligible under welfare reform legislation (California, Connecticut, Maine, Minnesota, Nebraska, Washington, and Wisconsin) and of those California and Connecticut are part of this analysis. Borjas (2004) looked at

assistance programs (including cash assistance, food stamps, and Medicaid), and found that food security worsened among immigrant populations after PRWORA passed, a clear indication that access to the social safety net has important implications for health outcomes.

Importantly, an entire family cannot be denied food stamp benefits because the family contains an ineligible immigrant. In addition, since some eligible individuals cannot apply for themselves (for example, US citizen children in a family with non-eligible parents), states are not allowed to require information about the citizenship or eligibility status of any individual not applying for food stamp benefits. States are required to create an application process that allows parents to apply for food stamp benefits for their children without having to disclose their own immigration status. However, one study showed that in some states such as Texas, applications do not clearly state that information such as Social Security Numbers and proof of citizenship was only required for the intended beneficiary. As a consequence, mixed status families may not apply for their eligible children (Perreira et al, 2012).

Each state determines how they calculate income for families with ineligible members. For family members that were never eligible for food stamp benefits, such as undocumented immigrants, states have the option of pro-rating the ineligible members'

share of income or counting the income. For immigrants that became ineligible after PRWORA (i.e. within the five-year waiting period), states have the option of pro-rating the income of the ineligible member or not counting their income and capping the family benefit at a lower amount. The majority of States opt to pro-rate income for all ineligible family members (USDA, 2011).

One important consideration for immigrants and eligibility for Food Stamp benefits is the issue of deeming. When an immigrant enters the U.S. and is sponsored by a family member, it means that the family member signed an affidavit promising to provide enough financial support for that individual to maintain the person at 125 percent of the federal poverty level. This support is required to last until the immigrant being sponsored becomes a US citizen or until they have worked in the U.S. for 40 quarters. This does not apply to children under the age of 18. However, sponsored immigrants are subject to "deeming" when applying for Food stamp benefits for any family members over the age of 18. Deeming is a process in which the state agency counts a portion of the income and assets of the sponsor toward eligibility. Prior to passage of PRWORA, sponsored immigrants were subject to deeming for Food Stamp eligibility for up to three years. After PRWORA deeming is applicable until the immigrant becomes a citizen or meets the work requirements listed above. States may choose to not apply deeming requirements for

foods stamp benefits for sponsored immigrant adults. Since children are not subject to deeming, only a portion of a sponsor's income would be counted for adult family members that are subject to sponsor deeming. This means that the total amount of food stamp benefits for the family may be lowered if an adult in the family is subject to sponsor deeming regulations. There are exceptions to the deeming regulations if the sponsored immigrants are considered indigent (USDA, 2011). This complicated deeming system may create a climate of fear whereby sponsored immigrants are less likely to apply for food stamp benefits because of the potential implications for family member sponsors.

Policies related to immigrant eligibility changes over time at the federal level and may be different state by state, as well as different for different social safety net programs within a stat., As a result, immigrant families face a high level of complexity and uncertainty in applying for food stamp benefits in a system where the complexity of the application process in general is noted as a barrier for all applicants (Cohen-Ross & Hill, 2003). In addition, the lack of clarity of the application and uncertainty among applicants about ability of unauthorized immigrants to apply for their U.S. citizen children may create a "chilling effect" where eligible children are not receiving benefits.

Methodology of Analysis

Treatment and Control Groups

The purpose of this analysis is to identify whether state laws that target immigrants have any effect on the enrollment of immigrant families with U.S. citizen children in food stamp benefits. An immigrant family is defined as a family where at least one parent is an immigrant, regardless of citizenship status. Looking at the implementation of these state laws as a natural experiment variation in the timing of adoption of these laws across states and over time can be used to identify their impact on family Food Stamp use. The "treatment" group is immigrant families with a U.S. citizen child that is 130% of the federal poverty level or below and the "control" group includes native families meeting the same federal poverty level guidelines. The poverty level guidelines reflect a rough estimate of eligibility for food stamp benefits, which include a gross income test, a net income test, and an asset test as described above.

In the Medicaid analysis in Chapter Three, living in a state that passed a restrictive law had a small but significant negative effect on enrollment in the year that law was passed, and this negative effect was further mediated by the citizenship of the mother. Some states have passed restrictive legislation, aimed at both undocumented and legal immigrants that target a broad range of activities including obtaining a driver's license, employment, public education, and access to social safety net programs. The hypothesis is

that a chilling effect created by these restrictive laws will be apparent in the uptake of food stamp benefits. A chilling effect is the inhibition of the exercise of legal rights by the threat of some kind of sanction, which in this case applies to U.S. citizen children not accessing food stamp benefits that they are eligible for, because of the restrictive legislation aimed at immigrants. Many immigrant families contain U.S. citizens and both legal and undocumented individuals within the same family group. In 2000, 19% of children in the U.S. lived in immigrant families and by 2008 this number had jumped to 23% (The Annie E. Casey Foundation, KIDS COUNT Data Center, 2017). This chilling effect has been demonstrated in relation to PRWORA legislation previously (Fix & Passel, 1999; Hagan, Rodriguez, Capps & Kabiri, 2003; Kaushal & Kaestner, 2005).

A difference-in-difference approach was used for this analysis. This method eliminates the influence of any unobserved, time-invariant differences between states that adopted and did not adopt restrictive legislation aimed at immigrants that might be correlated both with the adoption of such legislation and the enrollment of families into the food stamp program. In order to further address the possibility of biased estimates, state fixed effects will be used to control for unobserved heterogeneity across states and provide estimates of the within-state change in take up of food stamp benefits between eligible immigrant and native families.

The dataset used in this analysis is the March Supplement of the Current Population Survey (CPS). The period of 2000 to 2008 was selected so as to avoid confounding any state legislative effects with the earlier implementation of the federal PRWORA legislation noted above. This time period is also consistent with a period of strong growth in state legislation around immigrant issues more generally. The March supplement is used for research on food stamp program participation because it includes detailed information on income and social safety net program participation (Economic Research Service, nd). The CPS family data was merged with the state dataset created in the first analysis (see Chapter Two) that includes the state-specific laws by year and state-specific characteristics by year. The CPS family data set used in this analysis includes all families that are 130% of the federal poverty line or below in (1) the twenty states at or above the U.S. average for percentage of foreign born population (traditional gateway states), or (2) a state that ranked in the top 10 percent in terms of increase in foreign born population (new destination states) in the time period under consideration (2000 to 2008). This recognizes that states that have a large population of immigrants or states that are experiencing a surge in their immigrant populations may seek to address such increases through legislation that restricts immigrant participation in public programs. States representing criteria one (traditional gateway states) include: Arizona, California,

Connecticut, Florida, Illinois, Massachusetts, New Jersey, New York, Rhode Island and Texas. States representing criteria two (new destination states) include: Alabama, Arkansas, Delaware, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee. Nevada meets both criteria for inclusion.

A key difference in this analysis from the Medicaid analysis (Chapter Three) is that rather than a person-specific benefit, the Food Stamp Program is a family-level benefit. Therefore, if anyone in the family qualifies for food stamps, the family can receive benefits with the amount based on the number of eligible individuals in the family.

Outcome variables

The outcome variable of interest is whether the family received food stamp benefits in a particular year.

Family-level predictor variables

Sociodemographic variables include $\text{IMMIGRANTFAMILY}_{hst}$ indicating whether family *h* in state *s* in year *t* is an *immigrant family* (value of 1 if one or more parents are immigrants and zero otherwise), *citizenship status of mother (citizen, naturalized, non-citizen)*, family income as a *as a percent of the federal poverty level*, *family race and ethnicity* (as indicated by mother's race and ethnicity), *marital status* (of mother), *number of children in the family,* and *education level* (of mother).

State-level predictor variables

The following variables are identified in the Chapter Two analysis in order to adjust for policy endogeneity, because policymakers are pursuing specific outcomes with the enactment of legislation and therefore the policies cannot be treated as randomly distributed across states. *Pre-analysis period state generosity toward immigrants* is a constructed variable based on state generosity toward immigrants in 1998, in the wake of welfare reform. The constructed variable is modified from an Urban Institute analysis (Zimmermann & Tumlin, 1999) based on the presence of state-funded programs for immigrants to substitute for Medicaid, the Temporary Assistance for Needy Families (TANF), Social Security Income (SSI), and food assistance during the five year ban period as well as cost sharing and restrictions on these services. The constructed immigrant generosity variable ranks states from 1-4 respectively as least available (1), less available (2), somewhat available (3), and most available (4) for social safety net services for immigrants prior to the analysis period. Additional state characteristics include *percent of state residents that are immigrants* and *the percent of state residents that are not citizens*. These variables represent immigrant integration into the community. The *percent of state residents over the age of 21 with a high school degree or above* indicates community education level. A constructed variable characterizing *political party*

concordance of the state legislature and governor indicates whether they are all republican, all democratic, or mixed. In order to look at state funding available for social safety net programs, *state net revenue* (this is the difference between state revenues and outlays) is included, although unlike Medicaid the federal government pays for food stamp benefits except for the administrate costs at the state level. The *unemployment rate* is used as indicator of the economic health of the state and potential need for benefit programs.

Statistical Analysis

To estimate the impact of restrictive state laws, I fit the following linear probability regression model:

$$Y_{hst} = \beta 0 + \beta 1 X_{hst} + \beta 2 Z_{st} + \beta 3 RESLAW_{st} + \beta 4 IMMIGRANTFAMILY_{hst} + \beta 5 RESLAW_{st} * IMMIGRANTFAMILY_{hst} + \beta 6 STATE_{ht} + \beta 7 YEAR_t + \varepsilon_{hst}$$

The outcome (Y_{hst}) will take a value of one if anyone in the family *h* residing in state *s* in year *t* is receiving food stamp benefits and is zero otherwise. Household weights are used so that the sampled families reflect the population totals after accounting for any systematic bias in CPS data imputation, and to ensure that estimated effect reflect the behavior of the family population under consideration.

X_{hst} is a vector of family characteristics and Z_{st} is the vector of state-specific time-varying characteristics in year *t*. RESLAWST takes on a value of 1 if any restrictive laws

passed in state s at time t, and 0 otherwise. The key variable of interest is the interaction term Reslaw×ImmFam, the product of Reslaw and IMMIGRANTFAMILY. The coefficient for this variable, $\beta 5$, represents the difference-in-differences estimate of the impact of the restrictive law on food stamp enrollment. The analysis was also run for any restrictive laws passed in state *s* at time *t* for laws categorized as affecting education, regulation, and as social welfare in order to determine if certain categories of laws had a significant effect on food stamp use. For definitions and examples of these law characteristics please see Chapter Two.

The control group consists of native families in states that did not pass laws (i.e., the 0-0 combination of RESLAW and IMMIGRANTFAMILY), native families in states that passed restrictive laws (i.e., 1 - 0 combination of RESLAW and IMMIGRANTFAMILY), and non-native families in states that did not pass laws (i.e., 0- 1 combination of RESLAW and IMMIGRANTFAMILY). This can answer the question of whether non-native families in states that passed restrictive laws were less likely to enroll in food stamp benefits compared to the control group noted above.

State-specific fixed effects, captured by variable STATE, are also included in the model to control for time-invariant differences across all states. However, since the state fixed effects constrain the analysis to the effect of within-state differences, findings were

also tested in specifications without these fixed effects to look at differences across states. The within-state comparison (model with a fixed effect) measures the difference between immigrant families' enrollment in the food stamp program in states that adopted a restrictive immigrant-related law compared to the control group enumerated above. ε is a stochastic residual term.

This analysis is focusing on binary outcomes (enrolled in food stamps or not enrolled) and nonlinear models such as logit or probit are generally best fitted to analyze such outcomes. However, linear probability models have been used successfully to analyze binary outcomes in the context of difference-in-difference estimation frameworks such as used in this study, particularly in studies looking at insurance market reform and the effect of policy differentials across states, since they provide coefficients that show direct estimates of marginal effects (Buchmueller & DiNardo, 2002; Monheit & Schone, 2004; Monheit, Cantor, DeLia, & Belloff, 2010). Linear probability models are often preferred with econometric estimation due to their ease of interpretation in natural experiments. In a nonlinear model the coefficient of the DD model's interaction term cannot be interpreted as a marginal effect and the sign and magnitude of the coefficient of the interaction term are not accurate, nor is the standard error for these effects (Ai & Norton, 2003).

Because citizenship of the mother was shown to have a strong effect on Medicaid/CHIP enrollment among immigrant families, a second model (model 2) was also used to estimate the effect of citizenship on family enrollment in the food stamp program.

$$Y_{hst} = \gamma 0 + \gamma 1 X_{hst} + \gamma 2 Z_{st} + \gamma 3 RESLAW_{st} + \gamma 4 IMMIGRANTFAMILY_{hst} + \gamma 5 RESLAW_{st} * MothersCitizenship_{hst} + \gamma 6 STATE_{ht} + \gamma 7 YEAR_{t} + \varepsilon_{hst}$$

Model 2 uses a subset of the sample population, including only immigrant families in order to determine if there is an interaction effect of the mother's citizenship with the passage of restrictive legislation on food stamp program enrollment.

Descriptive Statistics

In Table 1, estimates reveal that the participation rates of immigrant and native families in the Food Stamp Program, defined as the number of families participating in the program divided by the number of families that are eligible, differed significantly with 41% of native families and 28% of immigrant families participating in the food stamp program. This is consistent with data showing that low-income immigrant families are less likely to enroll in the food stamp program compared to similar non-immigrant families. In comparison, at the national level in 2008, the food stamp program served 67% of all eligible individuals (USDA, 2010). This is up from 59% of all eligible families

enrolled in 2000, with a low of 39% in Nevada and a high of 97% participation in Hawaii (USDA, 2002).

Table 1*:* Food Stamp Participation by Family Status

Food Stamp Participation	Immigrant Families	Native Families	Total
No	37.9%	62.1%	24,000,000
Yes	25.3%	74.7%	14,000,000
Total	**13,000,000**	**25,000,000**	

Note: Weighted Using CPS household supplement weight

Table 2 provides weighted demographic characteristics of the sample and reveals that the majority of families that receive food stamps are 100% of the federal poverty level or below. Having an unmarried mother with a high school education or below seems more common in food stamp-participating native families. The education between families that participate and don't participate in the food stamp program seems similar among immigrant families. Overall the education level among mothers in immigrant families is lower than among mothers in native families. Mothers in immigrant families are much more likely to have less than a high school education compared to mothers in native families (60% vs. 32% respectively among families that receive food stamps and 53% vs. 19% among families that do not) The majority of mothers in the immigrant family sample identify as white and Hispanic, while the majority of mothers in native

families identify as white non-Hispanic. There is a larger percentage of mothers that identify as Black in native families receiving food stamps.

Table 2: Demographic Characteristics of Families Who Receive Food Stamps in the 20 Selected States, 2000-2008: Immigrant Compared to Native

	Native Families: Food Stamps	Native Families: No Food Stamps	Immigrant Families: Food Stamps	Immigrant Families: No Food Stamps
Total (Weighted):	10,000,000	15,000,000	3,500,000	9,100,000
Poverty Level				
100% or Below FPL	86.0%	68.9%	87.6%	66.8%
101-130% FPL	14.0%	31.1%	12.4%	33.3%
Mother Hispanic				
Not Hispanic	85.2%	85.1%	19.7%	22.7%
Hispanic	11.2%	11.2%	68.5%	73.3%
Puerto Rican	3.1%	2.2%	11.8%	4.0%
Marital Status of Mother				
Married	21.0%	38.8%	40.5%	69.6%
Married-Spouse Absent	2.5%	2.3%	3.8%	2.8%
Not Married	76.5%	58.9%	55.7%	27.7%
Education of Mother				
Less than High School	31.9%	18.4%	59.9%	52.6%
High School Grad	41.2%	42.4%	25.7%	28.4%
Some College	24.9%	31.0%	11.6%	12.6%

	Native Families: Food Stamps	Native Families: No Food Stamps	Immigrant Families: Food Stamps	Immigrant Families: No Food Stamps
Total (Weighted):	10,000,000	15,000,000	3,500,000	9,100,000
College Graduate	2.0%	8.3%	2.8%	6.4%
Race of Mother				
White	54.6%	71.4%	84.1%	84.1%
Black	43.0%	26.3%	9.7%	7.0%
American Indian	2.2%	1.9%	1.3%	1.6%
Asian	.2%	.5%	4.9%	7.4%
Num. of Own Children (Mother)				
1	24.5%	31.8%	15.8%	21.6%
2	33.1%	35.1%	29.1%	34.0%
3	25.4%	21.4%	29.2%	27.0%
4	10.8%	7.8%	15.7%	11.8%
5+	5.3%	4.1%	10.2%	5.5%

Note: Weights are the household weights for the CPS March supplement

Regression Results

Outcomes

The results of the linear probability regression models in Table 3 indicate that there is no chilling effect observable among immigrant families in states that pass restrictive legislation. None of the interaction terms between immigrant law and family type is statistically significant for either model 1, the interaction between immigrant families and the presence of restrictive legislation, or model 2, the interaction of the mother's citizenship and restrictive legislation within the subsample of all immigrant families. This holds true for findings in Table 4 when the models include or exclude state fixed effects (i.e., models yielding within-state estimates and across-state estimates, respectively). This also holds true for the sensitivity analysis discussed below and found in Table 5. There is no evidence of a chilling effect of restrictive immigrant-related legislation on food stamp enrollment among immigrant families. However, there is an independent and statistically significant effect of being in an immigrant family, which makes those families four percentage points less likely to enroll in food stamps compared to native families (model 1). This is consistent with the literature, which shows that immigrant families are less likely to enroll in food stamp benefits (Bollinger & Hagstrom, 2008; Purtell, Gershoff, & Aber, 2012; Morin, 2013).

Sociodemographic characteristics

Looking at model 1, eligible immigrant families are four percentage points less likely than eligible native families to participate in the food stamp program. Having a mother that is a naturalized citizen or a non-citizen makes the family 9.9 percentage points and 8.5 percentage points, respectively, less likely to participate in the food stamp program compared to families where the mother is a U.S. native. The magnitude of this effect is slightly reduced when the analysis is restricted to immigrant families, with an 8.3 percentage point reduction for mothers who are naturalized citizen and a 5.5 percentage point reduction for non-citizen mothers, respectively. As indicated in the demographic data, families that are 100-130% of the poverty level are 19.2 percentage points less likely to participate in the Food Stamp Program compared to families that are 100% of the federal poverty level or below.

Puerto Rican mothers are significantly more likely to participate in the food stamp program compared to white mothers, and this effect is slightly larger in immigrant families (10.4 percentage points compared to 13 percentage points). Single-parent families are more likely to enroll in food stamps than married families, with a strong effect seen for non-married families (11.7 percentage point decrease in food stamp participation for married families with a spouse absent; 17.1 percentage point decrease in

enrollment for not married compared to married families). Education of the mother is significantly and inversely related to likelihood of food stamp participation, with increasing educational attainment decreasing the likelihood of being enrolled compared to mothers with less than a high school education. The only racial group with a significant association with food stamp participation is among Black mothers who are 11 percentage points more likely to be enrolled than white mothers. Having an additional child in the family is associated with a 4.5 percentage point increase in enrollment.

State level characteristics

Again, looking at model 1, increases in the state unemployment rate are associated with an increase in the likelihood of a family being enrolled in the food stamp. For the full family sample, but not the sub- sample of immigrant families, as the percent of the state population with a high school diploma or greater increases there is a very small but significant increase in enrollment in food stamps. Only the immigrant family sub-sample shows a significant effect of the political composition of state governments on participation in the food stamp program. In states and years with a mix of Republican and Democratic governance between the governor's office and the state legislature there is a significant decrease in food stamp participation (by 4.9 percentage points) compared

to an all Democratic party state governance structure. Interestingly there is no effect seen for all Republican party state governance.

Table 3: Full Model: Effect of Presence of Restrictive State Laws on Low Income Families' Uptake of Food Stamp Benefits: 2000-2008

20 State Analysis	All Laws, All Families	All Laws, Immigrant Families	Only Social Welfare Laws, All Families	Only Social Welfare Laws, Immigrant Families
Restrictive Law	0.007	0.011	-0.013	-0.034
	(.0133)	(.0189)	(.0104)	(.0297)
Law*Immigrant Family	0.002	NA	0.012	NA
	(.0204)		(.0173)	
Law*Non-Citizen Mother	NA	.000	NA	0.028
		(.0254)		(.0212)
Law*Naturalized Mom	NA	-.010	NA	-0.003
		(.0198)		(.0281)
Immigrant Family	-0.040***	NA	-0.058 ***	NA
	(.0126)		(.0097)	
Citizenship of Mother				
Naturalized	-0.099***	-0.083***	-0.109***	-0.087***
	(.0149)	(.0199)	(.0166)	(.0206)
Not a Citizen	-0.085***	-0.056***	-0.117***	-0.060***
	(.0113)	(.0149)	(.0095)	(.0121)
Poverty Level				
101-130% of FPL	-0.192***	-0.172***	-0.225***	-0.172***
	(.0132)	(.0158)	(.0127)	(.0159)
Hispanic Mother				
Hispanic	0.024	0.020	0.032	0.019
	(.0121)	(.0261)	(.0282)	(.0261)
Puerto Rican	0.104***	0.130***	0.138***	0.127***
	(.0208)	(.0350)	(.0215)	(.0356)
Marital status of Mother				
Married-Spouse Absent	0.117***	0.118***	0.117***	0.117***
	(.0266)	(.0295)	(.0262)	(.0295)
Not Married	0.171***	0.210***	0.171***	0.210***
	(.0156)	(.0172)	(.0156)	(.0173)
Education of Mother				
High school Grad	-0.077***	-0.040**	-0.087***	-0.040**

20 State Analysis	All Laws, All Families	All Laws, Immigrant Families	Only Social Welfare Laws, All Families	Only Social Welfare Laws, Immigrant Families
	(.0075)	(.0187)	(.0103)	(.0187)
Some College	-0.114***	-0.046**	-0.121`***	-0.047**
	(.0147)	(.0215)	(.0168)	(.0214)
College Graduate	-0.242	-0.113***	-0.278***	-0.114***
	(.0148)	(.0113)	(.0150)	(.0114)
Race of Mother				
Black	0.110***	0.005	0.161***	0.005
	(.0088)	(.0157)	(.0095)	(.0158)
American Indian	0.020	-0.032	0.034	-0.031
	(.0312)	(.0381)	(.0345)	(.0387)
Asian	0.019	-0.001	0.017	-0.002
	(.0520)	(.0520)	(.0574)	(.0518)
Other	-0.120	-0.073***	-0.194**	-0.079***
	(.0749)	(.0158)	(.0742)	(.0181)
Number of Children (Mother)	0.046***	0.048***	0.046***	0.048***
	(.0026)	(.0034)	(.0026)	(.0034)
State Unemployment Rate	0.031***	0.024*	0.030***	0.024*
	(.0026)	(.0141)	(.0086)	(.0126)
% of State Pop. Immigrants	-0.004	0.008	.000	0.014
	(.0139)	(.0208)	(.0142)	(.0189)
% of State Non-Citizen Immigrants	0.005*	0.002	0.004	0.002
	(.0026)	(.0055)	(.0026)	(.0054)
% of State HS Grad. and above	0.017**	0.004	0.019**	0.004
	(.0073)	(.0136)	(.0077)	(.0127)
State Net Revenue	-2.31e-07		2.89e-07	9.03e-07
	(1.38e-06)		(1.10e-06)	(1.61e-06)
State Gov. Party Concordance				
All Republican	-0.031	-0.032	-0.023	-0.025
	(.0236)	(.0462)	(.0240)	(.0482)
Mixed	-0.034*	-0.049***	-0.038*	-0.046**
	(.0179)	(.0178)	(.0198)	(.0173)
Pre-Analysis State Generosity				
Less Available	-0.049	0.074	-0.006	0.167
	(.1651)	(.2595)	(.1689)	(.2486)
Somewhat Available	0.022	0.013	-0.123	-0.031
	(.0970)	(.1972)	(.0946)	(.2051)
Most Available	-0.010	-0.146	-0.053	-0.219
	(.1542)	(.2675)	(.1557)	(.2595)

*p≤.1, **p≤.05, ***p≤.01

Notes: All Families include those with a family income 130% or below of federal poverty level. Immigrant Families at least one non-native parent with family income 130% or below of federal poverty level. Social Welfare law only includes state measures that further restrict access to means-tested programs based on immigrant status. State and year fixed effects were included. In this linear probability model, data was weighted and the standard error was clustered at the state level.

Table 4: Effect of Restrictive Laws With and Without State Fixed Effects

20 State Analysis	**All Laws Within State**	**All Laws Across States**	**Only Social Welfare Laws Within State**	**Only Social Welfare Laws Across States**
All Families				
Restrictive Law	0.007	0.001	-0.021	-0.013
	(.0133)	(.0144)	(.0123)	(.0058)
Law*Immigrant Family	0.002	0.010	0.005	0.018
	(.0204)	(.0200)	(.0148)	(.0158)
Immigrant family	-0.040***	-.0410***	-0.038 ***	-0.061***
	(.0126)	(.0127)	(.0107)	(.0103)
Immigrant Families				
Restrictive Law	0.011	0.011	-.029	-0.034
	(.0189)	(.0224)	(.0302)	(.0297
Law*Non-Citizen Mother	.000	0.005	.027	0.028
	(.0254)	(.0258)	(.0220)	(.0212)
Law*Naturalized Mom	-.010	-0.008	-0.009	-0.003
	(.0198)	(.0196)	(.0293)	(.0281)

*p≤.1, **p≤.05, ***p≤.01

Notes: All Families include those with a family income 130% or below of federal poverty level. Immigrant Families at least one non-native parent with family income 130% or below of federal poverty level. Social Welfare law only includes state measures that further restrict access to means-tested programs based on immigrant status. This was included as it was the only law subset that proved to be significant. In this linear probability model, data was weighted and the standard error was clustered at the state level. Year fixed effects were used. Regression controlled for: mother's citizenship, race, ethnicity, number of children, and education; family poverty level; State characteristics including: Unemployment rate, % of State Pop. Immigrants, % of State Non-Citizen Immigrants, % of State HS Grad. and above, State Net Revenue, State Gov. Party Concordance and Pre-Analysis State Generosity.

Table 5: Sensitivity Tests- Low Income Families Uptake of Food Stamp program, 2000-2008

20 State Analysis	**All Families**	**Families with One Child**	**Families With Siblings**	**Two-parent Families**	**One-parent Families**
Restrictive Law	0.007	0.009	0.003	0.015	0.000
	(.0133)	(.0158)	(.0157)	(.0158)	(.0175)
RestrictiveLaw*Immigrant Family	0.002	0.012	0.003	0.003	-0.002
	(.0204)	(.0291)	(.0243)	(.0169)	(.0329)
Immigrant Family	-0.040***	-0.030	-0.047***	-0.037***	-0.043*
	(.0126)	(.0416)	(.0125)	(.0124)	(.0219)
SocialWelfare Law	-0.013	-0.008	-0.022***	-0.011	-0.017
	(.0058)	(.0115)	(.0068)	(.0160)	(.0181)
SocialWelfare*Immigrant Family	0.018	-0.035	0.015	-0.024	.0408
	(.0158)	(.0272)	(.0201)	(.0336)	(.0313)
Immigrant Family	-0.061 ***	-0.036	-0.072***	-0.032***	-0.043**
	(.0103)	(.0335)	(.0126)	(.0114)	(.0170)

*p≤.1, **p≤.05, ***p≤.01

Notes: All Families include those with a family income 130% or below of federal poverty level. Immigrant Families at least one non-native parent with family income 130% or below of federal poverty level. Social Welfare law only includes state measures that further restrict access to means-tested programs based on immigrant status. In this linear probability model, data was weighted and the standard error was clustered at the state level. State and year fixed effects were used. Regression controlled for: mother's citizenship, race, ethnicity, number of children, and education; family poverty level; State characteristics including: Unemployment rate, % of State Pop. Immigrants, % of State Non-Citizen Immigrants, % of State HS Grad. and above, State Net Revenue, State Gov. Party Concordance and Pre-Analysis State Generosity

Sensitivity tests

Two states among the 20 chosen, California and Connecticut, are potentially influential outliers since these are among seven states in the U.S. that provide state-only food benefits for immigrants that are ineligible for the federal Food Stamp Program. Thus, they were excluded from the analysis as part of a sensitivity test to see if the state level generosity was potentially changing uptake of the food stamp program. There were

no differences in the outcomes of interest (interaction between restrictive laws and immigrant families) excluding these two states, so they were retained in the final model.

Other sensitivity tests included looking at a sub-sample that includes only immigrant families (one or both parents foreign born) looking at the interaction effect of restrictive laws and citizenship status of the mother, running the models with single-parent families vs. two-parent families, and comparing models for families with one child vs. families with multiple children. See Tables 2 (immigrant family subset) and 3 (different family compositions) for results of the sensitivity analysis. None of these tests revealed any impact of the restrictive laws on immigrant food stamp participation.

Limitations

There are often unobserved fluctuations during the year in income among families and therefore there may be some families that are eligible part of the year for food stamps that have annual incomes above 130% of the federal poverty level. In one analysis using the Panel Study of Income Dynamics almost half of families that reported having federal food stamp benefits had annual incomes above 130% of the federal poverty level (Mykerezi & Mills, 2010). Therefore, the safe cutoff of 130% of the federal poverty level excluded some families that may have been eligible to receive food stamp benefits. In addition, the eligibility requirements for the food stamp program can be difficult and burdensome, with some states having asset tests that include the value of the family's

car(s) and requiring re-certification every few months. Ideally it would be possible to monitor fluctuations in income and eligibility as well specific eligibility requirements by state. However, the CPS is commonly used to look at enrollment in food stamp benefits (12 month look back period) and multiple studies use presumptive eligibility as this study does. The outcomes are consistent with existing literature, so the analysis was not negatively affected by using presumptive eligibility based on family income as a percent of the federal poverty line.

There is also an issue of misreporting bias when it comes to large population studies and reporting on cash benefits. Looking at Texas, Maryland and Illinois food stamp administrative program data compared to the 2006 March supplement of the CPS, Parker (2012) found that 50% of the households receiving these benefits did not report receipt. Mayer and George (2011) also found that 50% of families are not reporting receipt of food stamp benefits in the CPS. However, the benefits of taking a difference in differences approach is that as long as the misreporting of receipt of CPS is not different for immigrant and native families (and there is no research to suggest that it is) then this misreporting bias should not affect the outcome of interest for this paper.

Discussion

The mean value of food stamps is different between immigrant and native families. The average weighted mean for immigrant families is $750 for the year, while for native families it is $1125 for the year. This may be due to the fact that immigrant families have one or more family members who are not eligible for benefits due to their immigration status. However, this could be a driver for the difference in enrollment between immigrant and native families since those eligible for higher benefits tend to participate at higher rates than other eligible individuals (USDA, 2016). This idea is supported by the fact that having a larger number of children, even holding income as a percent of the federal poverty line constant, significantly increases the likelihood of participating in the food stamp program. Since additional benefits are paid for each eligible family member, it may be that the incentive to participate in the program increases as the benefit dollars increase. In addition, larger family size may reflect greater need for the non-cash support.

There does not appear to be a chilling effect associated with restrictive state laws on participation in the food stamp program. Some research related to implementation of PRWORA considered the potential chilling effect on food stamp benefits and found that increased food insecurity among children of non-citizens was due to changes in program

participation rules that reduced their benefit amount rather than by reducing participation among immigrant families (Van Hook & Balistreri, 2006). This may reflect a few key facts about the program. Potentially food insecurity is an immediate need that overrides the chilling effect, causing families to apply despite a negative immigration climate. Another explanation is that while benefits are reduced by the number of ineligible family members, this benefit can be used to support the food needs of the entire family, making participation more attractive even for mixed status families.

One argument that was made against the chilling effect of PRWORA on food stamp participation among immigrant families is that much of this can be explained by the naturalization of these immigrants as a response to welfare reform (VanHook, 2003). In order to address this concern, families were classified as immigrant families based on the parent's nativity and not on citizenship status. In addition, the analysis specifically looks at naturalized immigrants separate from both non-citizens and naturalized citizens and finds that naturalized citizens are still significantly less likely to participate in the food stamp program compared to native citizen. This may be due to requirements in the process of naturalization that discourage safety net benefit use or may reflect the fact that a family with a naturalized citizen may be a mixed status family, where one or more members may not qualify for participation in food stamps due to immigration status.

Skinner (2012) looked at SNAP take-up among immigrant families with children. He uses American Community Survey (ACS) data to determine SNAP program enrollment and socioeconomic characteristics of the children for his analysis. Skinner draws on legislative data from the 2005 through 2008 time-period, creating a general variable that labels the characteristic of the state neutral, expansive or restrictive. He acknowledges that within these states and this time frame laws are passed within each state that could be characterized as expansive and restrictive but bases his variable on the overall tenor of the laws over the period of analysis. There is no standard as to what would fit a state into one category or the other provided. Looking at 19 states, Skinner finds evidence that states that he categorized as restrictive are associated with a reduction in SNAP enrollment among immigrant families with at least one citizen child ($p \leq 0.10$). He finds no significant outcomes for states labeled as expansive. The marginal statistical significance and his lack of established criteria for classifying laws may account for the difference in results between Skinner's findings and this analysis.

The sociodemographic factors that were found to be significant in increasing or decreasing food stamp program participation were all reflective of the wider literature, which shows that independent of any restrictive laws immigrant families are less likely to participate than native families, Black families are more likely to participate than white

families, and that lower income level increases participation even within the income eligibility criteria (Bollinger & Hagstrom, 2008; Purtell, Gershoff, & Aber, 2012; Morin, 2013). While a state level chilling effect of anti-immigrant restrictive legislation was not seen, this research (consistent with the general literature) still suggests that immigrants are an important target group for SNAP enrollment because of lower numbers of participation and higher needs than native families.

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Chapter Five: Summary- Is There a Chilling Effect and what are the Implications for U.S. Citizen Children in Immigrant Families?

The premise of this investigation is that an anti-immigrant policy environment, as distinguished by restrictive legislation that targets immigration status, creates a chilling effect that has unintended policy consequences for U.S. citizen children in immigrant families. The chilling effect is the concept that a restrictive and anti-immigrant policy climate can create an environment where eligible individuals do not enroll in social safety net programs. This series of analyses found that there is a chilling effect that reduces uptake of Medicaid and CHIP among U.S. citizen children in immigrant families compared to a control group that includes native children with native parents and children in immigrant families that did not pass a restrictive state law, but no chilling effect was found in food stamp program enrollment.

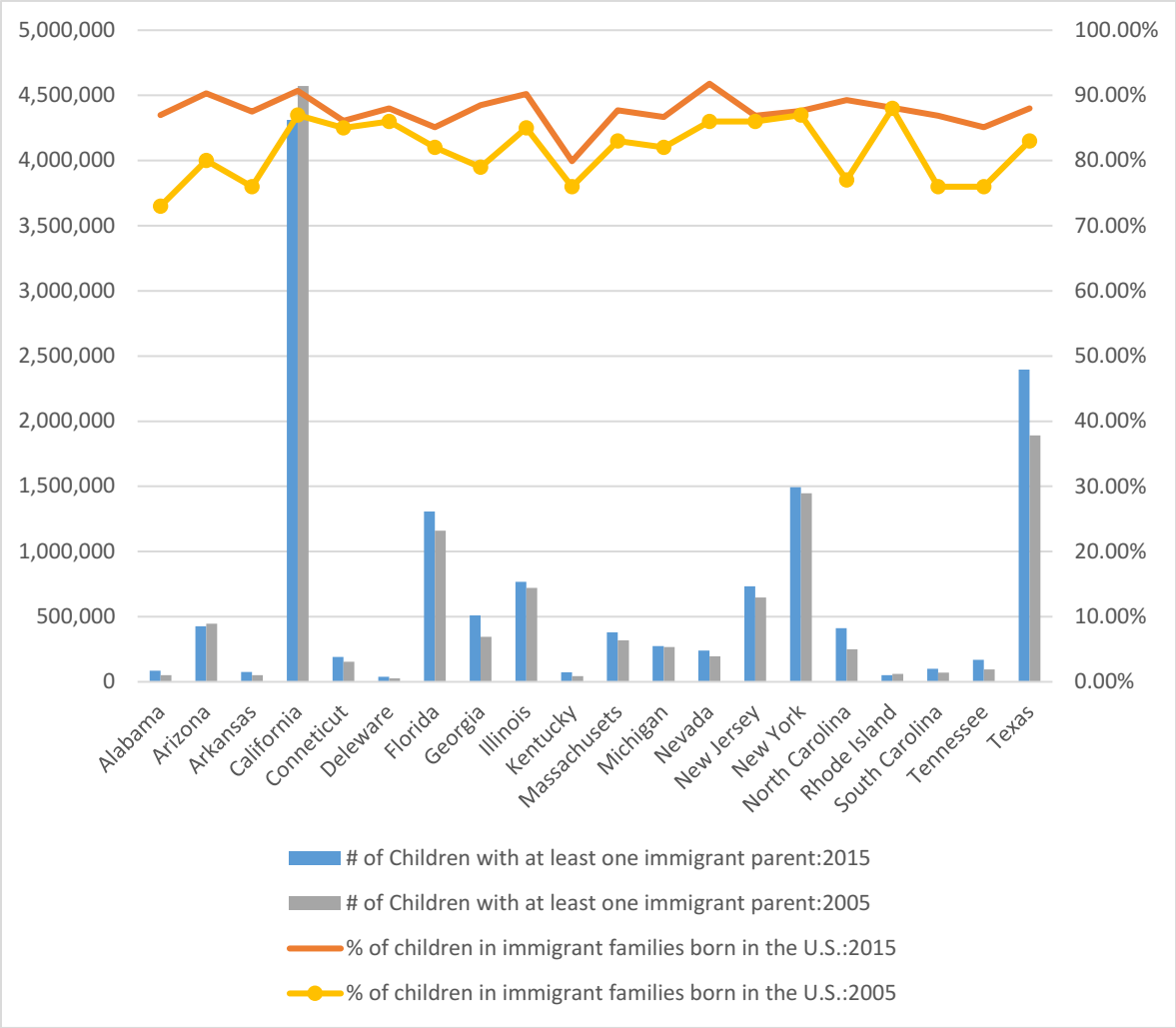
The Growing Prevalence of US Citizen Children in Immigrant Families.

In 1970 the U.S. reached a nadir with immigration, when immigrants made up only 4.7% of the total population. By 2015, immigrants represented 13.5% of the United States population with approximately 43.3 million immigrants living in the United States (Migration Policy Institute [MPI], 2016). These immigrants work and raise families and in 2015 there were 17.9 million children in the U.S. with at least one immigrant parent, representing 25.5% of the population under 18. This compares to 15.7 million children in

2005 (21% of children under 18). The population of children that are potentially affected by state-level immigrant policies is growing over time. As can be seen in Chart One, in the twenty states considered in this study (representing both the largest receiving states and the states with the largest growth in immigrant population from 2000 through 2008), children in immigrant families are generally U.S. citizens, ranging from 80% born in the U.S. (KY) to 92% (NV) in 2015.[16] Currently, there are both more children in immigrant families and they are more likely to be native citizens than they were in the analysis time period. California and Arizona are the only two states in the analysis to experience a small decline in the total number of children in immigrant families living in the state during the post-analysis time frame. As has been established in Chapter 3, there is a chilling effect of restrictive state laws on uptake of public insurance among eligible children in immigrant families. The increasing number of children in immigrant families means that laws aimed at immigrants will inevitably have an effect on U.S. citizen children in these families. This effect will be non-negligible considering the large and growing population of immigrant families in the U.S.

[16] This number does not include immigrant children that have become naturalized citizens. The number of U.S. citizens in immigrant families therefore is even higher than this number suggests, since it only includes native children.

Figure 1: Number of Children in Immigrant Families in Analysis States, 2005 and 2015



** Data from the 2005 and 2015 American Community Survey*

Current Policy Environment

States continued to enact restrictive legislation aimed at the immigrant population in the post- study period (after 2008). State legislation intersects with immigration when

the state creates laws that are not directly related to the immigration powers reserved for the federal government, but instead focus on areas related to immigrant integration into the community. These areas include access to drivers' licenses, employment, and social services among others. Integration of the immigrant population largely falls to state and local jurisdictions, which can be burdensome in terms of the cost of education and social services. Since federal immigration laws have not changed significantly since 1996 and the passage of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) and the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), local and state governments have taken it upon themselves to fill this void, both in the passage of restrictive and protective state level legislation.

Using the Chapter Two categories of Education, Regulation and Social Welfare it is possible to look at the continuing passage of state laws that restrict employment eligibility for immigrants that affect access to social safety net services, that affect access to employment and education, that affect the ability of immigrants to get identification (including drivers licenses), and that authorize or require employers, police, and other authorities to screen for immigration status. All of these categories of restrictive laws

would have an effect on immigrant integration into the community as well as on ease of movement within the community.[17]

Table 1: Restrictive State Laws 2009 through 2017 in Investigation States

State: 2009-2017	Education	Regulation	Social Welfare	Total
Alabama	1	10	2	13
Arizona	1	21	2	24
Arkansas	1	5	7	13
California	2	6	9	17
Connecticut	0	0	1	1
Delaware	0	0	0	0
Florida	0	7	1	8
Georgia	2	18	1	21
Illinois	4	7	2	13
Kentucky	0	2	0	2
Massachusetts	0	2	3	5
Michigan	0	7	5	12
Nevada	0	1	0	1
New Jersey	0	2	2	4

[17] As a reminder to the reader, laws that expand immigrant access to services or offer legal protections were not included in the analysis. Resolutions, studies and commissions were not included in the totals. The legislation that was excluded includes program funding bills, laws for the purpose of celebration or commemoration, laws that regulate alien business or taxes, legislation related to divestment, laws regarding migrant housing and education, laws related to child support, adoption, or custody, laws related to selective service, and those laws related to identity theft (except as specific to fraudulent citizenship or visa identification).

New York	1	3	3	7
North Carolina	1	4	2	7
Rhode Island	0	1	0	1
South Carolina	0	5	0	5
Tennessee	2	13	3	18
Texas	0	14	2	16

Note: Enacted laws taken from the National Conference of State Legislators Immigrants Enactment database. The categories reflect the inclusion and exclusion criteria established in Chapter 2.

Table 1 displays the number of restrictive laws passed by states from 2009 to 2017, in total and for categories of education, regulation, and social welfare. There were a number of omnibus immigration related bills that were passed in this time period, including Arizona's S 1070 (2010), Alabama's H 56 (2011), South Carolina's S20 (2011), and North Carolina's "Protect North Carolina Workers Act" (2015) that addressed law enforcement, employment, education, public benefits, and identification within the state for immigrants and had a generally restrictive tenor across all the categories. Many of the regulatory laws passed in this time frame dealt with state recognized identification, restricting these to citizens and lawful residents and restricting validity periods for lawful non-citizens.

The majority of laws within the 2009-2017 time period that were restrictive were in the regulation category, regulating licenses, employment, firearms, immigration related

information sharing, and state and local police cooperation with federal immigration authorities. Restrictive social welfare legislation often mirrored federal regulations or dealt with unemployment and other state level public benefits. Fifteen of the twenty states in the analysis passed at least one social welfare related restrictive law in the post-analysis time-period. Altogether, these laws paint a picture of states that are grappling with issues of integration of immigrants into the community.

Protective legislation passed by states in this time period largely looked at issues of human trafficking, access to identification, and in-state tuition, with the exception of California which passed a number of laws restricting the ability of organizations such as the police, landlords, universities and municipalities from passing along information or entering into contracts involving immigration status or enforcement. California also passed a number of protective laws aimed at increasing immigrant access to healthcare, including providing state only funds for federally ineligible immigrants and in 2013 targeting mixed immigrant status families for Medi-Cal Outreach and enrollment programs. Looking at Table 1 it seems that California passed few immigration-related laws in the post-study time frame, but in fact it passed a large number of protective laws. Many of the protective laws across the states were in response to actions taken at the federal level in the post-analysis time period yet continue to reflect the states as the

primary mover in immigrant integration into the community. The states may signal their intent to cooperate with federal legislative and potentially further restrict integration through employment, identification, and restrictive state benefit programs. Alternatively, states may signal that they are pushing against this federal legislation by restricting cooperation where possible and providing state- only benefits such as alternative identification and state level services to further encourage fuller immigrant integration into the community.

Summary of Study Results

Chapter One: Immigrants Raising U.S. Citizen Children

In Chapter One, I examined the demographic makeup of the United States, and explored the implications of the increasing number of immigrant families and U.S. citizen children within those families. My findings revealed that these children are more likely to be living in poverty, less likely to have access to health insurance and other social safety net programs, and more likely to be food insecure than their counterparts in native families. This limited access has implications for the overall health outcomes for these children. As the federal government sets a floor for standards for services to immigrants and restricts access to certain categories of immigrants, states have stepped up to expand on federal safety net services or chosen not to expand on these services. States have also

taken up the mantel of immigration-related legislation including employment, identification, and cooperation with federal immigration efforts. Immigration integration is at its heart a state-level enterprise and the actions of the states can have a real effect on the ability of U.S. citizen children in immigrant families to access safety net services that they are entitled to.

Chapter Two: Why Do States Adopt Restrictive Legislation?

Methods: As a pre-requisite to examining the impact of restrictive state immigration laws on uptake of public insurance and enrollment in the food stamp program among U.S. citizen children in immigrant families, I considered the macro factors that may influence states to adopt this legislation. I did so to address the issue of policy endogeneity – the fact that legislation is not randomly distributed across states but may reflect factors that are related to the outcomes of interest – and that failure to control for such factors can lead to biased estimates of regulatory impact. I identified laws within the time period of analysis using a Lexis-Nexus search and a literature review determined inclusion/exclusion criteria, then created a database that included state level economic, demographic, and political factors. I used this to estimate the impact of these factors on the number of restrictive immigration related laws states adopt using a Poisson regression model.

Political Factors: When the Democrats have control of all three components of state government (Governor's office, House and Senate) they are significantly less likely to pass restrictive legislation aimed at immigrants than if there is a mix of political parties in the state offices. Similarly, if the Republicans control both the state House and Senate they are more likely to pass restrictive legislation than if one legislative body is controlled by the Democrats and one by the Republicans. Both concordance and majority party seem to be key issues as either a protective factor against the passage or as driver behind the passage of restrictive legislation. Since both the House and Senate are required to pass a bill for it to become law and state governors have veto power, the importance of party concordance falls in line with the reality of passing legislation. The Republican Party since 2000 has focused on the idea of legal immigration meeting highly needed skills with tighter border security and a crackdown on irregular immigration (On the Issues, 2017; Weiner, 2013). The Democratic Party has focused on immigrant integration and increasing protections for undocumented immigrants, including for some populations a path to citizenship (On the Issues, 2017; Chishti & Muzaffar, 2016). The fact that when Democrats have control of the state government the state is less likely to adopt restrictive legislation reflects their stance on restrictive immigration policy.

Economic Factors: As state net revenue increases, states are significantly less likely to pass restrictive legislation. Budgetary pressure forces states to decide where cuts should be made and immigrant populations may prove to be a politically viable population with which to target these cuts. Employment opportunity as captured by the state unemployment rate was seen to be a topic of concern in the type of state level legislation passed. Unemployment (percent unemployment in the state) was found to be significant factor in the adoption of restrictive legislation but contrary to expectations: As unemployment rates increased, restrictive legislation was less likely to be passed. This may be because much of the employment legislation in the analysis time-period dealt with employment for mostly skilled jobs, or because during a period of high unemployment the legislature was occupied with more pressing economic issues. No additional economic factors were shown to significantly affect the passage of immigrant related legislation.

Demographic Factors: The education level in the state proved to be a marginally significant factor in the passage of restrictive laws. As the percent of college graduates in the state increases, the state is less likely to pass restrictive legislation. This significance of this effect increases when considering social welfare legislation in particular. Higher education levels in the state may indicate that there is less competition for unskilled labor

positions, or the recognition that lack of access to social services could have significant costs at a later date.

In terms of the demographics of the immigrant population, the percent of the immigrant population that are not U.S citizens has a significant impact on whether a state passes restrictive immigrant related legislation. As the percent of non-citizens increase, the state is more likely to pass restrictive legislation. This may reflect three issues. One is that the general climate of the state is unwelcoming to new immigrants and therefore immigrants in that state are less likely to be able to achieve citizenship. Another is that the less the immigrants are willing to integrate into the community the more likely the state political climate will favor restricting immigrant access. If a high percentage of foreign born residents are unable to vote, then politicians do not need to take the immigrant community into account. The third possibility is that this association is picking up a larger number of undocumented immigrants who would not qualify for citizenship and that the restrictive legislation is reacting to the number of undocumented immigrants in the state.

Summary: The percentage of college graduates, increased education levels (college and beyond), and Democratic party control of the state-level governing bodies are protective factor against the passage of additional restrictive immigration-related

legislation. The percent of non-citizens act as a driver of the passage of additional restrictive legislation. These factors were all included in the analysis of social service enrollment in order to control for policy endogeneity. In addition, a question that policy makers and immigration advocates may ask is what causes states to adopt restrictive legislation aimed at immigrants. Chapter Two identifies macro factors that may influence the adoption of this legislation, and this information has practical implications for advocacy in translating public health research into legislative action.

Chapter Three: The Effects of State Laws on Enrollment in Medicaid and CHIP by U.S. Citizen Children in Immigrant Families

The research question explored in this chapter is whether the passage of restrictive legislation related to immigrant integration creates a chilling effect on the take up of Medicaid/CHIP by U.S. citizen children in immigrant families. The results show that there is a significant chilling effect where the magnitude of the effect varies according to demographics and by the types of laws being passed. Being in an immigrant family in a state and year without a restrictive law being passed means that there is a small but significantly higher likelihood of being enrolled in Medicaid or CHIP compared to native families. This may be due to low- income immigrant parents being more likely to have jobs, which are less likely to offer health insurance. U.S. citizen children in low-income

immigrant families, living in a state in a year in which restrictive legislation is passed are 1.8 percentage points less likely to enroll in Medicaid than their native counterparts, which translates into a 3.5% reduction[18] in children in immigrant families that would have government sponsored health insurance coverage. Based on the weighted sample, this is equal to 5.6 million fewer U.S. citizen children covered within these twenty analysis states. This effect becomes even larger when looking specifically at restrictive social welfare laws. There would be a 10.6 percentage point reduction in the likelihood that children in immigrant families that would have government sponsored health insurance coverage in states in years that restrictive social welfare laws were passed. This equals 17 million fewer children who would have Medicaid /CHIP coverage if all states had adopted restrictive social service welfare laws.

Methods: The data for this study is from the Current Population Survey's (CPS) March Supplement. Using children as the units of observation, I fit linear probability models and obtain difference-in-differences (DD) estimates of the impact of restrictive state laws on the likelihood that a child will be enrolled in safety net health insurance. The model includes individual characteristics of the child's mother, state-specific time-varying

[18] Based on the reduction in coverage among immigrant families in states that passed a restrictive law in that year, I can estimate the number of children that had Medicaid/CHIP coverage in a state without restrictive legislation that would not be covered if the state had adopted restrictive legislation. Using the percentage point reduction as a numerator and the percent of children in immigrant families covered by Medicaid/CHIP in non-restrictive law states as the denominator.

characteristics taken from Chapter 2, restrictive laws passed in state s at any point during year t, and an interaction term (restrictive laws passed in state s at time t and child in an immigrant family) which is the difference-in-differences estimator testing whether citizen children in non-native families in states which passed restrictive laws are less likely to enroll in Medicaid/CHIP compared to the control group. The model includes state and year fixed effects. Data was weighted and the standard error was clustered at the state level.

Demographics: Children in married immigrant families experienced the most significant decline in enrollment in states with restrictive legislation (2.9 percentage points), followed by children with siblings (2.1 percentage points) and all children in immigrant families (1.8 percentage points). The greater rate of percentage decrease among children of married parents most likely reflects the fact that marriage rates are higher among immigrant families compared to native families. Children with siblings may have experienced a significant decline because of the higher likelihood (compared to families with only one child) that one or more siblings were not born in the U.S. When children in a subset of only immigrant families are considered, the importance of the mothers' citizenship status on the child's enrollment becomes clear. Having a non-citizen mother and living in a state that passed a restrictive law significantly reduces the

likelihood a child's enrollment in public insurance by 2.3 percentage points, which increases to 4.8 percentage points for children in non-married households and 10.6 percentage points for children without siblings residing with non-citizen mothers. The effect of having a non-citizen mother in a restrictive law state is ameliorated by having siblings and by living in a married household, both of which would increase the chances that an additional citizen was present in the household

Types of Law: One of the questions posed by this analysis is whether laws not directly related to social welfare may still have a chilling effect on public insurance access. Looking at the interaction of restrictive laws and immigrant families (the difference-in-differences estimator), it is clear that restrictive social welfare laws being adopted are associated with children's enrollment in Medicaid/CHIP. This strong negative effect (5.5 percentage points less likely to enroll) appears to be diluted by combining regulation and education laws (neither of which had a significant effect on their own) with social welfare laws. Therefore, the true impact of restrictive laws on immigrant families seems to be driven by restrictive social welfare laws. However, considering the subsample of only immigrant families, the results point more toward a global chilling effect created by the overall restrictive policy environment (encompassing a combination of the three types of laws). The impact of having a non-citizen mother in a state with restrictive laws is a 2.3

percentage point reduction in enrollment for U.S. citizen children. This is despite non-significant results in each of the three categories of laws alone, showing that an overall negative legislative environment in the states towards immigrants (including laws related to jobs, ID, and welfare program access) may create this chilling effect. It is the combination of restrictive state laws across all categories that together create a chilling effect, which reduces enrollment among their U.S. citizen children. In comparison, it is specific social welfare restriction laws that affect the full sample of U.S. citizen kids in immigrant families to create a chilling effect.

Summary: This research is unique in that it specifically identifies a chilling effect of restrictive state laws on enrollment by children in Medicaid/SCHIP. Previously, a chilling effect was mostly inferred from an overall drop in Medicaid enrollment after passage of federal laws, or enrollment disparities between Medicaid- eligible citizen children with immigrant and non-immigrant parents. These results provide estimates of the specific magnitude of these laws on enrollment and demonstrate that this chilling effect is not due to other potential factors like the state's economic conditions. In addition, the research specifically identifies groups that are particularly vulnerable to these restrictive laws, showing that laws aimed specifically at restricting social service access create a chilling effect for all immigrant families. Additionally, all restrictive laws,

including those aimed at education, job restriction and identification access, as well as social welfare restrictions have a significant and negative impact on access to pubic insurance for U.S. citizen children with non-citizen mothers.

Chapter Four: The Effects of State Laws on Enrollment in the Food Stamp Program by U.S. Citizen Children in Immigrant Families

Methods: In this chapter, I examine whether the identified chilling effect in Chapter Three creates a barrier to enrollment in the food stamp program (now called the Supplemental Nutrition Assistance Program or SNAP). The "treatment" group in this analysis consists of immigrant households with a U.S. citizen child that are 130% of the federal poverty level or below and the "control" group is native households meeting the same federal poverty level guidelines. The Current Population Survey March Supplement family data was merged with the state dataset created in the Chapter Two analysis that includes the state-specific laws by year and state-specific characteristics by year. A key difference in this analysis from the Medicaid/CHIP analysis (Chapter Three) is that rather than a person-specific benefit, the Food Stamp Program is a family-level benefit. Therefore, if anyone in the family qualifies for food stamps, the family can receive benefits with the amount based on the number of eligible individuals in the household.

To estimate the impact of restrictive state laws, I fit a linear probability regression model where the outcome (Y) will take a value of one if anyone in the family h residing in state s in year t is receiving food stamp benefits and is zero otherwise. Data was weighted and the standard errors were clustered at the state level. The regression model controlled for: mother's citizenship, race, ethnicity, number of children, and education, family poverty level, state characteristics including the unemployment rate, percent of state population that are immigrants, percent of state immigrants that are non-citizen, percent of state that are high school graduates and above, state net revenue, state party concordance across governing bodies, and a pre-analysis state generosity variable.

Results: The research findings show that there does not appear to be a chilling effect associated with restrictive state laws on participation in the food stamp program. Food insecurity is an immediate need that may override the impediments to enrollment due to immigration status, causing families to apply despite a negative climate toward immigrants. While total food stamp benefit amounts may be reduced under restrictive legislation by the number of ineligible family members, this benefit can be used to support the food needs of the entire family, making participation attractive even for mixed status families. Independent of any chilling effect, the model shows that immigrant families are less likely to enroll in food stamp benefits, consistent with other literature. In

addition, independent of the effects of restrictive immigration legislation, both non-citizen and naturalized mothers were less likely to be in a family with food stamp benefits compared to similar native mothers.

Limitation-Awareness and Enforcement

One significant limitation of this research is the inability to determine state and local enforcement of the laws that are passed. In addition, individual awareness of these restrictive laws may vary. The effect of similar laws could have varying chilling effects depending on the media attention paid to these laws and the enforcement of these laws within each state and municipality. Laws that restrict how foreign doctors can practice in the U.S. may not create the same chilling effect as laws that have broader implications like restricting who has access to driver's licenses. Laws that restrict access to IDs or social service use may be highly publicized and create a greater chilling effect than laws that receive less media attention. The timing of this media reporting may be different from the actual implementation of the law.

A 2009 report by the Urban Institute looked at omnibus restrictive legislation passed in Oklahoma (The Oklahoma Taxpayer and Citizen Protection Act, House Bill 1804). The report used qualitative interviews with immigrant families affected by the law and found that individuals reported feeling fearful as soon as it was passed in the

legislature in 2007 rather than when particular provisions of the law were designated to be implemented. Respondents reported changing driving habits as well as changing the activities that they participated in to avoid potential interactions with law enforcement, and rumors began sweeping the community regarding enforcement activities.

This response to the passage of the legislation reflects the media attention that was paid to the bill rather than actual enforcement activities, although the report goes on to list enforcement efforts that targeted Hispanic drivers. A year after passage of the bill, in 2008, the report states that much of the fear reaction had dissipated except for changes in driving behavior (Koralek, Capps, & Pedroza, 2009). This indicates that the chilling effect may be short term unless it is backed by actual changes to enforcement and access. This reality of media attention contributing to the chilling effect was taken into account in Chapters Three and Four by counting the restrictive law in the year that it was passed rather than the year of enactment, if different.

A 2015 report by the UCLA Center for Health Policy Research identifies state-level enforcement of the federal program Secure Communities as a state policy that influences the health and well-being of immigrants and their families (Rodriguez, Young, and Wallace, 2015). This is a program that focuses on deportation of undocumented immigrants that is based on a partnership between U.S. Immigration and Customs

Enforcement (ICE) and state and local law enforcement agencies. This program was discontinued in 2014 and was replaced with the Priority Enforcement program that has different guidelines for cooperation than the previous program. A study looking at pre-natal care for Latinos in matched counties pre- and post- implementation of the Secure Communities program, the researchers found no difference by county implementation. This may reflect the general fear caused by statewide attention to the implementation of the program. However, they did find that in general Hispanic mothers were more likely to have late and inadequate prenatal care compared to non-Hispanic mothers, independent of the law. The study indicated that lack of access to driver's licenses for undocumented pregnant women was a barrier to care (White, Blackburn, Manzella, Welty, & Menachemi, 2014).

Vargs and Pirog (2016) find that deportation risk reduces the rate of WIC take-up among mixed-status families where one or more parents are undocumented immigrants, and that this effect is stronger among immigrants from Mexico. Watson (2010) using the March supplement of the CPS found a statistically significant relationship between the level of immigration enforcement and participation in Medicaid by children of non-citizens, even when the children themselves are citizens. This effect was greater for nationalities that tend to have higher numbers of undocumented

immigrants. In general, the research seems to suggest that both enforcement and chilling effect plays a role in behavior changes that may influence uptake of social safety net services.

Implications of Results

State-specific administration and eligibility for Medicaid and CHP benefits mean that there are differences in enrolment of eligible children by state. Seiber (2013) showed that states have significant differences in their average enrollment of citizen children in immigrant families into Medicaid compared to native families. Chapter Three shows that one the drivers behind this state differential in enrollment between citizen children in immigrant and native families is the chilling effect at the state level created by restrictive state laws. Philbin, et al (2017) conducted a literature review looking at the effects of state-level policies on Latino health outcomes and identified four pathways through which state level laws could impact Latino health: stress related to structural racism as expressed through these laws; access to social institutions such as education which may be restricted by state laws; restricted access to healthcare; and restricted access to material conditions needed for health and healthcare access such as food and driver's licenses. They acknowledge however that the policy climate in aggregate could affect health outcomes, including mental health. This literature review, although specific to a sub-

population of immigrants, reflects how state-level laws interacts with immigrant integration into the community.

Alignment of outcomes with current literature

This study found a state-level chilling effect for Medicaid/CHIP take up and none for enrollment in food stamp benefits. There are very few quantitative studies that look at a chilling effect in the context of state immigration related laws. Skinner (2012) looked at SNAP take-up among immigrant families with children and finds marginally significant evidence that states that he categorized as restrictive are associated with a reduction in SNAP enrollment among immigrant families with at least one citizen child. However, the weak findings and unreproducible law classification argue that this may be a suboptimal study.

The available quantitative studies regarding the chilling effect of state-level immigration related laws provide little in the way of answers as to whether the same chilling effects can be seen as was identified with the federal PRWORA legislation. That research often only looks at a sub-set of immigrants, most frequently the Hispanic/Latino population, and/or looks at only a subset of restrictive laws, the omnibus bills that were passed in a few states in the 2005 through 2010 time frame (Allen & McNeely, 2017; Toomey, et al., 2014; White, et al., 2014). The studies however are consistent in showing

that nativity and citizenship can play a role in the effects of these laws and taken together with the broader literature on differentials in uptake between citizen children in native and non-native families by state, indicate a need for more rigorous study of the topic.

Policy Significance

The data from this analysis clearly shows that a state-level chilling effect of restrictive legislation can be seen to affect the enrollment of U.S. citizen children in immigrant families in Medicaid/CHIP. This effect is largely driven by social welfare restrictive laws, unless you are comparing non-citizen mothers to citizen mothers, in which case non-citizen mothers are affected by overall restrictive legislation regardless of whether it effects social welfare or regulations such as driver licenses and employment. This is consistent with the literature, which clearly shows that access to employment, transportation, and identification documents is critical in both enrollment in and use of social safety net services. While food stamp benefits do not seem to demonstrate a chilling effect from these laws, the data shows that citizen children in immigrant families are significantly less likely to have food stamp benefits, consistent with the general literature on immigrant families' enrollment.

These three studies add to the literature on this topic in three important ways. One, it offers an explanation for factors that influence adoption of these laws which can

help to frame public health advocacy in a way that addresses the fears that drive adoption of restrictive laws. Two, it applies a quasi-experimental design using difference-in-differences methodology to look specifically at the impact of these restrictive laws on U.S. citizen children in all immigrant households. Unlike previous literature, it does not rely on differences in enrollment alone pre- and post- law implementation. Instead this research expands the chilling effect to look beyond federal laws to state level integration laws. It allows the reader to look at all immigrant families within the state, not just a sub-set. Because of this it helps to identify particularly vulnerable populations that can be targeted for outreach. Third, it makes an important distinction between Medicaid/CHIP, which is a benefit that accrues to one individual, and food stamp/SNAP benefits which are a family-level benefit, when it comes to the chilling effect of restrictive laws.

The effects of these laws on enrollment in Medicaid/CHIP among U.S. citizen children in immigrant families reveal the unintended consequences of the laws. Understanding this, states can address these unintended effects through adequate training of staff and outreach to vulnerable communities. Lack of access to health insurance can lead to negative consequences for both the heath of the child and economics implications for both the family and state governments.

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