6-2011

Assessment of the Socio-Economic Impacts of SB 1080 on Immigrant Groups

Mary C. King
Portland State University

John G. Corbett
Portland State University

John Chiappetta
Portland State University

Anabel López Salinas
Portland State University

ASSESSMENT OF THE SOCIO-ECONOMIC IMPACTS OF SB 1080 ON IMMIGRANT GROUPS

Final Report

SR 500-270

Oregon Department of Transportation

ASSESSMENT OF THE SOCIO-ECONOMIC IMPACTS OF SB 1080 ON IMMIGRANT GROUPS

Final Report
SR 500-270

by

Mary C. King, Professor
Economics Department

with

John G. Corbett, Professor
John Chiappetta, Graduate Student
Anabel López Salinas, Graduate Student

Portland State University
P.O. Box 751
Portland, OR 97207

for

Oregon Department of Transportation
Research Section
200 Hawthorne Ave. SE, Suite B-240
Salem OR 97301-5192

and

Federal Highway Administration
400 Seventh Street, SW
Washington, DC 20590-0003

June 2011

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
OR-RD 11-16		

4. Title and Subtitle	5. Report Date
Assessment of the Socio-Economic Impacts of SB 1080 on Immigrant Groups	June 2011
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
Mary C. King, with John Chiappetta, John G. Corbett, Lorraine Escribano, Anabel López Salinas and W. Webb Sprague, Jr.	

9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Economics Department Portland State University P.O. Box 751 Portland, OR 97207	11. Contract or Grant No. RS500-270

12. Sponsoring Agency Name and Address	13. Type of Report and Period Covered
Oregon Department of Transportation Research Section and Federal Highway Administration 200 Hawthorne Ave. SE, Suite B-240 400 Seventh Street, SW Salem, OR 97301-5192 Washington, DC 20590-0003	Final Report
	14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstract

In July 2008, the State of Oregon implemented SB 1080, legislation that required all applicants for an Oregon Driver License or ID card to present proof of legal presence in the United States. In 2007, some 140,000 unauthorized immigrants were estimated to be living in Oregon, more than two-thirds of whom were estimated to be members of the labor force. Approximately 97% of Oregon's unauthorized immigrants are thought to be Latino, nearly all of Mexican origin. This report includes a discussion of the social science findings on the situation of undocumented workers in the U.S and what is known about the uses of different forms of identification for Mexican nationals. It presents a statistical portrait of the Mexican-born population of Oregon, demonstrating their concentration in particular occupations, particularly agriculture, building and grounds maintenance, food preparation and construction. Given the magnitude of the ongoing recession, no economic impact of SB 1080 is yet discernible. In a full employment context, such as existed during 2007, and after all outstanding licenses held by undocumented immigrants have expired, SB 1080 might reduce state GDP by $160 million, or 0.1%, while raising wages by 0.16%. Economic impacts would be concentrated on those industries that particularly employ undocumented workers, notably agriculture and food service. Interviews with nearly 400 Spanish-speaking Oregon residents, conducted in the Summer of 2009, indicate distress and uncertainty in the Latino community, fear of deportation arising from a traffic stop, a significant number of people driving without a license and adjustments within households that reduce access to employment, education, medical and social services, church attendance and recreation. The full range and magnitudes of impacts cannot be known with certainty until SB 1080 is fully implemented in 2016, and the economy has recovered – and may be mitigated by immigration reform at the Federal level.

17. Key Words	18. Distribution Statement
Oregon Driver's License, Oregon ID Cards, Undocumented Immigrants	Copies available from NTIS, and online at http://www.oregon.gov/ODOT/TD/TP_RES/

19. Security Classification (of this report)	20. Security Classification (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	118	

SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
		AREA		
in^2	square inches	645.2	millimeters squared	mm^2
ft^2	square feet	0.093	meters squared	m^2
yd^2	square yards	0.836	meters squared	m^2
ac	acres	0.405	hectares	ha
mi^2	square miles	2.59	kilometers squared	km^2
		VOLUME		
fl oz	fluid ounces	29.57	milliliters	ml
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.028	meters cubed	m^3
yd^3	cubic yards	0.765	meters cubed	m^3
NOTE: Volumes greater than 1000 L shall be shown in m^3.				
		MASS		
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams	Mg
		TEMPERATURE (exact)		
°F	Fahrenheit	(F-32)/1.8	Celsius	°C

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
		AREA		
mm^2	millimeters squared	0.0016	square inches	in^2
m^2	meters squared	10.764	square feet	ft^2
m^2	meters squared	1.196	square yards	yd^2
ha	hectares	2.47	acres	ac
km^2	kilometers squared	0.386	square miles	mi^2
		VOLUME		
ml	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	meters cubed	35.315	cubic feet	ft^3
m^3	meters cubed	1.308	cubic yards	yd^3
		MASS		
g	grams	0.035	ounces	oz
kg	kilograms	2.205	pounds	lb
Mg	megagrams	1.102	short tons (2000 lb)	T
		TEMPERATURE (exact)		
°C	Celsius	1.8C+32	Fahrenheit	°F

*SI is the symbol for the International System of Measurement

ACKNOWLEDGEMENTS

The authors would like to thank Mark Joerger, Barnie Jones, Rodney Rosenkranz, Aaron Hughes, and the rest of the ODOT Technical Advisory Committee for their assistance in the preparation of this report. We would also like to thank the members of the DMV Latino Task Group, particularly Lupe Vazquez, Laurie Hoefer and Guadalupe Quinn. Additional thanks go to the Mexican Consul, Enrique Romero Cuevas, and Consulate staff member for Community Affairs, Ursula Rojas Weiser; Francisco Lopez of CAUSA; Ramon Ramirez of PCUN; and Jeff Stone of the Oregon Association of Nurseries for their invaluable aid. Many people helped make it possible to interview Latino immigrants, including Bridget Cooke, Executive Director of Adelante Mujeres; staff of Hacienda CDC in Portland and Mollala, Bienestar HDC in Hillsboro and Nuevo Amanacer of the CDC in Woodburn; as well as Romeo Sosa, Director of VOZ and Joe Stark, for access to Campo Azul; Rockcreek Library in Gresham; Woodburn's Fiesta Mexicana; and PCUN radio for publicity. Finally, and critically, we would like to thank the members of the Mexican research team who interviewed so many people during the heat wave of 2009, Alicia Sylvia Gijon Cruz of the Universidad Autonoma Benito Juarez de Oaxaca; Rafael Reyes Morales, Salvador López Platas, Anabel López Salinas, Nydia Mata Sánchez ,and Silvia Osorio Mendez of the Division of Research and Graduate Study Instituto Tecnológico de Oaxaca, as well as the research team of Portland State University graduate students: Christopher Baum, Megan Christopher, Kelly Lash, Molly McGlone, and Tyler Olson, who conducted the English language interviews that informed Interim Report #4,

DISCLAIMER

TABLE OF CONTENTS

TABLE OF TABLES

TABLE OF FIGURES

1.0 SUMMARY OF FINDINGS

1.1 EXECUTIVE SUMMARY

To date, the economic impact of SB 1080 is negligible for two reasons. First, many people currently hold driver's licenses and ID cards who will not be able to renew them; SB 1080 will not be full implemented until 2016. Second, the state, nation and globe entered a severe recession within months of the implementation of SB 1080, which swamps the effects of this legislation. The primary economic effect will be due to a decline in the size of the undocumented labor force that will not be really felt by employers until the state economy returns to something like full employment conditions. Economists characterize this recession as so severe that recovery will not occur before 2 to 3 years, at a minimum.

The undocumented workforce is extremely concentrated in particular industries and occupations. Consequently the primary economic impacts will be felt in those economic niches where employers currently rely on undocumented labor. Employers in these areas are already reporting that while they are not faced with anything that could be described as a labor shortage, they are beginning to experience the loss of key individuals.

The undocumented population in Oregon is estimated to be 95% of Mexican origin, though the undocumented population nationwide is more diverse. A substantial majority of the Mexican-born population is estimated to be undocumented. Clearly, good statistics do not exist on undocumented residents of the state. This study uses statistics on the Mexican-born population to characterize undocumented Oregonians.

The Oregon industries that particularly rely on Mexican-born workers are crop production, agriculture support, textile mills, and food production, for which the labor force in the full employment years of 2005-2007 was 45%, 43%, 23% and 20% Mexican-born, respectively. Employment in quite a few specific occupations in these and other industries are more than 50% Mexican-born.

There's significant distress and uncertainty in the Latino community about the meaning and impacts of SB 1080. Migrants, staff members of social service agencies, and attorneys interviewed report cases of individual hardship; many migrants are fearful of deportation resulting from a traffic stop. Clearly a significant number of people are driving without a valid driver's license and without insurance. Some people are obtaining a Washington driver's license, and others are being lured into purchasing a useless "international driver's license."

The impact to date is social, concentrated primarily on undocumented immigrants and their families—many of which include legal residents—who are experiencing difficulty with circumstances that require ID, changing their driving habits and daily routines, facing restricted opportunities in the labor market, and less access to education, medical care, church attendance and recreation.

Law enforcement personnel report a conflict between enforcing the law and community policing strategies, which depend on the cooperation of the community.

1.2 SUMMARY OF FINDINGS

1.2.1 Description of the Study

The state of Oregon recently implemented SB 1080, requiring that all applicants for a new or renewed Oregon Driver License or ID card provide proof of legal presence in the U.S. The purpose of this study is to assess the social and economic impacts of this legislation on immigrant groups. Clearly these impacts are felt particularly by undocumented immigrants and their families and households, but further impacts affect their employers, businesses that rely on their custom, social service agencies that work with immigrant communities and law enforcement personnel. Smaller impacts will be felt across the state.

This assessment of the social and economic impacts to date is based on several components, including:

- a review of earlier, pertinent research;
- a statistical portrait of Oregon's undocumented population;
- an interview study conducted in Spanish with nearly 400 Latino migrants;
- interviews conducted in English with 83 respondents who were employers, owners of businesses that cater to migrants, staff of social service agencies that work with migrants and law enforcement personnel; and
- an economic analysis.

This chapter summarizes study findings; please refer to the following chapters for full details, including references.

1.2.2 Overview of Findings

The loss of ability of undocumented immigrants to obtain an Oregon Driver's License or ID card has generated a great deal of distress and uncertainty in the Latino immigrant community, as well as hardship in the cases of some individuals and families. Employers who particularly rely on immigrant labor — concentrated in agriculture, textiles and hospitality sectors — are beginning to lose key people and are worried about the future.

The impact to date is substantially muted by two factors:

1. The recession that hit the state, nation and much of the world in 2008 pushed unemployment in Oregon from just over 5% in early 2008 to well over 11% in early 2009. The unemployment rate has fallen only to 10.6% as of November 2010. In this environment, employers may experience loss of key individuals due to issues stemming from changes in driver's license laws. However, there is no apparent shortage of labor for even the worst paid and most immigrant-intensive occupations. Much of the decline in demand reported by businesses that particularly rely on migrants may ultimately be due more to the recession than to issues related to the loss of the ability to obtain a driver's license.

2. The full impact of SB 1080 will not be felt until 2016, when no one not legally present in the state will hold a valid Oregon driver license or ID card. The 8-year cycle of renewals for driver's licenses and ID cards means that many people currently holding valid licenses and cards will not be able to renew them when they expire.

1.2.3 The Undocumented Population of Oregon

While all immigrants and some non-immigrants may find the newer, more stringent requirements for identification challenging, the group on whom the primary impact of SB 1080 falls is unauthorized immigrants. Demographer Robert Warren's analysis of 2007 data estimates close to 95% of undocumented immigrants in Oregon were born in Mexico. Another few percent appear to come from Guatemala and El Salvador. On this basis, we have focused this study primarily on Latino immigrants, particularly Mexicans. Warren had estimated that 120,000 undocumented immigrants were resident in Oregon in 2007. Although most research indicates that movement across the U.S./Mexican border has slowed considerably since the onset of the recession, analysts at the Pew Hispanic Center have released an estimate of 170,000 undocumented migrants living in Oregon in 2009; approximately 4% of the population. The same report estimates 140,000 undocumented migrants working in Oregon, which accounts for 6.2% of the labor force.

It is difficult to obtain good statistical information about people without legal status. Analysts using data from the American Community Survey, designed to provide updates between decennial censuses, assume an 18% undercount of undocumented immigrants. No large, representative survey asks about legal status. The best statistical portrait we can create of the unauthorized immigrant population in Oregon is that of the Mexican-born. It's important to remember that approximately 25% of the Mexican-born population in Oregon is estimated to have legal status. Many households include people with different legal statuses, and immigrants with legal status are more likely to be captured in the data than people without.

Undocumented immigrants appear to be very concentrated in particular industries and occupations. More than half of the male, Mexican-born labor force in Oregon work in just three industries:

- agriculture, forestry, and fishing;
- construction; and
- accommodation and food services.

Well over half of Mexican-born women in the labor force are found in just four industries: accommodation and food services, agriculture, forestry and fishing; health care and social assistance; and food processing.

Other key findings from the statistical profile of the undocumented include:

- two-thirds of the Mexican-born population are in their prime working years, 24-49, as compared with one-third of other Oregonians;

- eighty-one percent live in the Salem and Portland metropolitan areas, which include Hillsboro, Gresham and Woodburn;
- Mexicans are considerably less educated than other Oregon residents and more likely to work in the private sector;
- like other Oregonians, 85 percent travel to work by car, though Mexicans are more likely to carpool, and travel farther to work on average.

1.2.4 Findings from Interviews with Latino Immigrants

In the summer of 2009, the authors worked with a 6-person, Mexican, academic research team to interview 390 Spanish-speaking migrants in a wide variety of locations in the upper northwest quadrant of the state, where 71% of the Mexican-born population of Oregon resides. Interviews in Spanish ranged from 20 to 75 minutes, covering in detail the impact of this new legislation on the lives of respondents, their family members and acquaintances.

In terms of broad descriptors, such as age, sex, national origin and occupation, the group of people interviewed appears reflective of the population as a whole as reflected in the American Community Survey data for Oregon for 2005-2007, discussed above and in more detail in Chapter 3. However, the sample of people interviewed is not random, so we cannot assume that their answers accurately reflect the experiences of Oregon's foreign-born Latino population. What's more, not all 390 people surveyed were asked or answered every question.

The implementation of SB 1080 is an issue of substantial concern to the Latino immigrant community, which accounts in large part for the very strong response to our request for interviews and the number of people willing to speak in depth on the topic. Two-thirds of migrants with whom we spoke hold a U.S. driver's license, 93% of these an Oregon license.

The interview findings may best be framed within the context of issues outside the experience of many Oregonians. First, it is important to remember that the driver's license does not represent the primary form of identification used in Mexico; that role is played by the national voter registration card, which includes a photo of the holder. Less than twenty-five percent of the adult population of Mexico has a driver's license. Indeed, in rural areas, the proportion of drivers who hold a license may be very low, due to the time required to travel to obtain a license and the lack of enforcement of, or perceived need to comply with, the requirement that drivers be licensed.

Second, the issue of migrants' legal status is generally viewed much differently by Mexicans than by Americans. Mexican migration is driven by the accurate perception that economic opportunities are far greater for many Mexicans in the U.S. than in Mexico, regardless of their legal status. The fact that U.S. employers appear quite willing to hire large numbers of Mexican migrants is read as far more important than the legal situation. Well-established social networks between the U.S. and Mexico connect new migrants to housing, employment, childcare, community institutions and information.

Third, Oregon is one of several "new destinations" for Mexican migration, attracting an increasing number of people who perceive that the labor markets of "old destinations" such as

California and Texas are "saturated." Oregon has also been perceived as a relatively welcoming state, in part due to the relative ease with which migrants were able to obtain a driver's license or ID card.

Two large themes emerged in the interviews:

1. undocumented people are continuing to live and work in Oregon, driving without a license and perhaps insurance, if necessary; and
2. individuals and families are being affected, changing their driving habits, daily routines and living with more fear and uncertainty, more restricted opportunities in the labor market and less access to education, medical care, church attendance and recreation.

Consumption behavior may be affected, as people report purchasing fewer cars and related goods in particular, lower volumes of groceries and household articles if dependent on rides or public transportation, and forgoing purchases that require ID, such as alcohol and cigarettes.

Driving license and insurance history:

Only 31 percent of the nearly 100 asked reported that they had a driver's license in their own country of origin. One hundred people were asked if they'd driven without a license at home; 43% of men and 18% of women said that they had. Of 325 respondents, 63 percent reported that they have driven without a driver's license in the United States. Of 279 people answering, 51 percent indicated that they have driven without car insurance in the United States.

Current license status:

Of 339 people, 62% of men and 75% of women indicated that they hold a U.S. driver's license at this time. Just over 100 people said that they did not have a driver's license and offered legal status as the biggest obstacle to obtaining a license. Of these, one third said that they could not obtain a license because of their legal status and another third indicated that they could not renew a driver's license that had expired.

Source of current license:

Of 220 people interviewed who have a U.S. driver's license, 93% held an Oregon license, 5% a Washington license and 3% a California license. The only person who specifically reported obtaining a license in 2009 held a Washington license. Two-thirds of 383 people asked said that they knew someone who had a driver's license from Washington, or another state, or was planning to get one. Of those people who knew someone in this situation, 91 reported knowing someone who had temporarily changed their residence to obtain a Washington license, and another 73 indicated that they knew someone who used another person's address to obtain a Washington license. More than 75 percent of 374 interviewees said that they know people who drive without a driver's license in Oregon.

Concern over lack of license:

Two hundred twenty nine of 379 responding indicated that they knew of someone who has been arrested because he or she did not have identification when the car they were driving, or in which they were traveling, was pulled over by the police. Two-thirds or more of people interviewed indicated that they were concerned about being pulled over when driving, that they took particular actions to avoid being pulled over, and that they believed that police were more likely to pull over drivers who appear to be Mexican.

People are seeking alternatives to driving, which include relying on public transportation and asking for rides from others, which may cut into time that migrants holding licenses might have used for working, schooling or other activities. Many contractors provide transportation for work crews, particularly in agriculture.

Respondents without a driver's license were more likely to have been unemployed in the previous year than those who held a driver's license, and people with a driver's license fared slightly better than those without in other labor market outcomes. However, people who hold driver's licenses have also generally spent more time in the U.S. and likely have better English as well as better contacts and job information.

1.2.5 Findings from Interviews with Employers, Vendors, Staff of Social Service Agencies working with Migrants, and Law Enforcement Personnel

Working with a group of five Portland State University graduate students, all of whom were trained in interviewing and qualitative research methods and many of whom spoke Spanish, the authors interviewed eighty-three people who included business owners and association managers, agricultural producers and processors, labor contractors, personnel from law enforcement and criminal justice, educators, health services providers and managers, staff members of advocacy organizations, housing and family service managers, and public agency employees. Interviews ranging from 20 to 90 minutes were conducted, primarily in English. Locations ranged from the Oregon coast through the Willamette Valley, Hood River, Milton-Freewater, Ontario, Nyssa, and Vale. This provided general geographic coverage to regions of the state home to approximately 95 percent of the Mexican-born population.

Some categories of informants were more forthcoming than others. Staff members of social service agencies were most voluble, offering many examples of cases of hardship among their clients resulting from the new legal restrictions on driver's license and ID cards. Employers and law enforcement personnel were the most difficult groups to interview; many declined to participate, repeatedly claimed a lack of knowledge or stated they had nothing to contribute. For the most part interviews were conducted at the interviewee's place of work or in settings where privacy could be respected. Our approach was exploratory in nature and relatively unstructured, seeking respondents' own experience resulting from SB 1080, and the experience of migrants with whom they interacted at work.

Again, two general themes emerged from the interviews:

1. Respondents across all informant groups view the license issue in much broader terms than work-related transportation. Respondents raised questions of driver safety reasoning that, by necessity, people may drive without licenses; access to medical services; distrust of law enforcement; and *"hardship to a lot of US citizens who have in their family, if there is a spouse or a parent, someone who can't get a license because they're undocumented and I think it's a burden on us as taxpayers because there are more of those people who go on welfare because their breadwinner can't get a license, can't work or is doing a lower level job because they're driven underground".* Attorney

2. Widespread use of a driver's license as a standard form of identification means that people without access to a license encounter major challenges to everyday activities. Renting an apartment, cashing a check, purchasing auto insurance, and otherwise verifying one's identity typically means presenting a driver's license. "*.....today I had a guy who got paid with a check, and he was having a hard time [trying] to cash it because.....the bank is all the way from Walla Walla and they wouldn't let him, he was struggling to cash his check because [he had] no ID".* Labor Center Manager

Employers' reactions were well represented by Jeff Stone, Executive Director and CEO of the Oregon Association of Nurseries. According to Stone, finding a way for migrants to obtain some form of Oregon Driver's License is the Association's top legislative priority; although the recession has thus far buffered nursery owners from the labor shortage they feared, they already face the loss of key personnel and worry about the future as the recession eases and migrants currently holding valid licenses are unable to renew. Agricultural employers are increasingly reliant on contractors who provide crews with transport, charging workers for the ride. One landscaper described increased pressure on him to organize and maintain carpools for his employees.

Business owners for whom migrants constitute an important market report a significant decline in custom, which may be due in part to the recession. People in car sales or related businesses described a significant fall-off in business; those in small, general markets mentioned smaller sales to people now increasingly carrying their purchases home on foot or on the bus.

Staff members of social service agencies reported on hardships to families that have lost significant income when breadwinners have lost jobs, or sometimes the ability to carry on their own small business as a hauler or landscaper. They report people finding it harder to make and keep medical appointments, and less certainty about referring people on for service to other agencies that may require state ID.

Law enforcement personnel described the conflict between their duty to enforce traffic laws and their desire to nurture ties to the immigrant community, in order to build trust and cooperation with the police. Lawyers brought up the increasing incidence of deportation proceedings that stem from traffic stops, and the resulting fear and immobility engendered in the immigrant community.

1.2.6 Economic Impact

As mentioned above, the potential economic impact of SB 1080 appears to be swamped by the magnitude of the ongoing economic recession, which hit just a few months after the implementation of the law. The full economic impact of SB 1080 will not be felt until the labor market returns to something approaching full employment, which is currently not anticipated by economists for at least two to three years, and quite possibly longer. Recessions following financial crises are known to be particularly severe. Keynesian policies to kick-start the private economy are precluded at the national level by the political situation in Washington D.C., and prohibited at the state level by the legal requirement to balance the state budget.

To gain a sense of the potential impact of SB 1080, we have created an analysis of the impact using Oregon data from 2005-2007, years during which unemployment in Oregon remained below 6%. We measured impacts as if SB 1080 were fully implemented, as will be true in 2016 when all outstanding licenses and ID cards obtained before the law was changed will have expired. We relied on the American Community Survey data, reported by households and subject to undercount. The logical alternative data source, the Quarterly Workforce Indicator data reported by employers, does not include information on sectors that are not covered by unemployment insurance, which excludes a great deal of agriculture, domestic work and other economic niches of interest.

For the purposes of this analysis, we assume that the implementation of SB 1080 will both deter some number of undocumented workers from entering the state and lead others to leave the state, either voluntarily or otherwise, resulting in a reduction in the size of the undocumented workforce in Oregon. The result would be a smaller labor force overall, with particular stresses on those industries and occupations in which undocumented immigrants are concentrated. Economic theory identifies three likely consequences:

1. the substitution effect, or a reduction in the number of jobs as employers adjust their work processes, substituting other inputs, such as capital invested in new technology, for hours of labor;
2. the scale effect, or an additional reduction in employment as employers reduce their output or go out of business entirely; and
3. the wage effect, or an increase in wages as the remaining employers raise pay to compete for labor.

Of these consequences, the first and third primarily affect the distribution of income, rather than a change in the total. For this reason, we focus on the "scale effect," which represents a loss of productive activity in the state.

Under our baseline assumptions, we estimate that SB 1080 when fully implemented would reduce employment by approximately 4,200 jobs, balancing a loss of 4,883 jobs held by undocumented migrants and a gain of 659 jobs held by other Oregonians. The loss of output and income associated with the direct impact of SB 1080 is estimated at $160 million, or 0.1% of state GDP. Wages are estimated to rise 0.16%.

These impacts are quite mild in the context of the total Oregon economy. However, we find that the impact is likely to be felt disproportionately in certain industries and occupations in the agriculture, manufacturing (particularly food processing and textiles), and food service / hospitality industries. Both agriculture and manufacturing losses are due in part to loss of some ability to export, given lower cost competition elsewhere.

1.2.7 Evidence from Social Science Research Conducted Elsewhere

Despite conducting a wide-ranging search, we found nothing in the academic literature specifically related to the economic or social impacts of different or changing state policies with regard to identification and undocumented populations. A few studies discuss the impact of increasing enforcement of immigration restrictions, indicating that stricter border enforcement tends to affect the composition of the group of Mexicans who migrate to the U.S., in terms of their educational background and opportunities in Mexico. Greater workplace enforcement under the Bush administration may have decreased employment, hours worked and earnings among recent Latin American male immigrants.

We also reviewed what is known about the prevalence and utility of the identification card given by the Mexican consulate to Mexican nationals, the *matricula consular*. This card appears to be difficult to forge, helpful to migrants for opening bank accounts and conducting other business, but is less sought after since states such as Oregon no longer accept it as adequate identification for obtaining a driver's license.

1.2.8 Conclusions

The impact of implementing SB 1080 will not be fully felt until two factors are met:

1. the economy has returned to something approximating full employment; and

2. no-one who is undocumented but able to obtain a license or ID card before the implementation of SB 1080 still holds an Oregon license or ID card.

By that time, we may see immigration reform at the Federal level that would completely change the landscape here in Oregon. If we do feel the full impact of SB 1080, we can anticipate that the economic impact at the state level will be relatively mild. Particular industries are likely to face some diminution of their migrant labor force, and have to raise wages in order to attract other workers.

At this point in time, economic impacts appear to be negligible, and concentrated on those employers who are finding key employees no longer able to maintain the appearance of having legal status, unable to get to work, or unable to perform some aspect of the job that requires a driver's license. Clearly, some individuals have lost their ability to drive legally. They and their families are feeling the pinch of reduced economic opportunities, lessened mobility, the inability to make some kinds of purchases and the need to take time from other activities including work and schooling to transport people who can no longer drive.

Probably an increasingly large group of people is driving without a license, and perhaps without insurance. Not only does this change the environment of native-born Oregonians, but it is accompanied by a growth of fear, uncertainty and wariness of the authorities on the part of the migrant community. Discussions of deportations resulting from traffic stops are on the rise.

The people with whom we spoke -- migrant and native-born -- showed remarkable consensus in their thinking that the loss of ability to obtain a driver's license or ID card would make migrants' lives harder but would not noticeably affect the level of undocumented immigration to the state. If so, the labor force is likely to be relatively little affected in terms of numbers. This outcome is suggested by the experience of California and other states in which it has not been possible for some time for undocumented migrants to formally obtain state identification. The estimated proportion of the labor force of California that is undocumented is substantially greater than is true for Oregon at present.

The mix of migrants may change, such that more single men and fewer families come to Oregon. Hardships will increase for individual migrants and their families, and challenges will be faced in the future by the employers who particularly rely on migrant labor.

2.0 LITERATURE REVIEW

2.1 PURPOSE AND FOCUS

The purpose of conducting this literature review was to take advantage of any research done in other states that required proof of legal presence to obtain a valid driver license or ID card in advance of this requirement in Oregon. In Executive Order 07-22, Governor Kulongoski asserted that "Oregon's documentation requirements to prove identity are among the most permissive in the country (*Office of the Governor State of Oregon 2007*)."

An exhaustive literature review was conducted to discover what is known about the impact of policy changes in other states that have strengthened identification requirements for the issuance of Drivers' Licenses and State Identification cards. The following databases were consulted: Academic Search Premier, EBSCOhost, EconLit, JSTOR, LexisNexis Academic Universe, PAIS International, and SocINDEX. The following key search words were used in different combinations: undocumented workers, REAL ID Act, illegal aliens, immigration, driver's license, *matricula consular*, consulate cards, Mexican, identification, restrictions, economic impact, and social impact. Several reference librarians were consulted for literature search guidance.

We found nothing in the academic literature specifically related to the economic or social impacts of different or changing state policies with regard to identification and undocumented immigrant populations. We widened our purview in order to provide a context with which to understand recent policy changes in Oregon, creating a review of what is known about:

(a) the characteristics of the undocumented population resident in Oregon;

(b) the impact of legal status on labor market outcomes for Mexican immigrants in the U.S.; and

(c) the history and uses of the *matricula consular*, the identification provided by Mexican consulates in the U.S. to Mexican nationals, as the *matricula consular* was previously accepted by the state of Oregon as proof of identification adequate to obtain an Oregon Driver's License or Identification Card in conjunction with some proof of residency.

2.2 THE CHARACTERISTICS OF THE UNDOCUMENTED POPULATION IN OREGON

Researchers assume that major surveys such as the Census, the American Community Survey (ACS), and the Current Population Surveys (CPS), which generate nationally representative estimates with a high degree of statistical accuracy, cannot be relied upon completely to characterize the undocumented population. This following factors may contribute to this unreliability of data on unauthorized immigrants: they may be wary of poll takers, move often,

may live on the streets, often lack fluency in oral or written English, and increasingly may speak an indigenous language, rather than Spanish or another well-known language.

Population calculations of the undocumented drawn from these surveys are based on a process, termed the "residual method," of subtracting the best numbers available for the legally resident foreign born from the total foreign born, and then "adjusting" for an assumed undercount, generally by 10 percent for the decennial census and 18 percent for the ACS *(Warren forthcoming; Passel 2007; Hanson 2006)*. Mexicans are far and away the single largest national group, accounting for 57 percent of undocumented immigrants in the U.S. in 2006, according to Passel (*2007*).

In Oregon, however, Mexicans were estimated to constitute 94.5 percent of the undocumented immigrants in 2007 (*Warren 2009*). Guatemalans account for another 1.6 percent and Salvadorans another 0.9 percent. All other national groups, then, considered together, appear to comprise only 3 percent of the undocumented population in Oregon.

For this reason, we focus on Mexicans as we proceed with this study on the socio-economic impacts of SB 1080 on Immigrant Groups. Statistics provided in Chapter 3 center on the Mexican-born, of whom a substantial portion appear to be undocumented.

2.3 LEGAL STATUS AND LABOR MARKET OUTCOMES FOR MEXICAN IMMIGRANTS IN THE U.S.

It has been very difficult to say much with certainty about the labor market experiences of undocumented Mexican immigrants in the U.S. As mentioned above, the undocumented are probably undercounted in our large, nationally representative surveys. More challenging is the fact that legal status is not explicitly reported, but must be inferred by length of time in the country, or some other imperfect proxy. For this reason, smaller, less representative surveys have been mined for evidence on the characteristics and situation of the undocumented population, either because the study environment is intimate enough that researchers gain the confidence of people who reveal their legal status, or because the study is focused on a group of people for whom it is a reasonable assumption that they are undocumented. The result has been a lack of clarity, and some contention among scholars with different bases of information (*Marcelli and Cornelius 2001; Durand et al. 2001)*.

Among the most important of these smaller studies is the "Survey of Mexican Migrants," conducted by the Pew Hispanic Center in collaboration with the Mexican government, in the waiting rooms of seven Mexican consulates around the country between July 2004 and January 2005 (*Kochhar 2005*). Nearly 5,000 people were interviewed, many of whom may be assumed to lack documentation, since a prime reason to approach the Consulate was to obtain the *matricula consular*. The Pew study used the possession of U.S. identification as an imperfect proxy for legal status. Another critical source of information has been the Mexican Migration Project, which is based primarily on interviews with people in Mexican households with family members in the U.S. For that reason it is thought to better capture more recent, short-term migrants than more-established residents of the U.S. who may no longer have parents or other close relatives in Mexico.

With the passage of time and the accretion of evidence, a consensus has been building among social scientists as to the characteristics of the undocumented Mexican population. An interesting element of this consensus has been that legal status has had relatively little impact on the earnings of Mexican migrants within the U.S. More important factors affecting earnings include years in the U.S., English fluency and strong social networks with access to work (*Hanson 2006; Kochhar 2005*). Even legally authorized Mexican immigrants tend to be significantly less educated than either other immigrant groups or people born in the U.S. and may be nearly as hampered as undocumented workers by limited English fluency and lack of knowledge of the U.S. labor market. Legally authorized and undocumented Mexican workers are members of many of the same households, communities and social networks (*King et al.2010; Cobb, et al. 2009*).

The result of the relative lack of English fluency is that Mexican immigrants, regardless of status, appear to be concentrated in relatively few occupations and industries, particularly agriculture, construction, manufacturing and hospitality (*Kochhar 2005*). For a sample of 80 people interviewed at the Mexican Consulate in Portland, only 11 occupations defined relatively precisely (at the three digit level in the Standard Occupational Classification system) were needed to account for 84 percent of all the jobs that interviewees had been held in the U.S. Interviewees' work experience was extremely concentrated in restaurant and agricultural work, as well as construction, cleaning and maintenance. Women are unrepresented in a few of the important occupations for men, including construction, grounds maintenance and day laborers, but probably are found in the predominantly female occupations of childcare, practical nursing and domestic service, though that was not revealed in this sample (*King et al.2010; Cobb, et al. 2009*).

It may also be true that undocumented Mexican immigrants experience poor labor market outcomes in terms other than wages, such as unemployment. The Pew Hispanic Center Study states that 38 percent of migrants interviewed reported a spell of unemployment lasting more than a month in the previous year, though they also assert that legal status did not seem to affect the likelihood of unemployment. Certainly evidence is beginning to emerge that immigrants have been much harder hit than native workers by unemployment in the recent recession (*Camarota and Jensenius 2009*). A multi-city study on the enforcement of labor standards in low wage occupations showed that overtime, minimum wage and workers' compensation legislation was frequently ignored at the bottom of the labor market, most often for undocumented women workers (*Bernhardt et al 2009*).

Further, it's likely that the least successful migrants may return to Mexico, so that their experience is not captured in surveys based in the U.S. According to a recent opinion poll conducted in Mexico by the Pew Global Attitudes Projects, forty percent of Mexicans surveyed reported that they know someone who migrated to the U.S. but returned because they could not find a job (*2009)*.

Finally, although we did not find literature on the impact of changing requirements for U.S. identification documents such as driver's licenses, there is some evidence on the effects of other types of changes in policy related to immigration. Pia Orrenius and Madeline Zavodny (*2005*) find that stricter border enforcement changed the migration cost/benefit calculus for

undocumented Mexican men such that the average skill level of the group choosing to migrate rose, relative to all Mexican men. They also report that greater workplace enforcement under the Bush administration resulted in decreases in employment, hours worked and earnings among recent, male Latin American immigrants, relative to similarly skilled men in other groups (*Orrenius and Zavodny 2009*). Interestingly, they do not find a decline in the prospects of comparable women, perhaps because women may be less likely to come without papers, and are more likely to work in domestic service or other areas less affected by policy changes (*Orrenius and Zavodny 2009*).

2.4 HISTORY AND USES OF THE *MATRICULA CONSULAR*

2.4.1 Background

Consular registration has been recognized and protected under international law for many years, most recently by the Vienna Convention on Consular Relations of 1963 *(Bruno and Storrs 2005*). The Mexican government has been issuing *matriculas consulares* to its nationals living abroad since 1871. The *matricula consular* (MC) is an official consular identification card that provides protection and access to consular services, as well as helping relatives of migrants and Mexican authorities to locate Mexicans abroad.

Vicente Fox assumed the Presidency of Mexico in 2000, committed to improving the situation of undocumented Mexicans in the U.S. by pushing for immigration reform. An interim step, according to his Foreign Minister, Jorge Castañeda (*2007, p. 143*) was "overhauling the Mexican Consular Identification Card, and handing it out on a massive scale to Mexican nationals in the United States." This effort was stepped up to provide undocumented Mexicans some form of identification in the aftermath of the 9/11 terrorist attacks.

The process for obtaining a MC was made more stringent, and the card itself is now much more difficult to forge, according to staff in the Mexican Consulate in Portland. Currently, in order to obtain a MC, an applicant must fulfill four criteria: (1) present proof of Mexican identity with a supporting document such as a birth certificate, a certificate of Mexican Nationality, etc.; (2) present proof of his/her identity with documents issued by Mexican or US authorities (e.g., passport, electoral ID, expired MC, etc.); (3) present proof of residence within the consular district (e.g., water bill with applicant's name and address); and (4) pay an issuance fee of $26. Each MC includes an ID number and the name, address in Mexico, and photograph of the national *(FAIR 2003*). All MCs are issued for a period of 5 years.

The MC has been accepted as a valid form of ID by many state and local government agencies and businesses in the US (*Varsanyi 2007*). The first agency to accept the MC was the Austin, Texas Police department. The Austin officers became alarmed at the high number of undocumented workers residing in the city who were victims of robbery. As the undocumented residents did not have valid IDs, they were unable to open bank accounts in local banking institutions where they could safely deposit their earnings. Instead, many would return home from work carrying large amounts of money and store it in their homes, which made them easy targets of crime. Undocumented residents would be robbed on their way home or have their homes burglarized.

As a response to the increased crime rate, Austin Police developed a two-pronged approach: (1) they began accepting MCs as a valid form of ID and urged the Mexican immigrant community to report crime without fear of deportation and (2) they urged local Wells Fargo Bank branches to accept the MC as a valid form of ID with which undocumented workers could open bank accounts. By 2004, over 174 banking institutions accepted MCs as valid forms of ID as these institutions realized the lucrative economic implications of this untapped immigrant market (*Varsanyi 2004*).

At one point, twelve states accepted the MC as one of the proofs of identity required to obtain a driver's license, Oregon and Washington among them. In thirty-three states, at least one agency accepted MCs as a valid form of ID (*Varsanyi 2007*). In addition, local governments of 80 cities accepted the MC for obtaining a library card or a business license, entering public buildings, registering children for school, and accessing some public and medical services. Some companies began accepting the MCs as adequate identification for opening accounts for utilities, insurance and video store memberships (*Bruno and Storrs 2005*). Some airline companies began to accept the MC as a valid form of ID for domestic travel (*Ilbanker.com 2004*).

The acceptance of the MC had positive implications for both the local US communities and the undocumented immigrants. For the undocumented workers, the ability to open bank accounts reduced the costs of remittances. The Mexican government estimates savings of hundreds of millions of dollars for migrants able to send an ATM card to their families, which they can use in Mexico to withdraw money directly from the family member's bank account in the US (*Ilbanker.com 2004*).

For local US communities, the acceptance of the MCs to open bank accounts had important security implications. First, authorities have the ability to track the use of money and prevent criminal activities. Secondly, the MCs may have potentially curtailed financial "black markets" by decreasing the use of informal channels for currency exchange. In addition, the acceptance of the MCs has assisted law enforcement by helping to identify dead or unconscious individuals and facilitate communication with relatives of MC bearers (*Ilbanker.com 2004*).

2.4.2 Current Debates about the *Matricula Consular*

The current debate about the acceptance of the MC can be summarized under the areas of immigration, public safety, law enforcement, and homeland security (*Bruno and Storrs 2005*). The following section will briefly describe the positions of proponents and opponents of the acceptance of the MC as a valid form of ID.

2.4.2.1 Immigration.

Proponents of the acceptance of the MC argue that the MC is used solely for identification purposes and does not confer any type of legal immigration status to the bearer. The acceptance of the MC is required for daily business in areas that are predominantly affected by immigration. Its acceptance is beneficial not only to the MC holder, but also to the banks and other institutions in the area. But, most importantly, supporters contend that there is a growing need to acknowledge the large population of undocumented workers and find a way to more fully integrate them into society. They

reason that it is better for undocumented workers to have an identity and participate openly in financial transactions where these transactions can be monitored, than to have an unmonitored segment of the population living underground and conducting business informally.

Opponents of the acceptance of the MC argue that the MCs are only needed by illegal immigrants who are present in the US and do not possess other acceptable identification documents. The MCs confer quasi-legal status to the bearer and allows unauthorized Mexicans to live and conduct business in the US as regular citizens. Opponents believe that the acceptance of the MC may be a strategy that could facilitate individuals' efforts to "regularize" their legal status in the near future.

2.4.2.2 Public safety and law enforcement.

Supporters of the acceptance of the MC claim that the MC is a fraud resistant document that reliably identifies the bearer. In fact, in 2007, the Mexican government replaced the old MC with the *Matricula Consular de Alta Seguridad* [Consular Identification of High Security, MCAS] which incorporates cutting-edge technology, holograms, and other embedded designs that prevent forgery (*Ilbanker.com 2004*). Mexico developed a national database of passport and consular data that checks the identity of persons applying for a new or renewed MCAS against large Mexican voter registration databases and against "stop list" records of "non-acceptable" persons (*Bruno and Storrs 2005*).

In addition, supporters claim that the MCs improve public safety by helping police identify witnesses, victims, and suspects. The acceptance of the MC saves time and resources for police departments with limited budgets by cutting time wasted trying to identify persons with no other identification than the MC. Supporters argue that unauthorized persons are more likely to report crime and cooperate with investigations if they have some form of valid identification that will be accepted by authorities. Furthermore, the ability of unauthorized workers to deposit earned income into bank accounts, which reduces that likelihood of being victims of crime, is an immediate enhancement to public safety for the bearer and the larger local community.

Opponents argue that the MCs are not secure and that Mexican birth certificates are easily forgeable, which allows criminals to obtain MCs. Opponents claim that the MC threatens public safety because police do not conduct the necessary background checks or take fingerprints of card holders which may conceal past criminal activity. The acceptance of the MCs by officers of the law may potentially allow criminals to obtain false identities and obtain driver's licenses in the US, which may facilitate criminal acts such as money laundering and alien smuggling, while avoiding detection by authorities.

2.4.2.3 Homeland security.

Supporters claim that the MC improves homeland security by enabling the authorities to easily and accurately identify Mexican nationals in the US. They argue that undocumented persons who are isolated and marginalized pose a greater potential security threat than those who are integrated and into society. Furthermore, supporters

emphasize that Mexico is not a terrorist-supporting country and that Mexicans come to the US solely for work purposes. Conversely, opponents contend the MC threatens homeland security and provides the opportunity for terrorists to move freely in the US without triggering name-based watch lists.

Our investigations among the Latino population of Oregon should reveal more about the uses and limits of the *matricula consular* as a form of identification in Oregon communities.

3.0 STATISTICAL PORTRAIT OF THE MEXICAN-BORN POPULATION

3.1 INTRODUCTION

Our objective in this report is to provide the best statistical profile we can of Oregon's undocumented population, since this is the group most directly affected by implementation of SB 1080, which requires that applicants for Oregon Driver's Licenses and Identification Cards demonstrate that they are legally present in the state. Because undocumented people are members of households, communities and workplaces that also include citizens and others with legal documentation, secondary impacts are felt by documented residents as well.

It's difficult to gain a clear picture of the undocumented population for many reasons. All of our best statistics in the U.S. come from large, official, nationally representative surveys. Foremost among these is the U.S. census, conducted every ten years and supplemented annually by the American Community Survey. The next best source of data on individuals in the U.S. is the Current Population Survey (CPS), conducted monthly on a sample of U.S. households adequate to create estimates of unemployment and other data.

However, these surveys do not ask people about their legal status, so estimates of the unauthorized population are generally made by the "residual method," of subtracting the best numbers available for the legally resident foreign born from the total foreign born, and then "adjusting" for an assumed undercount, reportedly ten percent in decennial Census data (*Warren forthcoming; Passel 2007; Hanson 2006*). The presumed undercount is based on the widespread understanding that undocumented people are under-represented in these large national surveys because they may be wary of official poll-takers, may move often or live in the streets, and may not speak well in English, Spanish, or other well-known languages.

Undercounts are assumed to be more severe in major surveys other than the decennial Census because of the particularly strong effort made to include people in the Census. For this reason, Robert Warren (*forthcoming*) -- one of the premier demographers engaged in measuring the presence of undocumented people in the U.S. — assumes an 18 percent undercount of the unauthorized in American Community Survey data.

Despite its limitations, the American Community Survey data is the best available for a statistical portrait such as this one because it is the largest recent dataset available. Smaller surveys, conducted by groups not affiliated with a government agency that may be able to gain the confidence of undocumented people and ask directly about legal status, cannot be assumed to be nearly as representative of the entire population.

Robert Warren (*forthcoming*) has recently estimated the unauthorized population for each state in the U.S., by nation of origin. His analysis is based on American Community Survey data in conjunction with data on legalizations under IRCA, the 1986 "amnesty" legislation sometimes

referred to as the Simpson-Mazzoli bill. Warren's work – presented in Table 2 of this report – indicates that 94.5 percent of undocumented people present in Oregon in 2007 were born in Mexico.

Therefore, the closest we can come to a statistical portrait of Oregon's undocumented population is a profile of the Mexican-born community resident in Oregon based on American Community Survey data. Warren estimated that nearly 114,000 undocumented Mexicans were living in Oregon in January 2007. That is three-quarters of the total population of Mexican-born people estimated to be living in Oregon, but we cannot tell from the statistical data which three-quarters may be undocumented.

We present in this report a statistical portrait of the Mexican-born population in Oregon with the reminder that information presented in each of these tables does not just capture the undocumented population from Mexico, but a large group of Mexicans who are here legally. However, Mexican-born people who are legally present in the state are probably somewhat better represented in this data than their relative numbers warrant.

We have not included information on the estimated 5.5 percent of undocumented people who come from countries other than Mexico because their numbers are too small to yield reliable information.

3.1.1 Technical Notes

In this report, we present tabulations and graphs of certain features of the population of Oregon that was born in Mexico, along with tabulations of the contrasting population which is comprised of persons born either in the USA or in foreign countries other than Mexico.

This analysis is based on data from the U.S. Census Bureau's American Community Survey (ACS), using the Public Use Microdata Sample ("PUMS"). The PUMS dataset is comprised of a subset of about half of the individual records collected by the Census Bureau in the execution of the ACS. The Bureau assigns each of these records a "weight," which specifies how much of the total population is represented by the individual record; these weights range in value from 1 to 440, with a median value of 28. We are actually tabulating the totals of these weights when we do the analysis.

For the current report, data comes from surveys collected in 2005, 2006, and 2007 -- the most recent available. The three surveys are pooled to obtain a larger and more statistically reliable sample than would be available in one year alone: 109,015 records for the state of Oregon, corresponding to an estimated state population of 3,687,731. For persons born in Mexico there are 3,048 actual records, representing an estimated population of 150,275. On this evidence it appears that 4 percent of population of Oregon was born in Mexico.

These numbers do not include the small number of Oregon residents who were born in Mexico to parents who were U.S. citizens living in Mexico at the time of their child's birth. This small group can be identified and removed from the sample, because their characteristics are far more similar to those of U.S.-born citizens than other people born in Mexico but now living in Oregon.

For the purposes of comparison we often provide statistical data on the non-Mexican born. This group is comprised predominantly of persons born in the USA, but also includes a small number of immigrants born abroad in countries other than Mexico as listed by number of immigrants in Table 3.1.

Table 3.1: Top 20 Foreign-born Populations in Oregon, 2005-2007

Rank	Country of birth	Number	Percent of Oregon population
1	Mexico	150,275	4.074%
2	Canada	20,107	0.54%
3	Korea	18,116	0.49%
4	Vietnam	15,969	0.43%
5	Germany	15,528	0.42%
6	China	14,073	0.38%
7	Philippines	11,740	0.31%
8	India	11,011	0.29%
9	Japan	9,850	0.26%
10	Ukraine	8,921	0.24%
11	England	7,397	0.20%
12	Guatemala	6,135	0.16%
13	Russia	5,793	0.15%
14	Romania	4,280	0.12%
15	El Salvador	4,022	0.11%
16	Laos	3,355	0.09%
17	Other U.K.	3,154	0.09%
18	Iran	2,919	0.08%
19	Netherlands	2,582	0.07%
20	Thailand	2,527	0.07%

Source*: United States Bureau of the Census 2008b*

The data from which our tables are drawn comes from a sample of the population rather than the entire population and therefore is subject to error. When a tabulated percentage is 10 percent or more of the Mexican-born sample, we can be confident that enough people are included in the sample for this figure to be close to the real number. The numbers of the non-Mexican born are large enough that all of the percentages reported are reliable. However, when figures lower than 10 percent are indicated for the Mexican-born population, these values should be considered to be approximations.

It should also be noted that the age distributions of the Mexican-born and the non-Mexican born populations are quite different. Two-thirds of the Mexican-born are between the ages of 24 and 49 as compared with one-third of the rest of Oregonians, as is shown in Table 3.4. Some differences between the two groups stem from this difference as the Mexican-born are much more concentrated in prime working and childbearing ages.

3.2 SOCIAL AND PERSONAL CHARACTERISTICS

As shown in Table 3.2, Mexicans are by far the biggest group of foreign-born residents of the state. Because the numbers of people from other countries are relatively small, they may not be

captured completely accurately in this data set. For that reason the ranking of nations and the exact numbers of people estimated should not be considered precise.

As shown in Table 3.2, Mexico is also birthplace of the largest group of undocumented migrants in Oregon, followed by Guatemala and El Salvador.

Table 3.2: Unauthorized Residents in Oregon by Source Country, 2007

Rank	Country of origin	Number	Percent
1	Mexico	113,795	94.5%
2	Guatemala	1,885	1.6%
3	El Salvador	1,122	0.9%
4	Iran	333	0.3%
5	Canada	272	0.2%
6	Peru	254	0.2%
7	Honduras	210	0.2%
8	U.K.	188	0.2%
9	Korea	149	0.1%
10	Philippines	123	0.1%
11	Nigeria	101	0.1%
12	Nicaragua	101	0.1%
13	China	88	0.1%
14	Chile	79	0.1%
15	India	75	0.1%
16	Hong Kong	70	0.1%
17	Colombia	70	0.1%
18	Argentina	66	0.1%
19	Kenya	44	0.0%
20	Poland	44	0.0%
	All Others	1,301	1.1%
	TOTAL	120,370	100.0%

Source: *Warren 2009c*

This table was provided by Robert Warren. The estimate of 120,370 shown above for Oregon is consistent with "Unauthorized Immigration to Oregon: Annual Estimates for 1990 to 2007," an unpublished draft provided by Robert Warren in July, 2009.

Note: IRCA is the Immigration Reform and Control Act of 1986. The estimate of 120,370 shown above was distributed to countries based on the percent distributions of IRCA legalizations. The distribution by country of origin in 2007 could have been considerably different than the IRCA distribution. For example, since 1990, the (total U.S.) unauthorized resident population from Iran has declined significantly.

Individuals born in Mexico are far less likely to be citizens than are other Oregon residents, as shown in Table 3.3 below.

Table 3.3: Citizenship status of the Mexican-born and non-Mexican Born Resident in Oregon, 2005-2007

Citizenship Classification	Mexican Born		Non-Mexican Born	
	Men	Women	Men	Women
Born in USA	0%	0%	94%	93%
Born in US Territories (Puerto Rico, etc)	0%	0%	0%	0%
Born abroad to US citizen parents	0%	0%	1%	1%
Naturalized citizen	12%	14%	3%	3%
Not a citizen	88%	86%	3%	3%
Total	89,455 (100%)	60,820 (100%)	1,741,324 (100%)	1,796,132 (100%)

Source: *United States Bureau of the Census 2008b*
Note: "Not a citizen" includes both undocumented and legally resident persons.

As mentioned above, the Mexican-born population of Oregon is concentrated in the prime working ages of 24 to 49, as seen tin Table 3.4.

Table 3.4: Age Distribution of Mexican born and non-Mexican born Resident in Oregon, 2005-2007

Age	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
0-5	1%	2%	8%	8%
6-11	5%	5%	8%	7%
12-15	4%	5%	6%	5%
16-23	15%	11%	11%	10%
24-49	65%	66%	36%	35%
50-64	8%	8%	20%	20%
65+	2%	3%	12%	15%
Total	89,455 (100%)	60,820 (100%)	1,741,324 (100%)	1,796,132 (100%)

Source: *United States Bureau of the Census 2008b*

Mexican migration to Oregon in large numbers is a relatively recent phenomenon, with more than 70% having arrived in the U.S. within the last 20 years, as seen in Table 3.5

Table 3.5: Decade of entry to USA of Mexican born Persons Resident in Oregon, 2005-2007

Decade of entry	Percent of all Mexican born	
	Men	Women
Before 1950	0%	0%
1950 to 1959	0%	1%
1960 to 1969	1%	2%
1970 to 1979	8%	5%
1980 to 1989	20%	18%
1990 to 1999	38%	39%
2000 to 2009	31%	34%
Total	89,455 (100%)	60,820 (100%)

Source: *United States Bureau of the Census 2008b*

As shown in Table 3.6, Mexican-born Oregonians are as likely to be married as other Oregonians, but are more likely to be living apart from their spouses, and less likely to be divorced.

Table 3.6: Marital Status, Mexican-born and Non-Mexican born Resident in Oregon, Ages 16+, 2005-2007

Marriage Characteristics	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
Currently Married, living with from spouse	41%	50%	52%	49%
Currently Married, living apart from spouse	13%	8%	2%	2%
Widowed	1%	4%	2%	9%
Divorced	4%	5%	12%	14%
Separated	4%	7%	2%	2%
Never married	37%	26%	30%	23%
Total	80,789 (100%)	53,998 (100%)	1,363,864 (100%)	1,436,401 (100%)

Source*: United States Bureau of the Census 2008b*

A large proportion of the Mexican-born – approximately 50% - report that they do not speak English well, as seen in Table 3.7. Nearly all of the members of the Mexican-born population indicated that they do not speak English at home, as shown in Table 3.8.

Table 3.7: Self-Reported English Language Fluency, Mexican-born and Non-Mexican born Resident in Oregon, Ages 16+, 2005-2007

English ability	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
Speaks only English	2%	1%	91%	90%
Speaks English very Well	23%	22%	6%	6%
Speaks English well	23%	17%	2%	2%
Speaks English not well	32%	32%	1%	1%
Speaks English not well at all	19%	26%	0%	1%
Total	80,789 (100%)	53,998 (100%)	1,363,864 (100%)	1,436,401 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.8: Language spoken at home, Mexican-born and Non-Mexican born Resident in Oregon, Ages 16+, 2005-2007

Language spoken at home	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
A language other than English	98%	99%	9%	10%
English only	2%	1%	91%	90%
Total	80,789 (100%)	53,998 (100%)	1,363,864 (100%)	1,436,401 (100%)

Source: *United States Bureau of the Census 2008b*

Mexican-born Oregonians are not much more likely to have moved in the last 12 months than are other Oregonians, as demonstrated in Table 3.9.

Table 3.9: Migration behavior in Previous Year, Mexican-born and Non-Mexican born Resident in Oregon, Ages 16+, 2005-2007

Migration behavior	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
Did not move in last 12 months	69%	76%	80%	80%
Moved from outside US in last 12 months to current house	3%	2%	1%	0%
Moved from inside US in last 12 months to current house	28%	22%	20%	19%
Total	80,789 (100%)	53,998 (100%)	1,363,864 (100%)	1,436,401 (100%)

Source: *United States Bureau of the Census 2008b*

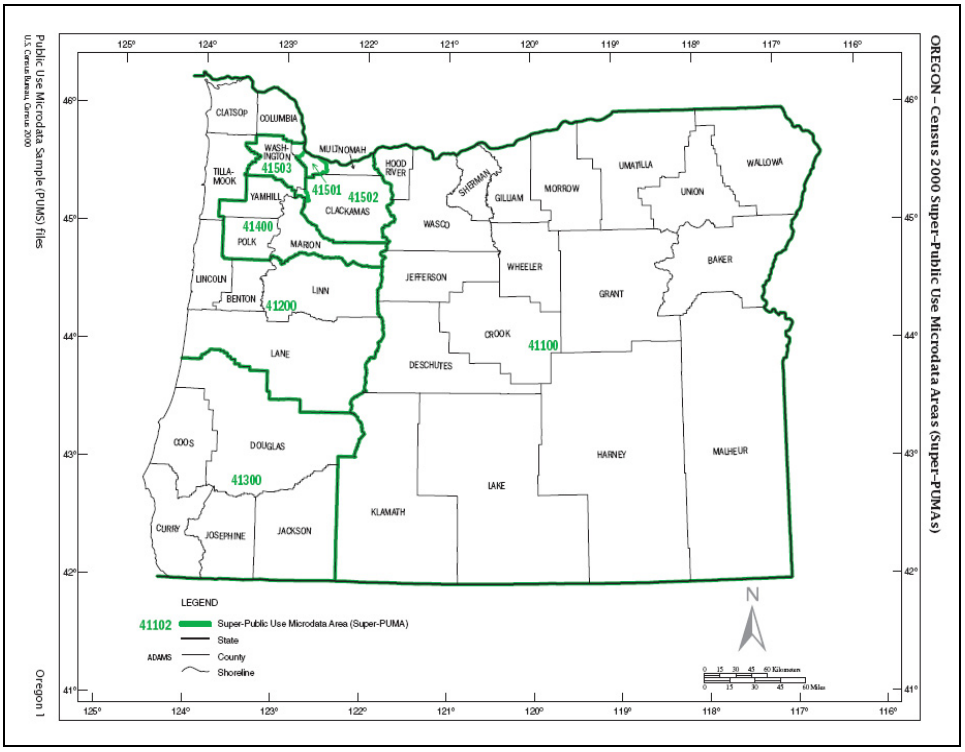
3.3 GEOGRAPHIC DISTRIBUTION

The Mexican-born population is found in all regions of the state, as seen in Table 3.10. The Salem area is the region home to both the highest proportion of the Mexican born in the state and where the Mexican-born represent the highest proportion of the overall population. The regions used in Table 3.10, below, are shown in Figure 3.1, on the next page.

Table 3.10: Distribution by Region of Mexican-born Population Resident in Oregon, 2005-2007

Region	Percentage of regional population born in Mexico	Percentage total Oregon Mexican-born population living in region
Eastern and Central (41100)	5%	15%
South Willamette V + North Coast (41200)	2%	9%
Southwestern (41300)	2%	5%
Salem Area (41400)	8%	26%
Portland City (41501)	3%	10%
Clackamas + East Multnomah County (41502)	4%	14%
Washington County + far NW Multnomah (41503)	6%	21%

Source: *United States Bureau of the Census 2008b*
Note: Regional definitions are those of U.S. Census Bureau, for "Super PUMAs", or Public Use Micro-data Areas. See Figure 3.2, below, for a map of these regions.



Source: *United States Bureau of the Census 2008a*
Note: These are the regions used in Table 3.10.

Figure 3.1: Map of Census "Super PUMA" Regions in Oregon

3.4 EDUCATION AND SCHOOL ENROLLMENT

The Mexican-born population is much less educated than the non-Mexican born population, as seen in Table 3.11. However, Mexican-born children aged 6 to 15 are just as likely to be enrolled in school as are non-Mexican born children, though Mexican born enrollment rates decline at high school and college age, as shown in Table 3.12.

Table 3.11: Lifetime educational attainment by age, Mexican-born and Non-Mexican born Resident in Oregon, Ages 16+, 2005-2007

Educational attainment	Mexican born					
	Men			Women		
	16-18	19-24	25+	16-18	19-24	25+
None	0%	1%	6%	1%	2%	6%
Nursery to 4th grade	7%	3%	10%	0%	3%	9%
Grades 5 and 6	7%	23%	22%	4%	10%	23%
Grade 7 through some high school	69%	34%	26%	75%	30%	30%
High school grad	14%	25%	24%	12%	39%	20%
Some college	4%	13%	9%	8%	16%	9%
Bachelors or more	0%	1%	3%	0%	0%	3%
Total	3,219 (100%)	12,168 (100%)	65,402 (100%)	1,900 (100%)	6,487 (100%)	45,611 (100%)
	Non-Mexican born					
	Men			Women		
	16-18	19-24	25+	16-18	19-24	25+
None	0%	0%	0%	0%	0%	0%
Nursery to 4th grade	0%	0%	0%	0%	0%	0%
Grades 5 and 6	0%	0%	0%	0%	0%	0%
Grade 7 through some high school	80%	11%	9%	74%	9%	8%
High school grad	15%	37%	27%	17%	30%	28%
Some college	5%	44%	33%	9%	49%	35%
Bachelors or more	0%	7%	30%	0%	11%	28%
Total	75,488 (100%)	134,966 (100%)	1,153,410 (100%)	71,849 (100%)	132,450 (100%)	1,232,102 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.12: Current school enrollment by age, Mexican-born and Non-Mexican born Resident in Oregon, Ages 6+, 2005-2007

Age range enrolled in school	Mexican born		Non Mexican born	
	Men	Women	Men	Women
6-15	98%	98%	97%	97%
16-18	68%	85%	87%	90%
19-24	13%	14%	41%	44%
25+	4%	6%	5%	5%

Source: *United States Bureau of the Census 2008b*
Note: Percentages shown are the percentage of the population in each age group that is enrolled in school.

3.5 WORK AND EMPLOYMENT

As seen in Table 3.13, Mexican-born men are substantially more likely to be employed than are non-Mexican born men, related to the fact that relatively few Mexican-born, male Oregonians are of retirement age, receiving disability payments or attending college. Mexican-born women appear slightly less like to be employed than non-Mexican born women, indicating that working-age Mexican born women are less likely to be employed than other working-age Oregonian women.

Table 3.13: Current employment status, Mexican-born and Non-Mexican born Resident in Oregon, Ages 16 65, 2005-2007

Current employment status	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
Civilian, currently working	82%	50%	63%	53%
Civilian, with a job but not currently working	2%	3%	1%	2%
Unemployed	4%	6%	5%	4%
Working In the armed forces	0%	0%	0%	0%
Not in labor force	11%	42%	30%	42%
Total	80,789 (100%)	53,998 (100%)	1,363,864 (100%)	1,436,401 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.14: When Last Employed, Mexican-born and Non-Mexican born Resident in Oregon, Ages 16 65, 2005-2007

When last employed	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
Within 12 months	92%	63%	75%	64%
Between 1 and 5 years ago	3%	7%	7%	9%
Over 5 years ago or never	5%	30%	18%	28%
Total	80,789 (100%)	53,998 (100%)	1,363,864 (100%)	1,436,401 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.15: Usual Hours Worked per Week during Previous 12 months, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon, Ages 16+, 2005-2007

Range of usual hours worked	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
0-9	1%	4%	3%	6%
10-19	1%	7%	6%	13%
20-29	5%	15%	8%	14%
30-39	71%	65%	50%	50%
40-49	14%	6%	21%	12%
50-59	5%	2%	8%	4%
60-69	2%	1%	2%	1%
70-79	1%	0%	1%	0%
80-89	0%	0%	0%	0%
90+	0%	0%	0%	0%
Total	74,392 (100%)	33,969 (100%)	1,018,770 (100%)	912,858 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.16: Number of Weeks worked in Previous Year, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon, Ages 16+, 2005-2007

Number of weeks worked	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
1-9	3%	10%	5%	6%
10-19	3%	7%	5%	6%
20-29	8%	11%	6%	7%
30-39	5%	7%	5%	8%
40-53	81%	65%	79%	73%
Total	74,392 (100%)	33,969 (100%)	1,018,770 (100%)	912,858 (100%)

Source: *United States Bureau of the Census 2008b*

As shown in Table 3.17, the proportion of Mexican-born residents employed in the private sector is much higher than for other Oregonians, particularly for men. Presumably it's much more difficult for an undocumented person to obtain work in the public sector than in the private, and the preponderance of public sector employment requires a high level of education and strong English fluency.

Table 3.17: Employer characteristics, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon, Ages 16+, 2005-2007

Employment classification	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
Employed in a for-profit company	91%	83%	67%	60%
Employed in a nonprofit	2%	4%	5%	11%
Employed by local government	1%	3%	6%	9%
Employed by state government	1%	2%	4%	5%
Employed by federal government	0%	0%	2%	2%
Self employed in a non-incorporated business	3%	5%	10%	9%
Self-employed in an incorporated business	1%	1%	5%	2%
Working for a family enterprise but not getting paid	0%	0%	0%	1%
Unemployed	0%	1%	0%	1%
Total	76,688 (100%)	38,187 (100%)	1,121,275 (100%)	1,047,256 (100%)

Source: *United States Bureau of the Census 2008b*

3.6 TRANSPORTATION TO WORK

As mentioned above and shown in Table 3.18, the Mexican-born rely on cars and motorcycles as transportation to work at the same high rates as do other Oregonians. According to the data presented in Table 3.19, the Mexican-born have slightly longer but comparable commutes to work as do other Oregonians.

As seen in Table 3.20, the Mexican-born are somewhat more likely to carpool to work than are other Oregon residents.

Table 3.18: Means of transportation to work, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon, Ages 16+, 2005-2007

Means of transportation	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
Bicycle and walk	4%	5%	6%	5%
Car and motorcycle	86%	84%	84%	84%
Other	0%	1%	1%	1%
Public transportation	4%	8%	4%	5%
Work at home	6%	3%	5%	7%
Total	66,236 (100%)	26,760 (100%)	867,094 (100%)	756,426 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.19: One-Way Travel time to work, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon, Ages 16+, 2005-2007

Travel time (minutes)	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
0-9	10%	14%	17%	20%
10-19	30%	41%	32%	35%
20-29	21%	18%	21%	20%
30-39	22%	17%	15%	13%
40-49	8%	7%	8%	7%
50-59	1%	1%	1%	1%
60-69	5%	2%	3%	2%
70-79	0%	0%	1%	0%
80-89	0%	0%	0%	0%
90-99	2%	0%	1%	0%
100+	1%	0%	1%	1%
Total	62,270 (100%)	26,091 (100%)	825,345 (100%)	706,968 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.20: Vehicle occupancy patterns for journey to work, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon Who Travel to Work by Car, Ages 16+, 2005-2007

Number of persons per vehicle	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
1	67%	71%	87%	88%
2	21%	22%	11%	10%
3	8%	5%	1%	1%
4	4%	1%	0%	0%
5	1%	1%	0%	0%
6	0%	0%	0%	0%
7	0%	0%	0%	0%
8	0%	0%	0%	0%
9	0%	0%	0%	0%
10+	0%	0%	0%	0%
Total	56,916 (100%)	22,432 (100%)	728,083 (100%)	632,423 (100%)

Source: *United States Bureau of the Census 2008b*

3.7 DETAILED INDUSTRY AND OCCUPATION

The tables in this section demonstrate the industrial and occupational concentration of the Mexican-born discussed in other sections of this report.

Table 3.21: Distribution by Industry, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon, Ages 16+, 2005-2007

NAICS Code (2 digit)	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
11 Agriculture, forestry, fishing and hunting	24%	14%	4%	2%
21 Mining	0%	0%	0%	0%
22 Utilities	0%	0%	1%	0%
23 Construction	18%	1%	13%	2%
31 Manufacturing -- food processing and textiles	4%	11%	2%	1%
32 Manufacturing -- wood based products	6%	2%	5%	2%
33 Manufacturing – metals, high tech, machinery and other	7%	5%	9%	3%
3M Manufacturing not specified	1%	0%	0%	0%
42 Wholesale trade	5%	5%	4%	2%
44 Retail trade	4%	3%	9%	8%
45 Retail trade	1%	4%	3%	5%
48 Transportation and trucking	1%	0%	4%	1%
49 Warehousing and letter transportation	1%	1%	1%	1%
4M Retail – misc and unspecified	0%	0%	1%	1%
51 Information services and industries	0%	0%	2%	2%
52 Finance and insurance	0%	2%	3%	5%
53 Real estate	1%	1%	2%	3%
54 Professional, scientific and technical services	0%	1%	6%	6%
55 Management	0%	0%	0%	0%
56 Waste services and administrative services	9%	6%	5%	4%
61 Educational services	1%	3%	5%	11%
62 Health care and social assistance	1%	11%	5%	19%
71 Arts and entertainment	0%	1%	2%	2%
72 Accommodation and food services	11%	23%	5%	9%
81 Other services	3%	4%	4%	6%
92 Public administration/ government	0%	1%	5%	5%
99 Non-classifiable establishments	0%	1%	0%	1%
Total	76,688 (100%)	38,187 (100%)	1,121,275 (100%)	1,047,256 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.22a: Most Important 20 Detailed Industries of Employment, Mexican-born Members of the Labor Force in Oregon by Sex, Ages 16+, 2005-2007

Rank	Men		Women	
	NAICS	Percent of LF	NAICS	Percent of LF
1	23 Construction	18%	722Z Restaurants, etc	18%
2	111 Crop production	17%	111 Crop production	12%
3	722Z Restaurants etc	11%	3114 Fruit and vegetable processing	6%
4	56173 Landscaping	7%	5617Z Landscaping	4%
5	115 Agriculture support	5%	7211 Hotels, etc	4%
6	112 Animal production	3%	6244 Child care	3%
7	3211 Sawmills, etc	2%	4244 Wholesale groceries	3%
8	4244 Wholesale groceries	2%	6111 Elementary schools	3%
9	337 Furniture mfg.	2%	623M Residential medical care	2%
10	8111Z Automotive maintenance	2%	814 Private household service	2%
11	3114 Fruit and vegetable processing	1%	311M2 Seafood processing	2%
12	5617Z Construction support	1%	45211 Retail department stores	2%
13	334M2 Electronics mfg.	1%	9920 Unemployed for 5+ years	1%
14	3219ZM Misc. wood products mfg.	1%	4451 Retail grocery stores	1%
15	4249Z Wholesale agric. supplies	1%	622 Hospitals	1%
16	4411 Automobile dealerships	1%	334M2 (Electronics mfg.	1%
17	531 Real estate	1%	4249Z (Miscellaneous wholesale	1%
18	3MS Unspecified mfg.	1%	337 (Furniture manufacturing	1%
19	611M1 Colleges and universities	1%	8123 (Laundry services	1%
20	484 Truck transportation	1%	531 (Real estate	1%
Total		59,679 (78%)		27,293 (72%)

Source: *United States Bureau of the Census 2008b*

Note: The remaining 22 percent of Mexican-born men in the labor force and 28 percent of Mexican-born women in the labor force work in other industries, of which there are more than 1800 specified in the NAICS code.

Table 3.22b: Most Important 20 Detailed Industries of Employment, non-Mexican born Members of the Labor Force in Oregon by Sex, Ages 16+, 2005-2007

	Men		Women	
Rank	NAICS	Percent of LF	NAICS	Percent of LF
1	23 Construction	13%	6111 Elementary schools	8%
2	722Z Restaurants, etc	4%	722Z Restaurants, etc	7%
3	6111 Elementary and secondary schools	3%	622 Hospitals	5%
4	611M1 Colleges and universities	2%	611M1 Colleges and universities	3%
5	4451 Retail grocery stores	2%	45211 Retail department stores	2%
6	334M2 Electronic mfg.	2%	4451 Retail grocery stores	2%
7	484 Truck transportation	2%	6244 Child care	2%
8	92MP Public safety, administration of justice	2%	531 Real estate	2%
9	531 Real estate	2%	524 Insurance	2%
10	622 Hospitals	2%	23 Construction	2%
11	5413 Architectural services	1%	6211 Physician offices	2%
12	4411 Automobile dealerships	1%	52M1 Savings institutions	2%
13	111 Crop production	1%	623M Residential care facilities	2%
14	5415 Computer services	1%	6231 Nursing care facilities	2%
15	8111Z Automotive repair	1%	6241 Social work	1%
16	56173 Landscaping	1%	7211 Hotels, etc	1%
17	713Z Other amusement incl. gambling	1%	713Z Other amusement incl. gambling	1%
18	45211 Retail department stores	1%	92MP Public safety, administration of justice	1%
19	3211 Sawmills, etc	1%	812112 Beauty salons	1%
20	4441Z Retail building supplies	1%	814 Private household service	1%
Total		503,793 (45%)		525,772 (50%)

Source: *United States Bureau of the Census 2008b*

Note: The remaining 55 percent of non-Mexican born men in the labor force and 50 percent of non-Mexican born women in the labor force work in other industries, of which there are more than 1800 specified in the NAICS code.

Table 3.23: Distribution by Occupation, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon, Ages 16+, 2005-2007

	Mexican born		Non-Mexican born	
2 Digit SOC code	Men	Women	Men	Women
11 Management	3%	2%	10%	7%
13 Business and financial operations	0%	0%	3%	4%
15 Computer and mathematical	0%	0%	3%	1%
17 Architecture and engineering	1%	0%	3%	1%
19 Life, physical, and social science	0%	0%	1%	1%
21 Community and social services	0%	0%	1%	2%
23 Legal	0%	0%	1%	1%
25 Education, training, and library	0%	2%	3%	8%
27 Arts, design, entertainment, sports, and media	0%	0%	2%	2%
29 Healthcare practitioners and technical	0%	0%	2%	6%
31 Healthcare support	0%	2%	0%	4%
33 Protective service	0%	0%	3%	1%
35 Food preparation and serving related	10%	16%	4%	7%
37 Building and grounds cleaning and maintenance	12%	15%	4%	3%
39 Personal care and service	0%	6%	2%	7%
41 Sales and related	3%	8%	11%	13%
43 Office and administrative support	3%	7%	7%	23%
45 Farming, fishing, and forestry	22%	17%	2%	1%
47 Construction and extraction	18%	1%	11%	1%
49 Installation, maintenance, and repair	3%	0%	6%	0%
51 Production	13%	16%	9%	4%
53 Transportation and material moving	11%	5%	10%	2%
55 Military specific	0%	0%	0%	0%
99 Unemployed with no work experience	0%	1%	0%	1%
Total	76,688 (100%)	38,187 (100%)	1,121,275 (100%)	1,047,256 (100%)

Source: *United States Bureau of the Census 2008b*

Table 3.24a: Most Important 20 Detailed Occupations, Mexican-born Members of the Labor Force in Oregon by Sex, Ages 16+, 2005-2007

	Men		Women	
Ranking	SOC code and description	Percent of LF	SOC code and description	Percent of LF
1	4520XX Misc. agricultural	20%	4520XX Misc. agricultural	12%
2	373010 Grounds maintenance	7%	372012 Maids and housekeepers	8%
3	472061 Construction labor	5%	352010 Cooks	6%
4	352010 Cooks	5%	412010 Cashiers	5%
5	472031 Carpenters	5%	37201X Janitors	5%
6	537062 Material handlers	4%	5191XX Misc. production	4%
7	37201X Janitors	3%	452041 Agricultural graders and sorters	4%
8	5191XX Misc. production	3%	399011 Child care	4%
9	533030 Delivery and truck drivers	2%	537064 Hand packers and packagers	3%
10	512090 Misc. assemblers and fabricators	2%	352021 Food preparation	3%
11	472080 Drywall installers	2%	359021 Dishwashers	2%
12	472141 Painters	2%	519111 Packaging workers	2%
13	537051 Industrial truck operators	1%	411011 Retail supervisors	2%
14	537061 Vehicle cleaners	1%	353031 Waitresses	2%
15	435071 Shipping and receiving clerks	1%	399021 Personal and home care aides	2%
16	514XXX Misc. industrial metal workers	1%	999920 Unemployed 5+ years	1%
17	472181 Roofers	1%	537062 Material handlers	1%
18	359021 Dishwashers	1%	519061 Manufacturing sorters	1%
19	353031 Waiters	1%	512090 Misc. assemblers and fabricators	1%
20	352021 Food preparation	1%	511011 Production supervisors	1%
Total		53,526 (70%)		26,447 (69%)

Source: *United States Bureau of the Census 2008b*

Note: The remaining 30 percent of Mexican-born men in the labor force and 31 percent of Mexican-born women in the labor force work in other occupations, of which there are 820 in the SOC code.

Table 3.24b: Most Important 20 Detailed Occupations, non-Mexican born Members of the Labor Force in Oregon by Sex, Ages 16+, 2005-2007

	Men		Women	
Ranking	SOC code and description	Percent of LF	SOC code and description	Percent of LF
1	533030 Delivery and truck drivers	4%	436010 Secretaries and administrative assistants	5%
2	537062 Material handlers	3%	412010 Counter and rental clerks	3%
3	411011 Retail supervisors	2%	412031 Retail salespersons	3%
4	412031 Retail salespersons	2%	252020 Elementary and Middle School Teachers	3%
5	472031 Carpenters	2%	291111 Registered nurses	3%
6	37201X Janitors	2%	433031 Bookkeeping, accounting, and auditing clerks	3%
7	472061 Construction laborers	2%	434051 Payroll and timekeeping clerks	2%
8	1191XX Misc. managers	2%	353031 Waitresses	2%
9	414010 Sales representatives	2%	399011 Child care workers	2%
10	373010 Grounds maintenance workers	1%	411011 First-line supervisors/ managers of retail sales workers	2%
11	471011 Construction supervisors	1%	399021 Personal and home care aides	2%
12	352010 Cooks	1%	434171 Receptionists and information clerks	2%
13	119021 Construction managers	1%	311010 Nursing, psychiatric, and home health aides	2%
14	5191XX Misc. production workers	1%	259041 Teacher assistants	2%
15	435081 Stock clerks	1%	372012 Maids and housekeeping cleaners	2%
16	434051 Payroll clerks	1%	431011 First-line supervisors/ managers of office support workers	2%
17	412010 Cashiers	1%	439061 Office clerks, general	1%
18	411012 Non-retail sales supervisors	1%	132011 Accountants and auditors	1%
19	512090 Misc. assemblers and fabricators	1%	1191xx Miscellaneous managers	1%
20	252020 Elementary and middle school teachers	1%	352010 Cooks	1%
Total		381,193 (34%)		462,903 (44%)

Source: *United States Bureau of the Census 2008b*

Note: The remaining 66 percent of non-Mexican born men in the labor force and 56 percent of non-Mexican born women in the labor force work in other occupations, of which there are 820 in the SOC code.

3.8 INCOMES

As shown in Table 3.25, the Mexican-born are more clustered in lower wage categories than are most other Oregonians, though not in the very lowest categories, presumably related to the very low proportion of older people among the Mexican-born.

Table 3.25: Total wages, salaries, commissions, bonuses and tips in last 12 Months, Mexican-born and Non-Mexican born Members of the Labor Force in Oregon, Ages 16+, 2005-2007

Income (dollars) in last 12 months	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
0	4%	8%	10%	9%
1-4999	5%	15%	7%	11%
5000-9999	8%	17%	6%	9%
10000-14999	19%	22%	6%	10%
15000-19999	19%	18%	6%	9%
20000-24999	14%	10%	6%	9%
25000-29999	12%	4%	6%	8%
30000-34999	7%	3%	7%	8%
35000-39999	4%	1%	6%	5%
40000-44999	3%	1%	6%	5%
45000-49999	2%	0%	4%	3%
50000-54999	1%	0%	6%	3%
55000-59999	1%	0%	3%	2%
60000-64999	1%	0%	4%	2%
65000-69999	0%	0%	2%	1%
70000-74999	0%	0%	2%	1%
75000-79999	0%	0%	2%	1%
80000-84999	0%	0%	2%	1%
85000-89999	0%	0%	1%	1%
90000-94999	0%	0%	1%	1%
95000-99999	0%	0%	1%	0%
100000+	0%	0%	7%	2%
TOTAL	71,624 (100%)	31,446 (100%)	954,523 (100%)	838,291 (100%)

Source: *United States Bureau of the Census 2008b*

As shown in Table 3.26, self-employment does not appear to be much relied on by the Mexican-born in Oregon.

Table 3.26: Self Employment Income in last 12 months, Mexican-born and Non-Mexican born Resident in Oregon, Ages 16+, 2005-2007

Income (dollars) in last 12 months	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
0	96%	96%	90%	93%
1-4999	1%	2%	2%	3%
5000-9999	0%	1%	1%	1%
10000-14999	1%	0%	1%	1%
15000-19999	0%	0%	1%	0%
20000-24999	0%	0%	1%	0%
25000-29999	1%	0%	1%	0%
30000-34999	0%	0%	1%	0%
35000-39999	0%	0%	0%	0%
40000-44999	0%	0%	0%	0%
45000-49999	0%	0%	0%	0%
50000-54999	0%	0%	0%	0%
55000-59999	0%	0%	0%	0%
60000-64999	0%	0%	0%	0%
65000-69999	0%	0%	0%	0%
70000-74999	0%	0%	0%	0%
75000-79999	0%	0%	0%	0%
80000-84999	0%	0%	0%	0%
85000-89999	0%	0%	0%	0%
90000-94999	0%	0%	0%	0%
95000-99999	0%	0%	0%	0%
100000+	0%	0%	1%	0%
TOTAL	80,654 (100%)	53,998 (100%)	1,356,146 (100%)	1,430,416 (100%)

Source: United States Bureau of the Census 2008b

Very few Mexican-born residents of Oregon receive any form of public assistance, as seen in Table 3.27, on the next page, though the Mexican-born are clustered in the lowest several categories of income from all sources, as shown in Table 3.28.

Table 3.27: Public Assistance Income in the Previous 12 months, Mexican-born and Non-Mexican born Residents in Oregon, Ages 16+, 2005-2007

Income (dollars) in last 12 months	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
0	99%	97%	99%	98%
1-4999	1%	2%	1%	2%
5000-9999	0%	1%	0%	0%
10000-14999	0%	0%	0%	0%
15000+	0%	0%	0%	0%
Total	80,789 (100%)	53,998 (100%)	1,363,864 (100%)	1,436,401 (100%)

Source: *United States Bureau of the Census 2008b*
Note: The questionnaire reads "Any public assistance or welfare payments from the state or local welfare office?" Social security income is not included.

Table 3.28: Total Income from All Sources in the Previous 12 Months, Mexican-born and Non-Mexican born Residents in Oregon, Ages 16+, 2005-2007

Income (dollars) in last 12 months	Mexican born		Non-Mexican born	
	Men	Women	Men	Women
0	6%	32%	6%	12%
1-4999	6%	14%	8%	11%
5000-9999	9%	14%	7%	14%
10000-14999	18%	15%	8%	11%
15000-19999	18%	11%	7%	9%
20000-24999	14%	6%	7%	8%
25000-29999	11%	3%	7%	7%
30000-34999	7%	2%	7%	6%
35000-39999	4%	1%	6%	4%
40000-44999	2%	1%	6%	4%
45000-49999	2%	0%	4%	3%
50000-54999	2%	0%	5%	2%
55000-59999	1%	0%	3%	2%
60000-64999	1%	0%	3%	2%
65000-69999	0%	0%	2%	1%
70000-74999	0%	0%	2%	1%
75000-79999	0%	0%	2%	1%
80000-84999	0%	0%	1%	1%
85000-89999	0%	0%	1%	0%
90000-94999	0%	0%	1%	0%
95000-99999	0%	0%	1%	0%
100000+	0%	0%	7%	2%
TOTAL	80,789 (100%)	53,998 (100%)	1,361,834 (100%)	1,434,363 (100%)

Source: *United States Bureau of the Census 2008b*
Note: Including wages, public assistance, social security, retirement, investment, rental, and self-employment income.

4.0 INTERVIEWS WITH LATINO MIGRANTS

4.1 INTRODUCTION

This chapter presents the findings resulting from an interview study with nearly 400 Spanish-speaking migrants during the summer of 2009. According to recent estimates by Robert Warren, one of the premier demographers working to measure the flow of unauthorized immigrants to the U.S., 94.5% of unauthorized immigrants resident in Oregon were born in Mexico. Another 2.5% are estimated to come from Guatemala and El Salvador. Since these three countries represent the top three sources of undocumented migrants living in Oregon, and account for an estimated 97% of Oregon's undocumented population, we focused particularly on Latino immigrant networks with an emphasis on Mexicans for this interview study.

The DMV's Latino Task Group was extremely helpful with our efforts to interview Spanish-speaking migrants in Oregon. Mary King spoke with several members of the Task Group and their contacts, as well as the Mexican Consul, Enrique Romero Cuevas; consulate staff member for Community Affairs, Ursula Rojas Weiser; and Ramon Ramirez of PCUN and Francisco Lopez of CAUSA to improve our understanding of the kinds of issues that should be addressed in the interview questionnaire. The assistance of Task Group members was also invaluable in facilitating access to groups of people to interview.

In order to gain the confidence of migrants, and more accurate information, we worked with a Mexican research team, two faculty members and four graduate students from the Instituto Tecnológico de Oaxaca, who spent two weeks in Oregon between July 20th and August 4th interviewing nearly 400 people. We interviewed far more people than we had intended to during this period, in large part due to community response to the issue; many people are very concerned and hopeful of a change in policy.

Interviews were conducted in Spanish, lasting from 20 to 75 minutes, in venues including the waiting room of the Mexican Consulate in Portland and a "Mobile Consulate" held in Albany; a farm labor camp in Hillsboro; the Latino flea markets in Gresham; migrant housing programs in Portland, Hillsboro, Woodburn and Molalla; an educational program for Latinas in Forest Grove; the Day Labor Center in Portland; a church in Hood River; a library in Rockwood; a Spanish-language driver education course in Gresham; the Legal Aid Services Farm Worker Program in Woodburn; Blue Lake Park in Trout Lake and Woodburn's Fiesta Mexicana.

Although interviews were completed with 390 people, it's difficult to say how well their experience represents that of entire population of Spanish-speaking immigrants in the state. Warren has estimated that nearly 117,000 undocumented people born in Mexico, Guatemala and El Salvador were living in Oregon as of 2007, which represented 97 percent of the undocumented and 73 percent of the Mexicans, Guatemalans and El Salvadorans living in Oregon. That means that we interviewed about one quarter of one percent of the population of Mexican, Guatemalan and Salvadoran immigrants.

Interviews with such a small proportion of the population may be considered representative of the larger group if it is possible to select the interviewees through a random process. However, random selection cannot be accomplished with a population that is hidden in the way that people without documents are. Even our very best national survey, the decennial census, is assumed to significantly undercount people without legal status. Researchers assume a ten percent undercount, though census takers make a considerable effort to go door-to-door, following up on mailed surveys, and attempt to count people living in the street. Not only are many undocumented people likely to avoid surveyors, others move often, may not have a phone, may share quarters with a large number of people, and may not speak English, or even another widely used language such as Spanish.

The geographical distribution of the interviewees is less worrying, because 71 percent of the Mexican-born – who constitute nearly 95 percent of the undocumented – are estimated to live in the four census "Super PUMA" regions that constituted the bulk of our interview locations. These include Marion, Multnomah, Washington, Clackamas, Yamhill, and Polk Counties. We additionally interviewed people in Hood River, which also has a sizeable Latino community (see Chapter 3 for details).

While we interviewed a total of 390 people, not everyone answered every question, either because they declined to answer a question on the long interview guide, or because we did not include the question on a shorter interview form. We used two different interview guides of different lengths for different situations. Most of the interviews were conducted one-on-one, lasting as long as an hour and a quarter, using the long form. In other situations—in two visits to migrant housing, in the church in Hood River and the driver's education class in Gresham-- a group of people had gathered that was too large for us to be able to conduct individual interviews, and interviewees filled out shorter questionnaires with the assistance of the research team.

We believe that we have done the best job we could with the resources available, and are able to provide a revealing view of Latino immigrant experience in Oregon. However, the numbers we present below should be understood for what they are, the results of an intensive interview effort with a wide-ranging segment of the Latino immigrant population in networks and locations that include a high proportion of people without documents. While the findings are illuminating, they cannot be considered representative in a statistical sense.

4.2 INTERVIEW FINDINGS

4.2.1 Demographic Characteristics of Interviewees

4.2.1.1 Age and Sex

Of the total of 390 migrants interviewed, 57 % were men and 43% women. Fig. 4.1 shows the age structure of interviewees by sex. Both sexes are strongly concentrated in the prime working ages between 20 and 50.

The sample interviewed closely resembles the sex and age distribution of Oregon's Mexican population as captured in 2005-2007 American Community Survey data

reported in Chapter 3. In that study we noted that the best data available indicated that Oregon's population of Mexican-born was 60 percent male and 40 percent female, and two-thirds between the ages of 24 and 49, with another 20 to 25 percent in the combination of the other working age categories, 16 to 23 and 50 to 64.

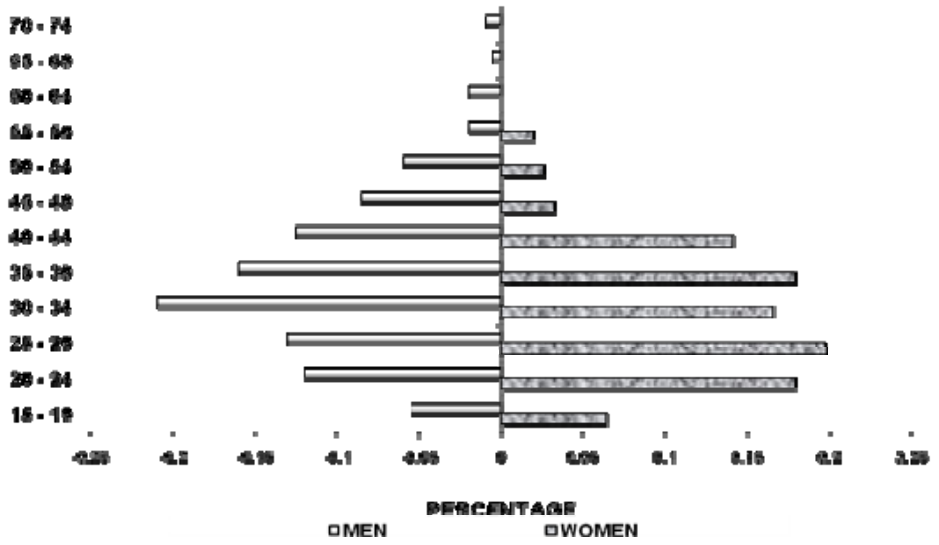


Figure 4.1 Age Structure of the Sample

4.2.1.2 Indigenous Ethnicity

A substantial number – 47 of 362 who answered, or 13 percent of our survey respondents – were members of indigenous Mexican ethnic groups as defined in the Mexican manner as native speakers of indigenous languages. Table 4.1, below, lists the languages spoken by interviewees. The four most important are found either in Oaxaca or Michoacán, both important sending states to Oregon. Another four people reported speaking other languages as well (French, Chinese, Russian, Portuguese and Japanese), reflecting the fact that some of the Mexican immigrant population – and our sample – are quite well educated.

Table 4.1. Languages Other than Spanish and English Spoken by Survey Respondents

LANGUAGE	FREQUENCY
Mixteco	16
Triqui	10
Puerpecha/Tarasco	7
Zapoteco	5
Maya	3
Huichol	1
Chatino	1
Nahuatl	1
Otomo	1
Quiane	1
Quiche	1
Amuzgo	1
Chinese, Russian and French	1
French	1
French and Portuguese	1
Japanese	1

4.2.1.3 Educational Background

Figure 4.2 depicts the educational background of the sample of people we interviewed, though only part of the sample was asked this question. On average, survey respondents had 8.4 years of formal schooling; men had slightly more education than women, averaging 8.6 years while women averaged 8.0. Speaking in averages obscures the fact that most people graduated, either from high school, middle school or elementary school, so that people's educational attainments are clustered at 6, 9 and 12 years of schooling. Nearly 30 percent of our interviewees had a high school education, and a few had a university education.

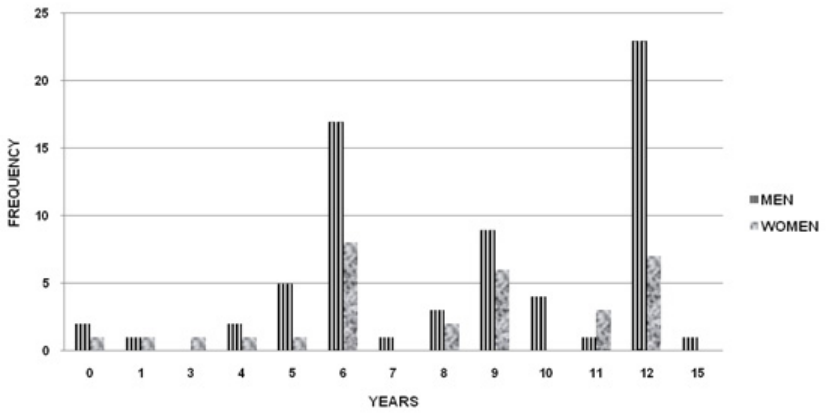


Figure 4.2: Education of Interviewees by Sex

The educational background of our sample is very close to the average educational attainment of the population in these age groups in Mexico currently. However it is somewhat less than the average reported for the Mexican population in Oregon as a whole in our Chapter 3. Since the figures in Chapter 3 probably over-represent the documented portion of the Mexican population in Oregon, it's likely that our sample is capturing a larger proportion of the undocumented, who appear in other studies to be less educated on average than Mexican residents in the U.S. with legal status.

4.2.1.4 Years of residence in the U.S.

The Latino migrants interviewed have been living in the U.S. from 1 to 45 years, averaging nearly 12 years, though again only part of the sample was asked this question. Although Mexican migration to Oregon has a long history, it has increased substantially in the past ten to 15 years. National research demonstrates that undocumented migrants as a group have not lived in the U.S. as long those with legal status, many of whom have been able to regularize their status over the years (e.g. *Hanson 2006*). However, while 71% of the sample of people we interviewed have lived in the U.S. less than 15 years, only 37 percent have lived in the country less than ten years, and only 10 percent less than five, as shown in Figure 4.3, below. Based on other investigations, it seems that a large proportion of Mexican migrants move to Oregon from other states, such as California or Texas, rather than directly to Oregon from Mexico.

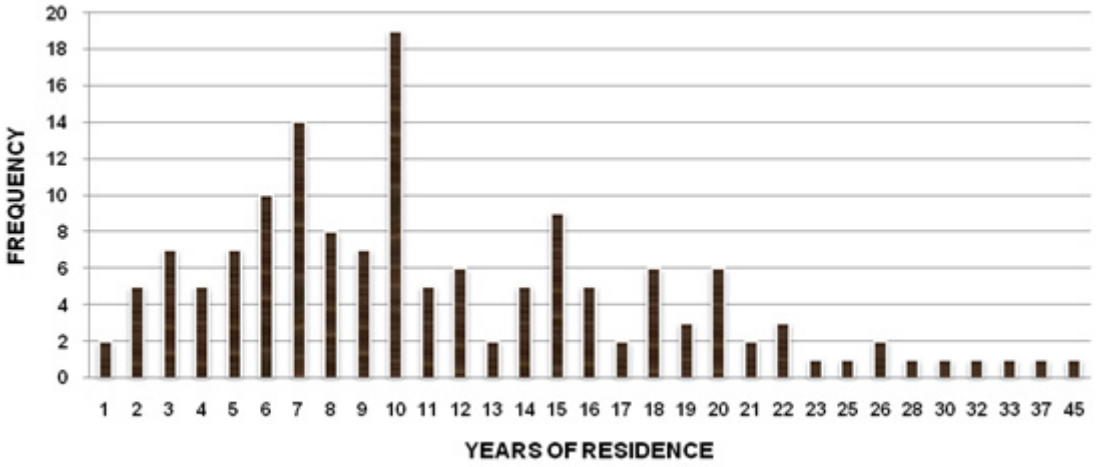


Figure 4.3: Years of Residence in the U.S., Reported by Interview Respondents

4.2.1.5 Year of arrival in the U.S. by Sex

Figure 4.4, below, shows the year of arrival in the U.S. of the sub-set of our sample of respondents asked this question, presented separately by sex. Studies at the national level tie Mexican migration to the U.S. closely to macroeconomic and labor market conditions in Mexico. Oregon has emerged as a later destination in the recent history of Mexican migration to the U.S., perhaps as labor markets in the more traditional receiving states, such as California and Texas, have been perceived to be "saturated." Recent research

indicates that migration to the U.S. as a whole from Mexico has slowed, as employment opportunities, particularly in construction, have been much reduced by the current recession (e.g. *Passell and Cohn 2010*).

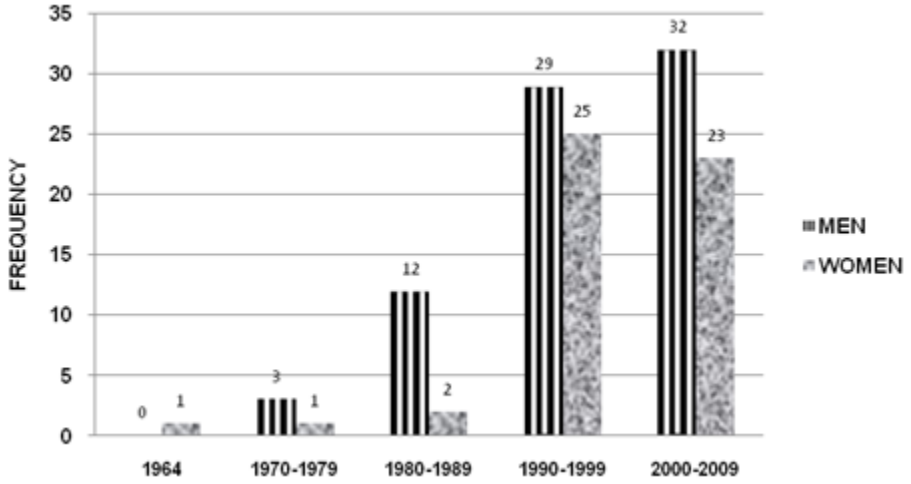


Figure 4.4: Year of Arrival by Sex

On the evidence of the experience of our sample, women have always been present in the migrant flow to Oregon, but have somewhat lagged men in arrival in larger numbers. Women appear to migrate later in the process than men, though not necessarily to join husbands and partners; increasingly women are coming to join fathers, brothers and cousins. Women's migration is thought to have been more affected than men's by the militarization of the border, and increased dangers of crossing without documents.

4.2.1.6 Occupation and Industry of Employment

The spectrum of occupations reported by survey respondents appears below in Table 4.2. When comparing this data with that in Chapter 3, representing all Mexicans in the state between 2005 and 2007, a few differences emerge. First, our respondents are more likely to be engaged in agricultural pursuits, and less likely to be employed in construction and hospitality industries than was the Mexican-born population as a whole as captured in Chapter 3.

Table 4.2: Reported occupations of Latino immigrants interviewed, by sector, 2009.

Sector	Occupation	Sample, n =382		Labor Force (%)	
		Frequency	Percentage	By activity, n= 315	By sector, n =325
	Unemployed	10	2.6		3.1
Not in the Labor Force	Housewife	41	10.7		
	Student	16	4.2		
	Not specified	5	1,3	1.6	1.5
Primary sector	Agricultural worker including nurseries and packing	100	26.2	31.7	33.5
	Gardener	9	2.4	2.9	
Secondary sector	Skilled and unskilled industrial workers	35	9.2	11.1	24.3
	Construction worker including housing remodeling	40	10.5	12.7	
	Making clothes	4	1	1.3	
Tertiary sector	Storekeeper or businessman	16	4.2	5.1	37.5
	Employee in a commercial and services business	33	8.6	10.5	
	Administrator or supervisor in a commercial or services business	4	1	1.3	
	Restaurant worker	13	3.4	4.1	
	Teacher and teacher assistant	10	2.6	3.2	
	Interpreter	1	0.3	0.3	
	Social worker	3	0.8	1	
	Driver and driver instructor	9	2.4	2.9	
	Cleanliness worker	20	5.2	6.3	
	Babysitter	1	0.3	0.3	
	Sales representative or peddler	4	1	1.3	
	Housing maintenance	8	2.1	2.5	
	Total	382	100	100,0	100

Presumably this difference is driven both by (1) a higher proportion of undocumented people among our sample than among the respondents to the American Community Survey and (2) the impact of the recession on construction employment particularly, but also on restaurant and hotel employment.

As reported in Chapter 3, the American Community Survey data shows seventy percent of Oregon's Mexican-born population concentrated in 10 specific occupations, of a possible 820 in the classification scheme. The top five for men were miscellaneous agricultural, grounds maintenance, construction labor, cooks and carpenters; the top five for women were miscellaneous agricultural, maids and housekeepers, cooks, cashiers and janitors. When considering industries, rather than occupations, 24 percent of men were found in agriculture, 18 percent in construction and 18 percent in manufacturing. By contrast 23 percent of women were employed in accommodation and food services, 18 percent in manufacturing, 14 percent in agriculture and 11 percent in health and social assistance.

The occupational classification of our sample is somewhat different, as it results from self-reporting and categorization by the Mexican research team, rather than by American social scientists. While agricultural workers are the single largest group, they are by no means the majority. Interestingly, several-just over 5 percent of the labor force — report owning a business, most often a restaurant or a grocery store, and one percent are self-employed.

4.2.2 Experience of the Sample with Driver's Licenses in Countries of Origin and U.S.

4.2.2.1 Driving and Driver's Licenses in Countries of Origin

Most of our respondents indicate that they did not possess a driver's license in their home country. Of the 96 people who were both asked and answered this question, only 31 percent reported that they had a driver's license in their country of origin. As shown in Figure 4.5, below, more men than women had driver's licenses at home, with 37 percent as compared to 18 percent.

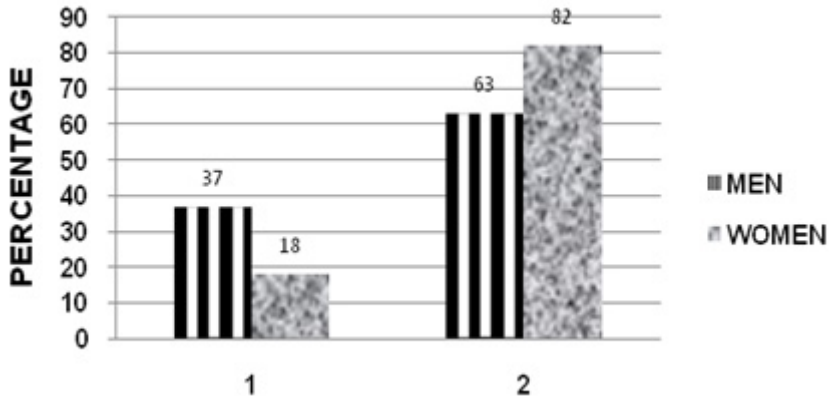


Figure 4.5: Did You Have a Driver's License in Your Home Country?

Several factors may be at work. A number of migrants may have come to this country at an age when they would not yet be eligible for a driver's license. Many more may not

have had access to a vehicle for economic reasons. Women are less likely to possess a driver's license in rural Mexico than is true in the U.S. Finally, it can be far more difficult to obtain a driver's license in rural Mexico than in rural areas in the U.S., due to the time it takes to travel to official agencies. It is far less automatic that people obtain a driver's license in migrant-sending nations than it is in the U.S.

This conclusion is reinforced by the relatively short period of time that respondents had driving experience in their countries of origin. As shown in Figure 4.6, two-thirds of respondents reported that they had fewer than five years of driving experience at home. Again, the relative youth of migrants surveyed, as well as the expense of vehicle ownership presumably account for these findings.

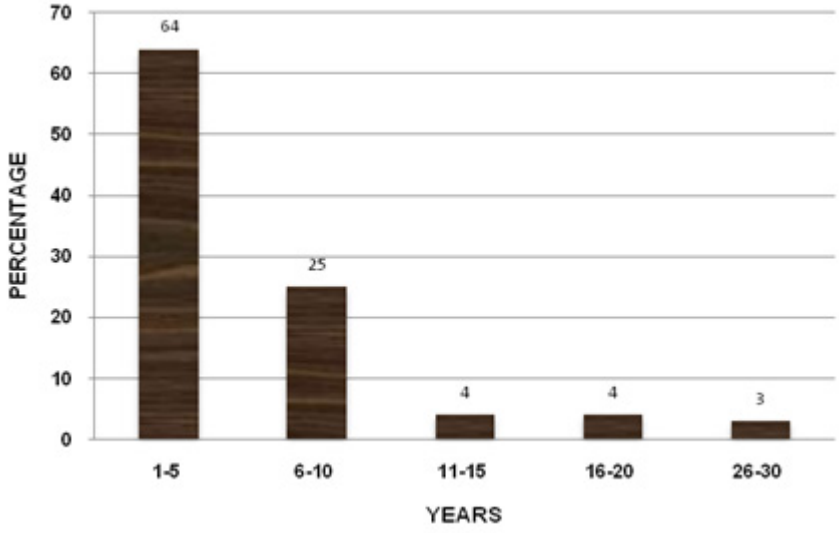


Figure 4.6: How Many Years Did You Drive in Your Home Country?

When asked explicitly if they had driven without holding a driver's license in their country of origin, 43% of men and 18% of women – of the 95 people who responded to this question—indicated that they had driven without a driver's license in their home country.

Probed further for the reasons that they had driven without a license at home, 13 people reported that they did so "by necessity," 11 people asserted that they did so because they didn't need a license to drive in their community due to a lack of enforcement of licensing laws in rural towns, 8 indicated that they were under-age when they drove, and 2 stated that they had driven only in emergency situations.

4.2.2.2 Driving and Driver's Licenses in the U.S.

Almost all of the survey respondents were asked and answered the question as to whether or not they held a U.S. driver's license. Sixty two percent of the 204 men answering this question indicated that they held a U.S. driver's license, as did 75 percent of the 135

women, as shown in Figure 4.7. Thirty percent of respondents indicated that they did not have a U.S. driver's license.

Of 220 people who reported the state that issued their current U.S. driver's license, 93% indicated that they hold an Oregon license, five percent a Washington license and three percent a California license.

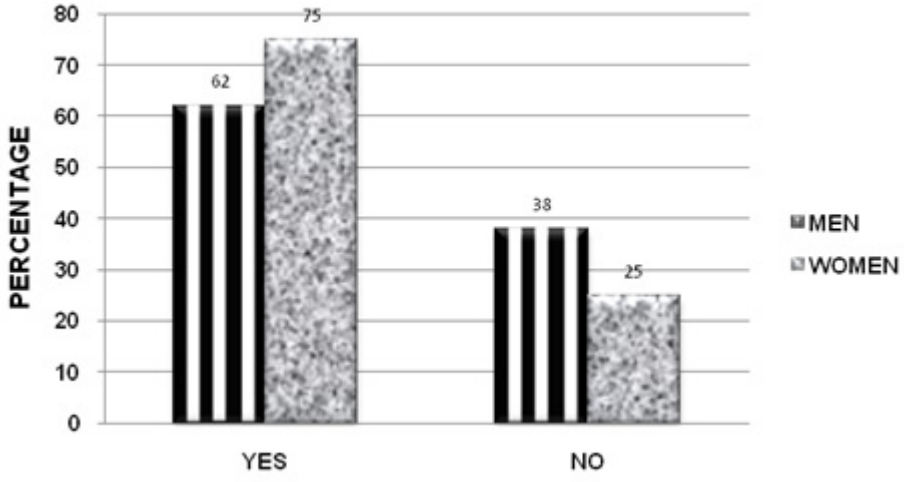


Figure 4.7: Do You Have A Driver's License

Legal status is by far the most common obstacle reported to obtaining an Oregon Driver's License. Of the people who offered reasons for not holding an Oregon driver's license, one-third said that lack of papers was the primary reason they had not obtained a U.S. license and another third reported that their licenses were overdue for renewal, but that they were unable to renew them, given the change in the law. Thirteen percent reported that they were too young to obtain a license; three percent said that they have a driver's permit; an additional 3% reported failing the driver's test; three percent indicated that their license was suspended; and nine percent cited "other reasons" for the fact that they do not have a current driver's license.

Of people who hold a U.S. driver's license, most obtained it within the past ten years. As shown in Figure 4.8, of the 55 people who answered a question about the exact year they first obtained a U.S. license question:

- 24% indicated that they first obtained their license during the years from 2006 to 2009;
- 42% during the period from 2001 to 2005;
- 19% between 1996 and 2000; and
- 15% between 1981 and 1995.

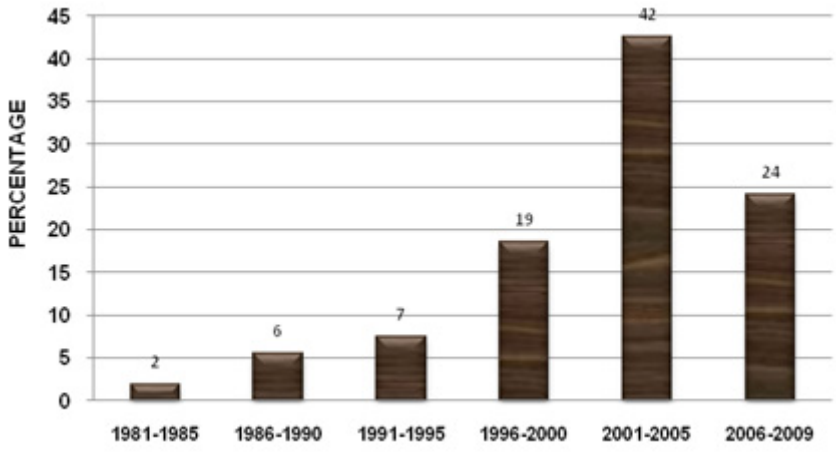


Figure 4.8: Year When Immigrants Obtained Their U.S. Driver's License

Although most people who answered this question indicated that they had first obtained a U.S. license relatively recently and the vast preponderance held an Oregon license, none had acquired an Oregon license in 2009, the first full year in which SB 1080 was in effect. As shown in Table 4.3 below, while 40 of the 54 people answering this question obtained their license in Oregon between 2000 and 2008, none had an Oregon license dating from 2009. The sole 2009 license holder had a Washington driver's license.

Table 4.3: Year that U.S. License Holders First Obtained a License, by State

YEAR	OREGON	WASHINGTON	CALIFORNIA
1981	0	0	1
1987	1	0	0
1989	1	0	0
1990	0	0	0
1991	0	0	0
1992	0	0	0
1993	0	0	0
1994	1	0	0
1995	3	0	0
1996	1	0	1
1997	0	0	0
1998	0	0	0
1999	2	1	0
2000	5	0	0
2001	7	0	0
2002	3	0	0
2003	5	0	0
2004	4	1	0

Table 4.3 Continued: Year that U.S. License Holders First Obtained a License, by State

YEAR	OREGON	WASHINGTON	CALIFORNIA
2005	4	0	1
2006	1	0	0
2007	7	0	0
2008	4	0	0
2009	0	1	0

Very few respondents reported any difficulty obtaining their license. Of the 13 people who did report difficulty, nine said that their difficulty stemmed from lack of proper papers, while the other 4 reported failing the exam.

When asked if they thought that they would be able to obtain a driver's license when they first arrived in Oregon, 63% of the 90 who responded said that they thought it would be possible, while 37% thought that they would not be able to obtain a license. Those who thought it would be possible had been given to understand that the process was easy and quick, because the DMV asked for relatively little, whereas those who expected difficulties referred to the fact that they were unaware of the laws or that they did not have the papers needed.

Something of the perceptions of migrants about conditions in Oregon is revealed in the list of responses that interviewees offered most frequently to support their prior beliefs that it would be either relatively easy or relatively difficult to acquire a driver's license in Oregon, shown in Table 4.4. It has been reported elsewhere that immigrants viewed Oregon as a relatively friendly destination, in part because of the fact that they could obtain a driver's license.

Table 4.4: Did You Think You Could Get a Driver's License When You Arrived In Oregon?

Why did you think you would get it?	No.	Why did you think you would not get it?	No.
It was easy and quick to get it and they did not ask for many requirements	41	Did not have the correct papers	12
Had all the necessary papers	5	Did not know the Laws and they had changed	8
Just had to pass the exam	3	Did not know that they were going to use it	4
Did not know the Laws	3	Do not have a car	3
Because it was necessary to have one	2	Did not know anything about driver's licenses	2
Because he/she is an American resident	2	It was suspended	1
		Just arrived in the States	1

4.2.2.3 Demographics Characteristics of Driver's License Holders

Of the 321 people who answered detailed demographic questions, just over two-thirds held driver's licenses. We imagined that it might be more likely that men would hold a driver's license than women, given traditional gender roles and driving patterns in Mexico, but women in our sample were at least as likely as men to have a driver's license, as shown in Table 4.5 below. What's more, younger women hold a driver's license in higher proportions than do younger men. It may be that young men are more likely to be among the first members of their families and networks to migrate to the U.S. while younger women may be joining family members who are more established in the States, so that young women's behavior reflects the habits of a more settled population.

Table 4.5: Age And Sex Distribution Of Oregon Driver's License Holders

AGE	Men		Women	
	YES	NO	YES	NO
15-19	2	7	2	4
20-24	7	15	20	4
25-29	14	11	24	3
30-34	29	10	17	7
35-39	19	11	17	6
40-44	21	4	14	4
45-49	10	5	3	1
50-54	7	4	2	1
55-59	2	2	1	0
60-64	3	1	0	0
65-69	1	0	0	0
70-74	0	2	2	2

Perhaps also surprisingly, educational background did not seem to be important in determining who holds a driver's license and who does not, at least as reflected in our sample. About half of the men at each level of education hold a driver's license. It does appear as though more highly educated women are less likely to have a driver's license than are less educated women, but their numbers are quite small and potentially unreliable.

Our assumption that people who have been in the U.S. longer are more likely to have a driver's license was borne out by the responses of men in the sample, as shown in Table 4.6 below. This may be due to the greater likelihood that they are integrating into U.S. society, or that it was easier to obtain a license in previous years. Again, women appear to be more likely to hold a driver's license earlier in their stay in the U.S. than men, echoing the finding that younger women were more likely to have a license than were younger men.

Table 4.6: Years Of Residence In The Us And Sex Of People Who Do And Do Not Have An Oregon's Driver's License

YEARS	Men		Women	
	YES	NO	YES	NO
1-4	2	7	3	2
5-9	12	11	16	2
10-14	8	5	13	6
15-19	18	1	5	1
20-24	9	1	2	0
25-29	1	1	1	0
35-39	1	0	0	0
45-49	0	0	1	0

The same phenomenon is clear when considered from the point of view of the year of arrival in the U.S, as seen in Table 4.7. There is a clear pattern of greater likelihood of holding a driver's license with an earlier arrival in the U.S. or with a longer period to regularize status and integrate into the community.

Table 4.7: Year Of Arrival In The U.S. And Sex Of People Who Do And Do Not Have An Oregon Drivers' License

YEAR	Men		Women	
	YES	NO	YES	NO
1964	0	0	1	0
1970-1979	2	1	1	0
1980-1989	11	1	2	0
1990-1999	23	6	18	7
2000-2009	14	18	19	4

As expected, people working in manufacturing, construction and agriculture have the lowest rates of driver's license possession, as do people who are unemployed or housewives, shown in Table 4.8. These occupations are often held by relatively new arrivals and undocumented people.

Table 4.8. Occupation And Sex Of Oregon Drivers' License Holders

SECTOR	OCCUPATION	Men		Women	
		Yes	No	Yes	No
	Unemployed	1	5	2	2
Not in the Labor Force	Housewife	0	0	21	10
	Student	1	1	4	2
Primary Sector	Agricultural worker including nurseries and packing	38	23	20	7
	Gardener	6	3	0	0
Secondary Sector	Manufacturing workers	15	14	5	0
	Construction worker including home remodeling	20	15	0	0
	Making clothes	0	0	2	0
Tertiary Sector	Storekeeper or businessman	8	1	6	1
	Employee in a commercial and services business	9	5	13	2
	Administrator or supervisor in a commercial or services business	0	0	2	1
	Restaurant worker	3	3	3	3
	Teacher and Teacher assistant	3	0	5	1
	Interpreter	0	1	0	0
	Social worker	1	0	2	0
	Driver and driver instructor	8	0	1	0
	Cleanliness worker	1	2	12	4
	Babysitter	0	0	1	0
	Sales representative or peddler	2	0	1	1
	Housing maintenance	7	1	0	0

4.2.3 Knowledge of and Reaction to the Legislative Change

Nearly every one of the 57 people who answered the question "**Has it become more difficult to get a driver's license and an ID?**," said yes: all 15 female respondents and all but two men.

Of this group, nearly half (45%) indicated that they had learned that it has become more difficult to obtain a driver's license or state ID from the media. Eighteen percent learned from family members or friends, and 16% said that they found out from the DMV when applying for a license or ID card. The rest reported that they learned about the policy change from a combination of sources.

One hundred and five people responded to a question that asked their opinion of why the legislation had changed. Of these, nearly half thought that it was a discriminatory response to the growing Latino and undocumented population in the state. Several of these respondents went further to say that "Americans think that denying an ID or a driver's license will help to stop illegal immigrants and return them to their home country."

Just over a quarter of respondents to this question did not know why the law had changed in this way. Twelve percent considered the new law a security measure; ten percent offered the rationale that it was a response to immigrants' failure to respect driving laws. Two people felt that it was a reaction to people obtaining driver's licenses with false papers, while two more suggested that the policy was designed to thwart people coming from other states to obtain a driver's license.

Several people interviewed shared safety concerns resulting from people driving without a license. A typical remark was, "*The roads would be safer if everyone had a driver's license.*"

4.2.3.1 Non-Oregon Driver's Licenses and Driving without a License

Nearly two-thirds of the 383 people who answered the question "***Do you know someone who has a driver's license from Washington or another U.S. state, or is planning to get one?***," (135 men and 100 women), reported knowing someone who either had a Washington driver's license or was planning to get one, as seen in Figure 4.9.

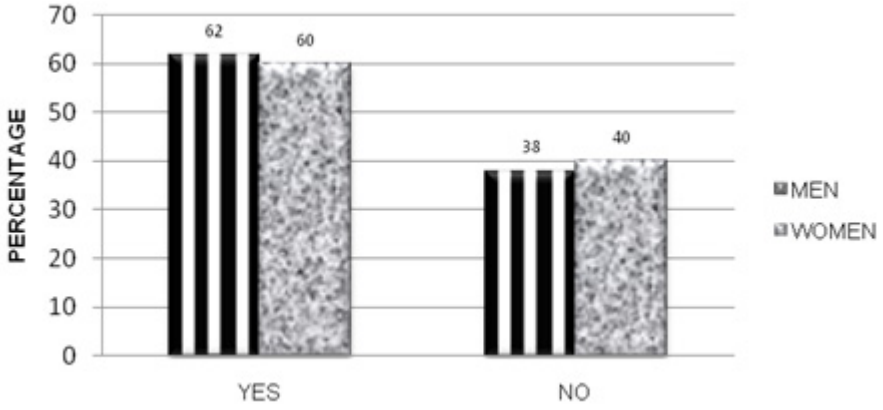


Figure 4.9: Do You Know Someone Who Has a Driver's License From Washington or Another U.S. State or Is Planning to Get One?

Of these 235 respondents, 91 people reported that they knew people who had obtained a license from Washington or another state by temporarily changing their residence, 73 reported knowing someone who had used another person's address to obtain a license from another state. Several people commented that they knew people who live in Washington who would help them to obtain the documents in order to apply for a Washington license.

People did not seem to be pursuing International Driver's Licenses in nearly the same numbers. Although they are widely advertised in Spanish-language media, community leaders are attempting to educate people about the limits of these documents. Only 17 % of 378 respondents said that they knew someone who normally drives in Oregon who has or is planning to obtain an International Driver's License. (More recent conversations

with staff from the Mexican Consulate indicate that more people may now be promoting and taking up International Driver's Licenses.)

However, more than three-quarters of 374 interviewees said that they know people who drive without a driver's license in Oregon, as shown in Figure 4.10 below.

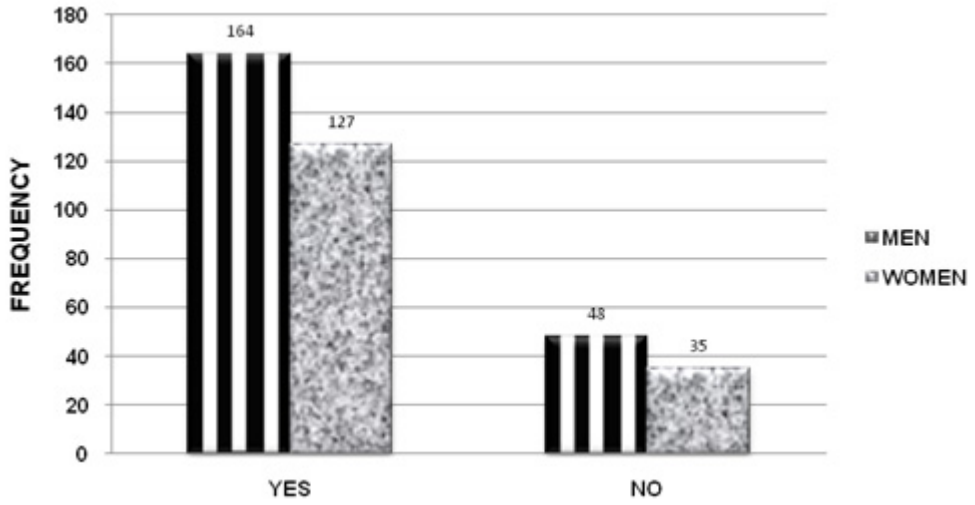


Figure 4.10: Do You Know People Who Drive Without a Driver's License in Oregon?

4.2.4 Changes in Driving and Insurance Behavior

According to a member of the DMV Latino Taskforce, the recent deportations of many undocumented immigrants whose family members sought assistance from Woodburn's Legal Aid Farmworker Program were initiated by a traffic stop for a perceived minor traffic violation. Although we were unable to find data for Oregon, the Department of Homeland Security's Annual Report on Immigration Enforcement Actions for 2009 indicates that at the national level traffic offenses are the second most common category of crime involved in the deportation of "criminal aliens." A recent New York Times article (Dec. 10, 2010), "Some Unlicensed Drivers Risk More than a Fine" described the deportation of thousands of undocumented immigrants who came to the attention of authorities as a result of accidents and traffic violations.

It is not clear whether passage of SB 1080 has increased the likelihood that Oregon police will stop or request identification of Latino immigrants, but it appears that many immigrants believe that to be the case.

Of the 382 people who answered the question, "***In the past 12 months, did you know someone who was traveling as a passenger in a car and the police asked him/her for an ID?***", 60% of men (130) and 58% women (95) answered yes.

What's more, of a total of 379 people, 59% of men (127) and 62% of women (102) stated that they know someone who has been arrested because he or she did not have identification when the car they were driving or in which they were traveling was pulled over by the police, as

shown in Figure 4.11. An attorney with Woodburn's Legal Aid Farmworker Program reports that she is unaware of passengers being arrested and ultimately deported, but that it may be happening. Police may ask for ID from passengers who don't have a legal obligation to produce ID but may respond in a way that leads to their detention for illegal immigration.

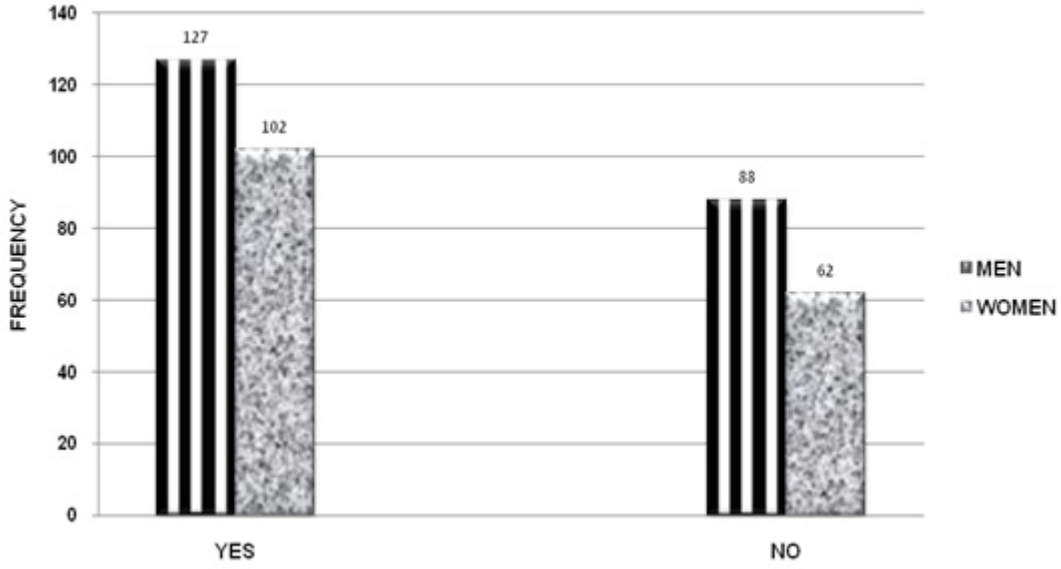


Figure 4.11: Knows Someone Arrested For Lack of ID at a Traffic Stop

Of a total of 368 people, 64% (134 men and 101 women) stated that when they drive they are worried because they could be pulled over by police, as shown in Figure 4.12. The remaining 36% (73 men and 60 women) said they did not share this concern.

Of a total of 348 people, 68% (145 men and 93 women) stated that they take particular actions to avoid being pulled over by the police while driving or traveling in a car. Of the 214 who indicated which actions they take, 104 said that they do not speed when they drive, 64 said that they respect all traffic laws, 30 reported that they are driving less, 13 said that they take back roads and three stated that they pursue several of these strategies.

When the interviewees were asked if they think that the police pulled over more Mexicans and Latinos in general compared to people from other countries, 84% of 372 respondents said yes, as seen in Figure 4.13. Typical comments were that

"When police arrest drunken Mexicans, they do not receive good treatment, police take them to jail and then they got deported."

"People, who are arrested and do not understand what the papers say in English, signed everything given to them without realizing that those papers are their voluntary departure."

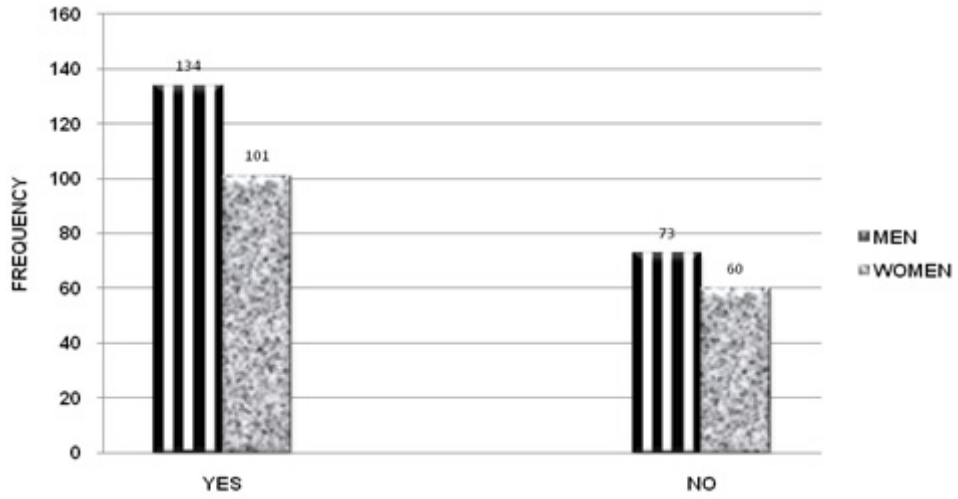


Figure 4.12: Are You Worries Because You Could Be Pulled Over By The Police When You Are Driving?

One individual who had run a stop sign received a ticket with a $510 fine because he did not have a driver's license, but said that the police who pulled him over were very kind and he could see that they were just doing their job; he realized that not all the police are racists toward Latinos.

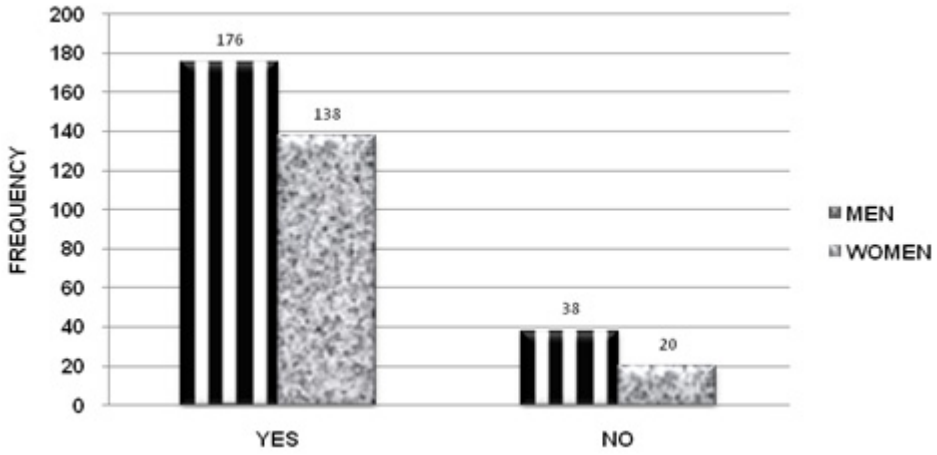


Figure 4.13: Do You Feel That the Police Pull Over More Latinos Than People From Other Countries?

People commented that:

"Even if some people from other races are undocumented, the police do not pull them over, mainly because some are white, but Latinos are easily recognized and unfortunately they are more likely to be arrested".

"The American police pulled over Mexicans because they think we don't have driver's license, so they can get us out of the country."

Of a total of 325 people, 63% (134 men and 71 women) said that they have driven without driver's license in the United States, as shown in Figure 4.14. By far the most common explanation given was that it was a necessity, though a few stated that they had not had time to obtain a license.

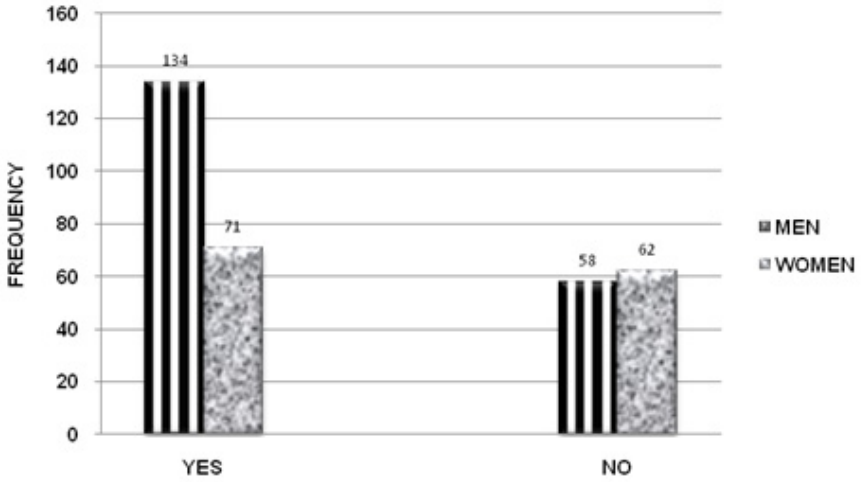


Figure 4.14: Have You Ever Driven Without a Driver's License in the United States?

Of 279 people who answered the question "Do you have auto insurance?, 89% (143 men and 104 women) claim to have car insurance, as seen in Figure 4.15. Of these, 104 answered the question "In whose name is your car insurance?", with 79% (48 men and 34 women) indicating that the car insurance was in their own name, while 21% (10 men and 12 women) stated that the car insurance was in another person's name.

Interestingly, 40 people reported having car insurance but no driver's license, while nine people told us that they had a driver's license but no car insurance. Two hundred five indicated that they have both a driver's license and car insurance.

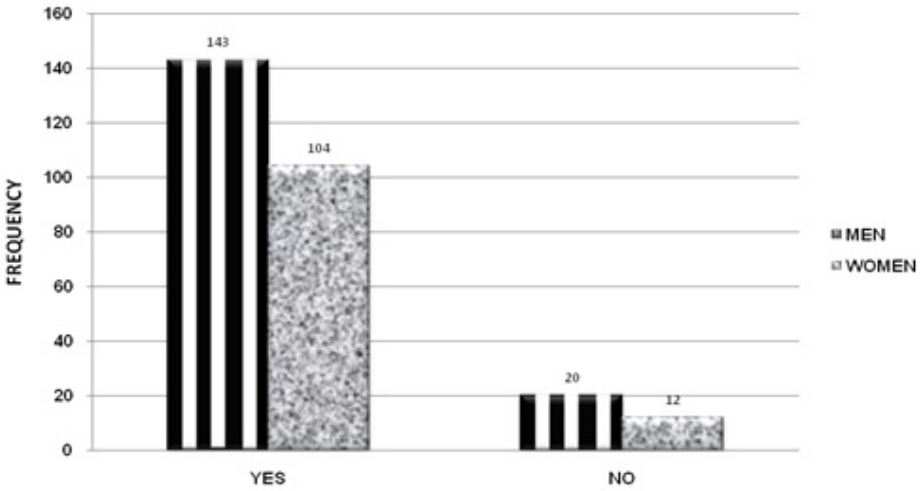


Figure 4.15: Do You Have Auto Insurance?

Of 279 people, 51% admitted that they had driven without car insurance in the U.S, including 97 men and 45 women, as seen in Figure 4.16.

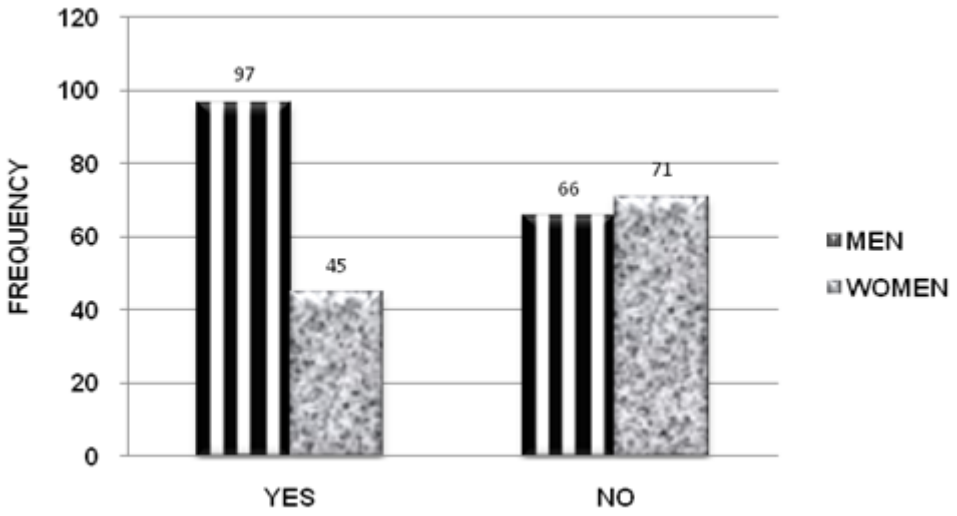


Figure 4.16: Have You Ever Driven Without Car Insurance in the United States?

4.2.5 Impact on Daily Life of Driving Changes

When asked about the impact of the new requirement for establishing legal presence in the state in order to obtain or renew an Oregon driver's license, two large themes emerged in the comments of interviewees. The first was that the new law has not and will not create a big change in behavior; it does not stop people from driving, working and carrying on with their lives. The second was that some people are reacting in smaller ways, adjusting their routines both as a result of increased fear of police attention and to reduce illegal driving. Some people are driving less or differently, relying more on family and friends for rides or using public transportation and staying home more.

4.2.5.1 Primary means of Transportation

Driving one's own car appears to be the primary means of transportation used by immigrants in our sample, both male and female, for all activities. Sixty five percent of respondents indicated that they use their own vehicle for most trips, while 14% rely primarily on public transportation, 12% depend mostly on rides, 8% walk to accomplish most of their daily activities and just 1% ride a bicycle.

These proportions hold roughly for both women and men, and for particular activities considered individually, as is shown in Tables 4.9A and 4.9B below. It appears that people use their own cars in higher proportions for children's activities and to take children to childcare, which may indicate that people with children are more established in the community, more likely to have legal status, and to be more prosperous. Likewise, the activities that have the highest proportions of people reporting walking to include going to church, the store, the laundromat and, for women, visiting family and friends.

Attending school is the activity with by far the highest proportion of people reporting that they depend on public transportation for access.

Table 4.9a: Means of Transport Most Used By Immigrants in Oregon, Men

Means of transport	Own car	Rides	Public transportation	By walking	By bicycle
Work	132	31	31	2	5
Store	127	26	18	26	3
Visit family and friends	113	14	29	7	0
Church	109	17	12	23	2
Recreational Activities	103	21	17	13	4
Children's activities	76	4	5	4	0
Laundromat	72	12	12	28	2
Childcare	53	4	5	1	
School	49	1	15	8	4
Other activities	53	9	10	3	1
Return to home country	40	5	50		0
Run errands	25	2	2	1	0

Table 4.9b: Means Of Transport Most Used By Immigrants In Oregon, Women

Means of transport	Own car	Rides	Public transportation	By walking	By bicycle
Work	75	22	16	5	0
Store	102	29	20	9	0
Visit family and friends	88	22	29	16	0
Church	93	20	14	15	0
Recreational Activities	82	24	10	9	0
Children's activities	71	12	8	7	0
Laundromat	57	11	6	15	0
Childcare	49	5	5	6	0
School	49	2	26	8	0
Other activities	42	9	6	0	1
Return to home country	34	2	29	0	0
Run errands	26	1	4	1	0

When asked if they could pursue their activities using public transportation, 61% of the 367 respondents to this question said that they could not, as shown in Figure 4.17. In a follow-up question about specific activities, 84% of the 199 people who answered indicated that they could not pursue any of their activities using public transportation and another 12% stated that they could not get to work on public transportation.

A small group reported on the problems with public transportation as an option, most often indicating that the schedule did not match their own, or that service is too infrequent. A few people mentioned that using public transportation was not safe because they could be asked for identification.

Thirty nine percent of people had indicated that they could carry on with their regular activities by public transportation. When pressed on particular activities, the vast majority of this group stated that they could get to work, go shopping, get to medical clinic, get to school, and participate in children's and recreational activities by public transportation.

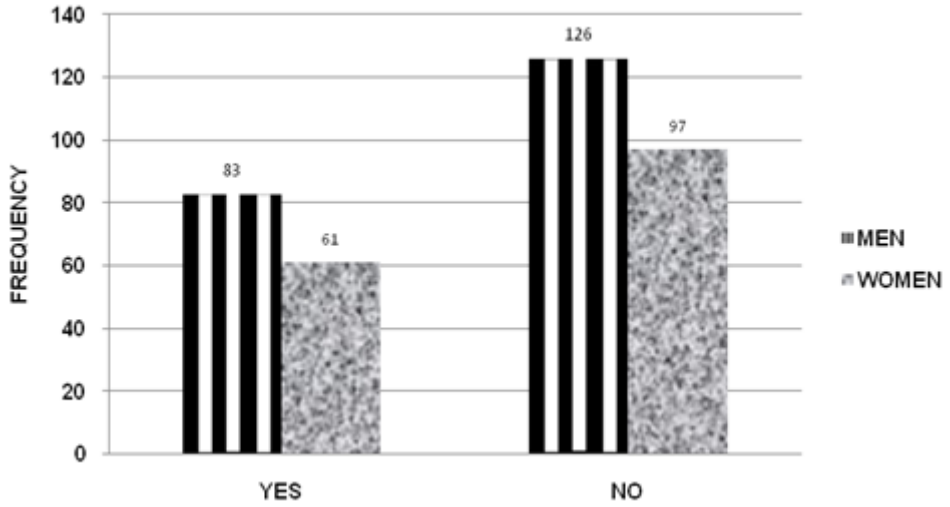


Figure 4.17: Could You Do Those Activities Using Public Transportation?

4.2.5.2 Depending on Others for Rides

Quite a few people rely on family members and friends for rides. Comments frequently heard on this topic included these themes:

"People do not have flexibility in their working hours because they don't have a driver's license, so they are dependent on a friend or relative's schedule; this is a problem that causes no increases in their working hours or a promotion and therefore they don't earn more money"

"People that don't have a driver's license are always looking for a ride and they become dependent on their friend's or family's time"

"People who have a driver's license fit their schedule in order to help people who don't have it"

Knowing that many families include both people with legal status and those without, we asked about whether or not family members had a driver's license. Of 208 respondents, 71% indicated that both they and another member of their family have driver's licenses,

as is shown in Figure 4.18. Twenty percent reported that they had a driver's license, but that their other family members did not. Eight percent stated that while they did not have a license someone else in their family did, and only one percent said that neither they nor any of their family members had a license.

Figure 4.18: Drivers' Licenses in the Family

Nearly 40 percent of the 72 people who answered the question, "Are there activities you would like to do that you do less due to transportation problems?" said yes, that there are activities they would like to perform and that they do less due to transportation problems. Of these people, men particularly indicated that they both visited family and friends less, and worked or searched for work less, while women were most likely to answer that they went out less with their children, as shown in Table 4.10. Others noted this behavior, saying that

"The people who don't have driver's license are afraid to go out and look for a job"

Table 4.10. Activities They Do Less Or They Have Stopped Doing

Activity	M	F
Shopping	4	2
Visit family and friends	6	0
Go out with children	2	9
Go to work or find a job	5	0
Have fun	4	0
Go to the adults' school	1	0

Only 26 people answered the question *"Would you have better opportunities in your current job if you could drive?"*, but of them all but two women said that their

opportunities would increase if they could drive. Of those who said that they would have better opportunities, the reasons cited were to go everywhere easily, to obtain a secure job, to increase their productivity and to earn a better income.

Twenty five of the 26 respondents who answered to the question *"Would you have better chances of getting another job if you could drive?,"* answered in the affirmative, as seen in Figure 4.19.

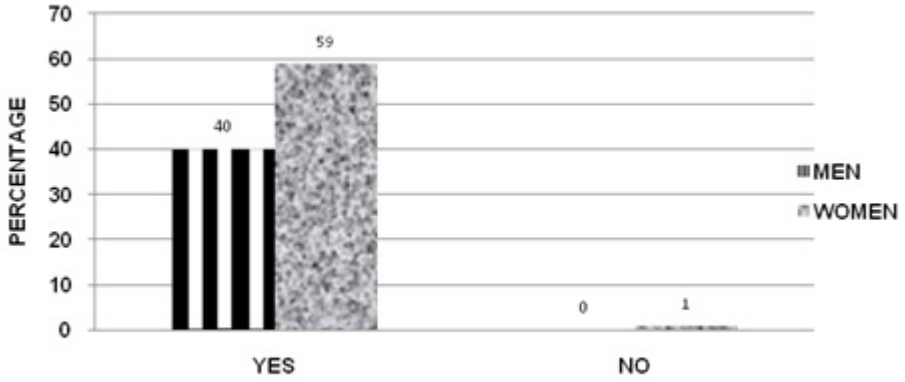


Figure 4.19: Would You Have Better Chances of Getting Another Job if You Could Drive?

Of 328 people who responded to the question *"When you go somewhere in a car, who drives?"*, 69% (141 men and 86 women) drive themselves, while the remaining 31% (51 men and 50 women) reported that someone else drives, as shown in Figure 4.20.

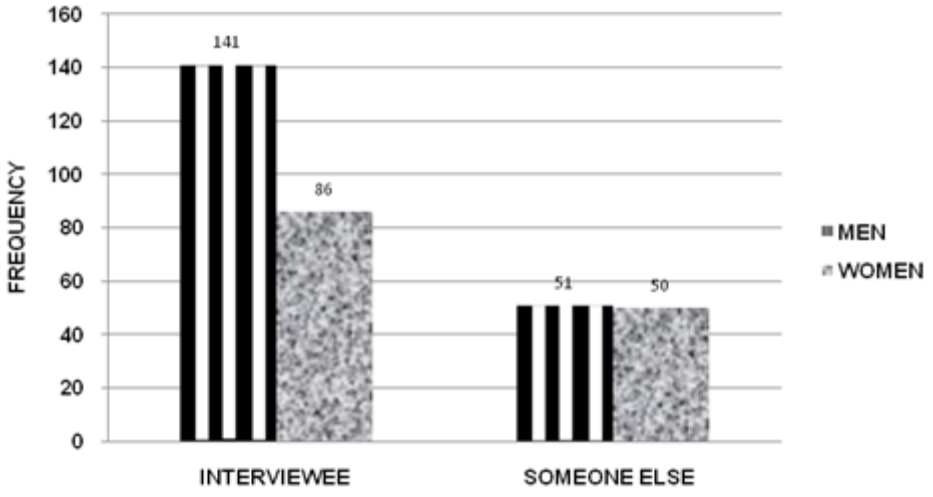


Figure 4.20: When You Go Somewhere in a Car, Who Drives?

Of 93 people who responded to the question *"If someone else drives, what would you do if that person could not drive?"* 43% (21 men and 19 women) would use public transportation, 34% (15 men and 17 women) would drive by themselves, 21% (9 men and 10 women) cancel the trip. Finally the remaining 2% (1 man and 1 woman) do not know what they would do in that situation.

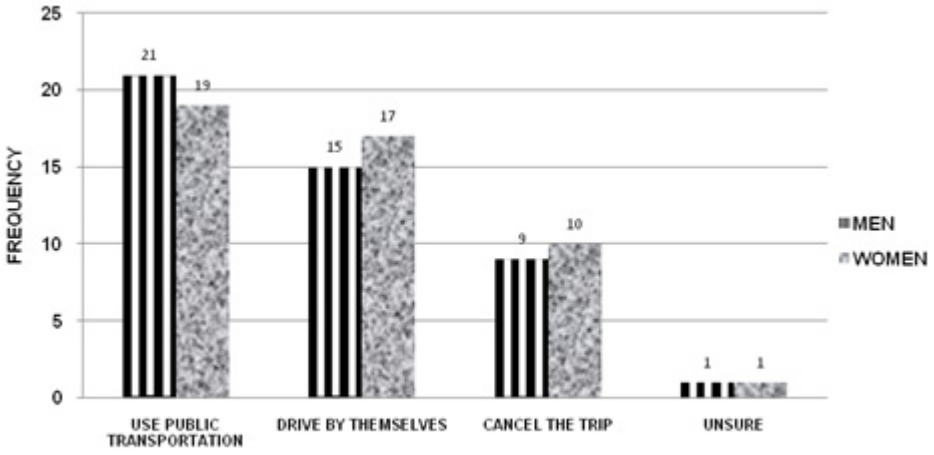


Figure 4.21: If Someone Else Drives, What Would You do if That Person Could Not Drive?

Of 276 respondents to the question "When you drive, do you normally give rides to other people?" 78% (131 men and 83 women) said yes. Of this group, 53% indicated that they gave rides to their spouses or partners, children and other family members, while 40% give rides regularly to friends and another 7% indicated that they give rides to neighbors and others, such as co-workers, as shown in Table 4.11.

Table 4.11: Immigrants Give Rides To

Person	M	F
Couple, children and other family members	68	45
Friends	52	33
Neighbors	11	5

The most common destination to which people provide rides for others is work. As shown in Figure 4.22 below, approximately one-fifth of people reported giving rides to go shopping or to a medical clinic, while 13% indicated that they give rides for recreational activities and 7% give people rides to school.

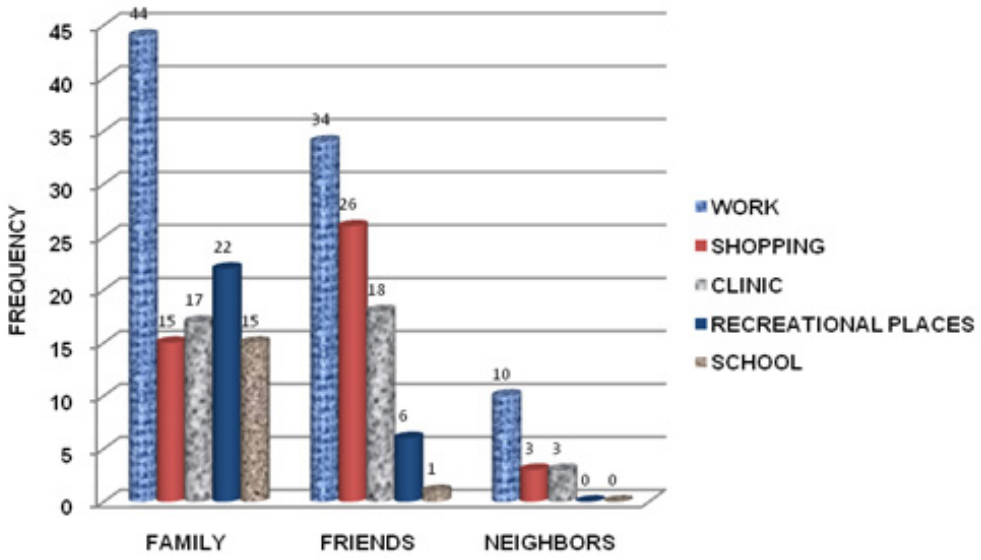


Figure 4.22: Pleaces Where Immigrants Go When They are Asked for Rides

When asked if they provide rides to anyone who is afraid to drive because they have no driver's license, 157, or 58%, of 271 people asked said yes. Forty four percent of 269 people asked indicated that they now spend more time giving rides to others than they had previously.

Only 23 people responded to the question: "While taking others in your car, do you think you are doing fewer activities than you used to do before [implementation of SB 1080]?"of these 74% (10 men and 7 women) said yes. Among the activities that the immigrants performed less frequently because they are providing more rides than prior to implementation of SB 1080 are spending time with their family (5), spending time doing household chores (3) and taking less time to go out to have fun (3). Also, they reported being late to work more often (3) and pursuing fewer recreational activities (2).

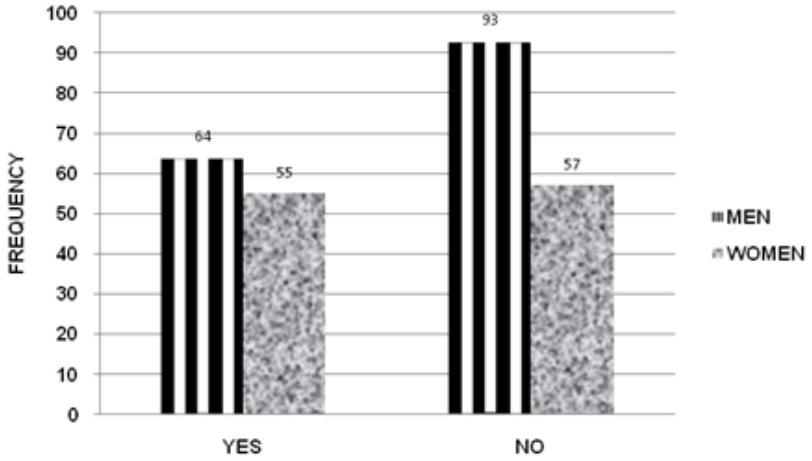


Figure 4.23: Do You Now Spend More Time Than Before Taking Other People in Your Car?

When asked if they knew someone who goes out less because he or she is nervous about driving without a driver's license, 72 percent of the 378 respondents said yes. When probed for specifics, interviewees mentioned that they knew people who were going less often to the doctor, school, to church, as well out for fun, to the store, to other cities, to party and to visit friends, as shown in Figure 4.24.

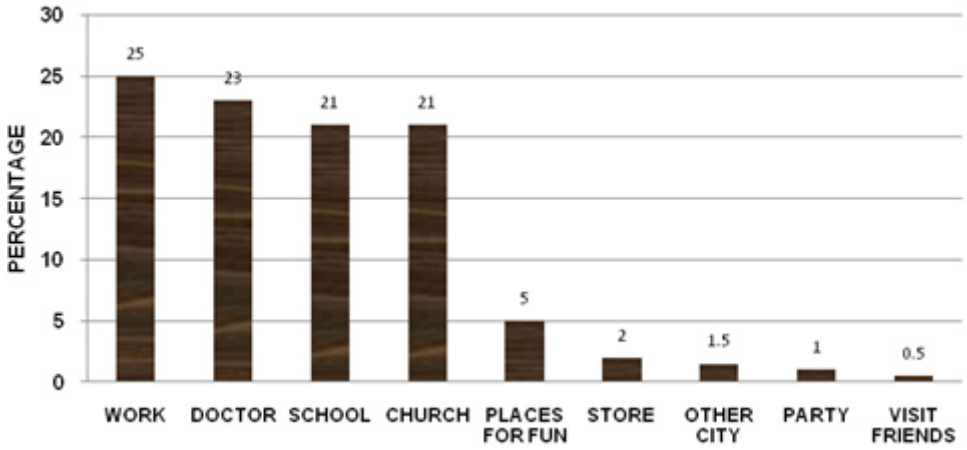


Figure 4.24: Destinations Visited Less Frequently

4.2.5.3 Driver's Licenses and Unemployment

Interviewing during the summer of 2009, we were quite aware that many of the people we spoke with were affected by the ongoing recession as well as potentially by the loss of the ability to apply for or renew an Oregon Driver's License or ID card. We asked many people about spells of unemployment, lower earnings and loss of hours. What emerged clearly is that people who did not have a driver's license fared worse in the labor market than those who did. However, it's also true that people without driver's licenses are generally more recent arrivals and would be expected to have a harder time, having fewer contacts and less information on average as well as being less established at work and perhaps less fluent in English.

Respondents without a driver's license were much more likely to have experienced a spell of unemployment in the prior year than driver's license holders, as is shown in Table 4.12.

Table 4.12: Were You Unemployed For Any Period Of Time During The Last Year?

	Number of Men		**Number of Women**	
	YES	**NO**	**YES**	**NO**
Have DL	54	59	42	36
No DL	45	24	16	7

It does not appear that holding a driver's license much affected the ease with which people found work in the last 12 months, as is shown in Table 4.13. A total of 280 people answered this question, but comparable proportions of license holders and non-license holders found it either easier, the same, or more difficult to find work in the past year.

Table 4.13: Has It Been Easier Or More Difficult To Find A Job In The Last 12 Months?

	Number of Men		Number of Women	
	Have DL	**No DL**	**Have DL**	**No DL**
Easier	9	2	7	2
Same	32	18	34	7
More Difficult	70	49	37	13

Two hundred seventy four people were asked specifically about the number of hours a week that they worked during the previous year, as compared to earlier. It appears that people with driver's licenses fared slightly better than those without, but not by much, as is shown in Table 4.14, below.

Table 4.14: Have You Have Worked Fewer Hours A Week In The Last 12 Months Than Previous Years?

	Number of Men		Number of Women	
	Have DL	**No DL**	**Have DL**	**No DL**
More Hours	5	2	6	0
Same	37	23	31	4
Fewer Hours	70	42	39	15

When asked about wages, it appears that driver's license holders fared relatively better in the last year, as compared with earlier years, than people without driver's licenses, as shown in Table 4.15.

Table 4.15: "Have You Earned Less Money Per Hour In The Past 12 Months Than In Previous Years?"

	Number of Men		Number of Women	
	Have DL	**No DL**	**Have DL**	**No DL**
More	12	5	7	0
Same	45	20	38	8
Less	55	42	31	11

4.2.5.4 Consumption Behavior

Of a total of 243 people who answered the question "***Do you think the new rules that ask for a different ID to obtain a driver's license have affected your shopping?***", 57% said no, as seen in Figure 4.25.

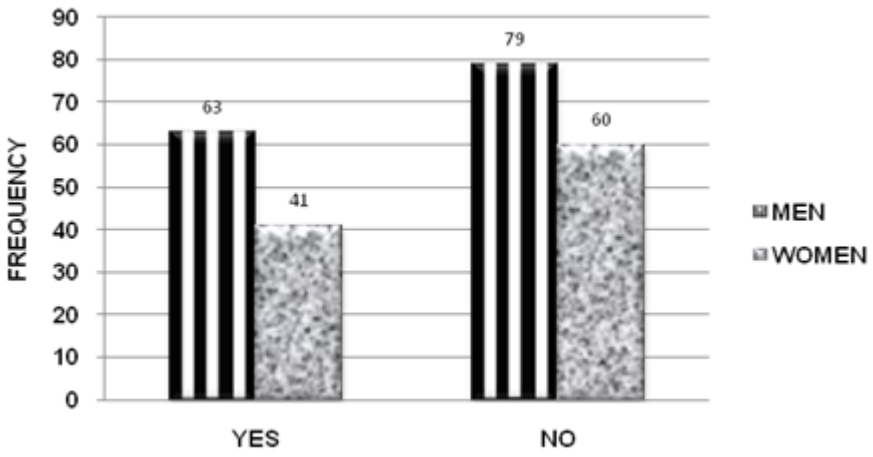


Figure 4.25: Have You Changed Your Shopping Habbits?

Of the 104 people who felt that their purchases have been affected by the change in the law, 95 offered more details on the things they could not buy or problems they faced in making purchases, presented in Table 4.16. Most reported problems making purchases in general, perhaps related to a lack of transportation. Some respondents mentioned that when they ask for a ride to go shopping, they buy more than usual, to avoid constantly asking for a ride. As one person said, *"There are people who go shopping every fifteen days, so they do not to ask for rides very often"*.

Several mentioned an inability to buy a house, car, cell phone, cigarettes or alcohol, as well as difficulty getting credit, which are probably less related to a lack of transportation and more connected to a lack of identification.

Table 4.16: Problems Faced While Making Purchases

Problem	Men	Women
Do not make purchases in general	36	27
Cannot buy a house or a car	17	5
Cannot buy on credit	4	1
Cannot buy cigarettes or alcohol	2	1
Cannot buy appliances	1	1
Cannot get invoices	1	
Cannot buy a phone	1	

People who aren't directly affected have the perception that others are unable to buy cars, or are losing their cars.

"People have lost cars that they purchased because they have no driver's license, and they have been pulled over and they also have been arrested. At the time they want to get back their cars, as they are not in their own names and they have no driver's license, they lose them automatically."

> As well as difficulties making purchases, we thought it might be possible that people would purchase more of some consumer goods, perhaps compensating for an inability to go out as frequently. Of the 55 people that we asked this question, 6 men indicated that they had made purchases they might not have made if they had a driver's license. These included a television, a radio, a computer and appliances, as well as more groceries.

4.2.6 Impact on Daily Life due to ID issues

Of course, in the U.S., a driver's license is also the primary form of identification as well as the proof of having passed the driving exam. As a form of identification the driver's license is commonly used for:

- opening bank, utility or video store accounts;
- obtaining insurance, a mortgage, loan or credit card;
- enrolling children in school;
- joining a local library;
- flying domestically; and
- as proof of age, for the purchase of alcohol or cigarettes.

People who lack legal status in the U.S. may hold other forms of identification, though some are reported to abandon their identifying documents while crossing the border from Mexico. Mexican nationals, estimated to be the vast majority of undocumented people in Oregon, may obtain a passport or the *matricula consular* from the Mexican Consulate. The Mexican government has promoted the *matricula consular* quite actively in the past 10 years.

As was reported in Chapter 2:

> Vicente Fox assumed the Presidency of Mexico in 2000, committed to improving the situation of undocumented Mexicans in the U.S. by pushing for immigration reform. An interim step, according to his Foreign Minister, Jorge Castañeda (*2007, p. 143*) was "overhauling the Mexican Consular Identification Card, and handing it out on a massive scale to Mexican nationals in the United States." This effort was stepped up to provide undocumented Mexicans some form of identification in the aftermath of the 9/11 terrorist attacks.
>
> The process for obtaining a *matricula consular* was made more stringent, and the card itself is now very difficult to forge, according to staff in the Mexican Consulate in Portland. Currently, in order to obtain a *matricula consular*, an applicant must: (1) present proof of Mexican identity with a supporting document such as a birth certificate, a certificate of Mexican Nationality, etc.; (2) present proof of his/her identity with documents issued by Mexican or US authorities (e.g., passport, electoral ID, expired *matricula consular*, etc.); (3) present proof of residence within the consular district (e.g., water bill with applicant's name and address); and (4) pay an issuance fee of $26. Each

matricula consular includes an ID number and the name, address in Mexico, and photograph. All *matriculas consulares* are issued for a period of 5 years.

Of the 351 people answering the question, "Do you have ID?," only sixty percent indicated that they did, including 58 percent of the men and 64 percent of the women. It is not entirely clear from the responses whether or not people understood the question to include other forms of identification as well as U.S. driver's licenses or not.

Likewise, we do not appear to have been able to gather much systematic information about the use of the Oregon ID card, as opposed to the Oregon Driver's License, resulting perhaps from a lack of familiarity with the Oregon ID card on the part of our Mexican interviewing team, as well as study respondents. In follow-up interviewing on this point, we were told that by immigrants who have held the ID card that they use it much as they imagine an American who doesn't drive would use it: to enter a bar, to open a bank account, to rent an apartment, to apply for a job, or to buy something in Washington and avoid paying taxes. Several people mentioned that they thought it was better than nothing when they drove, and one reported that he showed it to a police officer after being pulled over, and was let off with a warning.

As shown in Table 4.17 below, the biggest group of interviewees uses U.S. ID as their principal identification for routine activities in Oregon. The *matricula consular* is also an important proof of identity.

Table 4.17. Activities Performed Using Different Identifications, Number Of People

Activity	Driver's license	Matricula Consular	Name and address	Name and SSN	Check	Car insurance
Open a bank account	119	44	2	4	0	0
Enroll children in school	66	12	3	1	1	0
Get medical attention	86	15	5	5	1	1
State stamps*	32	4	0	0	1	0
State aid*	21	5	0	1	0	0
State aid for children*	10	2	0	1	0	0
Other social service*	7	0	0	0	0	0
Hire electricity or gas in the house	79	13	3	1	0	0
Use the library	66	8	1	0	0	0
Get a credit card	18	2	0	0	0	0
Buy alcohol	25	2	0	0	0	0
Buy cigarettes	16	0	0	0	0	0
Other	20	2	0	0	0	0

*In the case of people who have legal status in the U.S. and are eligible, or whose children or other family members have legal status and are eligible.

Of 359 people who answered to the question "Do you have a *Matricula Consular*?", 67% (132 men and 109 women) indicated that they did, as seen in Figure 4.26.

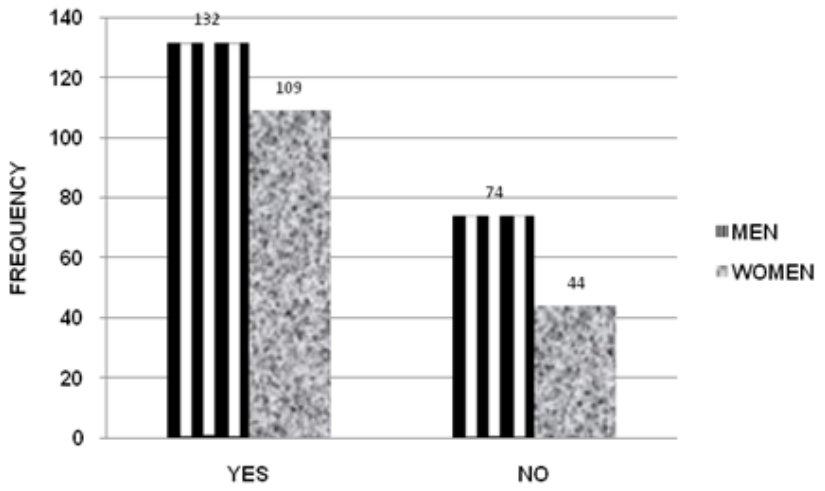


Figure 4.26: Do You Have a *Matricula Consular*?

Far fewer people, 39% of 350 respondents (73 men and 65 women) said that they hold a Mexican passport, as shown in Figure 4.27. Thirty percent of the 359 Mexicans interviewed reported that they have both a *matricula consular* and a Mexican passport. Both documents can be obtained at the Mexican Consulate in Portland, with proper supporting material. Passports are more expensive than *matriculas consulares*, but are now required for travel between the U.S. and Mexico.

When probed further about the reasons for obtaining the *matricula consular*, people indicated that the need for a primary form of identification was by far the most important motive. Both identification and potential travel to Mexico were important for people who hold a Mexican passport. The same concerns emerge from questions about particular occasions when each form of ID has been particularly useful, as well as the abilities to open bank accounts, cash checks and obtain a U.S. driver's license.

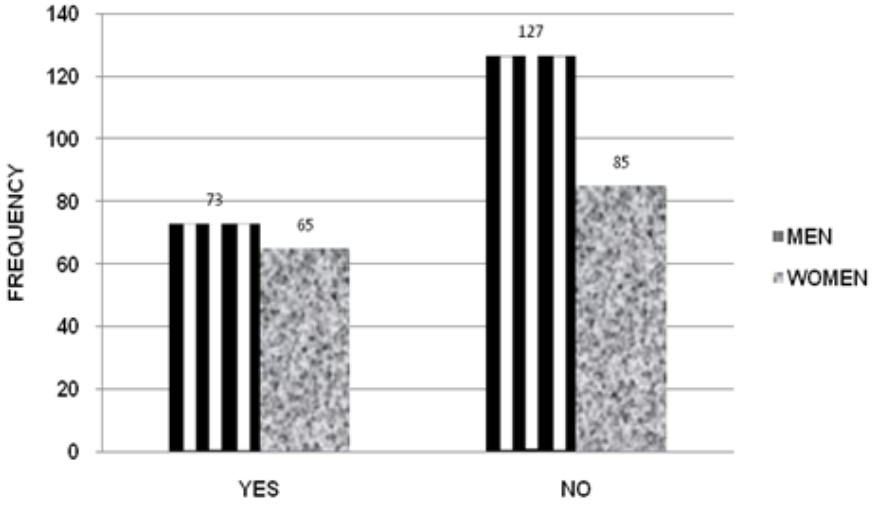


Figure 4.27: Do You Have a Mexican Passport?

Interviewees indicated a strong preference for any form of ID issued by a U.S. government agency, over either the *matricula consular* or a Mexican passport, as shown in Figure 4.28. The U.S. ID is easier to use in their daily lives, is more widely accepted, and is much less likely to expose them to ill treatment by people who assume that they are undocumented. A significant number of respondents also indicated that they did not have time to obtain the *matricula consular* or a Mexican passport, or that they did not have the documentation required. A few reported the perception that the staff of the Mexican consulate discriminates against indigenous Mexicans attempting to obtain a *matricula consular*.

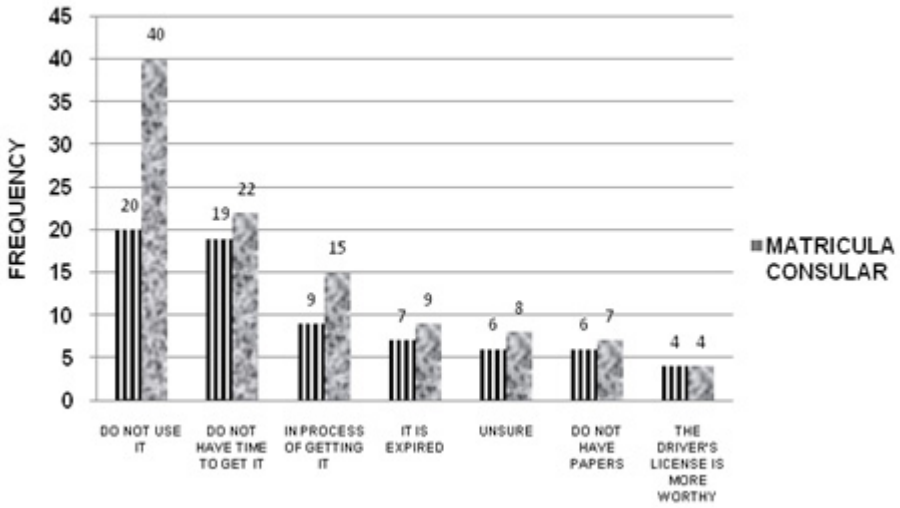


Figure 4.28: Why Has Your *Matricula Consular* or Passport Not Been Useful?

4.3 CONCLUSIONS

Although we were able to work with a Mexican research team questioning 390 people in Spanish in interviews lasting from 20 to 75 minutes, we cannot be sure that the experiences reported are representative of the entire population of Spanish-speaking migrants residing in Oregon. To be representative in the statistical sense would require that interviewees be selected by a random process from the entire population; that is clearly impossible for a group that is somewhat hidden as are people without legal status. Not only might people wish to avoid being noticed, many of lack a permanent address and telephone.

Nevertheless, we believe that the information we have gathered provides substantial insight into the experiences and reactions of the Latino immigrant population to the implementation of SB 1080 as of the summer of 2009. Although approximately two-thirds of the people with whom we spoke held driver's licenses and identification cards, we heard a great deal of fear expressed about:

- the reasons for the change in legislation;
- the way in which the new policy is being enforced;, and

- the likely impact on individuals and families of losing the ability to drive legally and engage in other activities that require U.S. identification.

Clearly, people are driving less and engaging in fewer activities. They are also finding it increasingly necessary to provide transportation for family members and friends who might otherwise be more independent. They are living with greater uncertainty about their ability to negotiate providing for themselves and others in the future. A large proportion of interviewees expressed the opinion that the policy is discriminatory, and driven by the desire to reduce the number of Latinos and immigrants in Oregon.

Some migrants are finding ways to work around the new restrictions on Oregon driver's licenses and ID cards. Some are strategizing to acquire a driver's license from the state of Washington, some are obtaining an International Driver's License (despite its limited value), and others are driving without a license and/or car insurance. Many respondents expressed the concern that the roads are less safe as a result.

At this point it is hard to distinguish the impact of SB 1080 from the effects of the deep and ongoing recession. It does appear that the inability to obtain a driver's license is having some limiting effect on labor market outcomes, as well as people's purchases, whether due to the need for U.S. identification or the lack of the convenience of a car.

Further, many people still have a valid license or ID card who will not be able to renew them in the future. It's likely that the impact of SB 1080 will grow over time, and emerge more clearly as the economy begins to recover.

5.0 ECONOMIC ANALYSIS

5.1 INTRODUCTION

This report presents estimates of the economic impacts of the implementation of SB 1080, based upon available statistical evidence and an original economic model developed for this analysis. Our report is organized into the following sections:

Portrait of the Undocumented Workforce: This section defines the "population of interest," an approximation of Oregon's undocumented workforce based upon characteristics available via the Census Bureau's American Community Survey (ACS) publicly available micro data. Using ACS data for 2005-7, 2008, and 2009, this section estimates the size and summarizes the characteristics of the undocumented population– including occupations and industries in which they represent a significant share of the labor force.

Evidence of Economics Impacts to Date: Continuing analysis of data from the ACS, we investigate whether the implementation of SB 1080 appears to have reduced the size of the undocumented workforce through the end of 2009.

Analytical Approach and Assumptions: This section describes our approach to modeling the future impact of SB 1080, once existing (pre-2008) driver's licenses have expired and assuming that the economy returns to full employment.

Results and Discussion: We describe our baseline scenario along with five additional scenarios designed to show the effects of varying our assumptions over a wide, but plausible, range of alternatives. For each scenario, we describe our model's results in terms of job losses, reductions in total output and income, changes in the employment of documented workers, and effects on wages.

Qualitative Impacts: In this section, we discuss the hard-to-quantify potential impact of SB 1080 on the makeup of the undocumented workforce.

Conclusion: The concluding section summarizes our results.

5.2 PORTRAIT OF THE POPULATION OF INTEREST

Oregon's immigrant population is immensely diverse – indeed, it is literally global. However, as discussed elsewhere in this study, the state's undocumented immigrant population is predominately (95% or more) Mexican-born, and therefore we focus exclusively on the undocumented Mexican-born population. It should be borne in mind that our estimates exclude impacts on the non-Mexican born and thus will tend to err on the side of conservatism.

In Chapter 4, we presented results of an original survey of Latino migrants, carried out during the summer of 2009. The survey design offered the opportunity to obtain rich, detailed "on-the-ground" observations of the Oregon's Latino migrant community. However, great care must be taken when generalizing the results of such a survey to the population as a whole. To complement the survey results, this section provides a quantitative portrait of the population of interest, derived from the American Community Survey (ACS), an annual survey performed by the U.S. Census Bureau. Some aspects of this portrait update results presented in Chapter 3, to incorporate newly available data and to focus particularly on the labor force.

To develop this portrait, we make use of data available from the Integrated Public Use Microdata Series (IPUMS) database at the University of Minnesota *(Ruggles et al 2010*). Microdata provide a statistical sampling of individual survey responses – anonymously, of course – making it possible for analysts to select and tabulate data as needed for the specific purpose at hand. To provide a view of recent trends (and to reduce the influence of sampling artifacts) we analyze data from three separate IPUMS samples: the 2005-7 sample, the 2008 sample and the 2009 sample. Patterns in the data are quite similar across the different years' samples, giving us reasonable confidence that our results are not unduly influenced by idiosyncrasies of any one year's survey methodology.

It should be borne in mind that the data under discussion here are self-reported responses to a government survey. Under-reporting is a known issue with such data, particularly with regard to undocumented immigrant groups. The data reported in this section are not adjusted for undercounting. When we turn to modeling the impact of SB 1080, we apply a blanket "under-count correction factor" calibrated to align the scale of the undocumented workforce more closely with estimates appearing in Jaeger (*2008)* and Passel and Cohn (*2011*).

With these caveats in mind, we turn to our definition of the population of interest. As discussed above, we confine our discussion to the Mexican-born population. Since we are primarily interested in labor supply, we further restrict the population of interest to potential labor force participants – individuals aged sixteen and over. Finally, since we are concerned with the undocumented population, we exclude those born to American parents and naturalized citizens. Unfortunately, Census data do not distinguish between non-citizen legal residents and the undocumented, so our statistics include both authorized and unauthorized immigrants.

Table 5.1 shows the population (age 16 and over), workforce, and employment for the population of interest and the State of Oregon as a whole, by sex, for each of the IPUMS samples. Over the entire period, the Mexican-born population has consistently made up approximately 5% of Oregon's labor force and 5% of its employment[1]. In 2005-7, the Mexican-born totaled about 116,000 out of Oregon's 2.8 million residents (age 16 and over), and held about 83,000 of Oregon's 1.8 million jobs.

Mexican-born men have higher labor force participation than average (89% - 91%, versus 73% - 75%), while female labor force participation is close to comparable to the statewide average

[1] As mentioned above, these figures are unadjusted for under-reporting. The actual share is likely somewhat higher, perhaps in the neighborhood of six percent. See the Results section, below, for a discussion of alternative correction factors.

(57% - 61%, versus 60%-62%). Prior to 2009, the official unemployment rate for Mexican-born men was lower than the overall male unemployment rate, at 5% as compared with 7%, but in 2009 this pattern shifted, as the unemployment rate for Mexican-born men rose to 14%, compared with 13% for all Oregonian men. The unemployment rate for Mexican-born women has consistently been three to four points higher than the corresponding rate for all Oregon women, though the gap narrowed to two points in 2009.

Table 5.1: Population, Workforce, and Employment

	Male			Female			Total		
	2005-7	2008	2009	2005-7	2008	2009	2005-7	2008	2009
Mexican Born Non-Citizen Population									
Total Population	78,204	77,484	78,066	52,008	47,607	53,367	130,302	125,181	132,323
Adult Population	70,054	70,350	72,666	45,878	43,509	49,138	115,932	113,859	122,004
Work Force	62,414	64,198	64,265	26,036	26,388	29,137	88,450	90,586	93,402
Employment	59,222	61,037	55,539	23,534	23,477	25,727	82,756	84,514	81,263
LF Participation	89%	91%	88%	57%	61%	59%	76%	80%	77%
Unemployment	5%	5%	14%	10%	11%	12%	6%	7%	13%
All Oregon Population									
Total Population	1,821,802	1,884,739	1,896,620	1,857,696	1,905,321	1,929,037	3,689,498	3,790,060	3,825,657
Adult Population	1,375,498	1,417,703	1,424,739	1,445,147	1,483,859	1,506,144	2,820,645	2,901,562	2,930,883
Work Force	1,026,929	1,054,991	1,037,617	870,195	913,576	930,614	1,898,124	1,968,567	1,968,231
Employment	956,055	983,735	902,996	812,348	853,168	841,310	1,768,403	1,836,903	1,744,306
LF Participation	75%	71%	73%	60%	62%	62%	67%	68%	67%
Unemployment	7%	7%	10%	7%	7%	10%	7%	7%	11%
Mexican Born Non-Citizen Workforce Share							5%	5%	5%
Mexican Born Non-Citizen Employment Share							5%	5%	5%

Adult Population: Age 16 and up

Source: IPUMS/ACS

Table 5.2 shows the age distribution of Mexican-born adults in Oregon, again by sex and for all three IPUMS samples. Notably, the population of interest is heavily concentrated in the prime working years, ages 25-54. This group accounts for three-quarters of the Mexican-born, compared with a statewide average of just over half. At the same time, only 2% - 3% of the population of interest is age 65 or older, compared with 16% - 17% of all Oregonians. Teens, aged 16 – 19, make up something close to 6% of both Mexican-born and the Oregon population as a whole.

Table 5.2: Population by Age Group

Age Group	Male			Female			Total		
	2005-7	2008	2009	2005-7	2008	2009	2005-7	2008	2009
Mexican Born Non-Citizen Population									
Age 16-19	6%	4%	6%	5%	5%	9%	5%	5%	7%
Age 20-24	14%	10%	12%	11%	12%	11%	13%	11%	12%
Age 25-54	74%	78%	72%	78%	73%	74%	76%	76%	73%
Age 55-65	4%	5%	7%	3%	9%	4%	4%	7%	6%
Age 65+	2%	2%	3%	3%	1%	2%	2%	2%	3%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
All Oregon Population									
Age 16-19	7%	7%	7%	6%	6%	7%	7%	6%	7%
Age 20-24	9%	8%	9%	8%	8%	8%	8%	8%	9%
Age 25-54	55%	55%	53%	53%	52%	51%	54%	53%	52%
Age 55-65	15%	15%	16%	15%	16%	16%	15%	16%	16%
Age 65+	15%	15%	15%	18%	18%	18%	16%	17%	17%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: IPUMS/ACS

Table 5.3 shows the distribution of marital status, by age, of Oregon's Mexican-born population and the population as a whole. Overall, the rate of marriage in the population of interest is similar to--if slightly higher than-- that of the general population, but the likelihood of reporting a status of "Married, Spouse Absent" is higher among the Mexican-born, at 6% - 9%, as compared with 2%. This may represent individuals working in the United States while their families remain in their countries of origin. Rates of divorce or separation are lower than the Oregon average overall at 7% - 11% versus 14% - 15%, and this pattern holds true for all age groups over 24. The higher proportion of widows and widowers in the general Oregon population, as compared with the Mexican-born, at 6% versus 1% - 2%, appears to be an artifact of the different age distributions noted in Table 5.2.

Table 5.3: Marital Status

Age	Marital Status	Mexican Born Non-Citizens			All Oregon		
		2005-7	2008	2009	2005-7	2008	2009
Age 16+	Married, SP	45%	51%	48%	50%	50%	50%
	Married, SA	9%	9%	6%	2%	2%	2%
	Never Married	35%	32%	34%	27%	28%	28%
	Div/Sep	9%	7%	11%	15%	15%	14%
	Widowed	2%	2%	1%	6%	6%	6%
	All Statuses	100%	100%	100%	100%	100%	100%
Age 16-19	Married, SP	2%	3%	2%	1%	1%	1%
	Married, SA	0%	0%	0%	1%	0%	0%
	Never Married	98%	97%	98%	99%	99%	99%
	Div/Sep	0%	0%	0%	0%	0%	0%
	Widowed	0%	0%	0%	0%	0%	0%
	All Statuses	100%	100%	100%	100%	100%	100%
Age 20-24	Married, SP	22%	27%	28%	15%	12%	10%
	Married, SA	6%	6%	4%	2%	1%	1%
	Never Married	68%	64%	63%	81%	85%	85%
	Div/Sep	3%	2%	5%	2%	2%	3%
	Widowed	0%	0%	0%	0%	0%	0%
	All Statuses	100%	100%	100%	100%	100%	100%
Age 25-54	Married, SP	52%	57%	54%	57%	55%	56%
	Married, SA	9%	9%	7%	2%	2%	2%
	Never Married	27%	26%	26%	23%	24%	25%
	Div/Sep	11%	7%	13%	17%	17%	16%
	Widowed	1%	1%	0%	1%	1%	1%
	All Statuses	100%	100%	100%	100%	100%	100%
Age 55-64	Married, SP	58%	47%	74%	65%	65%	67%
	Married, SA	17%	18%	8%	2%	2%	2%
	Never Married	5%	13%	4%	6%	7%	7%
	Div/Sep	11%	19%	9%	22%	22%	20%
	Widowed	9%	3%	5%	5%	5%	4%
	All Statuses	100%	100%	100%	100%	100%	100%
Age 64+	Married, SP	33%	72%	14%	54%	54%	54%
	Married, SA	27%	11%	17%	2%	2%	2%
	Never Married	5%	0%	20%	3%	3%	3%
	Div/Sep	10%	0%	12%	13%	13%	14%
	Widowed	25%	16%	37%	28%	28%	26%
	All Statuses	100%	100%	100%	100%	100%	100%

SP: Spouse Present
SA: Spouse Absent

Source: IPUMS/ACS

Turning to a characteristic of great importance for the subject of the present analysis, Table 5.4 shows the distribution of the primary mode of transportation to work. In this regard, the

population of interest is strikingly similar to Oregonians in general. Specifically, 81% - 82% rely on automobiles, trucks, vans or motorcycles to reach their workplace. There are minor differences--the Mexican-born are slightly more likely to use public transportation and slightly less likely to walk or bicycle to work--but, on this dimension, the population of interest is essentially indistinguishable from Oregonians as a whole. What cannot be discerned from the available data is whether there are differences in who does the driving – i.e. the degree to which the population of interest is more likely to rely on work-crew transportation arrangements or other alternatives that may not require the worker him- or herself to be a licensed driver. (For more detail on driving and ride-sharing arrangements, see the results of the interview study, Chapter 3.) What does appear clearly is that automotive transportation plays as large a role in the work-lives of the population of interest as it does for all Oregonians. It seems reasonable to infer that prohibiting the issuance of driver's licenses to the undocumented will complicate the employment situation and daily lives of the population of interest to some degree.

Table 5.4: Mode of Transportation to Work

Mode of Transportation	Mexican Born Non-Citizens			All Oregon		
	2005-7	2008	2009	2005-7	2008	2009
Auto, Truck, Van or Motorcycle	82%	81%	81%	82%	81%	81%
Public Transportation	4%	8%	5%	4%	4%	4%
Bycycle or Walked	5%	4%	4%	5%	6%	6%
Worked At Home	5%	2%	6%	5%	6%	6%
Other or N/A	4%	5%	4%	4%	3%	3%
Total	100%	100%	100%	100%	100%	100%

Public Transportation includes bus, streetcar, subway or elevated train, railroad train, and ferryboat.

Source: IPUMS/ACS

Table 5.5, however, reveals that the distribution of occupations among the Mexican-born differs substantially from that observed in the Oregon economy as a whole. The population of interest is highly concentrated in a few occupational categories, and, within those categories, constitutes a substantial fraction of total employment. In 2005-72, the Mexican-born population contributed 5% to Oregon's total employment, but held 49% of jobs in the Farming, Fishing & Forestry occupational category, 18% of Building Maintenance and Grounds-Keeping jobs, 11% of Food Preparation and Serving jobs, and 10% of Construction and Extraction jobs.

[2] We use the 2005-7 figures as the starting point for our impact modeling because it give us a benchmark for the structure of the Oregon economy when it is not in the midst of a recession.

Table 5.5: Distribution By Occupation (2005-7)

SOC	Occupational Category	Employment		
		MBNC	Total	Share
11	Management	1,626	166,538	1%
13	Business & Finance	129	69,966	0%
15	Computer & Mathematics	146	38,699	0%
17	Architecture & Engineering	254	37,873	1%
19	Sciences	0	18,489	0%
21	Social Services	261	30,554	1%
23	Legal	49	18,461	0%
25	Education	233	91,855	0%
27	Arts & Entertainment	215	38,224	1%
29	Healthcare Practice	141	76,571	0%
31	Healthcare Support	293	34,323	1%
33	Protective Service	115	29,710	0%
35	Food Preperation & Serving	10,931	96,351	11%
37	Building Maintenance & Grounds	12,299	66,879	18%
39	Personal Care	1,217	66,553	2%
41	Sales	3,048	201,337	2%
43	Office & Administration	3,235	251,920	1%
45	Farming, Fishing & Forestry	17,954	36,917	49%
47	Construction & Extraction	10,309	107,506	10%
49	Installation, Maint & Repair	1,473	56,586	3%
51	Production	11,219	123,574	9%
53	Transport	7,609	107,946	7%
98	Military	0	1,571	0%
	Total	**82,756**	**1,768,403**	**5%**

MBNC: Mexical Born Non-Citizen
Share: MBNC employment as percentage of Total in each occupation

Source: IPUMS/ACS

The Mexican-born population is also concentrated in certain industries. As Table 5.6 shows, almost 80% of the employed population of interest works in just twenty industries, defined at the level of 3-digit North American Industry Classification System (NAICS) code. In our benchmark period, 2005-7, 45% of the employment in Crop Production, 43% of the employment in Agriculture Support, and 20% of the employment in Food Manufacturing (e.g. canneries) was held by Oregon's Mexican-born population. Mexican immigrants also accounted for 9% of the employment in the Accommodation industry (i.e. hotels and motels) as well as 12% of employment in Food Service (i.e. restaurants and other dining establishments).

Table 5.6: Distribution by Industry (2005-7)

NAICS3	Industry	Employment		
		MBNC	Total	Share
111	Crop Production	12,610	27,866	45%
112	Animal Production	1,876	10,461	18%
115	Agricultural Support	3,400	7,928	43%
230	Construction	10,544	135,825	8%
311	Food Manufacturing	4,135	20,930	20%
312	Beverage & Tobacco Manufacturing	213	2,243	9%
313	Textile Mills	83	354	23%
314	Textile Product Mills	198	1,293	15%
315	Apparel Manufacturing	180	2,298	8%
321	Wood Product Manufacturing	3,074	33,076	9%
326	Plastics & Rubber	455	5,131	9%
327	Non-Metalic Mineral Manufacturing	550	6,096	9%
335	Electrical Equipment & Appliances	209	2,623	8%
337	Furnature & Related	1,487	8,817	17%
339	Misc Manufacturing	1,220	15,954	8%
424	Wholesale Non-Durable Goods	3,267	28,275	12%
493	Warehousing & Storage	285	3,221	9%
561	Admin & Support Services	7,850	65,988	12%
721	Accomodation	1,735	19,963	9%
722	Food Service	12,159	102,575	12%
Subtotal		65,530	500,917	13%
	Other Industries	17,226	1,267,486	1%
Total, All Industries		**82,756**	**1,768,403**	**5%**

MBNC: Mexical Born Non-Citizen
Share: MBNC employment as percentage of Total in each occupation

Source: IPUMS/ACS

This concentration, both by occupation and by industry, should be kept in mind when evaluating the economic impact of reducing the undocumented workforce. While the population of interest provides only 5% of the total workforce in Oregon, it constitutes a much higher share in particular industries and occupations. Any impacts due to SB 1080 will not be felt equally across the state's economy. Certain industries, and employers hiring for certain occupations, will shoulder a disproportionate share of the costs.

5.3 EVIDENCE OF ECONOMIC IMPACTS TO DATE

An important question to address is whether the implementation of SB 1080 has already had a measurable economic impact. Elsewhere in this report, results of interviews with both workers and employers are discussed, leading to the general conclusion that the impacts so far have been chiefly personal and social, with certain businesses facing the loss of key personnel but not widespread labor shortages. This section complements the survey results with quantitative data

drawn from the IPUMS/ACS micro data. Based on that data, we find no indication of significant economic impacts from SB 1080 through 2009, the latest year for which data are available.

Since we assume that the primary economic impact of SB 1080 will occur by way of a reduction in the size of the undocumented workforce, we focus on two key indicators of this effect, whether or not the Mexican-born population and workforce appear to have diminished in number, and whether or not there are signs of a tightening labor market for the undocumented, such as lower unemployment rates.

As was shown in Table 5.1, the adult population of interest in Oregon has actually grown since 2005-7, from about 116,000 to 122,000 in 2009, and the corresponding workforce has increased from about 88,000 to 93,000. At the same time, the unemployment rate among the population of interest has risen from 6% in 2005-7 to 13% in 2009. Based on the ACS data, we would estimate that there were approximately 12,000 Mexican-born residents of Oregon seeking employment who were unable to find it, due to the magnitude of the recession that continues to grip the state and the nation.

Therefore, we find no indication in the available statistical evidence that SB 1080 has yet reduced the undocumented workforce or led to a tightened labor market for the undocumented.

At the same time, there is evidence that SB 1080, along with the executive order that preceded it, has had a substantial impact on the number of drivers licenses issued to Spanish speakers – many of whom are likely to be members of the population of interest.

Figure 5.1 below shows the trend in the number of individuals passing the Spanish-language version of the General Knowledge test required for an Oregon driver's license. If we ignore the "spike" in December, 2007 and January, 2008 – presumably created by people concerned to evade the looming restrictions of SB 1080 – the count averaged 1,171 per month in 2007 and 106 per month in 2008 and 2009, a decrease of about 90%.

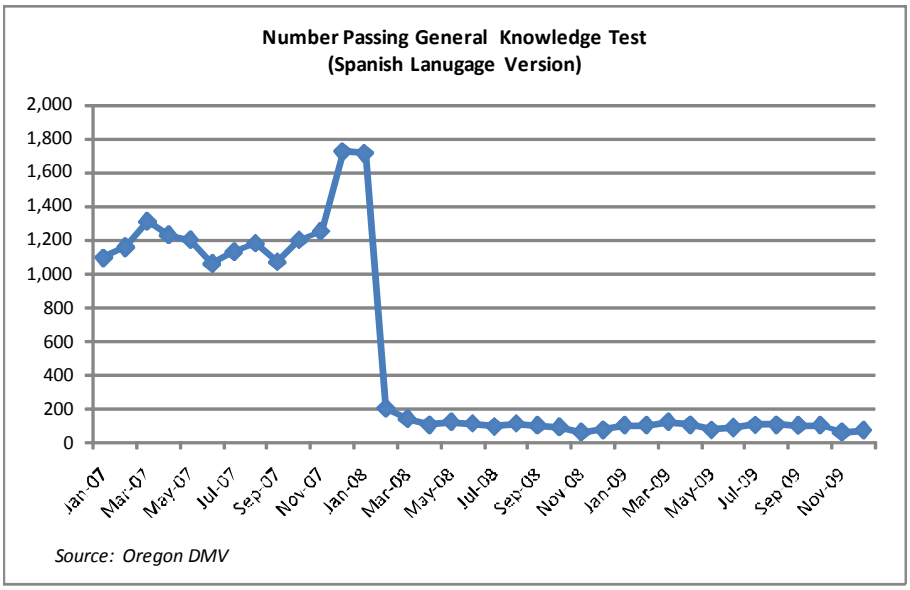


Figure 5.1: Number Passing General Knowledge Test

During the three-year period from 2007 through 2009, 18,751 individuals passed the Spanish-language test. Had comparable numbers of people continued to take the test as did prior to December 2007 average, the number of individuals passing the Spanish-language test would instead have been 42,156. Ignoring other factors that might prevent the issuance of a driver's license – such as failure to pass the behind-the-wheel drive test – these figures suggest that the policy change in February 2008 prevented the issuance of about 23,000 licenses over the following 23 months.

From the available data, it is difficult to determine what fraction of these "missing licenses" might represent individuals who remained in Oregon, regardless, and what fraction may have returned to other states, such as California, with stricter licensing requirements. These results do suggest that, absent SB 1080, the undocumented workforce in Oregon might have grown more than it has. However, the fact remains that the undocumented workforce is approximately as large as it has ever been, and the unemployment rate among the population of interest suggests that, so far, no labor shortage has arisen. Therefore, we conclude that the direct economic impacts of SB 1080 have yet to materialize.

5.4 ANALYTICAL APPROACH & ASSUMPTIONS

5.4.1 Basic Framework

The key assumption underlying our analysis is that, in the long run, the implementation of SB 1080 will have the effect of reducing the size of the undocumented workforce in the state, and that this "labor supply shock" will be the primary driver of the economic impacts. We employ a simplified labor supply-and-demand framework to estimate the likely responses of employers and the remaining Oregon labor force to this reduction in the labor force and then the consequences for employment, wages and output in the state.

The fundamental idea underlying this approach can be illustrated with a classic supply-and-demand "scissor diagram" (see below). The diagram shows the relationship between wages, the supply of labor (i.e. the willingness of individuals to participate in the workforce and the number of hours they are willing to work), and the demand for labor (i.e. the willingness of employers to hire workers and offer more hours of work). The supply curve slopes upward, meaning that higher wages encourage more individuals to enter or remain in the labor force (e.g. by delaying retirement or choosing to work instead of pursuing additional education). The demand curve slopes downward, meaning that higher wages cause employers to hire fewer workers or reduce the hours of work offered. The point at which the curves cross represents the market-clearing wage and quantity of employment – that is, the wage rate and employment level at which the supply and demand for labor are equal. Under normal macroeconomic conditions – i.e. when the economy is not in a recession – economists expect actual wages and employment to be close to their market-clearing levels. And when external conditions change in a way that affects the market-clearing wage and employment, such as a reduction in the labor force due to legal changes such as SB 1080, economists expect actual wages and employment numbers to adapt to new conditions.

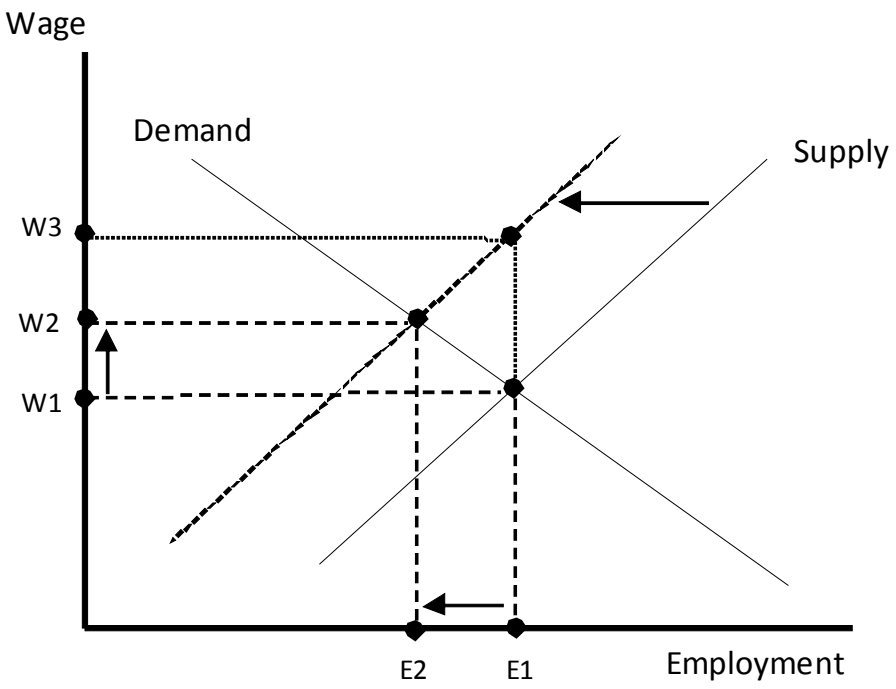


Figure 5.2: The Impact of Reduced Labor Supply on Wages and Employment

The process of adaptation can be illustrated graphically, as in Figure 5.2, above. Before the implementation of SB 1080 and the recession, E1 hours of work were performed in a year, for a wage of W1 per hour. When the size of the workforce is reduced due to external forces – such as the implementation of SB 1080 – the labor supply curve "shifts" to the left. In order to obtain E1 hours of work, Oregon employers would have to offer W3 an hour. However, employers do not find it worthwhile to use E1 hours of labor at that price, and the market finds its way to a mutually satisfactory equilibrium under the new conditions, at E2 and W2. In other words, once the market has adjusted to the decline in the labor force, the market-clearing wage has risen and the market-clearing quantity of employment has fallen.

Real-world labor markets are obviously considerably more complex than this sketch. The overall labor market in Oregon is comprised of many smaller, occupation- and location-specific labor markets, which affect each other and "add up" to the abstraction we can call the state labor market. However, the principles driving the basic supply-and-demand, single labor market model apply, and provide a coherent framework for organizing our thinking, evidence, and the assumptions necessary to produce a meaningful estimate of the likely outcome of significant labor market changes.

To move beyond theory to obtain quantitative estimates from a model of this type, we need to answer several questions: How much would SB 1080, implemented in a near full-employment economy, reduce the labor force and shift the labor supply curve to the left? How would employers respond to rising wages, to what degree would they reduce the number of workers they want to hire? And finally, how would potential employees react to rising wages, how many more hours would people be willing to work if wages were higher? In terms of Figure 5.2, the

answers to these questions tell us the shape of the labor supply and demand curves, which in reality are generally not the straight lines of the illustration.

5.4.2 How Much will Labor Supply Fall? Effect of SB 1080 on Undocumented Workforce

As discussed in the Portrait Section, above, many undocumented workers in Oregon rely on automobile transportation for access to work and for a wide variety of family and personal tasks. We anticipate that the unavailability of Oregon driver's licenses to the undocumented will operate to reduce the number of undocumented workers through a number of channels. The obstacles and inconveniences of living in Oregon without the use of an automobile may make living in the state less attractive. Some may leave as a result, and others who might otherwise have settled in the state may go elsewhere. Some undocumented workers may risk driving without licenses, which exposes them to increased risk of detection and deportation.

This is the aspect of the analysis for which we have the least evidence. Data is not presently available that would allow us to evaluate the relative importance of these channels or to definitively ascertain their cumulative effects. The best we can do is to make assumptions that seem reasonable.

For our baseline scenario, we assume that the full implementation of SB 1080, once pre-2008 licenses have expired, will reduce the undocumented population – both male and female – in Oregon by 5%, with a corresponding reduction in the workforce. Clearly there are large undocumented populations in other states, despite the fact that it is also difficult for undocumented migrants to obtain driver's licenses there. To gauge the importance of this assumption, we also conduct the analysis assuming that the undocumented workforce is reduced by 2%, and by 10%, in the Results Section, below.

As discussed above, the reduction of the workforce, other things equal, will create upward pressure on wages, as employers seek to maintain earlier levels of production. Employers can be expected to react to rising wages by reducing the number of employees they seek to employ, either because they:

1. change their methods of work to automate or in other ways, "substitute" other inputs for the kind of labor that is becoming more expensive, or

2. reduce the scale of their operation, possibly even abandoning hard-hit sectors entirely.

In addition, the remaining labor force can also be expected to react to rising wages. Higher wages elicit more interest in working. Potential employees will be willing to work more hours and more days in occupations with higher wages; some may leave other occupations or enter the labor force if they had not been interested in working at lower wages earlier.

These topics have been intensively studied by labor economists, providing us a great deal of theoretical guidance and empirical evidence on which to build our estimates of the impact of a decline in the labor force on wages and employment. However, the full description of our methods is somewhat technical, and perhaps uninteresting to a general audience. Our methods

are fully described in Appendix A-1: Analytical Methods; our findings are presented in the next section.

5.5 RESULTS AND DISCUSSION

The results of our analysis are summarized in Table 5.7. We present a "Baseline Case," which reflects our best judgment for the values of the model parameters, along with five alternative scenarios that illustrate the results of varying the key parameters over the plausible range. It is good practice to examine the effects of varying the assumptions – i.e. to perform a "sensitivity analysis." This will show how robust the results are to assumption changes and how much reasonable alternative assumptions will change the result.

Taken together, these results provide both our single best estimate of the long-term effects of SB 1080 and a range of outcomes that might emerge given reasonable alternatives for major assumptions. All of the scenarios discussed here follow the same modeling approach, outlined in Appendix A-1.

Scenario 1: Baseline Case

Assumptions: The Baseline Case incorporates parameter values that reflect our best judgment; these are generally "middle of the road" values, and we supply "high" and "low" alternatives in other scenarios for comparison. The derivation of most of the model parameters has been described in Appendix A-1, but we will review it more briefly here.

As mentioned above, we assume that the full implementation of SB 1080 in a state economy near full employment will reduce the undocumented labor force; we term this the "policy impact" in discussion and Table 5.7 below. In this scenario, we assume that the implementation of SB 1080 will cause a five percent reduction in the undocumented labor force. This is a judgmental estimate, based in part on the observation that while Oregon is considered by Passell and Cohn (*2011*) to have the 9th greatest share of unauthorized immigrants of the fifty states, as a proportion of its population, eight states with a history of more restrictive licensing policies have larger shares. Among these eight states are those that also have the largest absolute numbers of undocumented migrants, including California and Texas, which have estimated undocumented populations of 2.6 million and 1.7 million respectively in 2010, as compared with Oregon's estimated 160,000. Passell and Cohn (*2011*) estimate that undocumented immigrants account for 10% of Nevada's labor force, and 9.7% of California's, as compared with 5.3% of Oregon's. Thus, for the purpose of this scenario, we assume that there will be a noticeable impact on the undocumented workforce, but not a wholesale exodus.

Based on an extensive empirical literature, we are able to judge how responsive potential employees are to changes in wages, i.e. how much more or less they are likely to work if wages change. This measure represents the slope of the labor supply curve in the area near existing values of wages. Adult men are not very responsive to wage changes; they are likely to work regardless of the wage rate. The measured responsiveness—called the wage elasticity of labor supply by economists-- of adult men in the U.S. is 0.10, meaning that adult men are likely to increase their work hours by 1% for every 10% that wages rise (*Evers et al. 2005, Killingsworth 1983, Pencavel 1986*). Adult women are more responsive to wage increases, because many of

them have primary responsibility for young children, and weigh the value of higher wages against the value of providing their families childrearing and other forms of "household production." For this reason, the responsiveness of U.S. women to changes in the level of wages is estimated at about 0.25, which represents an average of the 0.10 of unmarried women and the 0.40 of married women (*Blau and Kahn 2007, Borjas and Katz 2007, Killingsworth and Heckman 1986*).

Similarly, economists have put a great deal of effort into measuring the rate at which employers are liable to shift away from using labor when wages rise, and make greater use of automation or other strategies(*Bureau of Economic Analysis, Department of Commerce 2010*). That responsiveness is called the elasticity of factor substitution, and is assumed by us to be 0.50, the mid-point of the 0.15 – 0.85 range described by Hamermesh (*1993*), the pre-eminent labor economist working on this topic. We assume unit elasticity of demand for non-tradable products and a demand elasticity of 10.0 for tradables, meaning that in general we expect that people will reduce their purchases of goods that become more expensive due to higher labor costs in direct proportion to rising prices. However, when those goods are exports, we except that consumers will be far more likely to markedly shift to other sources of the same products that are not experiencing the same wage increases, i.e. producers in states other than Oregon. Finally, we also assume an under-representation correction factor of 18%, consistent with Warren (*2009*) and with Passel and Cohn (*2011*), to account for the fact that a significant portion of the undocumented labor force is likely not captured even in our best data, such as the American Community Survey, operated by the U.S. Census Bureau to provide data between the decennial censuses.

Results: This scenario results in estimated direct job losses totaling 4,224. As expected, these losses fall heavily in the agricultural, manufacturing, food service & hospitality, and construction industries. Employment of undocumented workers falls by 4,883, partially offset by an increase in employment of legal workers of 659. Wages rise by 0.16%, but total state GDP falls by $160 million per year, or by about 0.1%.

Of course, the wage increases are disproportionately concentrated in a few occupations and industries. Wage effects by occupation and industry are shown in Tables 8 and 9, respectively, for the Baseline scenario. For example, the impact on the Grounds & Buildings Maintenance occupations, estimated at 1.08%, is more than six times the average 0.16% increase. Similarly, the impact on the Construction industry is estimated at 0.53%, or more than three times the average.

Scenarios 2 & 3: Low Impact and High Impact

Assumptions: Since the 5% policy impact assumption is judgmental, we model two alternative assumptions. In Scenario 2, the "Low Impact" case, we reduce the assumed policy impact from 5% of the undocumented population to 2%, while, in Scenario 3, the "High Impact" case, we increase the policy impact to 10%.

Results: Job losses in the "Low Impact" scenario total 1,688, or about 40% of the job losses engendered by the baseline case. In the "High Impact" scenario, job losses rise to 8,458, slightly above twice the job losses in the baseline case. The reduction in the employment of the

undocumented is – of course – exactly 40% and 200% of that generated in the baseline case, but increases in the employment of legal workers differ slightly from these proportions. Effects on wages and state GDP are also approximately 40% and 200% of the effects in the base case. Thus, the economic impacts in our model are very close to linear in the impact parameter, so it is reasonable to generalize the results in the base case as the effect of each 5% reduction in the undocumented labor force. (This also sets an extreme upper bound on the economic effects of SB 1080, at around twenty times the base case, which would result from the complete disappearance of the undocumented labor force.)

Scenarios 4 & 5: Low Substitutability and High Substitutability

Assumptions: If employers can substitute other inputs for labor when wages rise, they may respond to a labor supply shock by changing their production processes rather than by reducing production. Both courses of action reduce employment, but substitution does so without lowering output and total income. The degree to which substitution is possible is captured in our model by the elasticity of factor substitution parameter. In the base case, we take the elasticity of factor substitution to be 0.50. In Scenarios 4 and 5, we examine the results of a lower (0.15) and higher (0.85) elasticity of substitution. These correspond to elasticities of labor demand in industries such as agriculture which span the full range suggested by Hamermesh (*1993*) as the plausible range of elasticities for individual firms and industries.

Results: At the low end (i.e. assuming that there are few opportunities to substitute other inputs for labor), we find that wages rise somewhat more than in the base case (0.22% vs. 0.16%) and marginally fewer jobs are lost (4,016 vs. 4,224, a difference of 108 jobs). But the impact on state GDP is 25% higher ($201.9 million vs. $160.0 million). This reflects the fact that, in the absence of substitution opportunities, more firms will reduce production or go out of business altogether. Still, the GDP impact remains approximately 0.1% of total state GDP, indistinguishable (as a percentage) from the base case.

At the high end (i.e. assuming many opportunities to substitute other inputs for labor), we obtain the opposite results: job losses are marginally increased compared with the base case (4,351 vs. 4,224), wages increase by slightly less (0.13% vs. 0.16%), and the GDP impact is lower ($134.0 million vs. $160.0 million) albeit still within rounding error of 0.1% of total state output.

We conclude that the economic impacts are not particularly sensitive to the assumed elasticity of factor substitution. We obtain very similar outcomes all across the plausible range of values for this parameter.

Scenario 6: Higher National and International Competition

Assumptions: Our baseline scenario assumes that industries that produce nationally and internationally tradable goods (principally agriculture and manufacturing) face strong competition from outside the state, and therefore have less flexibility to adjust prices when their costs – including labor costs –change. We model this by assuming that demand is ten times as responsive to price changes in the tradables sector than in the rest of the economy (i.e. an elasticity of demand of 10.0, compared with other industries which are taken to face unit elastic demand). However, even this value could, conceivably, be too low. To test the sensitivity of our

results to this assumption, Scenario 6 incorporates an order of magnitude increase in the assumed elasticity of demand of the tradables sector – that is, an elasticity of demand of 100.

Results: The higher elasticity of demand engenders marginally more job losses than obtained in the base case – 4,335 as compared with 4,224, an increase of about 3%. However, impact on state GDP rises by 25% (to $200.1 million vs. $160.0 million) – though this remains within rounding error of 0.1% of total state GDP. Under Scenario 6, more producers in agriculture and manufacturing respond to the reduced labor supply by curtailing production or exiting the market altogether, rather than shifting to less labor intensive (but more expensive) production processes. As a result, similar levels of job losses are associated with larger reductions in total output. For the same reason, the rise in wages is diminished (0.13% vs. 0.16% in the base case) and the gain in legal employment is only 548 jobs, down from 659 in the base case.

Discussion

Taken together, the results obtained in our six scenarios suggest that the direct employment impact of SB 1080 is likely to be modest, in the range of 4,000 to 5,000 net jobs lost (out of total Oregon employment of approximately 1.8 million; see Table 1). At an employment growth rate of 3% per year, Oregon would add about this many jobs each month. Impact on the total output of the state economy – i.e. state GDP – is likely to be in the neighborhood of 0.1%. Employment gains for documented workers are likely to fall within the range of an additional 500 to 800 jobs, and wages could be increased by between 0.1% and 0.2%.

Our estimates are not highly sensitive to changes in assumptions regarding the elasticity of substitution between labor and other inputs or to changes in the assumed elasticity of demand for the tradable goods industries.

Our model's economic impact estimates are approximately linear in the "policy impact" parameter – i.e. the percentage by which SB 1080 is assumed to reduce the undocumented workforce in Oregon. If the impact estimate is doubled (from our baseline of 5% to 10%, for example), the economic impacts are approximately doubled as well. This is also the most difficult parameter to pin down based on empirical data. Experience to date is consistent with a value of zero – so far, we observe no evidence of any net reduction in the undocumented population. At the same time, we must recognize that the policy is not yet fully implemented – many unexpired driver's licenses from the pre-SB 1080 era are still in existence. Moreover, the Great Recession may have affected international migration patterns in ways that are not yet well understood; a return to more normal macroeconomic conditions could reveal changes that are currently swamped by recession-related effects. It will probably be several years before experience and data will be able to conclusively quantify the actual influence of SB 1080 on the undocumented workforce.

Table 5.7: Results by Scenario

	(1) Baseline Case	(2) Low Impact	(3) High Impact	(4) Low Subst.	(5) High Subst.	(6) High Compet.
Assumptions						
Labor Supply Elasticity, Male	0.10	0.10	0.10	0.10	0.10	0.10
Labor Labor Supply Elasticity, Female	0.25	0.25	0.25	0.25	0.25	0.25
Elasticity of Factor Substitution	0.50	0.50	0.50	0.15	0.85	0.50
Elasticity of Product Demand, Tradeable	10.0	10.0	10.0	10.0	10.0	100.0
Elasticity of Product Demand, Non-Tradeable	1.0	1.0	1.0	1.0	1.0	1.0
Policy Impact, Male	-5%	-2%	-10%	-5%	-5%	-5%
Policy Impact, Female	-5%	-2%	-10%	-5%	-5%	-5%
Under-Count Correction	18%	18%	18%	18%	18%	18%
Job Losses (Direct)						
Agriculture	-993	-395	-1,988	-972	-1,005	-1,059
Construction	-536	-216	-1,075	-499	-558	-536
Manufacturing	-860	-343	-1,717	-850	-866	-905
Health Care	-87	-35	-176	-84	-92	-87
Administration & Support	-390	-156	-781	-374	-402	-390
Wholesale & Retail Trade	-364	-147	-727	-337	-378	-364
Food Service & Hospitality	-639	-256	-1,285	-578	-680	-639
Other Industries	-355	-140	-709	-322	-370	-355
Total	**-4,224**	**-1,688**	**-8,458**	**-4,016**	**-4,351**	**-4,335**
Other Effects (Direct)						
Employment Change (undocumented)	-4,883	-1,953	-9,765	-4,883	-4,883	-4,883
Employment Change (documented)	659	265	1,307	867	532	548
State GDP Change ($ millions)	-160.0	-64.1	-317.4	-201.9	-134.0	-200.1
As % of State GDP	-0.1%	0.0%	-0.2%	-0.1%	-0.1%	-0.1%
Wage Change	0.16%	0.06%	0.33%	0.22%	0.13%	0.13%

Table 5.8: Wage Changes by Occupation

Occupation		Wage Increase	Occupation Weight	Weighted Increase
Top Five Occupations by Impact				
45	Farming, Fishing & Forestry	1.39%	0.01	0.02%
37	Buildings & Ground Maintenance	1.08%	0.02	0.02%
35	Food Prep & Serving	0.73%	0.02	0.02%
47	Construction & Extraction	0.70%	0.06	0.04%
53	Transportation	0.33%	0.05	0.02%
Other Occupations				
51	Production	0.23%	0.06	0.01%
49	Installation, Maintenance & Repair	1.50%	0.03	0.01%
39	Personal Care	0.10%	0.02	0.00%
41	Sales	0.09%	0.12	0.01%
43	Office & Admin	0.06%	0.11	0.01%
21	Social Service	0.05%	0.02	0.00%
31	Healthcare Support	0.05%	0.02	0.00%
27	Arts & Entertnmt.	0.04%	0.03	0.00%
11	Management & Executive	0.04%	0.16	0.01%
33	Protective Service	0.03%	0.00	0.00%
23	Legal	0.02%	0.00	0.00%
25	Education	0.02%	0.05	0.00%
15	Computer & Math	0.02%	0.06	0.00%
13	Business & Finance	0.01%	0.08	0.00%
17	Architecture & Engineering	0.01%	0.00	0.00%
29	Healthcare Practice	0.01%	0.11	0.00%
All Occupations			**1.00**	**0.16%**

Based upon Baseline Scenario
Weights are occupation shares in total wage & salary spending
Total weights may not add to 1.00 due to rounding

Table 5.9: Wage Changes by Industry

Industry		Wage Increase	Industry Weight	Weighted Increase
Top Twenty Industries by Wage Impact				
111	Crop Production	1.314%	0.0116	0.015%
722	Food Service	0.703%	0.0262	0.018%
561	Admin & Support Services	0.600%	0.0239	0.014%
230	Construction	0.532%	0.0849	0.045%
493	Warehousing & Storage	0.532%	0.0015	0.001%
112	Animal Production	0.514%	0.0046	0.002%
311	Food Manufacturing	0.508%	0.0095	0.005%
420	Wholesale NEC	0.506%	0.0006	0.000%
424	Wholesale Non-Durable Goods	0.487%	0.0180	0.009%
115	Agricultural Support	0.456%	0.0033	0.002%
721	Accomodation	0.386%	0.0067	0.003%
313	Textile Mills	0.372%	0.0001	0.000%
811	Repair & Maintenance	0.359%	0.0116	0.004%
314	Textile Product Mills	0.335%	0.0004	0.000%
312	Beverage & Tobacco Manufacturing	0.279%	0.0011	0.000%
492	Courriers & Messengers	0.275%	0.0034	0.001%
812	Personal & Laundry Services	0.263%	30080.0000	0.002%
337	Furnature & Related	0.251%	0.0044	0.001%
444	Building Material & Garden Stores	0.244%	0.0099	0.002%
814	Private Households	0.242%	0.0019	0.000%
326	Plastics & Rubber	0.212%	0.0032	0.001%
Other Affected Industries		0.052%	0.6877	0.036%
Industries With No Measurable Effects		0.000%	0.0800	0.000%
All Industries			**1.00**	**0.163%**

Based upon Baseline Scenario
Weights are occupation shares in total wage & salary spending
Total weights may not add to 1.00 due to rounding

5.6 QUALITATIVE IMPACTS

While this analysis concentrates on quantifiable aspects of the economic impact of SB 1080, we would be remiss if we failed to highlight a potentially significant consequence that is not readily quantifiable: the possible effect of SB 1080 on the demographic composition of the undocumented workforce.

As can be seen from Table 5.3, above, about one-half of the population of interest is married and living with a spouse. This is similar to corresponding proportion of the Oregon population as a whole. Workforce participation among the undocumented is, on average, higher than among

Oregonians in general. This suggests to us that a significant portion of the undocumented workforce is living a more-or-less ordinary, family- and work-oriented lifestyle embedded within the broader community (albeit somewhat isolated by virtue of language). We also suspect that these "family-present" workers are less likely than the unattached to remit a large fraction of their earnings to relatives in their country of origin, and more likely to spend their incomes in the local Oregon economy.

Results of our survey research strongly suggest that members of the population of interest are extremely concerned about the impact of SB 1080 on their ability to live "ordinary" American lives. That is, SB 1080 may disproportionately affect those immigrants who are the most stable and family-oriented. If the demand for the services of the undocumented continues to exist, as seems likely, these services may be increasingly supplied by younger males, un-attached to the stabilizing forces of household, spouse or children. While the consequences are difficult to quantify, as a qualitative concern this potential outcome bears consideration.

5.7 CONCLUSIONS

Based on the available data and the modeling approach described above, we reach the following conclusions regarding the economic impacts of the implementation of SB 1080:

1. There is little evidence to date that SB 1080 has reduced the size of the undocumented workforce in Oregon so far, and the high unemployment rate among the undocumented suggests that no labor shortage has yet materialized. While anecdotal evidence indicates that some employers have encountered difficulty retaining key employees as a result of SB 1080, we find no indication of widespread economic impact at this time.

2. Modeling the potential impact of SB 1080 on a hypothetical full-employment economy structurally similar to Oregon's during the years 2005-7, we project job losses in the range of 4,000 – 5,000 statewide (out of 1.8 million total jobs) along with a reduction of total output and income of about 0.1%. Wages are projected to rise by between 0.1% and 0.2%, and documented employment is projected to rise by 500 to 800 jobs.

3. Our baseline scenario, using "most likely" or "mid-range" assumptions, yields a loss of 4,224 jobs, an output and income reduction of 0.1%, an increase in wages of 0.16% and an increase in documented employment of 659 jobs.

4. Our impact estimates are linearly sensitive to changes in the assumed policy impact – i.e. to the expected percentage reduction in the undocumented workforce.

5. In addition to the quantitative economic impacts identified above, the possibility that SB 1080 may disproportionately impact the more stable, family-oriented segment of the undocumented population should not be overlooked.

6.0 REFERENCES

Bernhardt, Annette, Ruth Milkman, Nik Theodore, Douglas Heckathorn, Mirabai Auer, James DeFilippis, Ana Luz González, Victor Narro, Jason Perelshteyn, Diana Polson and Michael Spiller. *Broken Laws, Unprotected Workers: Violations of Employment and Labor Laws in America's Cities*. Center for Urban Economic Development, University of Illinois at Chicago; National Employment Law Project; UCLA Institute for Research on Labor and Employment, 2009.

Blau, Francine D. and Lawrence M. Kahn. 2007. "Changes in the Labor Supply Behavior of Married Women: 1980-2000." *Journal of Labor Economics* 25:3, pp. 393-438.

Borjas, George J. and Lawrence F. Katz. 2007. "The Evolution of the Mexican-Born Workforce in the United States." in George J. Borjas (ed.) *Mexican Immigration to the United States*. Chicago: The University of Chicago Press.

Bruno, A., & K. L.Storrs. *Consular Identification Cards: Domestic and Foreign Policy Implications, the Mexican Case, and Related legislation*. Congressional Research Services, 2005. http://fpc.state.gov/documents/organization/45470.pdf. Accessed August 3,2009.

Bureau of Economic Analysis, U.S. Department of Commerce. 2010. "Value Added by Industry, Gross Output by Industry, Intermediate Inputs by Industry, the Components of Value Added by Industry and Employment by Industry." URL: http://bea.gov/industry/xls/GDPbyInd_VA_NAICS_1998-2009.xls, accessed 12/30/2010.

Bureau of Labor Statistics. *Standard Occupational Classification System* 2009. http://www.bls.gov/SOC/. Accessed October 15, 2009.

Camarota, Steven A. and Karen Jensenius. Trends in Immigrant and Native Employment. *Backgrounder*. Washington, D.C.: Center for Immigration Studies, 2009.

Castañeda, Jorge. *Ex Mex: From Migrants to Immigrants*. New York: The New Press, 2007.

Cobb, Carrie L., Mary C. King and Leopoldo Rodriguez. Betwixt and Between: The Spectrum of Formality Revealed in the Labor Market Experiences of Mexican Migrants in the United States. *Review of Radical Political Economics* 41 (3), 2009. pp. 365-371.

Durand, Jorge, Douglas S. Massey and René M. Zenteno. Mexican Immigration to the United States: Continuities and Changes. *Latin American Research Review* 36 (1) 2001. pp. 107-127.

Evers, Michiel, Ruud A. de Mooij, Daniel J. van Vurren. 2005. "The Wage Elasticity of Labour Supply: A Synthesis of Empirical Estimates." *De Economist* 156:1, pp. 25-43.

Hamermesh, Daniel S. Demand for Labor in the Long Run. In Orly Ashenfelter and Richard Layard, eds. *Handbook of Labor Economics, Vol. I,* 1986. Amsterdam: North-Holland.

Hamermesh, Daniel S. *Labor Demand.* Princeton, NJ: Princeton University Press, 1993.

Federation for the American Immigration Reform (FAIR). *Matricula Consular,* 2003. http://www.fairus.org/site/PageServer?pagename=iic_immigrationissuecenters6520. Accessed August 5, 2009.

Hanson, Gordon. Illegal Migration from Mexico to the United States. *Journal of Economic Literature* XLIV (4), 2006. pp. 869-924.

Ilbanker.com. *Most frequently asked questions regarding the Matricula Consular (MCAS),* 2004. http://www.ilbanker.com/Adobe/Emerging%20Market/FAQ_Matricula_Consular.pdf. Accessed June 22, 2009

Jaeger, William K. Potential Economic Impacts in Oregon of Implementing Proposed Department of Homeland Security 'No Match' Immigration Rules. Unpublished report prepared for the Coalition for a Working Oregon 2008.

King, Mary C., Leopoldo Rodriguez and Carrie Cobb. 2010. Ni Uno Ni el Otro: The Spectrum of Formality in the U.S. Work Experience of Mexican Migrants in Portland, Oregon. *Urban Anthropology* 39 (4): 359-395.

Killingsworth, Mark R. 1983. *Labor Supply*. Cambridge: Cambridge University Press.

Killingsworth, Mark R. and James J. Heckman. 1986. "Female Labor Supply: A Survey." In Orly Ashenfelter and Richard Layard, eds. *Handbook of Labor Economics Volume I*. Amsterdam: North-Holland.

Kochhar, Rakesh. *Survey of Mexican Migrants, Part Three: The Economic Transition to America*. Washington, D.C.: Pew Hispanic Center, 2005. http://pewhispanic.org/reports/report.php?ReportID=58, Accessed July2, 2006.

Marcelli, Enrico A. and Wayne A. Cornelius. The Changing Profile of Mexican Migrants to the United States: New Evidence from California and Mexico, 2001. *Latin American Research Review* 36 (3): 105-131.

Office of the Governor, State of Oregon. *Executive Order No. 07-22: Standards for Issuance of Oregon Driver Licenses and Identification Cards*, 2007. http://www.oregon.gov/Gov/exec_orders.shtml#2007__pdf_files, Accessed Sept 10, 2009.

Orrenius, Pia and Madeline Zavodny. 2009. Effects of Tougher Enforcement on the Job Prospects of Recent Latin American Immigrants. *Journal of Policy Analysis and Management* 28 (2): 239-257.

Orrenius, Pia and Madeline Zavodny. 2005. Self-Selection among Undocumented Immigrants from Mexico. *Journal of Development Economics* 78 (1): 215-240.

Passel, Jeffrey. *Unauthorized Migrants in the United States: Estimates, Methods, and Characteristics*. OECD Social, Employment and Migration Working Paper No. 57. Paris: OECD Directorate for Employment, Labour and Social Affairs, 2007.

Passel, Jeffrey S. and D'Vera Cohn. *U.S. Unauthorized Immigration Flows Are Down Sharply Since Mid-Decade*. Washington, D.C.: Pew Hispanic Center, 2010.

Passel, Jeffrey S. and D'Vera Cohen. 2011. "Unauthorized Immigrant Population: National and State Trends, 2010." Washington, D.C.: Pew Hispanic Center.

Pencavel, John. 1986. "Labor Supply of Men: A Survey." In Orly and Richard Layard, eds. *Handbook of Labor Economics Volume I*. Amsterdam: North-Holland.

Pew Global Attitudes Project. *Troubled by Crime, the Economy, Drugs and Corruption: Most Mexicans see Better Life in U.S. – One in Three Would Migrate.* Washington, D.C.: Pew Research Center. http://pewglobal.org/reports/display.php?ReportID=266 Accessed January 3, 2011.

Ruggles, Steven J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. *Integrated Public Use Microdata Series*, Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2010.

Varsanyi, M.W. Documenting undocumented migrants: The Matriculas Consulares as a Neoliberal Local Membership. *Geopolitics, 12,* 2007. *pp.* 299-319.

United States Bureau of the Census. *Census 2000 Public Use Microdata Area (PUMA) Maps*, 2008. http://www.census.gov/geo/www/maps/puma5pct.htm. Accessed July 1, 2009.

United States Bureau of the Census. *North American Industry Classification System*, 2009. http://www.census.gov/eos/www/naics/. Accessed July 15, 2009.

United States Bureau of the Census. *Public Use Microsample Data, 2005-2007 3 Year Sample*, 2008. http://factfinder.census.gov/home/en/acs_pums_2007_3yr.html. Accessed July 1, 2009.

Warren, Robert. Unauthorized Residents in Oregon by National Origin, 2007. Personal Communication, July 28, 2009.

Warren, Robert. Unauthorized Immigration to Oregon: Annual Estimates for 1990 to 2007, Unpublished paper provided by Robert Warren, December 15, 2009.

Appendix A-1: Analytical Methods

The Reaction of Employers to Upward Pressure on Wages

Employers will react to rising wages by hiring fewer workers, either because they reduce the scale of their operations or because they automate some part of their processes. How much they react to wage increases is described by economists as the "wage elasticity of demand." In order to make this concept precise, they ask what the impact will be of a one percent change in the wage on the total amount of labor demand, whether expressed as a total number of hours or jobs.

The statistical evidence is that labor demand tends to be fairly sensitive, or elastic, because employers have options for how much labor they employ, particularly over the medium and longer term. Employers can make adjustments in the amount of labor they employ in two ways, by reducing the scope of their operations or by changing their production processes in order to use less labor and more of other inputs..

Production processes that use nothing but labor are relatively rare. Usually, a business manager exercises some degree of choice in the "mix" of labor, materials, land, and capital used to produce the firm's products and services. For instance, banks can employ more tellers and fewer ATMs, or vice versa. Employers can also switch to less labor-intensive products and services; if orchard crops require less labor than berries, and both crops can be grown in the same place, growers may switch to the less labor-intensive crop as wages rise.

In general, if the price of one of the inputs rises, economists expect managers to look for ways to use less of that input – commonly by substituting an alternative input. Thus, when wages rise, economists expect businesses to use less labor and more non-labor input (such as more expensive materials, more energy, and more automation). The feasibility of substituting something else for labor may be a complex technical and industrial engineering question, which economists attempt to summarize in a single variable, called the *elasticity of substitution.*

The elasticity of substitution is the percentage change in the ratio of production inputs—expressed in terms of costs-- that results from a one percent change in the relative price of one of

the inputs. For example, if a production process uses two inputs (say, labor and capital) in some ratio X with an elasticity of substitution of 0.5, and the wage rises 10%, the firm would use less labor and more capital, such that the labor-to-capital ratio X would fall by 5%.

To keep the analysis simple, we treat all production as two-input processes, with the inputs being "labor" and "everything else." We treat each industry as a distinct production process characterized by a constant elasticity of substation (CES) production function.

Hamermesh (1986, 1993), the pre-eminent American economist in the field of labor demand, defines the relationship between the elasticity of substitution and the constant-output own-price elasticity of labor demand as: $\eta_{LL} = -(1 - s)\,\sigma$, where σ is the elasticity of substitution and s is the share of labor costs in total revenue. Rearranging slightly, we obtain an expression for σ:

$$\sigma = \frac{-\eta_{LL}}{(1 - s)}$$

Surveying estimates of η_{LL} based on microeconomic data, Hamermesh (1993) finds values ranging from -0.15 to -0.75, with an average of -0.45. We obtain values of s for the industries in our analysis from the Bureau of Economic Analysis's analysis of components of value added by industry, calculating s as total compensation of labor divided by gross sales (Bureau of Economic Analysis, 2010). These range widely, from as little as .03 (in real estate) to as much as .57 (in education services). Thus there is considerable variability in empirical estimates of both components of σ. Rather than choose a single value under these circumstances, we model a range of plausible values, from $\sigma = 0.15$ to $\sigma = 0.85$, with the midpoint ($\sigma = 0.50$) serving as our baseline assumption. Fortunately, our results are not sensitive to the choice of σ over this range (see Results, above).

The elasticities of labor demand discussed so far are so-called "constant output" elasticities. That is, they reflect only substitution between inputs, keeping output unchanged. However, an increase in a firm's costs that is passed on to customers would be expected to reduce demand for the products being sold. Accordingly, we would expect firms to reduce production (or, in the extreme, to cease operation altogether) and to reduce their demand for labor still further. To

reflect this dynamic, the constant-output elasticity of labor demand must be augmented to account for these "scale effects."

Hamermesh (1986, 1993) provides the necessary formula: : $\eta'_{LL} = -(1-s)\,\sigma - s\eta$ where η is the price elasticity of demand for the industry's or firm's output.

Since detailed estimates of each industry's price elasticity of demand are not readily available, we rely on two simplifying assumptions. First, for industries producing chiefly or entirely for local consumption, we assume $\eta = -1.0$, which is consistent with households exhibiting Cobb-Douglas form preferences across industries (that is, when prices change, households adjust their spending to keep the share of total income spent on each industry's output constant). This also assumes that we are analyzing cost shocks that affect all firms in a local industry equally – as we are in this case.

Second, for industries in the tradable goods producing sectors, we must assume a larger value for η. These industries face non-local competition, particularly competition from overseas, which means that their customers have alternative producers who are likely to be unaffected by the labor supply shock we are analyzing. Thus, the price elasticity of demand for firms in these industries is higher. How much higher is not easy to specify. In the realm of theory, under conditions of perfect competition, $\eta = \infty$, but this is of debatable relevance to applied analysis. As a working hypothesis, we assume that demand in the tradable sectors is *ten times* as sensitive to price changes as in the local market. That is, we assume $\eta = -10.0$. The effect of varying this assumption is discussed in the Results section, above.

Labor Supply Elasticity

The idea of labor supply *elasticity* is straightforward: it answers the question, "What is the percentage change in labor offered if the wage increases (or decreases) by one percent?" If the change is more than one percent -- for instance, if a 1% increase in the wage leads to a 10% increase in labor available – we say that labor supply is "elastic." If the change is less than one percent – e.g. if a 1% increase in the wage only elicits a 0.5% increase in labor available – we say that labor supply is "inelastic." The term "elasticity" refers to the *ratio* between the

percentage change in the wage and the percentage change in the labor supply. In the examples above, the labor supply elasticities are 10 and 0.5, respectively. An elasticity of 1.0 means that proportionate changes are equal: a 1% increase in the wage elicits a 1% increase in the quantity of labor available.

Decades of empirical research indicate that male labor supply is quite inelastic and, for employed men, may actually be negative (that is, higher wages may induce employed men to work fewer hours) (Pencavel 1986, Killingsworth 1983). The key fact behind this observation is that the vast majority of the variation in labor supply relates to the choice to work or not work (e.g. to retire or to go to school). Since labor force participation is near universal among prime-age men, there simply isn't much "room" for variation in male labor supply. Historically, female labor supply has been more elastic: lower labor force participation rates and a greater propensity to work part-time left more "room" for variation (Killingsworth and Heckman 1986). But the difference has eroded substantially over time. Blau and Kahn (2007) find that women's labor supply elasticity fell by more than half between 1980 and 2000.

To arrive at quantitative estimates for male and female labor supply elasticity, we are guided by a meta-analysis and synthesis of 209 empirical studies (Michiel Evers, De Mooij and Van Vuuren 2008). For the United States, Evers et al. (2008) use a meta-regression to derive estimated elasticities of 0.38 for women and -0.01 for men. Blau and Kahn (2007) arrive at elasticities between 0.357 and 0.413 for married U.S. women. In his survey of estimates for U.S. men, Pencavel (1986) finds results ranging from 0.14 to -0.19, and suggests -0.1 as the best "single point" estimate.

While considerable variation exists in the empirical estimates in the literature (and in the methods used to create the estimates), there does seem to be a consensus that both male and female labor supply elasticities are well below one, that the elasticity for men is probably near zero, and that the elasticity for married women is likely to be somewhere in the vicinity of 0.4. (Unmarried women are likely to exhibit labor force behavior similar to men's.) For our baseline scenario, we adopt a value of (positive) 0.1 for men's labor supply elasticity and 0.25 for women's (reflecting a weighted average of married and unmarried women's elasticities). The value adopted for men is somewhat higher than the mid-point of the values found in the literature

and may therefore be slightly over-conservative (higher supply elasticities will tend to reduce the estimated effects of a supply shock). However, in practice, our results depend on linear combinations of male and female elasticities, and there is so much dispersion in estimates of female supply elasticity that a small error in the value for men is likely to be dominated as a source of estimation error by the statistical noise associated with the former.

Supply & Demand System

To estimate the effect of an adverse labor supply shock, we need to account for the simultaneous adjustment of labor demand and labor supply. We do this in four steps: First, we specify a simplified form of the labor demand and supply functions, and, from these, derive a formula for the equilibrium wage. Second, we calibrate the parameters of these functions to match the observed employment and wage levels within each occupation within each industry. Third, we re-calibrate the labor supply function to produce a reduction in supply – at current wages – corresponding to the to the policy impact (i.e. 5% of the population of interest employed in each occupation in each industry, under our baseline assumptions). Finally, we calculate the new equilibrium wage and employment levels for each industry – occupation combination.

Our specifications of the labor supply and demand functions are the simplest possible forms which exhibit constant elasticities of supply and demand:

$$\ln S_{i,j} = \eta_{i,j}^{S} \ln w_{i,j} + k_{i,j}^{S}$$

$$\ln D_{i,j} = \eta_{i,j}^{D} \ln w_{i,j} + k_{i,j}^{D}$$

where $\eta_{i,j}^{S}$ is the elasticity of labor supply in industry *i* and occupation *j*, $w_{i,j}$ is the wage in industry *i* for occupation *j*, and $k_{i,j}^{S}$ is a constant, which we calibrate for each industry and occupation such that the observed wage yields the observed supply of labor. Similarly $\eta_{i,j}^{D}$ is the elasticity of labor demand in industry *i* and occupation *j*, and $k_{i,j}^{D}$ is a constant, which we calibrate for each industry and occupation such that the observed wage yields the observed demand for labor.

Strictly speaking, the constant elasticity of demand specification is not consistent with the assumption of a constant elasticity of *substitution* production function. As discussed above, the elasticity of labor demand depends upon both the elasticity of substitution and labor's share in gross output. However, since the range of impacts we consider here are not large enough to significantly alter labor's share in output, constant elasticity of demand is a reasonable – and tractable – local approximation.

The "equilibrium wage" is the wage at which supply and demand for labor are equal. We can derive an expression for the equilibrium wage from our supply and demand functions by setting $S_{i,j} = D_{i,j}$ and solving for $w_{i,j}$:

$$\widehat{w}_{i,j} = \left(\frac{\exp(k_{i,j}^{D})}{\exp(k_{i,j}^{S})}\right)^{\frac{1}{\eta_{i,j}^{S} - \eta_{i,j}^{D}}}$$

We model the labor supply shock due to the implementation of SB 1080 as a reduction in the supply-side constant $k_{i,j}^{S}$. The magnitude of the reduction depends upon the share of employment in each industry-occupation group (i, j) and the assumed magnitude of the total shock. We estimate the post-shock equilibrium wage for each such group, using the new value of the supply constant, and from the new wage, calculate the new equilibrium demand for labor.

The change in employment (i.e. total job losses) can be further analyzed into jobs lost due to substitution effects (employers using other inputs in place of labor) and jobs lost due to scale effects (employers reducing production or going out of business altogether). Job losses due to scale effects correspond to reductions in total output and income in the state – that is, reduction in total state GDP. We estimate the GDP impact by multiplying the relevant job losses by the average value added per job in each industry-occupation group.

We also estimate the (direct) impact on native employment as the difference between total job losses (from both scale and substitution effects) and the total number of undocumented workers removed from the workforce.