

THE EMERGING HISPANIC HOMELAND OF THE PACIFIC NORTHWEST:

A CASE STUDY OF YAKIMA VALLEY, WASHINGTON

by

Laurie Darian

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of

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Dr. Jian-yi Liu

Approved for the Department of Earth Sciences

Dr. David Lageson

Approved for the Division of Graduate Education

Dr. Joseph J. Fedock

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## TABLE OF CONTENTS

LIST OF TABLES .....	viii
LIST OF MAPS .....	ix
LIST OF FIGURES .....	x
INTRODUCTION .....	1
1. RESEARCH FRAMEWORK.....	5
Conceptual Structure.....	8
Research Questions.....	10
Methodology .....	11
Data Sources .....	13
Census Data .....	13
Field Investigations.....	14
Secondary Sources.....	15
2. HISPANICS IN THE UNITED STATES .....	16
The Mexican Origin Population.....	17
Population Trends .....	20
Geographic Trends.....	23
Future Projections .....	26
3. EVOLUTION OF HISPANICS IN THE YAKIMA VALLEY .....	29
World War II and the Farm Labor Shortage.....	31
The Bracero Program.....	41
Shift to Migrant Workers.....	46
The Valley's Hispanics Today.....	51
Conclusion .....	56
4. CENSUS DATA ANALYSIS .....	58
County Level Data: 1980.....	62
County Level Data: 1980-2000.....	66
County Level Data: 2000.....	69
Place Level Data: 1980-2000.....	70
Place Level Data: 2000 .....	75
Conclusion .....	81
5. GEOGRAPHIC INFORMATION SYSTEM ANALYSIS .....	82
Spatial Assimilation and GIS Studies.....	82

## TABLE OF CONTENTS CONTINUED

Analysis.....	88
Results.....	92
<b>6. THE YAKIMA VALLEY: CULTURAL LANDSCAPE AND SOCIAL INTEGRATION .....</b>	<b>101</b>
Hispanic Imprints.....	102
Signage.....	104
Shopping .....	111
Media .....	119
Newspaper.....	119
Radio .....	121
Music.....	125
Housescapes .....	127
Gang Graffiti.....	130
Social Integration.....	132
Religious Services.....	132
Hispanic Businesses.....	135
Education .....	138
Conclusion .....	143
<b>7. THE EMERGING HISPANIC HOMELAND OF THE YAKIMA VALLEY: THEORIES AND PRACTICES .....</b>	<b>145</b>
Theories of the Immigrant and Ethnic Incorporation .....	145
Multiculturalism/Pluralism .....	146
Cultural Citizenship .....	147
Transnationalism.....	148
Translocalism: An Alternative.....	148
The Case of the Yakima Valley.....	150
Economic Assimilation.....	150
Spatial Assimilation.....	152
Cultural Assimilation.....	154
Structural Assimilation .....	155
Political/Social Organization .....	160
Hispanic Imprint/Cultural Landscape .....	161
Economic Spaces .....	162
Residential Spaces .....	163
Cultural Spaces .....	164
The Cultural Landscape as a Revealer of Social Dynamics .....	165
Summary of Results.....	171
<b>8. CONCLUSION.....</b>	<b>173</b>
Policy Implications .....	177

TABLE OF CONTENTS CONTINUED

REFERENCES .....181

APPENDICES .....186

    Appendix A: GIS Data and Attributes .....187

    Appendix B: Calculations of Residential Segregation and  
    the Entropy Index.....198

    Appendix C: Delineation of the Downtown Area for the Towns of Toppenish,  
    Grandview, Sunnyside, and Wapato .....209

LIST OF TABLES

Table	Page
1. The percentage of Hispanics and Mexican immigrants living in the U.S. in 2000 by year of entry .....	22
2. Growth in the percentage of Hispanics in several towns in the Lower Yakima Valley .....	49
3. General demographic characteristics of the Spanish origin population of Yakima County in 1980.....	62
4. The Index of Dissimilarity for both the study area and Yakima County.....	95
5. Summary of GIS analysis and results .....	99
6. Survey responses to the race relations question.....	159

## LIST OF MAPS

Map	Page
1. Washington State with the Yakima Valley encircled .....	2
2. The Yakima Valley .....	11
3. Percent of persons who are Mexican by state, 2000 .....	24
4. Top 10 states with large Hispanic populations and growth, 2000 .....	25
5. Part of the Pacific Northwest with the Columbia Basin Irrigation Project encircled and the Grand Coulee Dam marked with a black triangle .....	30
6. Map of Mexico showing state boundaries with Michoacan encircled.....	51
7. Change in the Percent Hispanic per block group 1990-2000 .....	92
8. Growth in Hispanic per capita income compared to growth in total per capita income by block group 1990-2000.....	93
9. Change in the entropy index from 1990-2000 .....	97
10. Change in linguistic isolation per block group 1990-2000.....	98
11. The street layout of the town of Toppenish .....	103
12. The Hispanic percentage in each census block in Toppenish.....	128

## LIST OF FIGURES

Figure	Page
1. Hispanics by country of origin, 2000.....	17
2. Full-time, year round workers with annual earnings of \$35,000 or more by detailed Hispanic origin: 2001 .....	18
3. Population with at least a high school education by detailed Hispanic origin: 2002.....	19
4. Immigrants as a percentage of the U.S. Population .....	20
5. The foreign born population by world region of birth, 2003 .....	21
6. Population by Hispanic origin, age, and sex: 2002.....	27
7. An image of the Food-for-Victory Campaign .....	32
8. An image of the Food-for-Victory Campaign .....	33
9. An image of the Food-for-Victory Campaign .....	34
10. An advertisement recruiting women into the fields.....	35
11. Advertisements for farm labor .....	36
12. An article describing the labor shortage .....	37
13. An article describing the school schedule during the war .....	38
14. A description of the demand for Mexican laborers .....	39
15. Farmers in Washington anticipate relief from the labor shortage.....	40
16. Descriptions of the newly arrived Mexican laborers .....	43
17. Geographic relationship of census data .....	61

## LIST OF FIGURES - CONTINUED

Figure	Page
18. Percent of employed persons older than 16 years who work in agriculture, forestry, or fisheries, 1980.....	63
19. Median income in Yakima County, 1980.....	64
20. Educational attainment for the population 25 years and older, 1980.....	65
21. Percent of families below the poverty level, 1980.....	66
22. Demographic changes, 1980-2000.....	67
23. Difference in median family income between Hispanics and the total population: change from 1980-2000.....	68
24. Difference between the percent of Hispanic families and total families below the poverty level: change from 1980-2000 .....	69
25. Growth of the Hispanic population, 1980-2000 .....	71
26. Growth of the foreign born population, 1980-2000.....	72
27. Growth in the percentage of the population older than 4 years who speak Spanish, 1980-2000.....	73
28. Difference between the percentage of all families and Hispanic families below the poverty level, 1980 and 2000 .....	74
29. Percent of the population 25 years and older with more than a high school education, 2000 .....	75
30. Educational attainment of the population 25 years and older, 2000.....	76
31. Percent of families below the poverty level, 2000.....	78
32. Household income for Hispanic and non-Hispanic white householders, 2000 .....	79
33. Age by sex and ethnicity, 2000.....	80

## LIST OF FIGURES - CONTINUED

Figure	Page
34. Flow chart of GIS analysis.....	90
35. Businesses transferring money to and from Mexico are Common in the Valley .....	104
36. A Mexican restaurant in Grandview .....	105
37. One of the many examples of Spanish language signage .....	106
38. A convenience store in Toppenish oriented to Mexicans .....	107
39. Businesses with names that are closely tied to Mexico .....	108
40. Bilingual signage on a nationally owned business .....	109
41. Bilingual signage on a locally owned business.....	110
42. Bilingual signage in a public library .....	110
43. Bilingual signage in a Wal-Mart in Sunnyside.....	111
44. The Hispanic goods section of Wal-Mart115 .....	112
45. The Wal-Mart in Sunnyside employs bilingual pharmacists .....	113
46. Tortilla makers and warmers in a smaller grocery store.....	114
47. Mexican food items in a medium sized store.....	115
48. The Mexican foods section of a Safeway in Toppenish .....	116
49. Items in the Mexican foods section .....	117
50. Cookies and piñatas in the Mexican foods section .....	118
51. Two murals encouraging Hispanic youth in their United States home adorn the walls outside of Radio KDNA.....	123
52. Radio KDNA, Granger .....	124

## LIST OF FIGURES - CONTINUED

Figure	Page
53. A Mexican home adorned with bright colors, a chain link fence, and colorful flowers in Toppenish.....	129
54. A Mexican housescape in Toppenish .....	129
55. Gang graffiti on a mailbox in a Mexican neighborhood, Toppenish.....	130
56. Gang graffiti on a dumpster in a Mexican neighborhood, Toppenish .....	131
57. Gang graffiti on a home in a Mexican neighborhood, Toppenish .....	131
58. A Reformed Christian church reaching out to the Hispanic Community .....	133
59. A bilingual religious service .....	134
60. A mass held in Spanish and one held in English, offered at different times .....	134
61. One example of the bilingual nature of Lincoln Elementary School, Toppenish.....	141
62. The Bracero mural in Toppenish, located on side street.....	166
63. The mural depicting the Bracero Program is hard to find and often blocked from view .....	167
64. The story behind the Bracero mural.....	168
65. The Bracero mural .....	169
66. Scenes from the Bracero mural, Toppenish.....	170

## ABSTRACT

The transition of spaces and places by the increasing number of Hispanics in the United States is a topic of growing importance in cultural geography. The degree to which Hispanics integrate, or assimilate, into Anglo culture plays a vital role in such transformations. This research examines the different avenues of Hispanic assimilation and non-assimilation in the Lower Yakima Valley in Washington State. These avenues consist of economic, structural, cultural, and spatial assimilation, as well as the Hispanic representation in the cultural landscape. Fieldwork in the Valley, combined with census data from the last two decades suggests that Hispanics are assimilating into Anglo culture structurally, spatially, and economically, but not culturally. Due to the fact that this area is majority Hispanic, the maintenance of this culture has a distinct impact on the cultural landscape, as well as the Anglo population. By defying the traditional model of assimilation, a new Hispanic homeland is emerging in the Pacific Northwest. Mexicans in the Valley have created a place that, in their own words, “feels like home.” The schools and businesses in these communities are faced with unique challenges, the solutions to which differ greatly from places where Hispanics are a minority. As the geographic distribution of Hispanics continues to change, it is likely that other communities will experience transformations similar to those in the Yakima Valley. This research serves to add to the growing literature aimed at benefiting such places.

## INTRODUCTION

Ethnic culture regions have long been the focus of intense study. The Hispanic borderlands of the southwest United States present unique case studies of situations in which a national minority, Hispanics, have attained majority status. The society and economics of these regions require policy solutions that may differ greatly from other areas. Therefore, it is of national interest that these areas are extensively studied and identified. While traditional ethnic concentrations have been given ample consideration, new and emerging areas exhibiting similar characteristics have remained relatively unexplored. This thesis explores one of those areas: the Yakima Valley of central Washington (Map 1).

The Yakima Valley is located in the heart of Washington State, about 180 miles from the metropolitan centers of Spokane, Seattle, and Portland, Oregon. The largest city in the Valley is Yakima, located at the northwestern end of the Valley. Climatically, the Yakima Valley is a desert, receiving approximately eight inches of rainfall a year. The Valley however, is blessed with the Yakima River, which has its headwaters in the Cascade Mountains to the west. Like much of central Washington, it is characterized by volcanic soils, which are extremely fertile and thus ideal for agriculture. The Valley ranks as one of the top ten most productive agricultural regions in the United States, and ranks first in the production of hops, apples, and mint. In 2000 the population of Yakima County was 222,500, with the majority of people located along the 60-mile stretch of the Valley itself.



Map 1: Washington State with the Yakima Valley encircled.

This thesis compares the economic and social conditions of this region with the assimilation rate in order to answer the question: Is there an emerging Hispanic homeland in the Pacific Northwest?

While culture regions have occupied a long history in cultural geography, the term “homeland” is relatively new to the field and there is ongoing debate as to its proper use and definition. Several scholars agree that homelands should be categorized as a special type of culture region (Nostrand and Estaville 2001). Conzen (2001) asked the question “whether a homeland should be seen as a special case of the anthropologist’s and geographer’s ‘culture area’ or ‘culture region’ or whether it is a separate category

altogether” (Conzen 2001, 248). If the homeland concept is to be considered a special type of culture region, exactly what defines a homeland as “special” must be identified. Nostrand and Estaville (2001) and Conzen (2001) have all concluded that a group’s relation to place is a key element, essential to the homeland concept, but not explicit to culture regions in general. But even as Conzen recognizes this key element he also expresses concern about its broad generality and claims that there are many kinds of attachment to place. While the homeland concept has been partially identified and certain key ingredients defined, it is still a term that is widely open to interpretation. For the purpose of this thesis, the focus will be on the attachment to place that develops when a people mark the landscape with their “cultural imprint.” As Nostrand and Estaville have stated “a people shape an area with their culture, and the area in turn shapes them; feelings of attachment and belonging develop” (Nostrand and Estaville 2001, xx). Related to these feelings of attachment is a sense of community, which as Hurt suggests, “is of utmost importance to the homeland concept” (Hurt 2003, 22). A deepening cultural imprint likely represents a unified social community.

While an established homeland, such as Nostrand’s Hispaño homeland, may have achieved a level of “attachment to place” that is heightened enough to warrant inclusion as a homeland, there are other culture regions that are still undergoing the social and economic processes contributing to such an attachment. These areas are therefore emerging homelands. An emerging homeland will be defined in this thesis as a type of culture region that is evolving through time and is thus defined by the social and economic processes, rather than the static characteristics, it exhibits. An emerging homeland is fueled by continual chain

migration, which serves to reinforce the cultural identity of the immigrant group as well as inhibit assimilation into the dominant society (Hardwick 2001).

## CHAPTER 1

## RESEARCH FRAMEWORK

In 1970, Nostrand regionalized the American Southwest by delimiting “America’s Hispanic culture region.” Nostrand based his criteria on population data as well as cultural characteristics. Defined by Nostrand, “the borderland is more than a population region. It is a culture region because of the intensity of a distinctive subculture, the longtime existence of Hispanic settlements, a rich Hispanic legacy, and the presence of Anglo-Americans who have been ‘Hispanicized’”. In order for a county to be considered part of the culture region, it had to meet two minimum requirements: a Hispanic population of 500 persons that comprised at least 5% of the total population. Any counties that failed to meet both criteria were considered to be outside of the borderland.

There were six non-southwestern counties that met Nostrand’s population criteria but were not included as outliers of the borderland region because they had not yet been Hispanicized (a term he defines as the influence of Hispanics on non-Hispanics). As Nostrand states, “it is true that the Hispanic population concentrations and corresponding cultural intensities of these counties were of greater relative importance, but the Hispanic residents of Scotts Bluff County or Yakima County, unlike their counterparts in the borderland counties, have settled there in relatively recent times. No earlier generations of Hispanic people left a legacy in these counties. The local residents have not been significantly influenced by the Hispanic-American” (Nostrand 1970, 659-660).

At the time when Nostrand delimited the borderland region, Yakima County had a Mexican population of 6,266 persons, accounting for 4.3% of the non-southwestern population (southwestern states include California, Arizona, New Mexico, and Colorado). Nostrand recognized that Yakima County was “an exception” but it was not included in the Hispanic culture region for reasons mentioned above. However, it has been nearly 40 years since Nostrand’s Hispanic culture region was delimited and the Hispanic population of Yakima County has continued to grow at a rate faster than the Anglo population. Is it possible then, that the local Anglo population has been influenced by the Mexican population? Does the Yakima Valley now represent a culturally distinct area of Hispanic influence?

These questions were approached by Haverluk (1992) in his PhD dissertation “*Mex-America: The Maintenance and Expansion of an American Cultural Region*”. Using Nostrand’s 5% criteria, Haverluk redefined the Hispanic-American borderland for 1990 to include Yakima County. Yakima County has therefore been established as part of a specific culture region, one Haverluk calls Mex-America. The terms Mex-America and Hispanic borderland encompass the same general concept of a distinct area of cultural influence, but they vary in the specific ingredients that define this influence. While Nostrand required a Hispanic legacy for inclusion in his borderland, Haverluk focuses on the Hispanic imprint (Haverluk 1992). As opposed to the Hispanic legacy, which includes things such as Spanish missions, pueblos, and presidios, the Hispanic imprint is a contemporary phenomenon. It is associated with Hispanic political and social organizations, Spanish language media, Mexican food items, Mexican-American

housescaping, and Hispanic music (Haverluk 1992). This thesis will build upon the foundation laid by Haverluk to take the next step in the study of Yakima Valley as a culture region: is it characterized by an assimilation rate that may lead to an emerging homeland?

Assimilation is defined as the process by which a minority group comes to resemble, in a variety of ways, the larger society of which it is a part (Massey and Mullan 1984). Assimilation can occur in a variety of ways. The traditional model established by Gordon in 1964 involves seven stages. The first stage is cultural assimilation, whereby the minority population adopts the language and cultural practices of the host society. The second stage is structural assimilation, in which the minority group enters primary level interaction with the host society, contributing to social interaction between the two. This model assumes that once structural assimilation occurs, all other stages will follow until the minority population becomes completely absorbed by the host society (Gordon 1964). The model of spatial assimilation, formally developed by Massey in 1985, adds to the traditional model by suggesting that there is a direct connection between cultural, economic, and spatial assimilation. The model is based on the assumption that as immigrants become more familiar with the host country's culture and begin to earn more money, they become more geographically mobile. As their socio-economic status improves, immigrants tend to move away from areas of ethnic concentration, into neighborhoods dominated by a non-immigrant population. Once this residential integration (or spatial assimilation) occurs it is possible for primary level interaction to begin between the immigrants and non-immigrants (Allen and Turner 1996).

Spatial assimilation, like the other types of assimilation, has a negative correlation with homeland formation. As Hurt describes, “if at least partial social or spatial segregation is not achieved, exclusivity will be lost and the homeland group will eventually assimilate into the dominant group.” Residential segregation enables an ethnic group to keep their social life partially separated from the dominant culture, which helps maintain a unified social community (Hurt 2003, 22).

### Conceptual Structure

Haverluk (1998) classified three different types of Hispanic communities based on their assimilation rates: continuous, discontinuous, and new. Continuous communities are defined as those that were founded by Hispanics and in which Hispanics have always been the majority population. Continuous communities correspond to the traditional Hispanic homelands of Texas, New Mexico, Arizona, and California. Discontinuous communities were originally settled by Hispanics, but eventually filled by a minority population. New communities are those that are dominated by Anglos and in which Hispanics are recent immigrants. New communities are assumed to have the highest rate of assimilation in part because they do not maintain the use of Spanish in the home. Haverluk classified the Hispanic settlement areas of Yakima Valley as new communities based on settlement patterns, Hispanic elected officials, and the percentage of Hispanic professionals. He therefore concluded that they would be characterized by a high rate of assimilation. However, these communities are an exception to the model because, as Haverluk admits, they have a high Spanish language retention rate, which is characteristic

of continuous communities. The question then remains as to whether or not the new communities of the Yakima Valley are following the predicted model of growth and assimilation. And, as Haverluk speculates, “if a new community can attain levels of political and social influence equivalent to continuous communities, then many assumptions about minority assimilation in the U.S. must be reevaluated” (Haverluk 1998, 479).

Williams and Ortega (1990) found that, contrary to other minority groups in the U.S., Mexican Americans tend to be much less culturally assimilated and somewhat more structurally assimilated. This thesis will explore whether or not this is the situation in the Yakima Valley. It is hypothesized that Hispanization of the Yakima Valley is increasing (a condition that negates cultural assimilation), while at the same time, Hispanics in the area may be assimilating structurally. This further supports the idea that in order for Hispanization to increase, assimilation must not follow the traditional model. If, in fact, Hispanics are not culturally assimilating, but are structurally assimilating, can the Yakima Valley be considered an emerging homeland? Is it possible for Hispanics to maintain a unified social identity while their interactions with the Anglo society are increasing? There are two characteristics of the Yakima Valley that may serve to strengthen Hispanic identity despite a degree of structural assimilation: continual immigration and a Hispanic majority. As previously mentioned, continual immigration reinforces cultural identity and inhibits assimilation (Hardwick 2001). A Hispanic majority may foster community ties within the ethnic group and contribute to a stronger support network that is purely Hispanic. Anglo residents may also be influenced by the

Mexican majority, contributing to a sense of place that is more closely tied to Hispanics than to Anglos.

The expression of the Hispanic imprint in a community can be interpreted as a direct measurement of the assimilation rate (Haverluk 2003). If assimilation is occurring quickly, there is less likely to be a concrete, visible representation of the ethnic group as being distinct from the host society. However, if the Hispanic population is retaining their cultural characteristics as separate and apart from the host society, then this situation will be apparent in the landscape of that community. The Hispanic imprint contributes to the development of a homeland because as stated by Roark “a homeland is an area that is identified by an ethnic group as its own” (Roark 1993, 6). The greater the Hispanic imprint, the stronger the association between an ethnic group and the land.

### Research Questions

The following questions are each expected to contribute to an assessment of Hispanic assimilation and thus homeland development in the Yakima Valley.

1. Are Hispanics in the Yakima Valley culturally assimilating into Anglo society?
2. Are Hispanics in the Yakima Valley structurally assimilating into the Anglo society?
3. Has the Hispanic imprint changed over time with the growing Mexican population?
4. Does social integration lead to structural assimilation or to Hispanization?
5. Do Hispanics in these communities exhibit characteristics of an emerging homeland?
  - a. If so, what implications does this have for policy and planning considerations?

## Methodology

Four places within the Valley will be included in the study, beginning in the northwestern end of the Valley with Wapato, followed by Toppenish, Sunnyside, and finally Grandview, which is located at the southeastern end of the Valley (Map 2). These four places were chosen because they are all located in the Yakima Valley, have a population between 4,500 and 14,000, and a Hispanic population that comprises at least 50% of the total. In order to gauge assimilation over time, the time period from 1980 to the present will be the focus.



Map 2: The Yakima Valley (Source: [www.mapquest.com](http://www.mapquest.com) and [www.usahops.org](http://www.usahops.org)).

Five different aspects of each community will be analyzed: population characteristics, economic conditions, social integration, cultural retention, and landscape imprint. Population characteristics include general demographic conditions such as age and sex structure, and country of birth. Economic conditions include downtown businesses owned by Hispanics, education, and Hispanic income levels. Cultural retention includes Spanish language retention and Hispanic social organizations. Social integration will be based on spatial assimilation (residential segregation) and the degree of social interaction between the Hispanic population and the Anglo population. The Hispanic imprint, as defined by Haverluk (1992), includes Spanish language media, Mexican food, music, Mexican-American housescapes, and Spanish language signage.

The objective in analyzing these variables is to establish a connection between them and different types of assimilation of Hispanics in the above-mentioned communities of the Yakima Valley. The variables will be analyzed through field investigations and GIS analysis and an assessment will be made regarding their avenues of assimilation as a whole. This analysis of the connections between the above mentioned variables and different avenues of assimilation leads to a deeper understanding of how the residents of these communities form an identity, which in turn leads to the creation and recreation of space in these communities. For example, a high level of cultural retention, such as Spanish language usage, creates a uniquely Hispanic space. This could exist physically, as in the case of Hispanic businesses, or ephemerally, as in the case of Spanish language radio programs. Either way, a social space is created that Hispanics, and only Hispanics, identify with. This identification is a direct reflection of how assimilation is occurring or,

in the example described here, how it is not occurring. This creation of identity and place explains how Hispanics relate to the broader communities in which they live, and also gives a sense of the level of attachment they feel for such places. It is these dynamics that lead to the viability of a place as an emerging homeland. If the communities studied in this thesis exhibit pattern of assimilation that contributes to the creation of Hispanic identity and Hispanic spaces, then the region of the Yakima Valley is steadily emerging into a homeland for its growing Hispanic population.

### Data Sources

Data will be obtained from the United States Bureau of the Census, independent field investigations, as well as secondary sources.

### Census Data

Information to be obtained from the U.S. Bureau of the Census includes economic, educational, and demographic characteristics. The economic characteristics to be researched are employment sector, median income, household income, per capita income, and families below the poverty level. Information on education will be based on different levels of educational attainment, ranging from less than a ninth grade education to a graduate or professional degree. Demographic characteristics include country of origin, foreign-born status, sex, age, and Spanish speaking. Data will be collected for the ethnic categories of Hispanic, Mexican, non-Hispanic, and white-alone (which does not include Hispanics). Census data will be collected from 1980, 1990, and 2000 at three different

spatial scales: block group, place, and county. Information used in the GIS analysis portion of this research will also be collected from the United States Census at the block group and census tract levels.

### Field Investigations

Variables to be researched through field investigation include downtown businesses owned by Hispanics, education, social interaction between Hispanics and non-Hispanics, Hispanic media and the Hispanic imprint. Downtown businesses will be researched based on the type and size of store, the clientele they serve, and signage. Educational variables will consist of the methods used to deal with the volume of non-English speaking students in most of the classrooms in the Valley. This information will be obtained through personal interviews with schoolteachers as well as personal contact with administrators. Interviews will be conducted with the chamber of commerce in each town for information on changes in the number of Hispanic owned businesses and the degree of social interaction between Hispanics and non-Hispanics in the business community. Another avenue used to explore social integration will be through local churches and restaurants. Hispanic media will be explored through personal interviews with employees at the Valley's Spanish language newspapers and the most long standing Spanish language radio station, Radio KDNA. Issues of circulation, composition, and community outreach will be discussed. Several different field approaches will be undertaken to research the Hispanic imprint. A "shopping list" developed by Haverluk will be used as a guide in local stores in each community to determine the availability of

Mexican food items. Mexican housescapes (a house and its immediate surroundings) will be identified based on housing characteristics that have been established by Arreola (1988) and Benedict and Kent (2004) to be uniquely associated with Mexicans. These include fenced enclosures, bright colors, and a manicured flower garden. Spanish language signage will also be noted.

### Secondary Sources

In addition to the previously mentioned data sources, two newspaper series that ran in the Yakima Herald Republic will provide supplementary information for this thesis. The first one is titled “Neighbors/Vecinos” and ran for a week in 1995. The second, titled “Race Relations in the Valley,” ran for a week in 2000. These two series provide an in-depth look at the Hispanic population in the Valley as well as race relations between Hispanics and non-Hispanics. They will be discussed in detail in later chapters. Various websites will also be used to supplement information gathered through fieldwork investigations such as Hispanic music, festivals, and art.

## CHAPTER 2

## HISPANICS IN THE UNITED STATES

The term Hispanic is a uniquely American word. A Cuban woman living in her home country does not consider herself Hispanic, nor is it likely that any of her fellow countrymen would. However, once she arrives on the shores of the United States, she is classified as Hispanic. Hispanic is considered a pan-ethnic term, in that it groups together people from various backgrounds and cultures into one umbrella description. The term is sometimes criticized for blurring cultural distinctiveness because the only commonality that really unites people from “Hispanic countries” is the Spanish language.

However, there have been efforts by Hispanics to unite under this pan-ethnic identity. Sommers (1991) describes the use of local fiestas and other avenues of cultural performance as a uniting force for Hispanics. She claims that the festival in particular serves as a unifying event because street celebrations are common throughout Latin America. Whatever the acceptance or rejection of this pan-ethnic term may be, it is necessary to be aware that it may bring with it negative, as well as positive, connotations. This is especially important as immigrant groups from Spanish speaking countries other than Mexico begin to increase. Historically, Mexicans have dominated the immigrant stream, followed by Puerto Ricans, then Cubans (Sandefur et al 2001).

This chapter will focus on Mexicans because they are the predominant background of the Hispanics in the lower Yakima Valley. It will then progress to national and regional trends, and broaden the scope to the Hispanic population. Where possible, this

discussion aims to be culturally specific and at least distinguish between Mexicans and other Hispanics, but this is difficult because many population characteristics available from the U.S. Census are classified under the term Hispanic. Because Hispanic is the term employed by the U.S. Census Bureau it is also the term employed by a great deal of the literature on immigration and ethnic change.

### The Mexican Origin Population

The following paragraphs and figures describe the Mexican origin population of the United States. The classification of Mexican by the U.S. Census is determined by the respondent and refers to both those born in Mexico and those born in the U.S. of Mexican descent. Persons of Mexican origin/descent comprise the majority of Hispanics living in the U.S. (Figure 1).

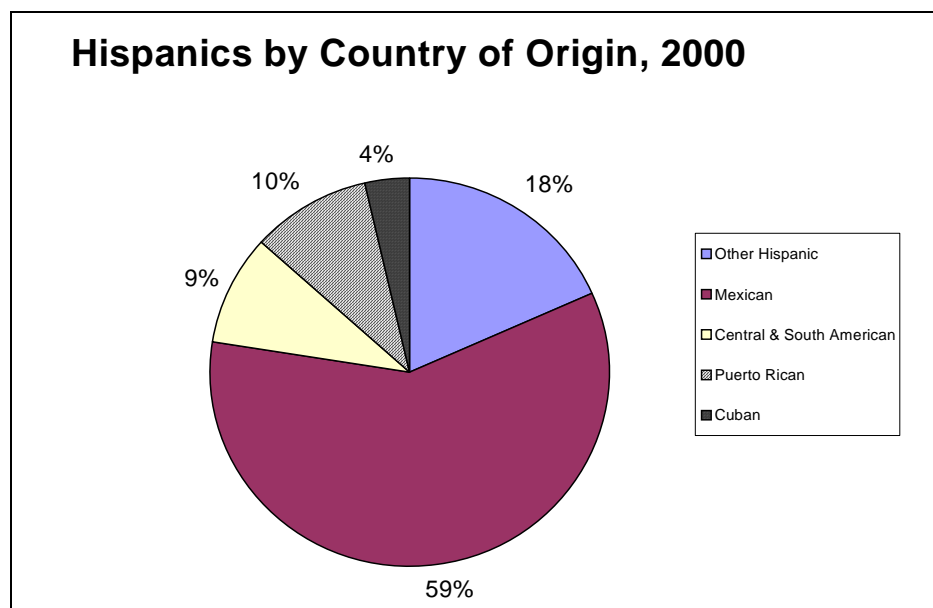


Figure 1. Hispanics in the U.S. by country of origin, 2000 (Source: USBC 2000, STF 3).

Family income and educational attainment are lower, on average, for those of Mexican descent than for the majority of Americans. However, these indices vary among Mexicans in different areas of the United States. For example, average incomes for Mexicans are higher in the Midwest than they are in most of the borderland areas (Arreola 2000). Figure 2 highlights the wage disparity between Hispanics and non-Hispanic whites, as well as the lower annual earnings of Mexicans compared to other Hispanic groups. The category of “Other Hispanic” includes anyone descendant from a Spanish speaking country and can include any race (Sandefur et al 2001).

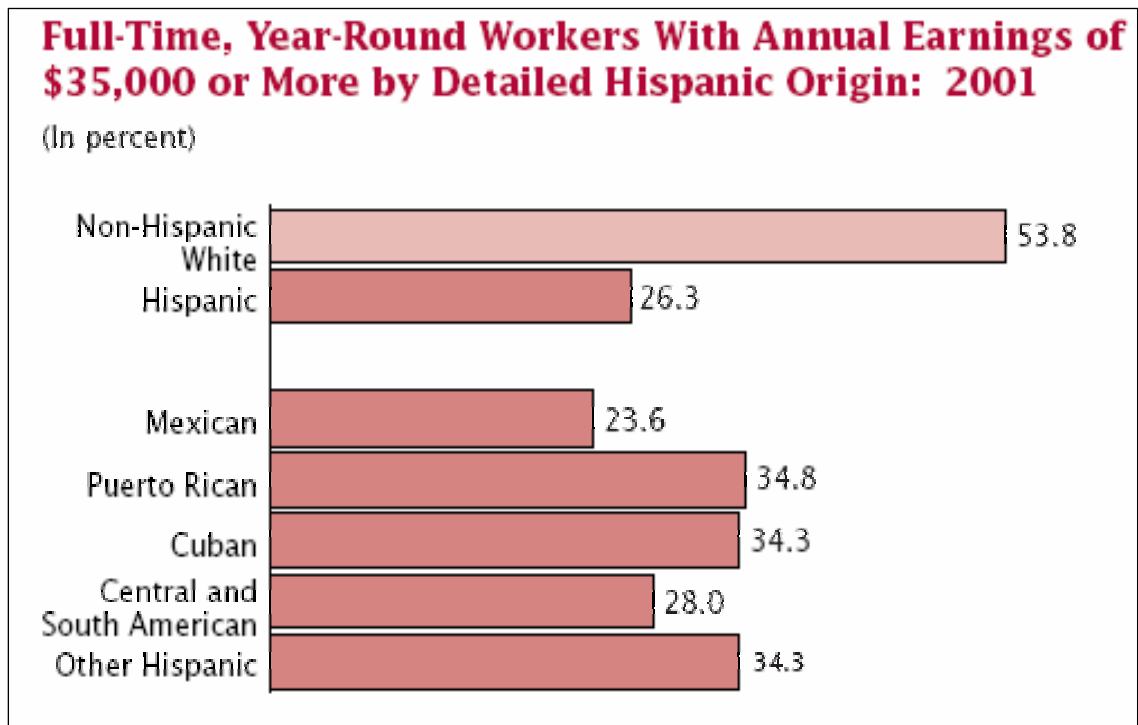


Figure 2. The wage disparity between Hispanic groups and non-Hispanic whites. (Source: USBC, Annual Demographic Supplement to the March 2002 Current Population Survey).

Data from the 1990s suggests the existence of a labor sector imbalance that has changed little over the past fifteen years. Mexicans are underrepresented in managerial, professional, technical, and administrative jobs, while they are overrepresented in farming, forestry, and fishing occupations. Employment in these lower paying jobs helps to explain the wage disparity (Camarota 2001).

Educational attainment is also much lower for Hispanics than for non-Hispanic whites, a condition that has been improving slowly over the years. Average schooling has risen for Mexicans since the 1960s; however, they still have the lowest educational attainment of all U.S. Hispanic ethnic groups (Arreola 2000). Figure 3 shows that while 88.7% of non-Hispanic whites have at least a high school education, only 57% of Hispanics and 50.6% of Mexicans have the same level of education. Mexicans lag a considerable distance behind all other Hispanic groups in educational attainment.

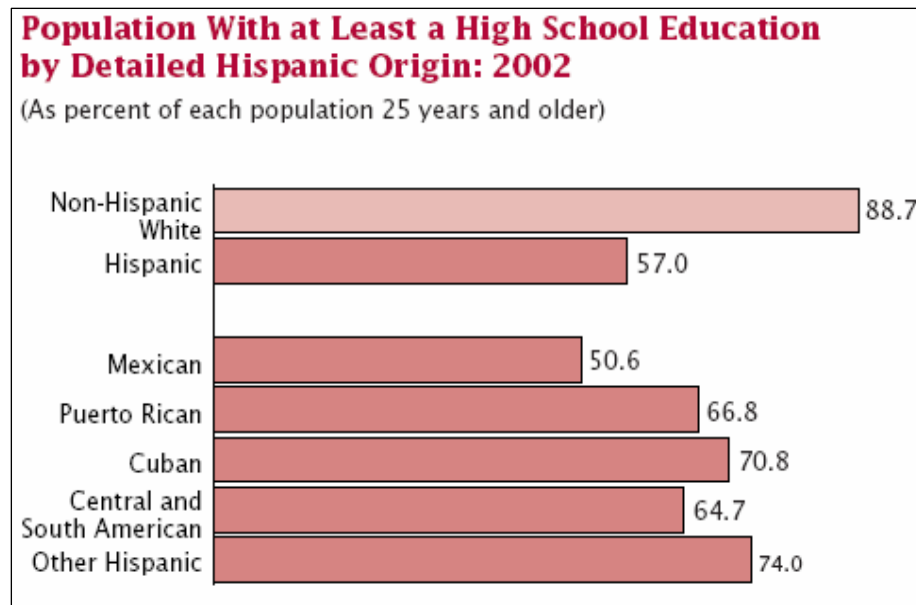


Figure 3. The disparity in educational attainment between Hispanic groups and non-Hispanic whites. (Source: USBC Annual Demographic Supplement to the 2002 CPS).

### Population Trends

In 2003, the U.S. Census Bureau designated Hispanics as the nation's largest minority group. The number of Hispanics in the U.S. more than doubled between 1980 and 2000, accounting for 40% of the growth in the country's entire population during that time. Between 1990 and 2000, the Hispanic population grew from 22.4 million to 35.3 million, representing a growth rate of 58%, compared to 13.2% for the overall population and only 8.7% for the non-Hispanic population (Saenz 2004). According to a report by the Center for Immigration Studies, "immigration has become the determinate factor in population growth" (Camarota 2001). Figure 4 shows the fluctuation in the volume of immigrants as a percentage of the U.S. population throughout the last 100 years.

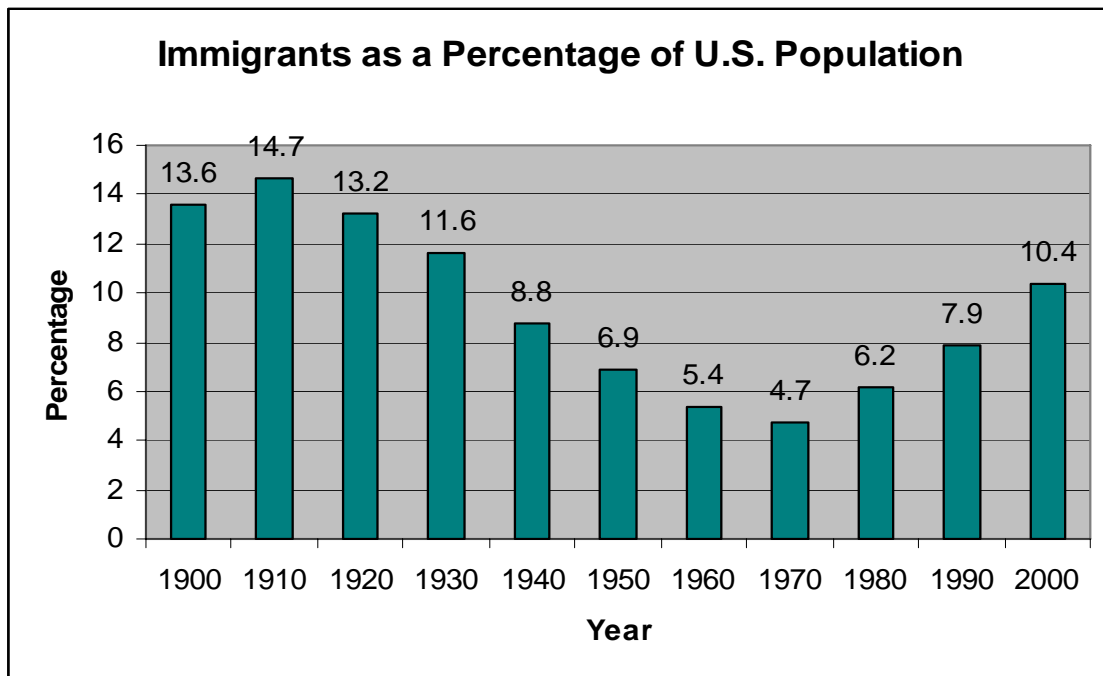


Figure 4. The 100-year history of the number of immigrants living in the U.S. as a percentage of the U.S. population. (Source: Camarota 2001).

Since 1970, the number of immigrants has risen steadily, from less than 10 million to more than 28 million in 2000. The origin of immigrants has also fluctuated over time with changing political policies and economic conditions. The U.S. has experienced two major immigration eras: mid-19<sup>th</sup> century to the early 20<sup>th</sup> century, and the 1970s to the present. During the first era, 90% of immigrants arrived from European countries. During the second era, over 75% of immigrants originated in Latin America and Asia, with immigration from Europe steadily declining (Rubenstein 2002). Figure 5 shows the breakdown of the foreign born population according to their region of birth as of 2003.

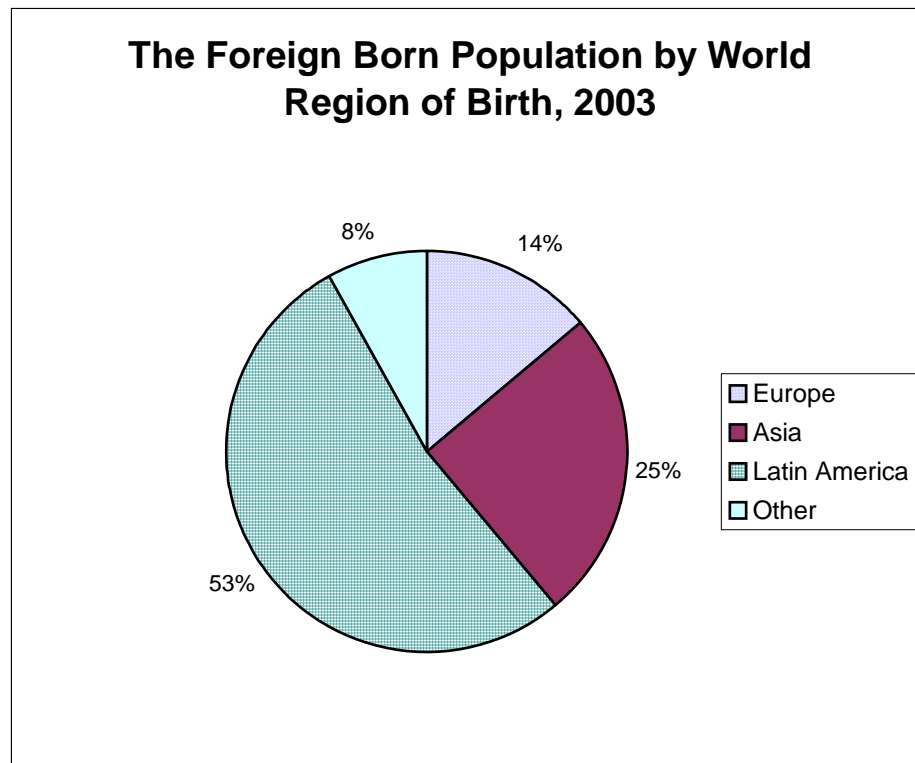


Figure 5. The foreign born population by world region of birth as of 2003.  
(Source: USBC Annual Social and Economic Supplement to the 2003 CPS).

The Immigration Act of 1990 created a flexible cap of 675,000 immigrants per year. Immediate relatives of U.S. citizens, refugees, and asylees are not included in this cap and contribute substantially to the total number of incoming immigrants. Currently, roughly 700,000-900,000 permanent residency visas are issued every year. Estimates of the number of illegal immigrants entering the U.S. vary considerably with numbers ranging from 275,000 to 500,000 annually (McKee 2000; Camarota 2004). While a solid estimate of the total number of immigrants entering annually is therefore hard to pinpoint, the Center for Immigration Studies estimates the number to be in the vicinity of 1.2 million legal and illegal immigrants (Camarota 2001). Table 1 describes the foreign born Hispanic and Mexican populations of the U.S. as of 2000 according to year of entry. Nearly half of the Hispanic population and half of the Mexican population have arrived in the U.S. between 1990 and 2000.

	Before 1970	1970-1979	1980-1989	1990-2000
Total Foreign Born	15.4	15.1	27.2	42.4
Hispanic	10.2	14.6	29.4	45.8
Mexican	7.9	15.3	28.1	48.7

Table 1. The percent of Hispanics and Mexican immigrants living in the U.S. in 2000 by year of entry (Source: USBC 2000, STF 4).

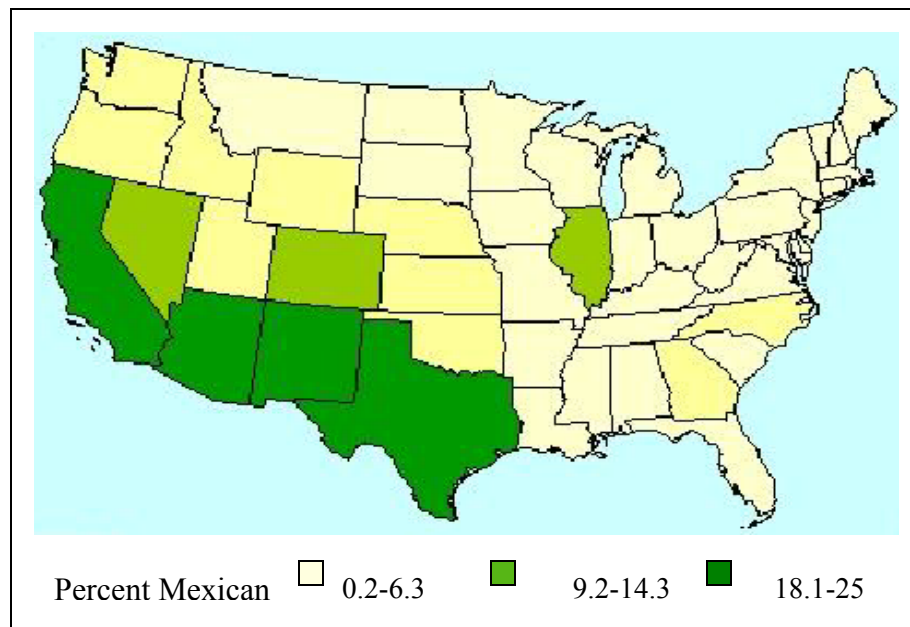
Mexico has contributed significantly to the growth in immigration to the United States, and has sent more immigrants than any other single country. In fact, the growth in the Mexican immigrant population accounted for 43% of the growth in the foreign born

population between 1990 and 2000. As a share of the number of immigrants in 2000, Mexican immigrants account for nearly 30% of the total, almost double their 1980 share of 16% (Camarota and McArdle 2003).

### Geographic Trends

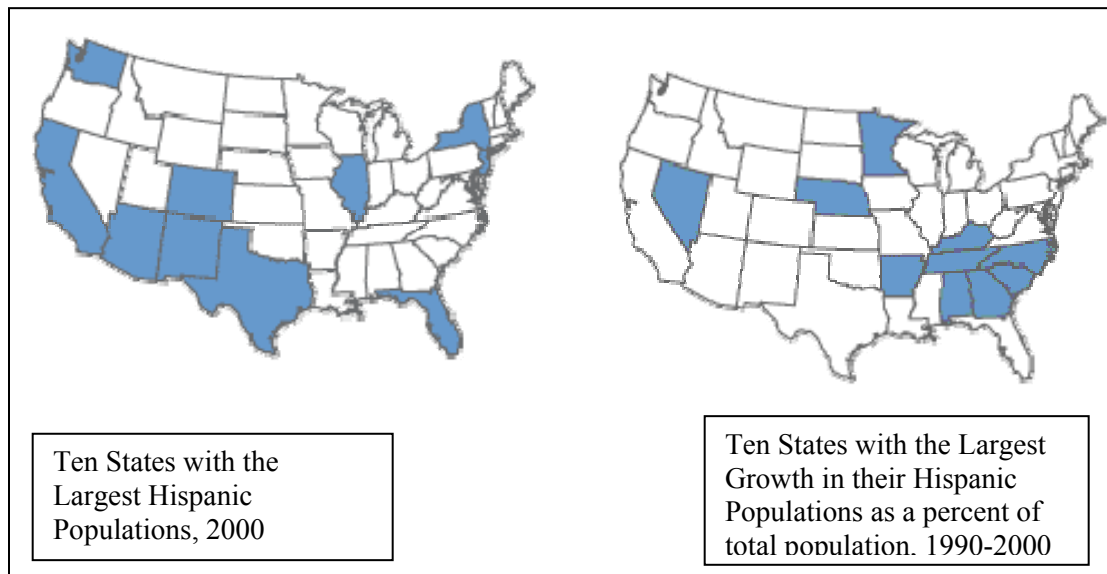
The geographic distribution of Mexicans is important to consider for several reasons. Disparities in educational attainment and income between Mexicans and non-Hispanic whites (See Figures 1 and 2) suggest that areas of high Mexican populations are the same places that require more attention to education and job development. There are two factors that greatly influence where Mexicans settle: economic opportunity and an established Mexican population. Awareness of these factors may help indicate where Hispanic populations may grow in the future and therefore where services may need to be established.

Geographically, Mexican immigrants are a highly concentrated population. Almost half (48.2%) live in California compared to 24.3% for non-Mexican immigrants. Combined together, California, Texas, Arizona, and New Mexico account for 72.3% of the Mexican immigrant population in the U.S. (Map 3).



Map 3. Percent of persons who are Mexican, 2000 (Source: USBC STF 3, 2000).

The Hispanic population has grown rapidly in states that have traditionally had relatively few Hispanics (Map 4). This growth has been associated with the restructuring of the poultry-processing industry and the expansion of low-wage jobs in the South and the Midwest. Several factors have combined to pull Hispanics into the poultry industry in the South. Increased consumption of poultry, labor saturation in traditional immigrant centers, and a desire by immigrants to escape adverse urban living conditions have all produced a large increase in the number of Hispanics living in Southern states (Kandel and Parrado 2004). Nevada is an exception to this as the tripling of Nevada's Hispanic population has been driven by service jobs and the gaming industry. Overall, the regional migration of the Hispanic population in the U.S. has followed a trend to the South and the West (Sandefur et al 2001, 57-61).



Map 4. The top ten states with the largest Hispanic populations and the largest percentage growth in their Hispanic populations, 2000 (Source: Saenz 2004).

The Hispanic population of the U.S. also tends to be much more urban than the population as a whole. According to the 1990 census, 88 percent of Mexican Americans lived in metropolitan areas, compared to 78 percent for the U.S. population. Furthermore, about one in every two Mexican Americans reside in the central cities of their metropolitan areas (Arreola 2000). During the last decade Hispanics, as well as most other ethnic groups, have followed a trend of the overall population to suburban areas. While Hispanics are still most strongly represented in the largest cities, their presence is beginning to spread to smaller metropolitan areas as well as more rural places and towns (Roseman 2002). This may be due to higher incomes and a desire for a better standard of living.

### Future Projections

The release of data from the 2000 Census caused a flurry of projections to be made about the growth of the Hispanic community in the U.S. Prior to 2000, many publications estimated that by 2050, Hispanics would constitute the nation's largest minority. However, data from the Current Population Survey revealed that in 2003, Hispanics became the largest minority group in the U.S., a dramatic increase from established estimates (Camarillo and Bonilla 2001).

Minority populations have been increasing their presence in the U.S. over the last several decades, but it is Hispanics that are driving the demographic transformations currently underway. Today, one of every eight residents of the U.S. is Hispanic, a number that is predicted to rise to one of every four by 2055, and one of every three by 2100. Ongoing immigration, a high birth rate, and young age structure are responsible for this unprecedented growth in the Hispanic population of the U.S. (Camarota 2001). Figure 6 shows the difference between the age pyramid for Hispanics and non-Hispanic whites. The numbers labeling each horizontal bar represent the percentage of each sex and ethnicity in a particular age bracket.

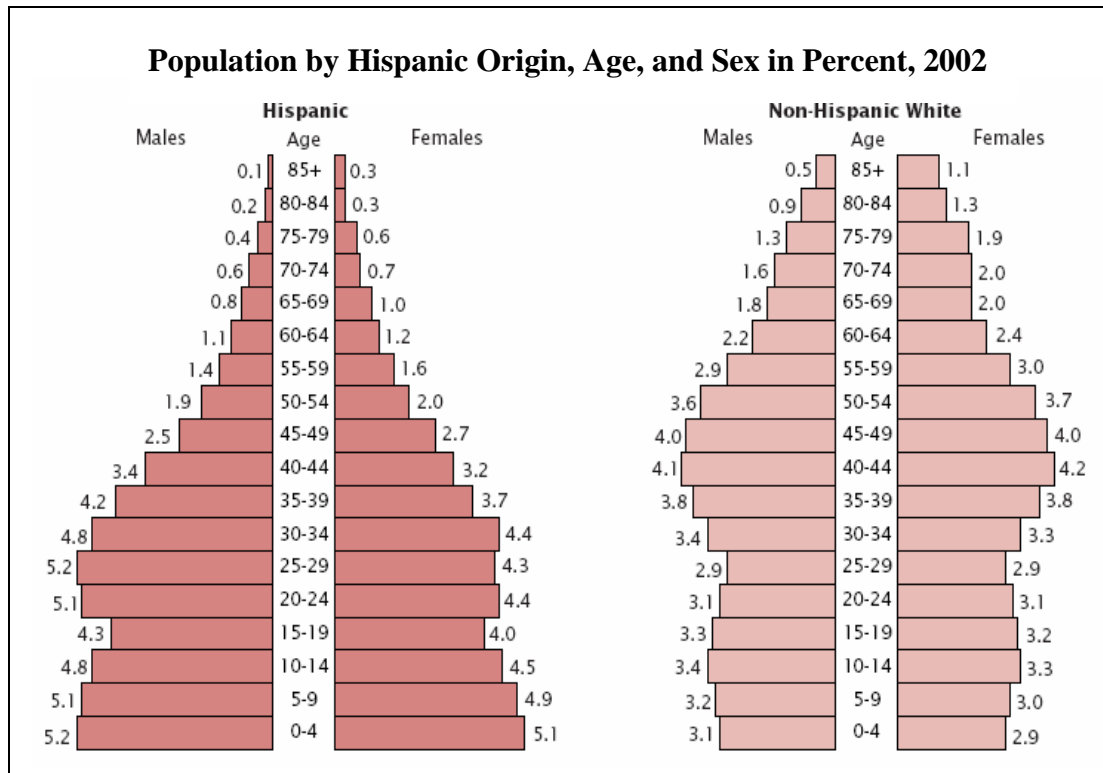


Figure 6. Age pyramids for the Hispanic and non-Hispanic white population of the U.S., 2000 (Source: USBC Annual Demographic Supplement to 2002 CPS).

It is clear from this image that Hispanics have a much more youthful population than non-Hispanic whites. This has far reaching impacts on the future demographic composition of the U.S., especially when the childbearing years are taken into account. Within the Hispanic population, 54% of women are under the age of thirty and within the non-Hispanic white population only 37% of women are under the age of thirty. Consequently, women over the age of sixty comprised 8% of the Hispanic population and 21% of the non-Hispanic white population.

The 35 million Hispanics living in the U.S. have had and will continue to have a significant impact on social, political, and economic institutions. What constitutes

“Hispanic” and the Hispanic experience itself is greatly influenced by continual immigration, which reinforces the Spanish language and other cultural dimensions of immigrant sending countries (Saenz 2004). As the Hispanic population in the U.S. continues to grow, the Hispanic influence on American society will grow as well. It is therefore imperative that we gain a stronger understanding and sensitivity to exactly what this influence entails. This thesis is an attempt to do just that.

## CHAPTER 3

## EVOLUTION OF HISPANICS IN THE YAKIMA VALLEY

In April 1943 a group of 250 Mexican laborers arrived by train in the Yakima Valley. They were the first in a stream of thousands that entered the Valley under the Bracero Program to alleviate the area's agricultural labor shortage resulting from World War II (Gamboa 1981). What these workers brought with them was more than just their "helping hands". With them came their language, cultural traditions, and social values which were slowly transposed to the fields and communities in which they worked. This chapter describes how the Bracero Program established a Mexican population in the Yakima Valley, beginning a transformation of those communities that continues today.

The Yakima Valley is one of the nation's top agricultural centers. However, this area was not always so productive. When central Washington was first settled at the end of the 19<sup>th</sup> century, homesteaders tried their luck with dry land farming. Despite numerous small-scale irrigation schemes to increase productivity, most farmers did not succeed and the population continued to decline for many years (United States Department of the Interior 1964). In contrast to the failed attempts of the surrounding region, residents of the Yakima Valley successfully negotiated the Yakima Project in 1903. The Project, which began in 1906, was a series of diversions and dams that continued to be constructed through 1975. Overall, the Yakima Project reclaimed half a million acres and set the Valley apart from the struggling region surrounding it.

The agricultural potential and population decline of the rest of central Washington did not go unnoticed, however. Following the Great Depression, the hand of the federal government began to re-shape the region with the construction of Grand Coulee Dam in 1933. Building of the dam provided an economic opportunity and rekindled the dream of a land of endless possibilities that had died with the failure of dry land farming over the preceding 40 years. Along with Grand Coulee Dam came population growth, economic expansion, and of course, demand for labor. The Dam was only the first phase of a much bigger undertaking: the Columbia Basin Irrigation Project (CBIP) (Map 5).



Map 5. Part of the Pacific Northwest with the Columbia Basin Irrigation Project (CBIP) encircled and Grand Coulee Dam marked with a black triangle (Source:ESRI 2004).

In the words of the United States Department of Interior (1964), the purpose of the CBIP was to “harness the power of a great river and reclaim a desert wasteland.” The CBIP has been very successful in its goal of creating a productive agricultural region, irrigating over a million acres since 1948. The construction boom spurred by Grand Coulee Dam continued as the CBIP progressed and provided central Washington with continual growth well into the 1950s (United States Department of the Interior 1964).

### World War II and the Farm Labor Shortage

While the CBIP was instrumental to the transformation of central Washington, it of course did not occur in isolation. Forces larger than the federal government entered the picture when World War II began in 1939. The effort to win the war had two major effects that were felt in agricultural areas throughout the Pacific Northwest: an increase in the demand for agricultural products and a decrease in the supply of labor. The call for increased farm production began roughly in the autumn of 1940 when the United States increased their involvement in the war and the Lend Lease Act was passed, defining agricultural commodities as munitions of war (Gamboa 1984). Various efforts were undertaken to encourage crop production for export to troops in Europe as well as conservation of necessary war supplies on the domestic front. The Food-for-Victory campaign was launched for these purposes and played upon a patriotic tone, paralleling food production with winning the war. The images below reveal insight about the pressures placed on farmers during the war (Figures 7, 8, and 9).



Figure 7. An image of the Food-for-Victory Campaign. (Source: Northwest Farm News, October, 1942).

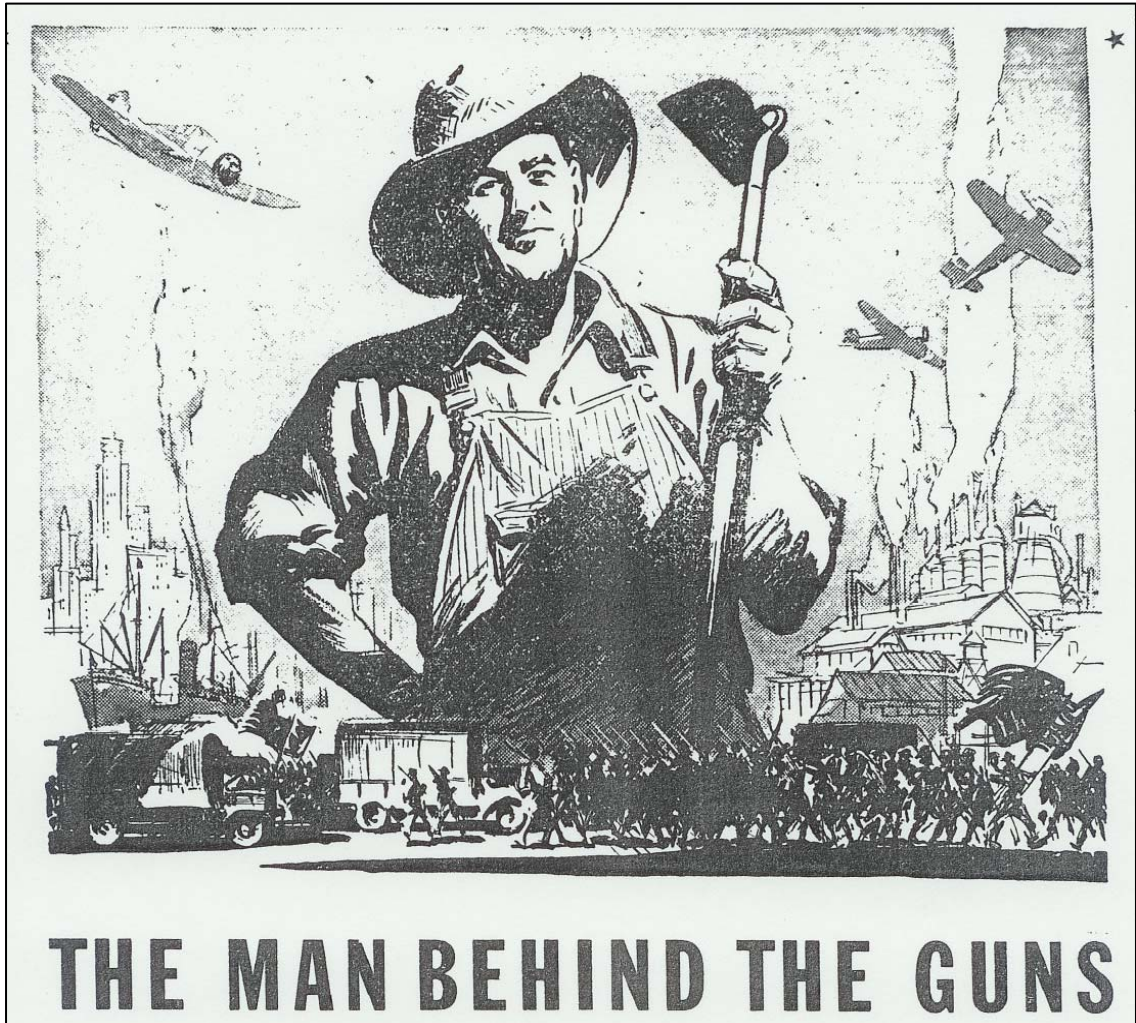


Figure 8. An image of the Food-for-Victory Campaign. (Source: Northwest Farm News, June 25, 1942).

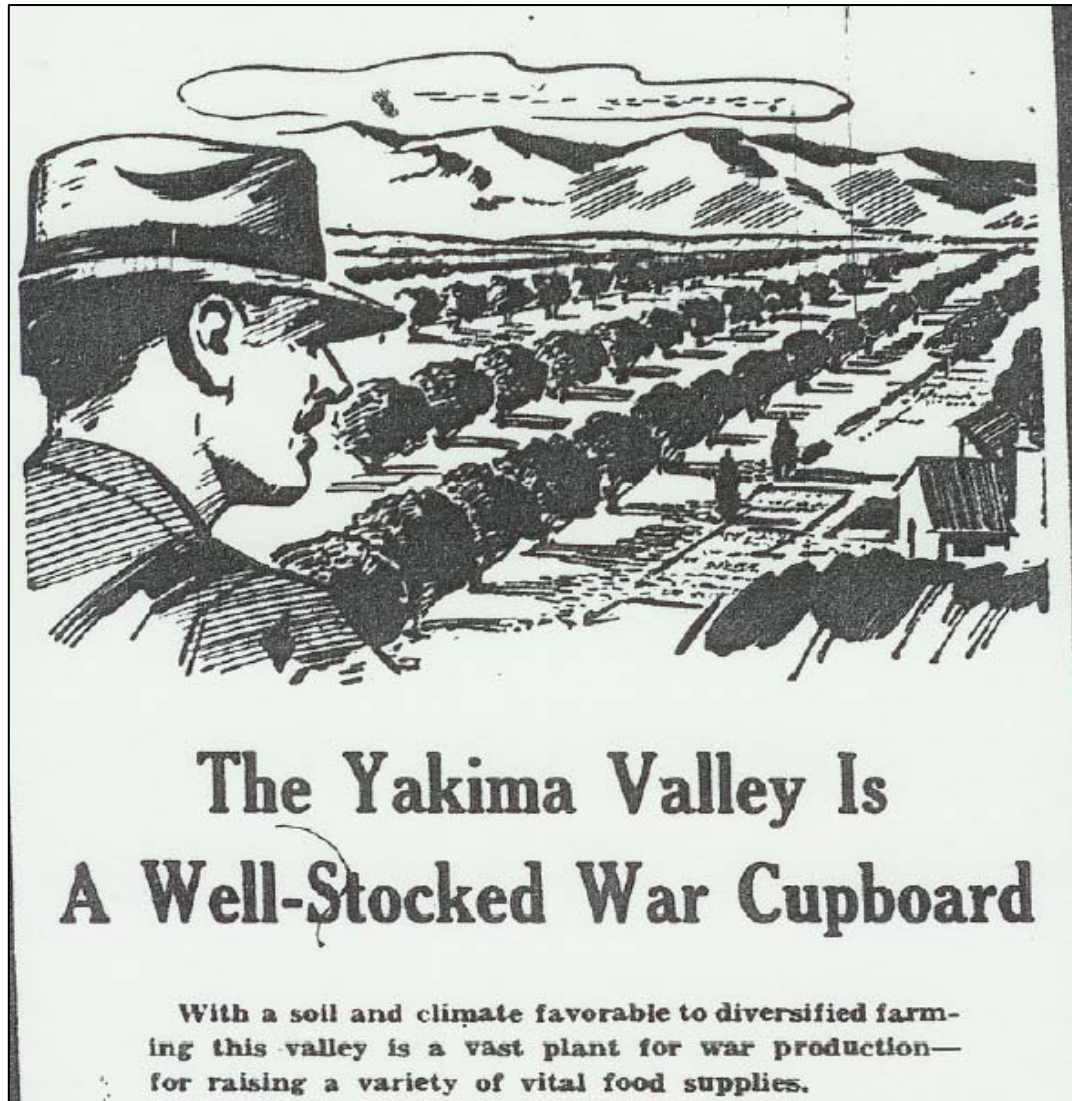


Figure 9: Promotional advertisements associated with the Food-Victory-Food Campaign (Source: Northwest Farm News, July 17, 1942).

The demands of the war effort laid heavily, not only upon farmers in the Pacific Northwest, but also on the labor force that was needed to harvest farmer's crops. In addition to overseas deployment, many workers were recruited to domestic wartime industries. In the Pacific Northwest, shipyards along the coast drained many inland areas

of much needed laborers, and this resulted in a labor shortage that was particularly heightened in the agricultural areas of Washington, Oregon, and Idaho. By 1941, the labor shortage endangered a highly valuable crop production and the United States Department of Agriculture claimed that the labor shortage in these three states was more critical than in any other region (Gamboa 1990). Desperate farmers turned to the remaining labor force, which consisted primarily of women and children, to plea for assistance (Figures 10 and 11).

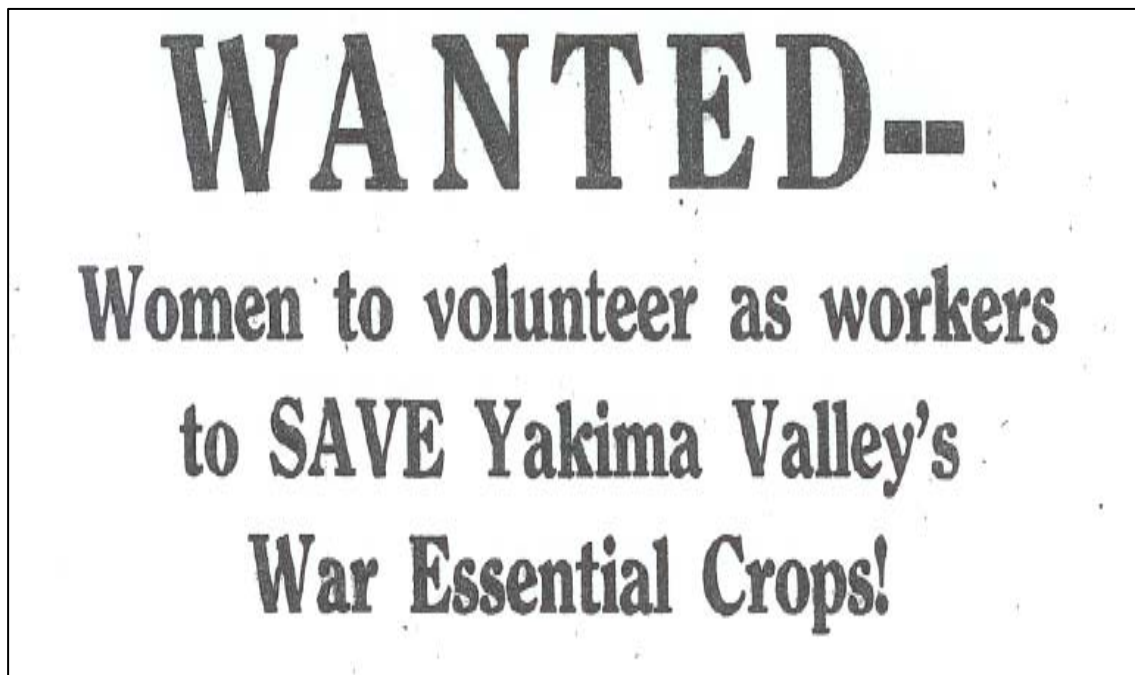


Figure 10. An advertisement recruiting women into the fields (Source: The Toppenish Review, May 6, 1943).

**EMERGENCY!**

---

**Hop Pickers  
Wanted**

**HELP WANTED**

**CHERRY PACKING WILL  
START ABOUT THE MIDDLE  
OF NEXT WEEK**

**Women and Girls are wanted for  
cherry packing, sorting, sizing  
and filling**

**Experience not necessary**

**Transportation allowances will be  
made and 25c per day nursery  
allowance to women with  
children in the New  
Toppenish Day Nursery**

Figure 11: Advertisements for farm labor (Source: The Toppenish Review, May 8 & June 10, 1942).

Measures were taken to release prisoners early from jail, and Native Americans from the nearby reservation were recruited as sources for farm labor. Local businesses participated in the effort by shortening hours during the harvest season, with some closing their doors entirely. The situation became so dire that during harvest time in August 1941, all taverns and businesses in fruit producing communities within the Yakima Valley were closed. Because youths were a remaining source of labor, schools were operated on a wartime schedule in which holiday vacations were cut short and classes were held on several Saturdays so that the children could aid in the harvest (Figures 12 and 13) (Gamboa 1984).



Figure 12. An article describing the labor shortage (Source: The Toppenish Review, May 14, 1942).

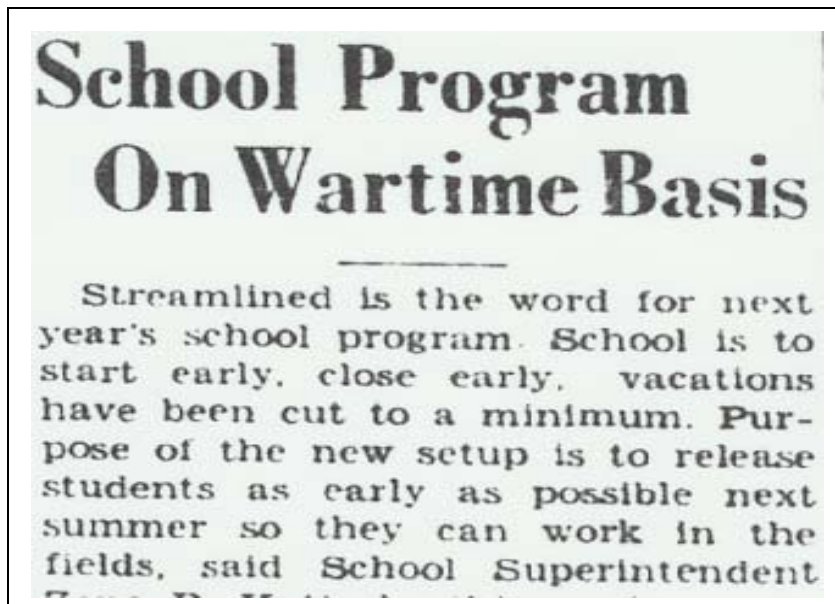
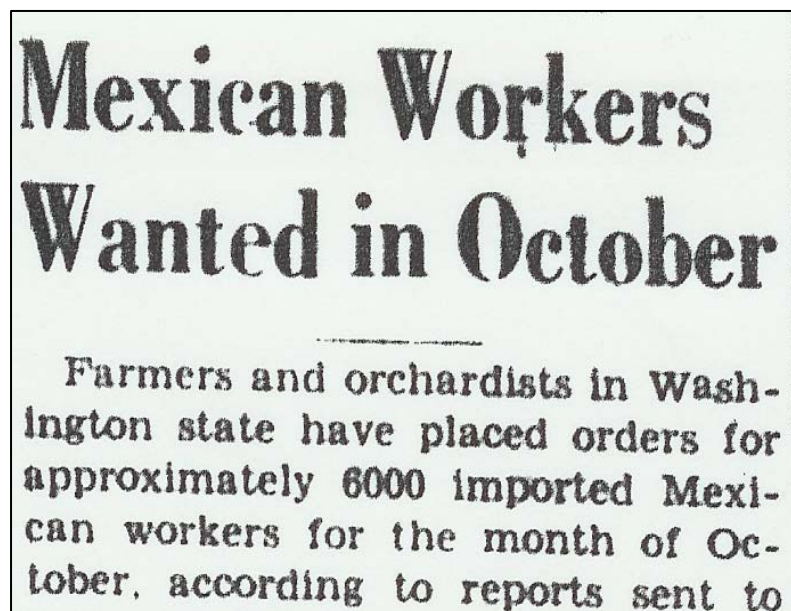


Figure 13. An article describing the school schedule during the war (Source: The Toppenish Review, May 21, 1942).

Solutions to the farm labor shortage came slowly, despite an outspoken and desperate urging on the part of agriculture. The Associated Farmers of Washington proposed a draft to get workers into the fields during critical harvest periods and the Washington Selective Service Board urged local draft boards to defer farm labor from being sent overseas. Although many individuals were motivated out of a sense of patriotism to help in the fields, the efforts of the domestic labor force were simply not enough to meet the nation's demands for production. So, for lack of an alternative strategy, the farmers approached the federal government. Several reasons have been given for the government's complacency and unresponsiveness to the farm labor program. It is suggested that President Roosevelt took the matter "lightly" and felt that the existing domestic labor force would suffice. There also have been references to

tensions between political entities, stalling a consensus on a resolution. Whatever the details, the main problem existed with the fact that there was no central agency responsible for finding a solution, so the farmers came up with one on their own. As early as 1941, agricultural organizations were asking for the importation of Mexican workers. Even before the Bracero Program had been written into law, the Agriculture Secretary was bombarded with requests for the workers. While the United States was still negotiating with Mexico, farmers in the Pacific Northwest were already preparing for the braceros (Figures 14 and 15). In the meantime farmers held their breath, and the government finally announced the plan; Mexican laborers will be available to save the nation's crops under an arrangement called the Bracero Program.



**Mexican Workers  
Wanted in October**

Farmers and orchardists in Washington state have placed orders for approximately 6000 imported Mexican workers for the month of October, according to reports sent to

Figure 14. A description of the demand for Mexican laborers (Source: Northwest Farm News, September 9, 1943).

# Importing of Mexican Help Likely Soon

Farm Labor From South  
of the Border to Help in  
Eastern Washington Har-  
vest Emergency; Plans  
Under Way

In addition to mobilizing all the local folks, Mexican nationals are being brought into some areas. During the past week Skagit, Snohomish, Garfield, Walla Walla and Whitman counties placed orders for these Mexicans, and they are now being cleared through the extension service.

## Thousands of Mexican Farm Workers Pour Into U. S.

Figure 15. Farmers in Washington anticipate relief from the labor shortage (Source: Northwest Farm News, August 13 & July 15, 1942.

### The Bracero Program

The Bracero Program (also known as the Mexican Farm Labor Program) was a bilateral agreement between Mexico and the United States, signed into effect on August 4<sup>th</sup>, 1942. The Bracero Program continued for 22 years until 1964, during which time 5 million Mexican laborers were brought into the United States. The Program existed in two phases, the first being under Public Law 45 and the second under Public Laws 40 and 78. Public Law 45 spanned from 1942-1947 and was essentially a wartime measure. The contracting of workers was done by the federal government, who assumed responsibility for the recruitment, transportation, and housing of the braceros. The farmers simply requested the number of braceros they wanted. In 1947, Public Law 40 replaced Public Law 45, which extended the program until 1951 and also changed some of its provisions (Public Law 78 simply extended the Program until 1964). Farmers were now responsible for shouldering the burden that the government previously had. The change from Public Law 45 to 40 brought significant changes to the contracting of labor in the Pacific Northwest, which will be discussed later. It is first necessary to take a look at the introduction of braceros into the Northwest, and the influences they had on the communities receiving them.

The first record of Mexican presence in the Pacific Northwest dates back to the 1850s. Like many others, Mexicans were drawn north by the prospect of gold as well as the demand for miners. However, records of the Mexican presence in this area indicate that many of them worked as mule train packers and arrived either from California or the

Southwest. Most of these individuals were transient and passed through the area (Gamboa 1984). It was not until after the Mexican Revolution in 1910 that a Mexican presence began to establish itself in areas of the Pacific Northwest. It is estimated that about one million Mexicans fled their country during the Revolution, which lasted until 1921. While the majority of these people settled in the Southwest, some made it as far north as Yakima Valley, where they found ample employment in agriculture. During the time of the Mexican Revolution, irrigated acreage in Yakima Valley was increasing, contributing to economic expansion and an increased demand for labor. These factors, combined with volatile conditions in Mexico and an open immigration policy in the United States, created a push-pull situation that drew Mexicans northward. However, the number of Mexicans recorded in the region was still fairly small. In 1930 the United States Census reported 562 Mexicans in Washington, 1,568 in Oregon, and 1,278 in Idaho. Of course it is likely that these figures do not truly reflect the actual Mexican presence in the region. After the Great Depression in 1929, the Mexican presence in the Pacific Northwest decreased considerably due to poor economic conditions and repatriation measures. It was not until World War II that a significant Mexican presence was again felt in the region, with the introduction of the Bracero Program (Maldonado 1995).

In essence, the Bracero Program marks the establishment of a migration stream and the beginning of a demographic transformation that has continued to this day. When the first group of braceros arrived in Yakima in 1943, local communities praised them as “the salvation of the Valley” (Gamboa 1981, 124). Farmers quickly developed a dependence

on the Mexican laborers. Not only did they alleviate the labor shortages that endangered the livelihood of many farmers, but they also proved to be willing and efficient workers (Figure 16).

## Wash. Farmers Say They're Best Emergency Help Yet Received

Being Sought in Numbers More Than Can Be Supplied;  
Found Industrious, Satisfactory; Total in State Up to  
Now Is 1,800; Big Help in Green Pea Areas at Walla  
Walla, Skagit-Snohomish.

---

## YOUR LAST CHANCE

If you haven't been able to get help, or the right kind, investigate the Mexicans. Farmers have only praise for their work. Look into this—and place your orders at once if you want these workers!

## Mexicans' Arrival Eases Critical Farm Labor Shortage

Figure 16. Descriptions of the newly arrived Mexican laborers (Source: Northwest Farm News, July 15, 1943).

At the start of the Bracero Program in 1943, individual farmers simply “ordered” the number of braceros they wanted. However, due to labor hoarding and large amounts of paperwork, farmers were required to organize into farmer associations in 1943. A representative from each association would then request the number of braceros desired. The process of bringing braceros north to their prospective employers started in the rural towns and villages throughout Mexico. The War Food Administration, responsible for initiating the recruitment process, advertised in various media channels to get the word out in Mexico. It was then the job of the Mexican government to assemble prospective braceros at a selection center in Mexico City. Once there, the applicants underwent extensive health screening and physical examinations. All who qualified were photographed, vaccinated against smallpox, and the conditions of the work contract were explained to them. Once the contract was accepted and signed, the United States immigration authorities issued the necessary permits and the Office of Labor dispersed ration books to individuals. The braceros were then transported to their assigned locations via train (Gamboa 1984).

Braceros were housed in labor camps established by the Farm Security Administration. Many of these camps left a great deal to be desired; some were no more than canvas tents ill-equipped to handle the early frosts of central Washington. Despite uncomfortable living conditions and the physical demands of farm labor, the braceros managed to create a place for themselves that was reminiscent of their homes in Mexico. Priests were brought from Mexico so that the braceros could attend a church service in

their native language. The government published *El Mexicano*, a Spanish language newsletter, which carried news from Mexico and was distributed throughout the camps. Mexican Independence Day and Cinco de Mayo (May 5<sup>th</sup>) were major happenings in the camps, and the braceros were often given a break from work to participate in these celebrations. Although the braceros were somewhat cut off from the surrounding communities, they did interact with them. There are records of the Whitman College Spanish class hosting dinners for the braceros, and on several occasions dances were held at community halls. On one occasion, the local league of women voters organized an event in which music was performed by several braceros and the program was broadcast over the radio. The “Mexican Serenade” was held in 1945 and it is suggested that this was the first Spanish language broadcast in the Pacific Northwest (Maldonado 1995).

It was in isolated events such as those above that the braceros slowly began to influence the local communities, which were primarily Anglo at the time. While some community good will was bestowed upon them, the braceros also experienced a degree of animosity. Some of this hostility arose from a feeling that the braceros were stealing jobs from the resident labor force. On their trips into town, the Mexicans were often banned from movie theaters and taverns. However, for one reason or another, these discriminatory acts were the worst in Idaho and not as noticeable in Washington. The provisions of the Bracero Program explicitly prohibited discriminatory acts of any kind, and the situation in Idaho actually endangered their supply of laborers (Gamboa 1984). It was with mixed feelings that the braceros were received in local communities and it

could not have been easy for them to adjust to their new surroundings in the face of such a varied welcome.

### Shift to Migrant Workers

The first phase of the Bracero Program brought nearly 40,000 workers to the Pacific Northwest, which was 21% of the total number contracted in the United States and second only to California. As Erasmo Gamboa stated in his PhD Dissertation on the subject, “In short, the second World War added Mexican-Americans to the Pacific Northwest. After the war, migrant workers picked up where the braceros left off” (Gamboa 1984, 385). When Public Law 40 replaced Public Law 45, the Bracero Program was basically brought to an end in the Pacific Northwest. The cost of recruiting, transporting, and housing the Mexican laborers became so great that it was prohibitive, especially to farmers as far north as Washington. However, employers had developed a preference for the braceros, who were both cheap and hard working. They therefore turned to the next best source of labor: migrant workers. This group consisted mainly of Tejanos (Mexican Americans from Texas) with some Mexicanos (Mexican Americans) arriving from other parts of the Southwest. This post-war demand for labor created a migrant stream between the Southwest and the Northwest and was one in which the migrants had the option and the ability to remain permanently. While the labor shortage in many areas was relieved after the war ended, Washington State experienced a continual need for agricultural labor with the irrigation of the Columbia Basin in 1948. The Columbia Basin Irrigation Project was also responsible for the establishment of

processing plants, which offered year-round employment, further encouraging migrant workers to “settle out”. As their numbers increased, the agricultural areas of Washington began to see the emergence of communities that were distinctively Hispanic. It was during the decades of the 1950s and 1960s that these communities formed and solidified.

In the words of Gamboa:

In the process of recruiting workers to the Northwest, growers brought more than human labor. Mexican-American culture was transposed to the agricultural valleys of the region. In the beginning the outline of Mexican-American culture was meager, but by the 1950s it had changed the social landscape of many Pacific Northwest communities (Gamboa 1990, 130).

The transformation of these communities occurred fairly rapidly, especially in the Yakima Valley. Catholic parish records show that the number of Spanish surnamed marriages and baptisms increased considerably between 1940 and 1950. In Toppenish, for example, there were no Spanish surnamed baptisms in 1940 and by 1950 they accounted for 40% of the total. To accommodate the growing Mexican population, Spanish language films and Mexican eateries began to appear. In 1951, the first regularly scheduled Spanish language radio program in the Pacific Northwest was broadcast on Radio KREW from the Yakima Valley. This not only suggests the importance and influence of the Mexican community, but also represents an avenue for communication that existed only within the Spanish speaking community. In fact, most of the activities enjoyed by the Mexican population were enjoyed by them alone; segregation from the Anglo community was evident. As a result, the cultural values and practices that the Tejanos and Mexicanos brought north remained and these tended to be very traditional.

This segregation was further enforced during the Chicano movement of the 1960s and 1970s (Gamboa 1984).

The social and political activism of the 1960s paved the way for the Chicano movement, which was a struggle on the part of Hispanics for social, economic, and political equality. During this time, many important social organizations were established in the Yakima Valley, which is described as being “the seedbed for early activism in the state” (Maldonado 1995). The United Farm-workers Co-op was created in Toppenish in 1967 and is said to be the first activist group in Washington. The Mexican American Federation was formed in Yakima in 1968 and is the predecessor to the present day Washington State Commission on Hispanic Affairs (Gamboa 1990). Since the 1960s and 1970s, the number of organizations in Washington that focus on Hispanics has grown steadily alongside the increasing Mexican population of the area. As of 1990, there were over 15 organizations and agencies working in the Yakima Valley that are described specifically as being “pro-Hispanic” (Leek et al 1991).

The Bracero Program, along with the irrigation of the Columbia Basin region, established the Yakima Valley (and the Pacific Northwest in general) as a major destination for Mexican laborers. Once this area was put on the map there were two changes to United States immigration laws that made employment and settlement in the area more feasible. The first of these was the Immigration and Nationality Act Amendments of 1965. Prior to these amendments, immigrants were admitted under the national origins quota system, which was based on the number of foreign born already residing in the United States; this system tended to favor Europeans. The 1965

amendments created a preference system for relatives of United States citizens, which encouraged many immigrants from south of the border to enter the country. In this manner the immigrant composition was changed from primarily European to Asian and Latin American; the latter group rose from 15% of all immigrants before 1965 to 80% after. The number of immigrants admitted annually also increased substantially. The second change to the United States immigration system was the Immigration Reform and Control Act of 1986. The provisions of the 1986 Act granted amnesty to illegal aliens who could prove they had been living in the United States since 1982. After applying for temporary residency, these aliens were granted citizenship after a period of five years, which allowed them freedom to move from one state to another (Smith 1998).

Since the 1960s, the number of Hispanics in central Washington has increased over 2000% from 7,500 individuals to a population of 200,000 in 2000 (in the counties of Yakima, Kittitas, Chelan, Douglas, Grant, Benton, Franklin, Adams, and Lincoln) (Brady 2004). Many towns in the Yakima Valley are now well over 50% Hispanic, with the average for Yakima County being 35.9% Hispanic (See Table 2).

Growth in the Percentage of Hispanics in the Lower Yakima Valley				
	Sunnyside	Toppenish	Wapato	Grandview
1980	36	44	47	27
2000	72	76	76	68

Table 2. Growth in the percentage of Hispanics in four towns in the Lower Yakima Valley (Source: USCB 1980 STF 1 and 2000 STF 1).

This population growth is a combination of continual immigration and demographic characteristics. So, what does this mean for the feel and identity of these towns? How do the residents describe where they are from to outsiders? As Gamboa nicely summarized:

In these small towns a Latinization is evident. The Spanish language is heard everywhere in the streets, shops, restaurants, schools, radio and television, and public offices. Mexican food products have proliferated. These are signs that Mexican-American communities, born during the Second World War, are very much a part of the social and economic life of this region (Gamboa 1984, 385).

The “Latinization” that has proliferated in the Yakima Valley has affected its residents differently. For immigrants from Mexico as well as Mexican migrants from other parts of the United States, this area has come to represent the concept of “nuestro hogar del norte” or “our northern home”. Many who arrive here already have family or friends to greet them and help them adjust to their new surroundings (Maldonado 1995). The plethora of organizations available to Mexicans also contributes to their level of comfort in these communities. This network of social support further strengthens the ties within the Mexican community and inhibits cultural assimilation and interaction with the Anglo community. The Yakima Valley is also characterized by a high level of continual immigration so there is constant reinforcement of the Mexican culture. Regarding social conditions within the Valley in 1990, a local leader remarked, “this is a segmented community” however, as the Hispanic population continues to increase, “the perception and expectation is that things will begin to change” (Leek et al, 1991).

### The Valley's Hispanics Today

According to the baptismal records of the Yakima Catholic Diocese, most of Yakima County's Mexicans immigrated from Michoacan, Jalisco, or Oaxaca. Of these three states, Michoacan sends the most immigrants. Michoacan is a state in southwest Mexico, with a dry climate very similar to the Yakima Valley (See Map 6) (*Yakima Herald Republic*, 26 February 1995, A2).



Map 6. Map of Mexico showing state boundaries with Michoacan encircled and located in the southwestern portion of the country (Source: [www.expedia.com](http://www.expedia.com)).

In 1995, the *Yakima Herald Republic* ran a series titled “Vecinos/Neighbors” about Michoacan. The goal of the series was to promote understanding of the Mexican population in the Valley by familiarizing people with the culture, climate, industry and

various other aspects of the former home of their Mexican vecinos, or neighbors. The next series was published in 2000 and is called “A look at Race Relations in the Yakima Valley.” This series was undertaken as a response to negative comments received on the Michoacan series; reporters wanted to explore this negative reaction, its causes, and its prevalence. This series ran for six days and consisted of fifty articles on race relations in Yakima County based on a public opinion survey of 800 households, 400 of Hispanic residents and 400 of non-Hispanics of other racial and ethnic groups. “We sought to find out how people describe what race relations are like here; how people compare race relations in Yakima County with the rest of the country; to have people reflect on whether race relations have improved; to make them predict whether race relations will be better 10 years from now; and, more specifically, whether they had been a victim of racial discrimination, and if so, how. We also sought answers to social questions, such as attitudes toward living in mixed-race neighborhoods and toward interracial dating or marriages,” wrote the reporters (*Yakima Herald Republic*, 10 December 2000).

After the first wave of Mexican workers came to the Valley during the Bracero Program, the second largest wave came during the 1970s, to meet the demands of continued agricultural expansion in the Valley. According to Erasmo Gamboa, a history professor at the University of Washington, these more recent arrivals came primarily from Michoacan. “The first wave of immigrants paved the way for the newer arrivals, making their transition into America easier through a network of social-service agencies that developed for Mexican migrants” says Gamboa. “They will continue to come as long as the conditions continue in Mexico. People have to have a reason to migrate. In

the case of Mexico, they are coming largely because of economic reasons. It's getting terrible" (*Yakima Herald Republic*, 27 February 1995, C1).

In 1995, the average farm worker in Pajacuaran, a city in Michoacan, earned \$6 per day, compared to \$5.45 an hour in Yakima County. An experienced cherry picker in Yakima can make as much as \$125 per day. It is for this reason that so many immigrants head north. Carlos Reyes, a Mexican national who has recently gained citizenship says, "I like it in the U.S. because the life is more comfortable. You have more opportunities. You have more opportunities to support your family. That is the first reason people go to the United States." Juan Villafan, an immigrant from Michoacan who lives in Toppenish and recently gained U.S. citizenship commented on the problems this can cause. "The boys think they can leave school at the age of 14, head to the states and get a job. In Pajacuaran, young people go to school because there aren't any jobs. But in the states very few will go to school. They think it's more important to make money," he said (*Yakima Herald Republic* 1 March 1995, A2).

While the lure of job opportunities attracts young workers from Michoacan, the cost of crossing the border and finding a job is not negligible. Many Mexicans who come to Yakima do so because they have friends or family who are willing to board them while they look for work. Migrants will often depend on a sponsor who loans them money to cross the border and travel north, then boards them until they find a job. Continual chain migration over the last few decades has forged a strong connection between the Yakima Valley and Michoacan. An entire section of Pajacuaran is called Toppenish because so

many people either have relatives or had jobs in that city (*Yakima Herald Republic*, 26 February 1995, E1).

According to some immigrants, arriving in the Yakima Valley is a bit like arriving at home. Juan Villafan estimates that more than half the people in Pajacuaran have relatives in Yakima. Asked if anything in Pajacuaran is similar to Yakima, Villafan responded “Yes, the Mexican people. When I’m in the U.S. I’m mostly around other Mexicans. I don’t feel like part of the other culture. Maybe it’s because our cultures are so different.” Families who have emigrated more recently sometimes find themselves torn between Michoacan and Yakima. Many miss their country but say they’re here to seek a better life (*Yakima Herald Republic*, 26 February 1995, A2). As these migrant families made their homes in the area, the social and cultural landscape of the Valley began to change and continues to change. “The presence of these early families has changed the Yakima Valley community. Sunnyside is not what it was 20 years ago. The presence of Mexican American culture has forced change within the non-Mexican American community,” said Erasmo Gamboa (*Yakima Herald Republic*, 1 March 1995, C1).

Although slightly dated, the 1995 series that ran in the Herald tells a great deal about the Hispanic community of the Yakima Valley and is still very pertinent today. In fact, in 2000 Yakima and Morelia, a city in Michoacan, became sister cities, an indication of the strengthening connection between these places. Since Yakima and Morelia became sister cities, there has been a steady exchange of ideas, art, music, and technology. Teachers have been sent north, firefighters have gone south, and symphony conductors have been swapped between the two cities. “We thought if we could get (Yakima residents) to see

the beauty and culture in Mexico, then they could have a better understanding of the transition that was taking place in Yakima's community," commented Luz Bazan Gutierrez, a volunteer at the Hispanic Chamber of Commerce. "We wanted others to see the positive things that many people from Mexico brought to the Valley." This year for the first time, the association plans to offer an immersion program in Morelia for Yakima Valley professionals such as medics, firefighters and police officers. The program will include five weeks of living with a local family and studying at the Universidad Latina de America. Being bilingual helps firefighters, police officers and others break down communication barriers and build a rapport within Yakima's Hispanic community (*Yakima Herald Republic*, 22 May 2005, A2).

The "Race Relations in the Valley" series published by the Herald in 2000 describes the social atmosphere according to the opinions of Hispanics and non-Hispanics alike. The survey found that Hispanics appear to be more optimistic than non-Hispanics on the subject of race relations. By far greater percentages than non-Hispanics, Hispanics believe that race relations are better in this county than in the rest of the U.S., that race relations have improved during the time they have lived here, and that relations will continue to improve in the next 10 years. The survey also found that many Hispanics and non-Hispanics believe that police use racial profiling in determining who to pull over in traffic stops, and that neither group believes that the government does enough to stop illegal immigration. On the subject of education, both groups say that parental and family support, not the ability to speak English, is the greatest single factor in determining a child's chance to succeed in school. While a majority of non-Hispanics would like to see

bilingual education programs reduced or eliminated, a majority of Hispanics would like to see the level of Spanish language instruction as a transition to English increased or remain at the same level (*Yakima Herald Republic*, 10 December 2000).

The simple fact that the Yakima Valley's leading newspaper dedicated two weeks to the topic of Hispanics in the Valley hints at the dimensions of this issue. The communities in the Valley have and will continue to experience changes as a result of their growing Hispanic populations. It is obvious from the Herald's articles that promoting public discourse and cultural sensitivity are approaches that these communities have undertaken to better handle these changes.

### Conclusion

The transformation of the Yakima Valley from Anglo farming towns to Hispanic enclaves may be representative of a trend occurring throughout agricultural areas of the West. Not only is Hispanic population growth higher in the West than the rest of the U.S., but 48% of Hispanics live in the Pacific states alone. Demand for agricultural workers no doubt plays a part in the geographical distribution of Hispanics, as does proximity to Mexico (Thilmany 2003). But perhaps the most telling factor is the location of well-established Hispanic communities. As can be seen from the settlement pattern of the Yakima Valley, most Hispanic immigrants are likely to settle and live in communities in which a high concentration of residents are of their same ethnic identity (Englekirk and Marín 2000). Does this indicate that these places throughout the West have and will follow a development pattern similar to that of the Yakima Valley? While the answer to

that question is beyond the scope of this thesis, it is important to be aware of this possibility and thus be familiar with the social and economic processes that an area such as the Yakima Valley is undergoing. It is only by being mindful of the history of the Valley that one can truly begin to understand these processes. As the ethnic diversity of the West increases, the experience of the Yakima Valley is only one example of a regional trend that is likely to continue, as the forces driving it were set in motion half a century ago.

## CHAPTER 4

## CENSUS DATA ANALYSIS

The United States Bureau of the Census is the most comprehensive and widely published resource for information on demographic and economic characteristics of the United States population. Every ten years the Census Bureau publishes the Decennial Report, which is the most extensive of all reports issued by the Bureau. The census term used to identify Hispanics has changed consistently over the years. The 1950 and 1960 censuses used the term “persons of Spanish surname.” This was changed to “Spanish Origin” for the 1970 census, which also began the process of self-identification for this group and established them as Mexican, Puerto Rican, Cuban, and those of other Hispanic origin/descent. The term was again changed in 1990 to “Hispanic Origin” and in the 2000 census the term “Hispanic/Latino” was used (United States Bureau of the Census, hereafter USBC n.d.).

There are two methods of data collection for the decennial census and the type of data released depends on which method is employed. The first is the short form, also known as 100-percent data, which asks a limited number of questions of every person and housing unit in the United States. Information from the short form is published in Summary Tape File 1 (STF1) and is available on:

- Age
- Hispanic or Latino origin
- Household relationship

- Race
- Sex
- Tenure (whether the home is owned or rented)
- Vacancy Characteristics

The second method of data collection is called the long form, or sample data. The long form asks additional questions of a sample of persons and housing units (generally 1 in 6 households). Data are published in Summary Tape File 3 (STF 3) and are provided on various population and housing characteristics including:

- Ancestry
- Disability
- Grandparents as caregivers
- Income
- Labor force status
- Language spoken at home and ability to speak English
- Marital status
- Migration (residence in 1995)
- Occupation, industry, and class of worker
- Place of birth, citizenship, and year of entry
- Place of work and journey to work
- School enrollment and educational attainment
- Work status in 1999

- Veteran status
- Various housing characteristics ([www.census.gov](http://www.census.gov), 2000).

Different scales of analysis provide diverse perspectives as well as a platform for comparison. Therefore, census data are examined in this chapter for two different spatial units: county and place. County and place geographies will be analyzed based on 1980 and 2000 data, with comparisons made between the two decades where possible. Data for the 1980, 1990, and 2000 censuses were obtained from Summary Tape Files 1 and 3. Again, STF 1 is a 100% count of the population, while STF3 is a sample count.

With connecting lines, Figure 17 shows the hierarchical relationships between geographic units. For example, a line extends from states to counties because a state is comprised of many counties, and a single county can never cross a state boundary. If no line joins two geographic types, then an absolute and predictable relationship does not exist between them. For example, a place (such as New York City) can cross county boundaries but not state boundaries. Blocks are the smallest geographic unit for which the Census Bureau reports data, and most geographic types are a collection of blocks. Information is categorized at a variety of different geographies, or scales, and different types of information are available at each of these scales. For example, information at the smallest unit of enumeration, the block, is very limited due to the potential of identifying individuals. This chapter will use county data as the largest unit of enumeration, followed by place data, and then block group data.

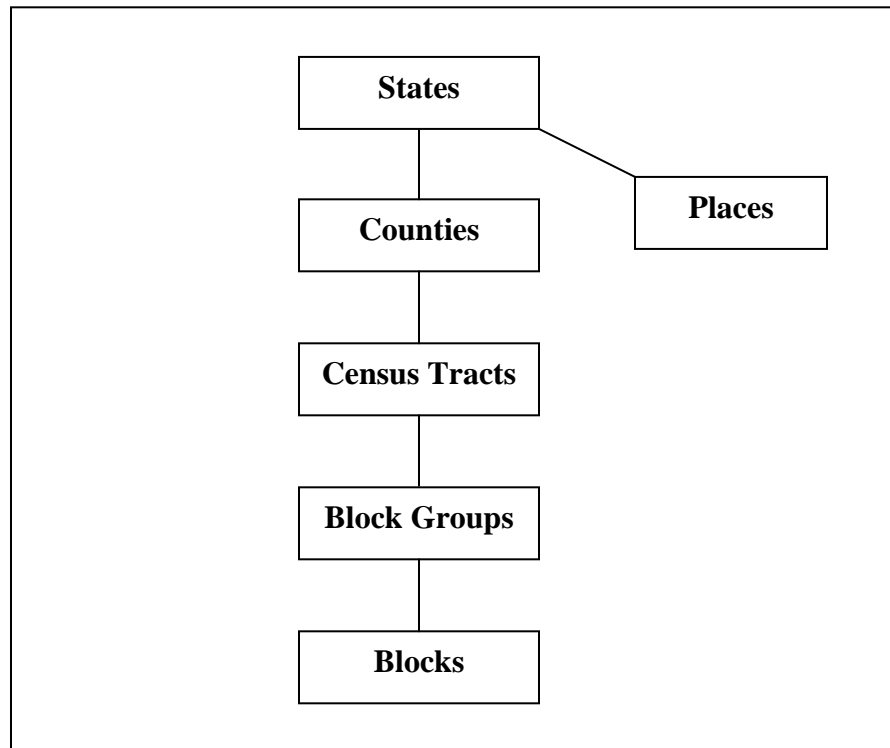


Figure 17. Geographic relationship of census data (Source: [http://factfinder.census.gov/home/en/epss/census\\_geography.html](http://factfinder.census.gov/home/en/epss/census_geography.html)).

The purpose of this chapter is to analyze demographic and economic characteristics of the study area. Census data allows for objective, quantitative descriptions and therefore is of great use and importance to this study. However, it has been acknowledged that there is a certain margin of error involved in the accuracy of census data, the result of which is often an undercounting of the population. This error is particularly magnified when dealing with a population that may be comprised of illegal aliens (Arreola 2004).

County Level Data: 1980

Data for Yakima County will be used as the basis for a general overview of the study area as well as the surrounding towns. Table 3 describes some demographic characteristics of the total population and the Spanish Origin population of Yakima County in 1980 in more detail (Spanish Origin was the term used to describe Hispanics in the 1980 census).

	Median Age	Foreign Born Population	Total Population	Percent Mexican
Total Population	29.6 years	10,926	172,508	14%
Spanish Origin	19.4 years	7,100	25,358	92%

Table 3. General demographic characteristics of the Spanish origin population of Yakima County in 1980 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics).

As can be seen in the first column of Table 3, the median age of the Spanish origin population is 19.4 years, compared to 29.6 years for the overall population. This disparity in the median age has important implications for the growth rate of the population; a younger median age may imply a higher growth rate. The foreign born population constitutes 6.3% of the total population and 28% of the Spanish origin population (61% of the total foreign-born population were born in Mexico). So, in 1980, the majority of the Spanish origin and foreign-born populations in Yakima County were Mexican, but the Spanish origin population itself was mostly U.S. born. This U.S. born population likely migrated from Texas, as 60% of the native-born Spanish origin

population who were born in another state reported to have migrated from the South. The “percent Mexican” column in Table 2 refers to persons of Mexican descent or lineage regardless of their place of birth. Despite the large number of U.S. born Mexicans in Yakima County in 1980, 82% of them reported that they speak Spanish at home.

Figure 18 highlights an employment sector in which the Spanish origin population was disproportionately high in 1980. While 47% of the Spanish origin population was employed in agriculture, forestry, or fisheries, only 14% of the total population was employed in these industries, which traditionally provides lower paying jobs than other sectors.

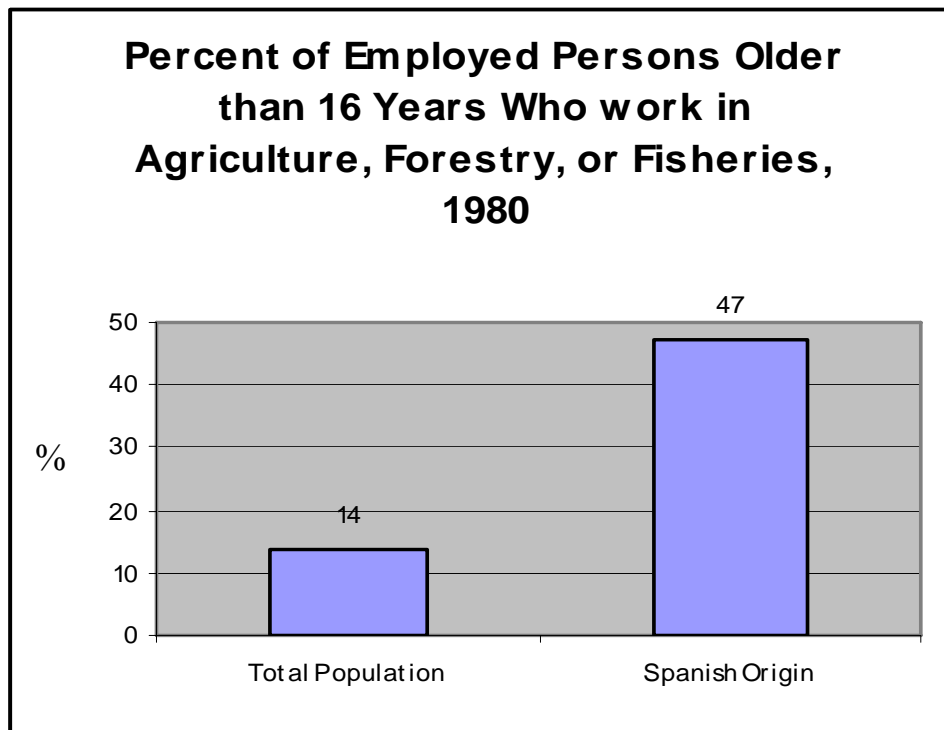


Figure 18. Percent of employed persons older than 16 years who work in agriculture, forestry, or fisheries, 1980 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics).

Consistent with employment in a lower paying industry, Figure 19 shows the wage disparity that existed between the Spanish origin population and the total population in 1980. Both the median family and median household income are higher for the total population than they are for the Spanish origin population.

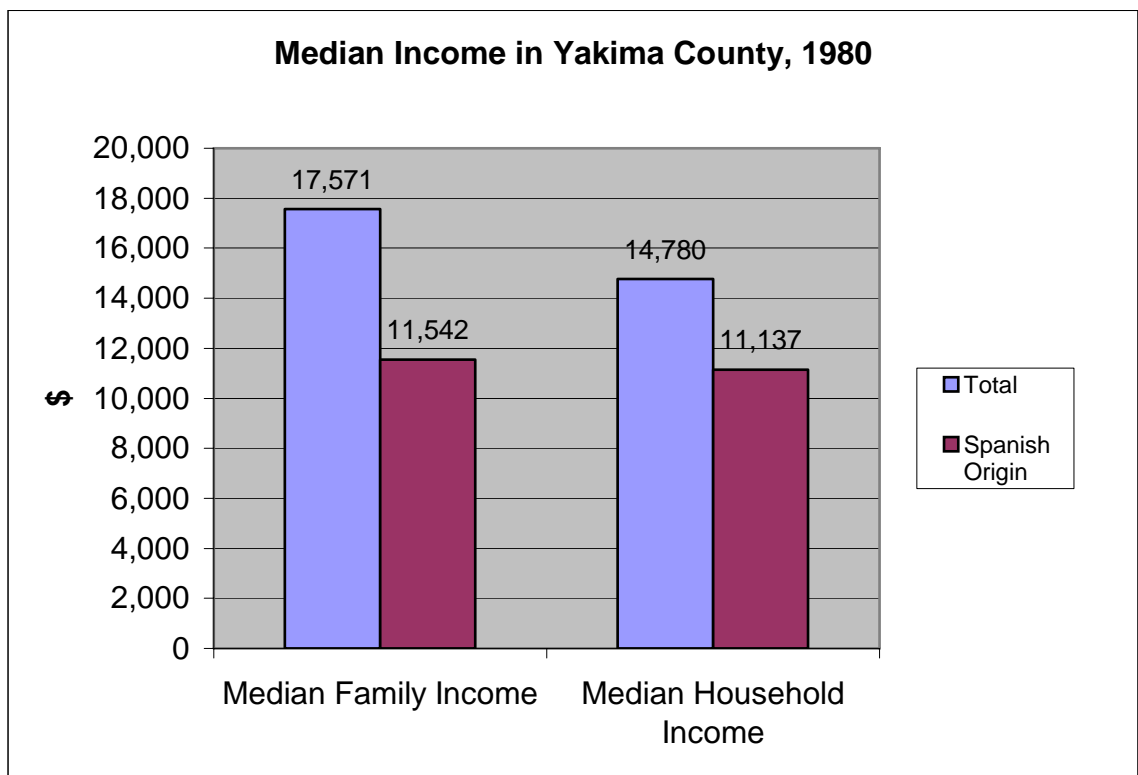


Figure 19. Median income in Yakima County, 1980 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics).

Educational attainment was also much lower for the Spanish origin population than it was for the total population in 1980. While 62.1% of the total population had graduated high

school, only 27.2% of the Spanish origin population had this level of education. A smaller disparity exists in college attendance, but is still evident (See Figure 20).

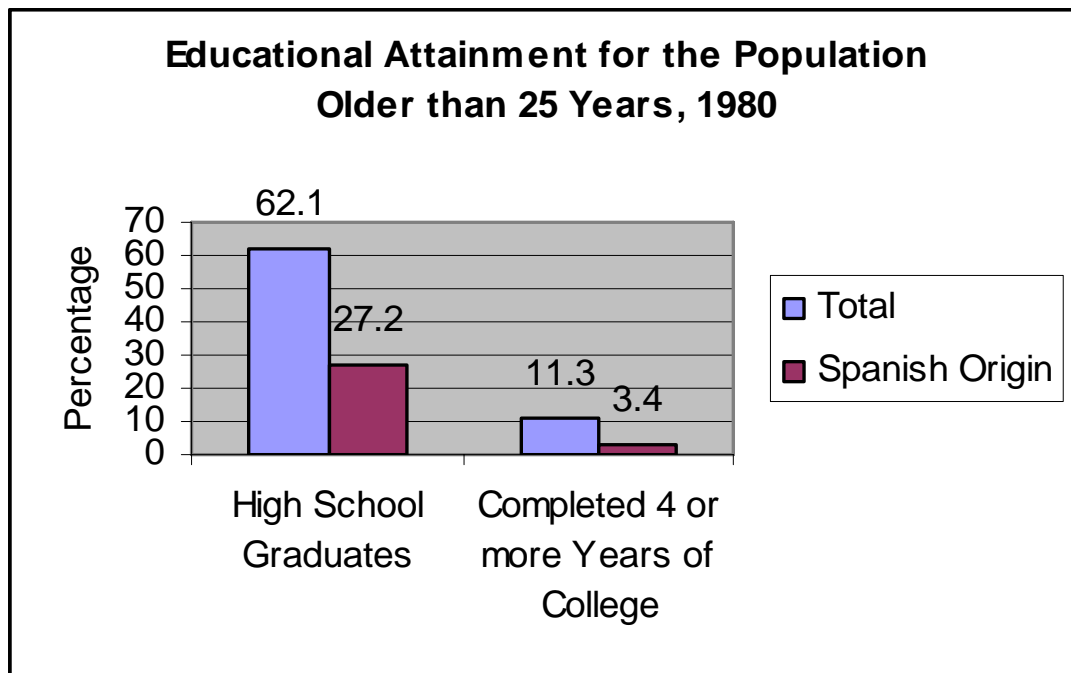


Figure 20. Educational attainment for the population 25 years and older, 1980 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics).

With a relatively lower median income and less education, it is not surprising that a higher percentage of Spanish origin families were below the poverty level in 1980 (Figure 21). However, the difference of 29% is quite high, especially considering that the non-Spanish origin population is much lower than 12% before it is combined with statistics for the Spanish origin population. The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family

and every individual in it is considered in poverty. The official poverty thresholds are updated for inflation using the Consumer Price Index. The poverty definition uses money income before taxes and does not include capital gains or noncash benefits. (USBC n.d.).

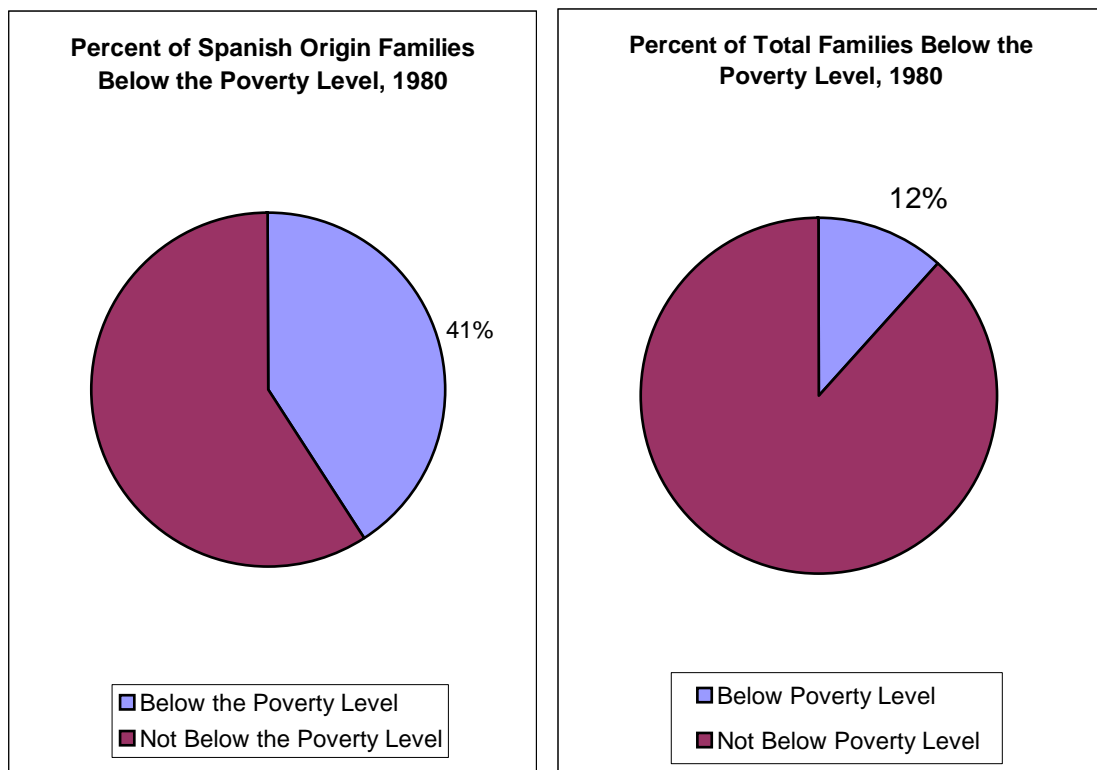


Figure 21. The Percent of families below the poverty level, 1980 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics).

#### County Level Data: 1980-2000

The twenty years spanning from 1980 to 2000 brought many changes to the demographics of Yakima County, as can be seen in Figure 22. It should be noted that the census term of Spanish origin was changed to Hispanic in 1990, but both terms

encompass the same meaning. Both the Hispanic population and the foreign born population more than doubled between 1980 and 2000, and the percentage of Hispanics who are foreign born increased by 14.5%.

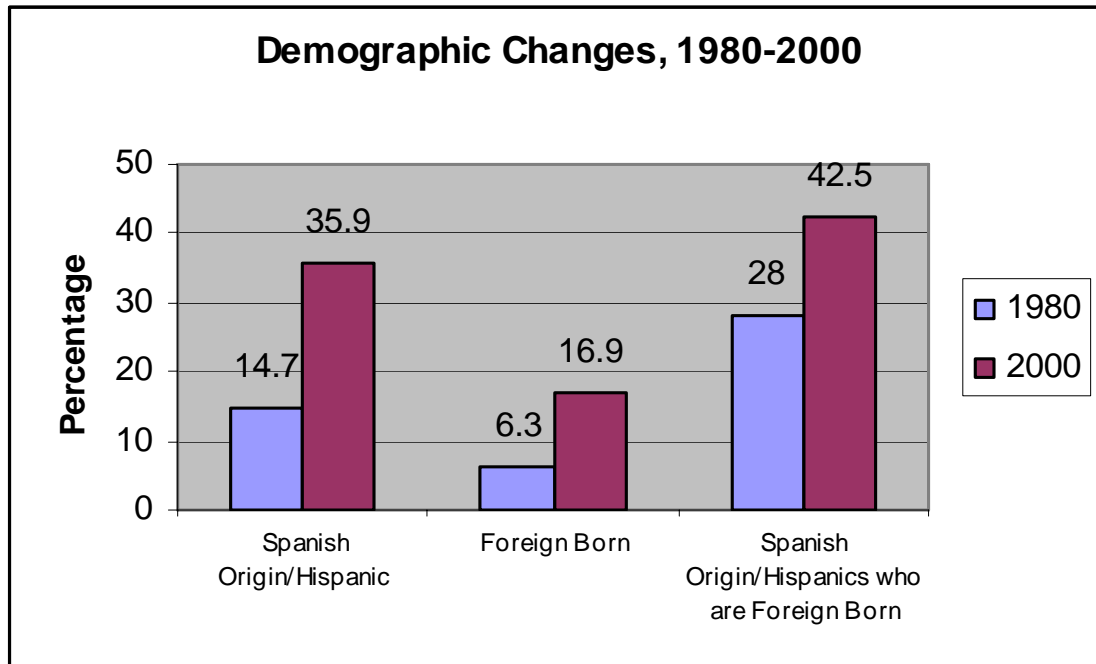


Figure 22. Demographic changes, 1980-2000 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics and USBC 2000 STF1 & STF3).

The disparity between earnings for the total population and the Hispanic population increased between 1980 and 2000 at the county level. In 1980, median family income for the total population was \$6,029 higher than it was for the Hispanic population. In 2000, this gap grew to \$13,708 (See Figure 23). The increase in the foreign born population may be one possible explanation for this.

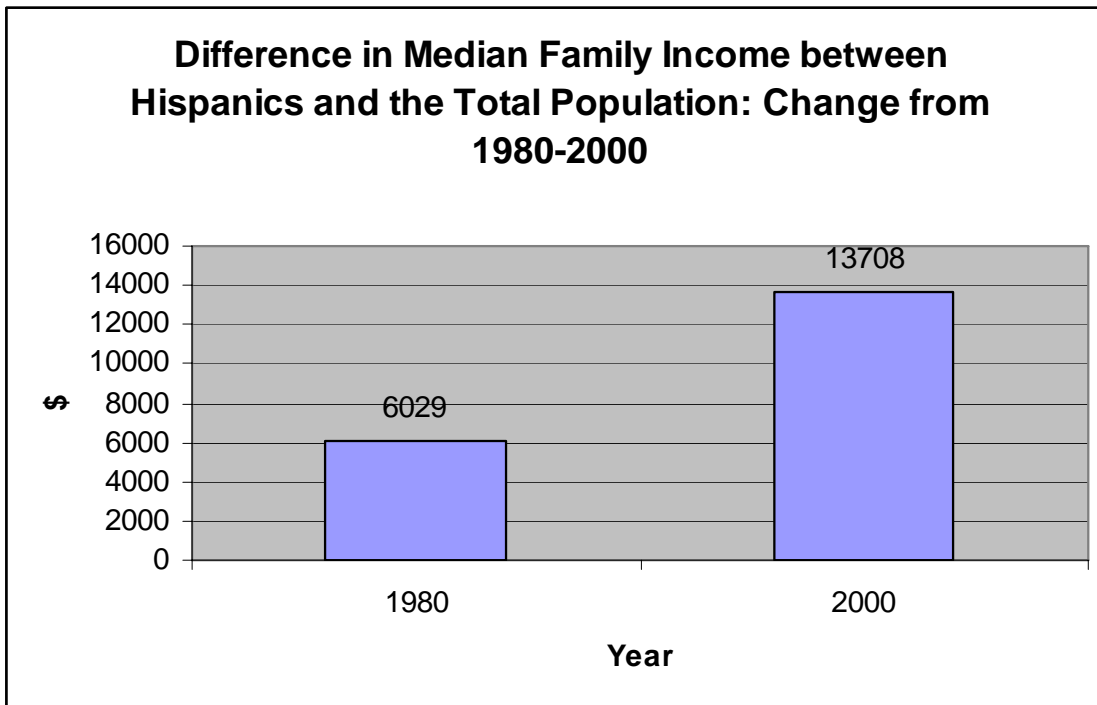


Figure 23. Difference in median family income between Hispanics and the total population: change from 1980-2000 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics and USBC 2000 STF3).

Despite an increase in the gap between median family incomes, the gap between the percent of families below the poverty line decreased. In 1980, 28.9% more Hispanic families were below the poverty level than were total families. In 2000, this gap decreased to 16.6% (See Figure 24). This decrease is due to an increase in the total number of families below the poverty level (from 11.8% in 1980 to 14.7% in 2000) combined with a decrease in the number of Hispanic families below the poverty level (from 40.7% in 1980 to 31.3% in 2000). It is not likely that this decrease is influenced by a modification in the calculation of the poverty level itself, as there have been no major changes in the way the poverty level is calculated (Weinberg 1995).

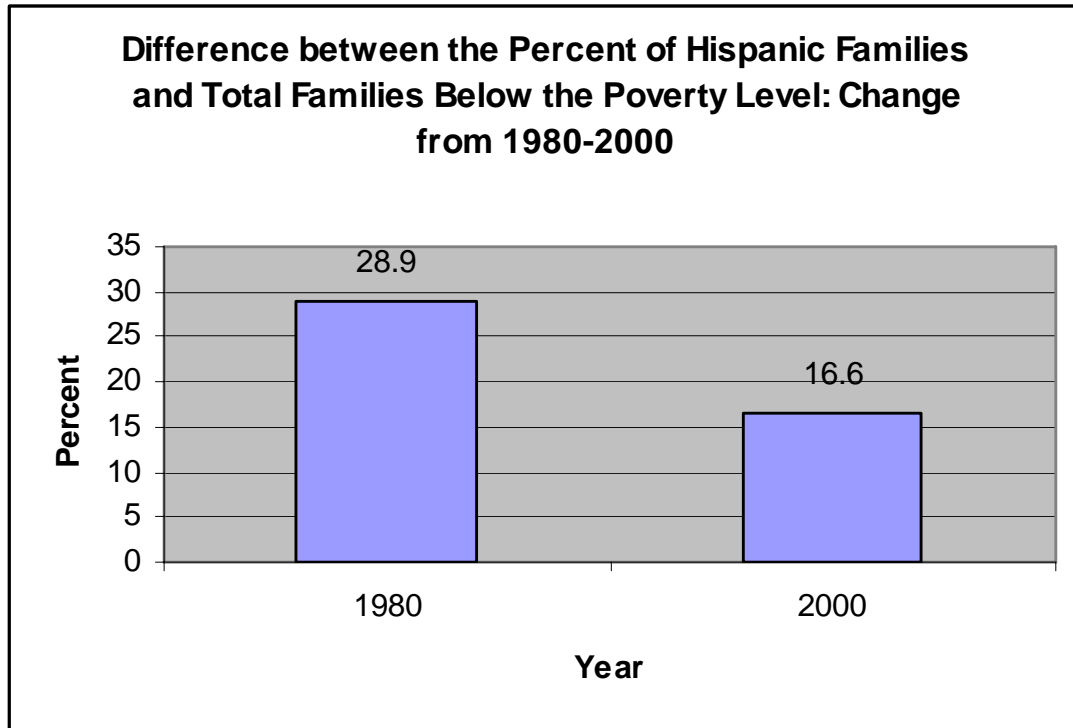


Figure 24. Difference between the percent of Hispanic families and total families below the poverty level: change from 1980-2000 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics and USBC 2000 STF3).

County Level Data: 2000

Despite a narrowing in some of the disparities between Hispanics and the total population, many inequalities still existed in 2000. Educational attainment is still much lower for Hispanics than the total population. Due to different categorizations between the 1980 and 2000 censuses it is difficult to make a direct comparison for certain characteristics across the decades. However, in 2000, the percent of the total population who have high school degrees and the percent that have completed some college are still

much higher than they are for the Hispanic population (10% and 19% higher, respectively) (USBC 2000).

#### Place Level Data: 1980-2000

An exploration of Yakima County provides a general overview of the demographic and economic characteristics of the region as well as a basis of comparison for the study area. In an effort to get a more accurate portrayal of the study area, several economic and demographic variables will be considered for each of the four places: Grandview, Sunnyside, Toppenish, and Wapato. In 1980, the demographic characteristics of the four places are similar to conditions countywide. Therefore, an overview of place level data for 1980 is not necessary.

Figure 25 highlights the growth in the Hispanic population for each place from 1980 to 2000. Each location experienced considerable growth in the percentage of Hispanics, and both Grandview and Sunnyside had these percentages double. From the twenty years between 1980 and 2000, the percentage of the total population who are Hispanic increased by an average of 34% across all four places.

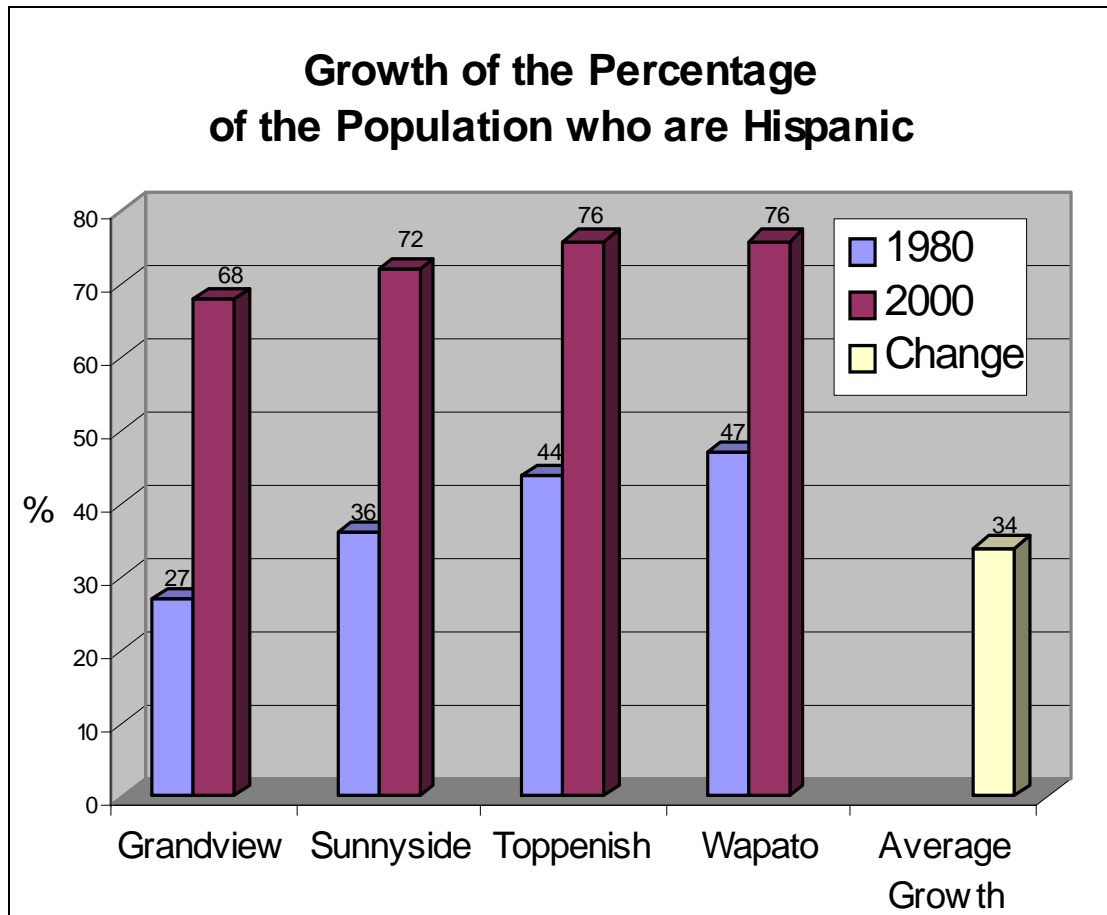


Figure 25. Growth of the Hispanic population, 1980-2000 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics and USBC 2000 STF1).

Figure 26 shows the growth of the foreign born population in each of the four places from 1980 to 2000. This growth is consistent with the growth in the Hispanic population, however, the average growth of the foreign born is only 19.3% compared to 34% for the Hispanic population. This suggests that a considerable portion of Hispanics that entered the area of the study site were born in the United States and were either born in the study

area or migrated from other areas of the country. Another less likely possibility is that another ethnic group accounts for the growth in the foreign born population.

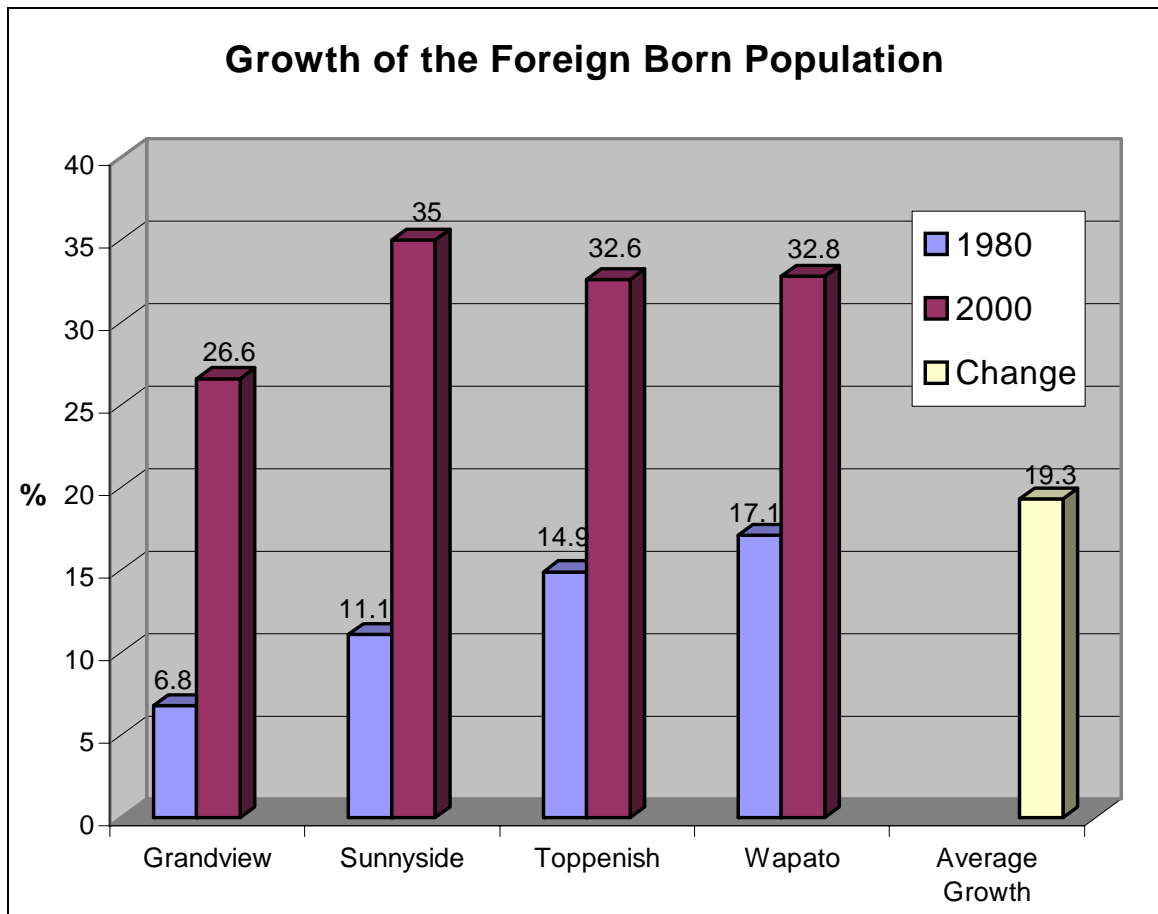


Figure 26. Growth of the foreign born population 1980-2000 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics and USBC 2000 STF3).

Accompanying the growth in the Hispanic percentage of the population is a change in the linguistic orientation of the population. Figure 27 highlights the growth in the percentage of the population of each place that speaks Spanish. Again, both Grandview and Sunnyside had the percentage of their population who speak Spanish double in the

two decades from 1980 to 2000. The graph also shows the average growth in the number of people who speak Spanish for all four places. In just twenty years, the Spanish speaking population of the study site increased by 30%.

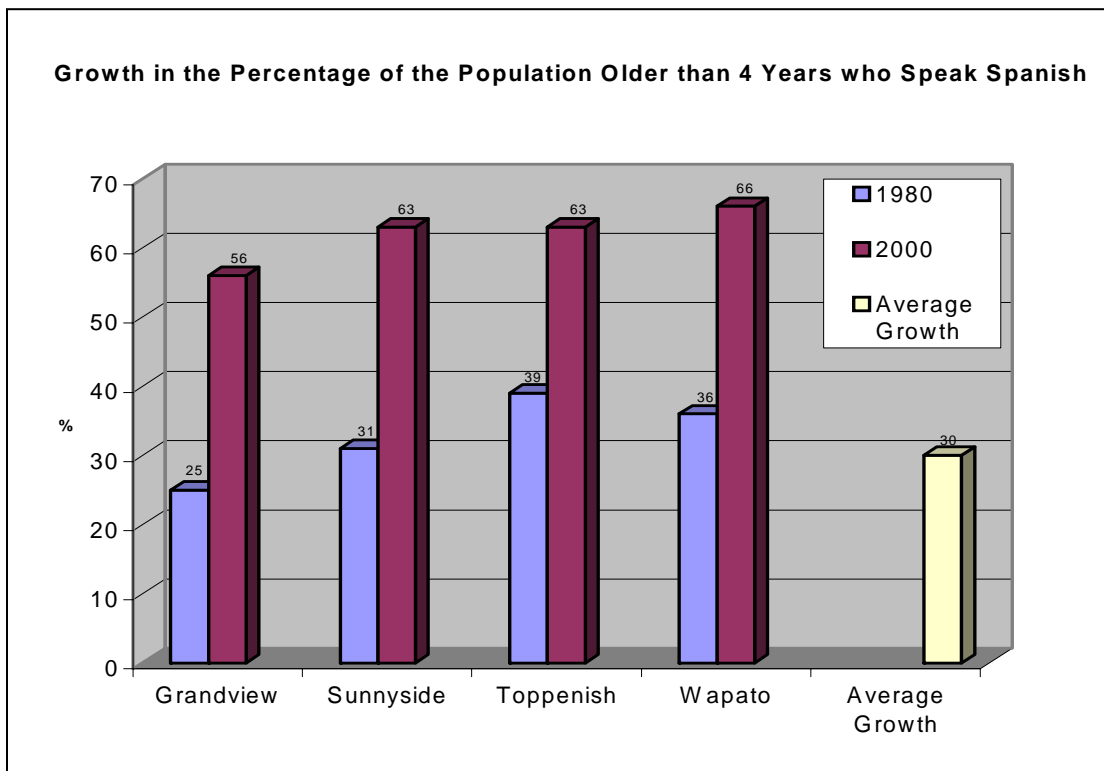


Figure 27. Growth in the percentage of the population older than 4 years who speak Spanish, 1980-2000 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics and USBC 2000 STF3).

The previous figures show growth in the Hispanic population, the foreign born population, and the Spanish speaking population in each of the four communities. Figure 28 illustrates the difference between the percentage of total families below the poverty level and Hispanic families below the poverty level. In both 1980 and 2000, the

percentage of Hispanic families below the poverty level was much greater than that for the total. However, the disparity between Hispanic families and all families has decreased; the average in the four places for 1980 was 12% and in 2000 this fell to 5.5%. This decrease is most likely due to the large growth in Hispanic families, who are included under the category of all families, therefore causing the number of all families below the poverty level to increase.

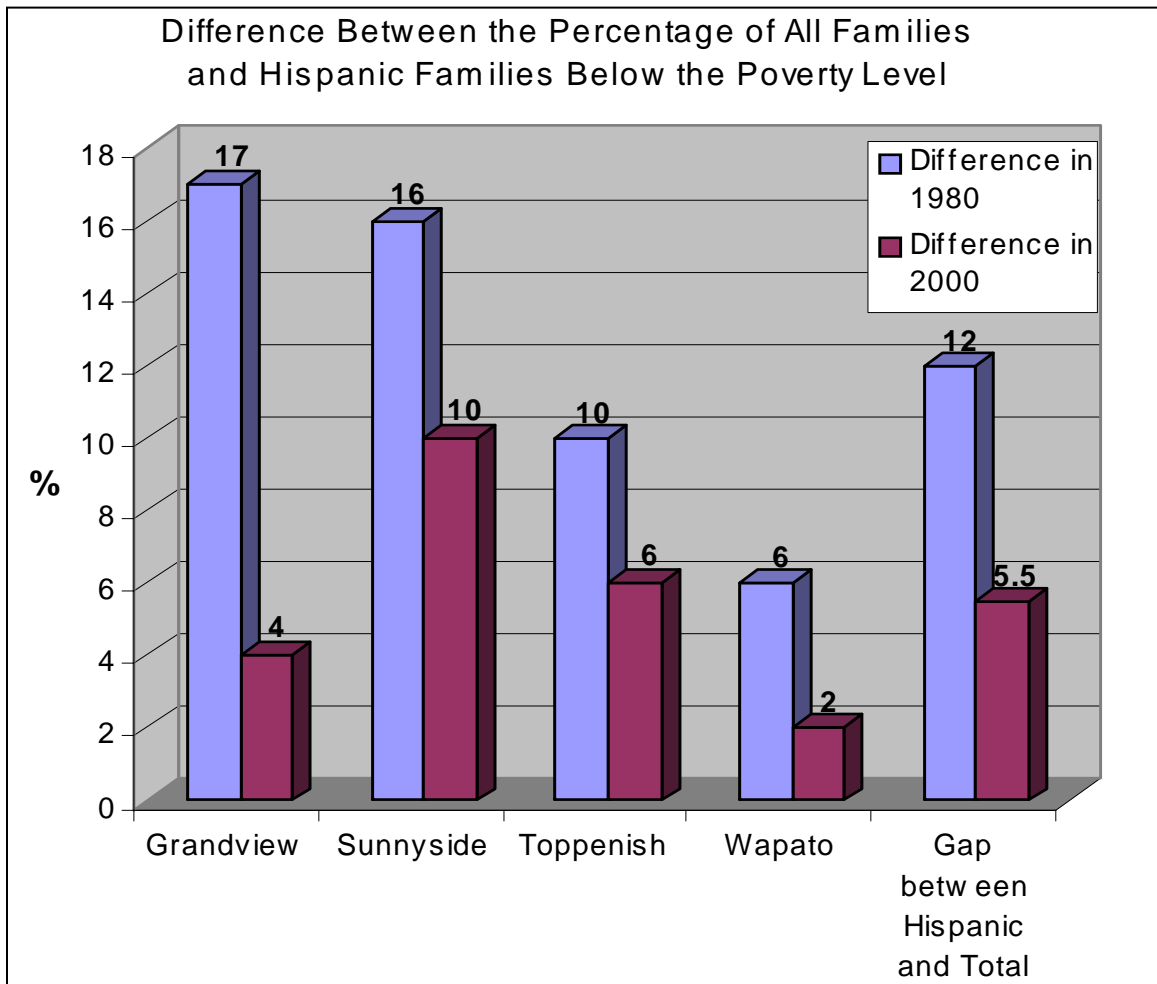


Figure 28. Difference between the percent of all families and Hispanic families below the poverty level, 1980-2000 (Source: 1980 Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics and USBC 2000 STF3).

Place Level Data: 2000

The demographic changes that occurred between 1980 and 2000 in the study area have had far reaching impacts on the communities in which they occurred. An exploration of the 2000 census will now be undertaken as a quantitative introduction to these impacts. Figure 29 represents the percentage of the Hispanic population, compared to the non-Hispanic white population that had more than a high school education in 2000. A significant gap exists in the attainment of a higher education (beyond the high school level) for Hispanics, with the average for all four places being 35% lower than it is for non-Hispanic whites.

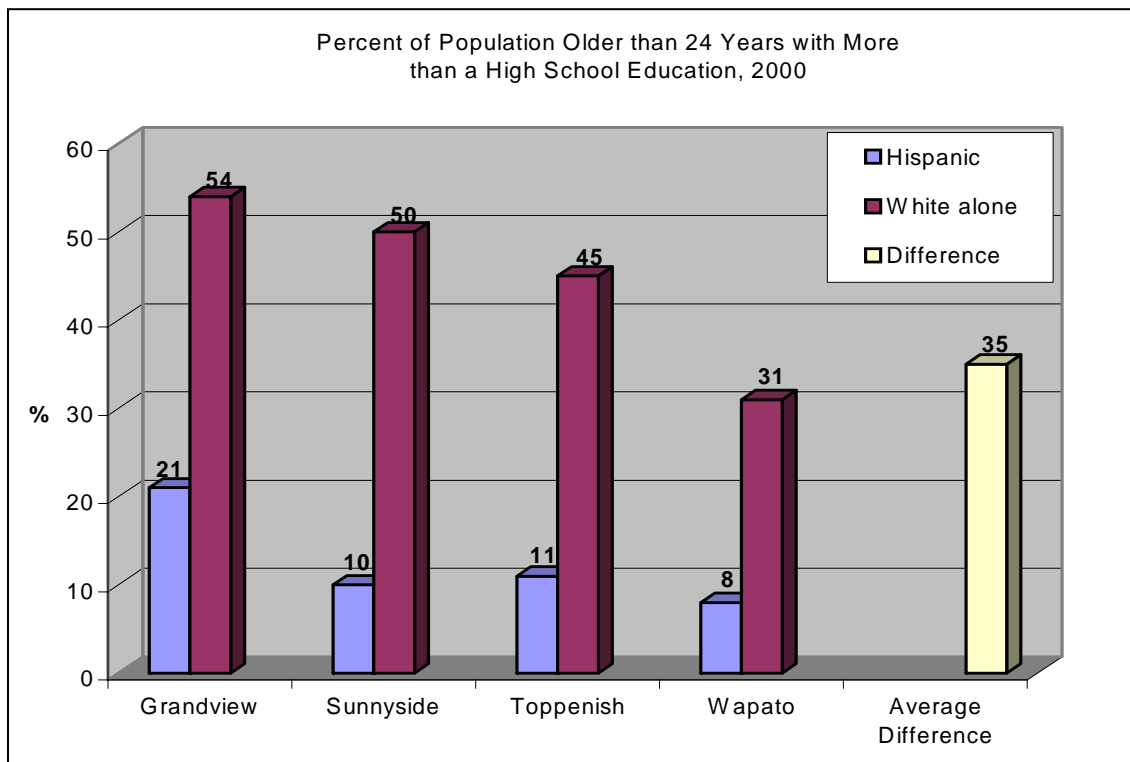


Figure 29. Percent of the population 25 years and older with more than a high school education, 2000 (Source: USBC 2000 STF 3).

In addition to the relatively low percentage of Hispanics who have an education beyond the high school level, there is an extremely high percentage that have less than a ninth grade education. Figure 30 shows a very interesting relationship between ethnicity and educational attainment, which appear to be very closely related.

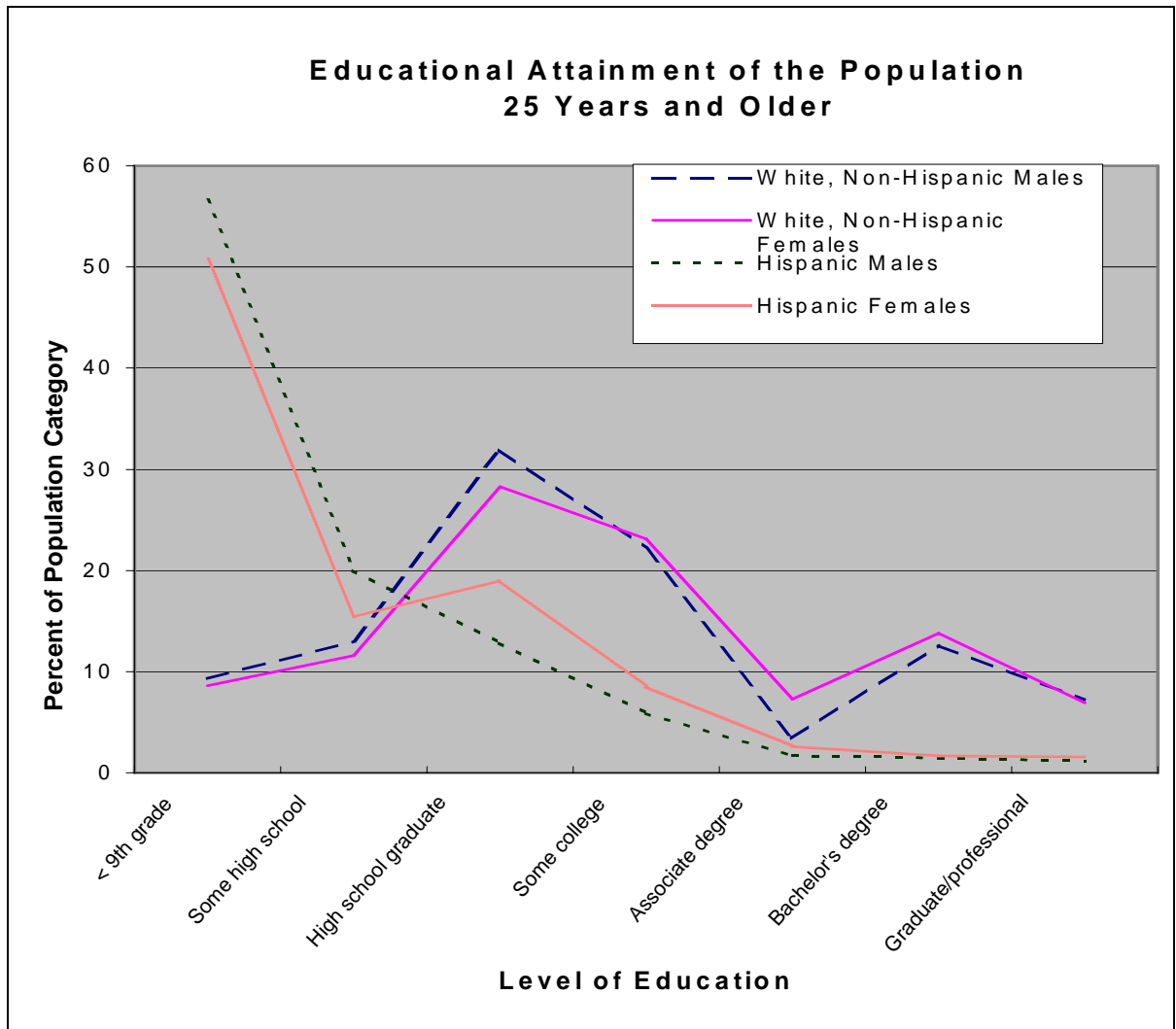


Figure 30. Average educational attainment of the population older than 25 years for all 4 places (Source: USBC 2000 STF 3).

As can be seen from Figure 30, the majority of both Hispanic males and females have less than a high school degree and very few have a college degree. On the other hand, the majority of white, non-Hispanic males and females are at least high school graduates.

The lack of education among the Hispanic community has a strong influence on the economic condition of this group. Figure 31 summarizes the percent of families below the poverty level in 2000. This figure is similar in content to Figure 28, however, in contrast to the 1980 census, the 2000 census included a category for “White alone, not Hispanic” which allows for a more detailed look at the disparity between the two groups. The designation of a family in a racial category is based on the race of the householder. The householder refers to the person (or one of the people) in whose name the housing unit is owned or rented or, if there is no such person, any adult member, excluding roomers, boarders, or paid employees. If the house is owned or rented jointly by a married couple, the householder may be either the husband or the wife. The person designated as the householder is the "reference person" to whom the relationship of all other family members, if any, is recorded. Therefore, it is possible that a “white alone” family contains members from another racial group (USBC, n.d.).

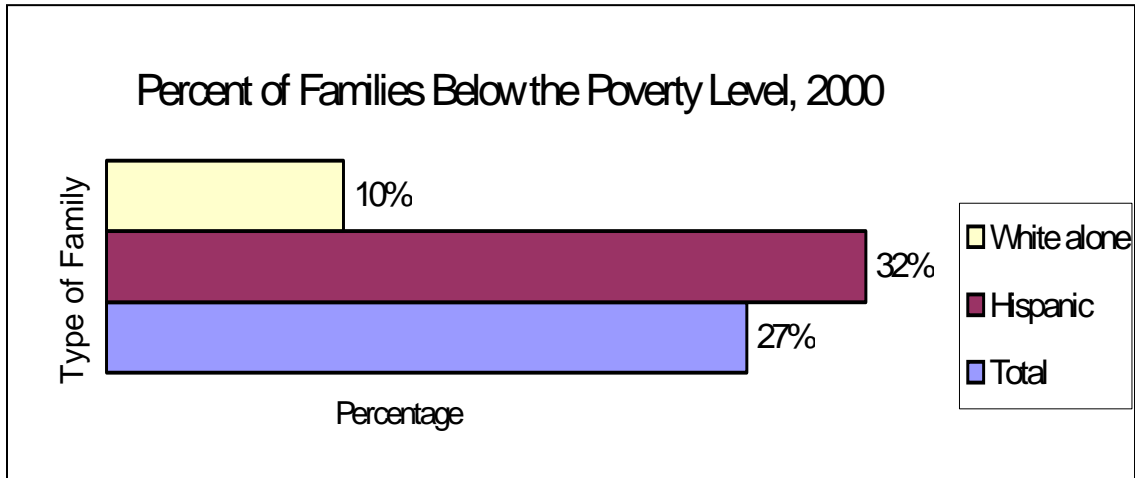


Figure 31. Average percent of families below the poverty level by type for all 4 places, 2000 (Source: USBC 2000 STF 3).

This figure shows that 32% of Hispanic families are below the poverty level while 27% of all families are below the poverty level. This does not seem like a significant gap on first glance. However, when the percentage of white alone families below the poverty level is included, the relative disadvantage is heightened; only 10% of white alone families are below the poverty level, a difference of 22% compared to Hispanic families.

Figure 32 portrays the disparity in income between Hispanic households and white, non-Hispanic households for all four communities. Only at about the \$40,000 range is the annual household income equal between the two groups. At income levels below this, Hispanics dominate, while at income levels above this, non-Hispanic whites dominate.

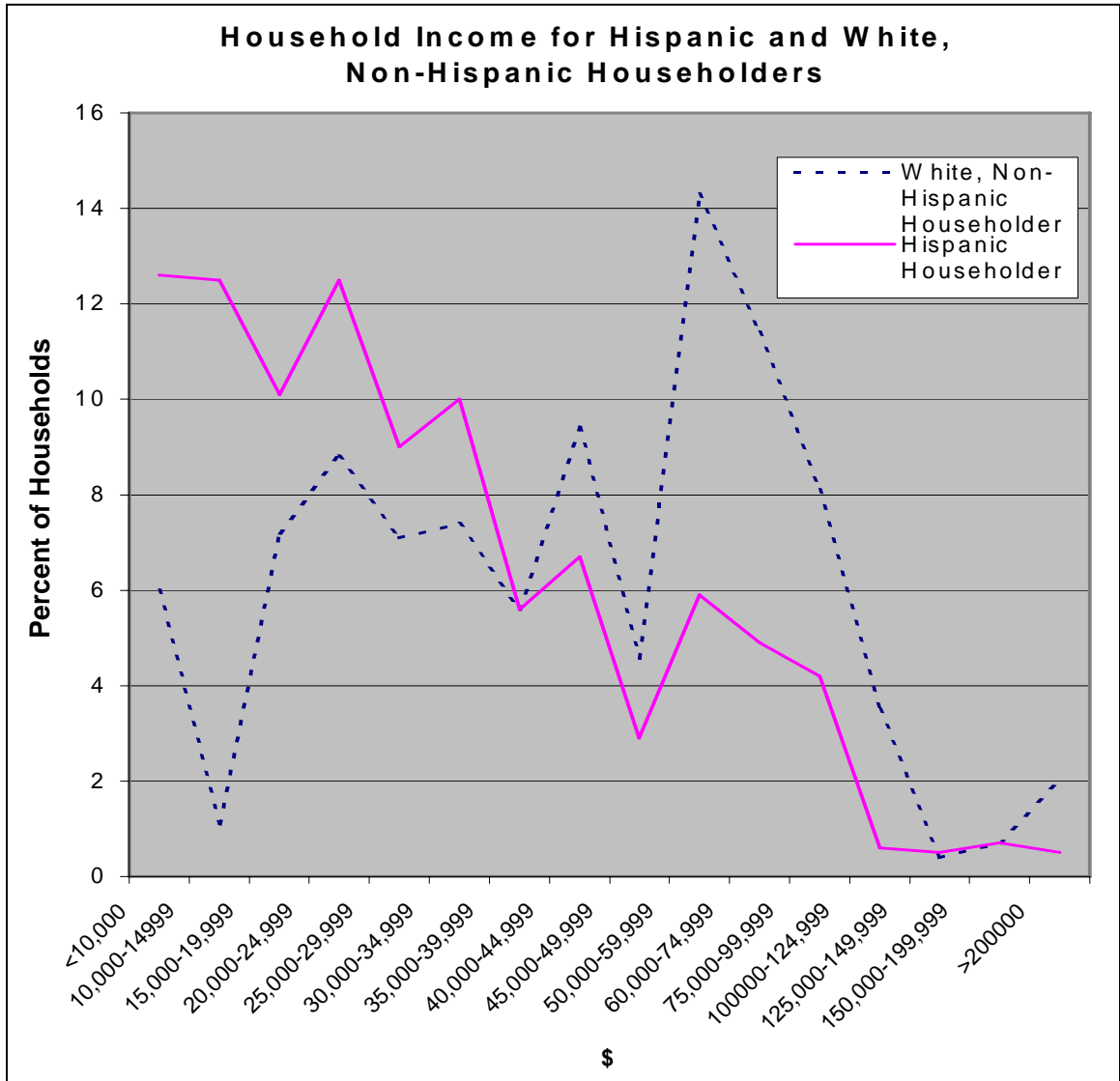


Figure 32. Household Income for Hispanic and non-Hispanic White householders for all 4 places, 2000 (Source: USBC 2000 STF 3).

It is apparent from the previous figures that there exists a great deal of inequality between Hispanics and non-Hispanic whites. This inequality is particularly important given the age structure of Hispanics compared to non-Hispanics, which will have a huge impact on future population growth (Figure 33). Hispanic males and females greatly outnumber non-Hispanic males and females in all age brackets below roughly fifty years. This difference in age structure is particularly pronounced for females, which is an important predictor of growth rates. The predominance of Hispanic females under the age of forty is mirrored by the predominance of white, non-Hispanic females over the age of sixty. A similar, although less obvious pattern, can be seen between Hispanic males and white, non-Hispanic males.

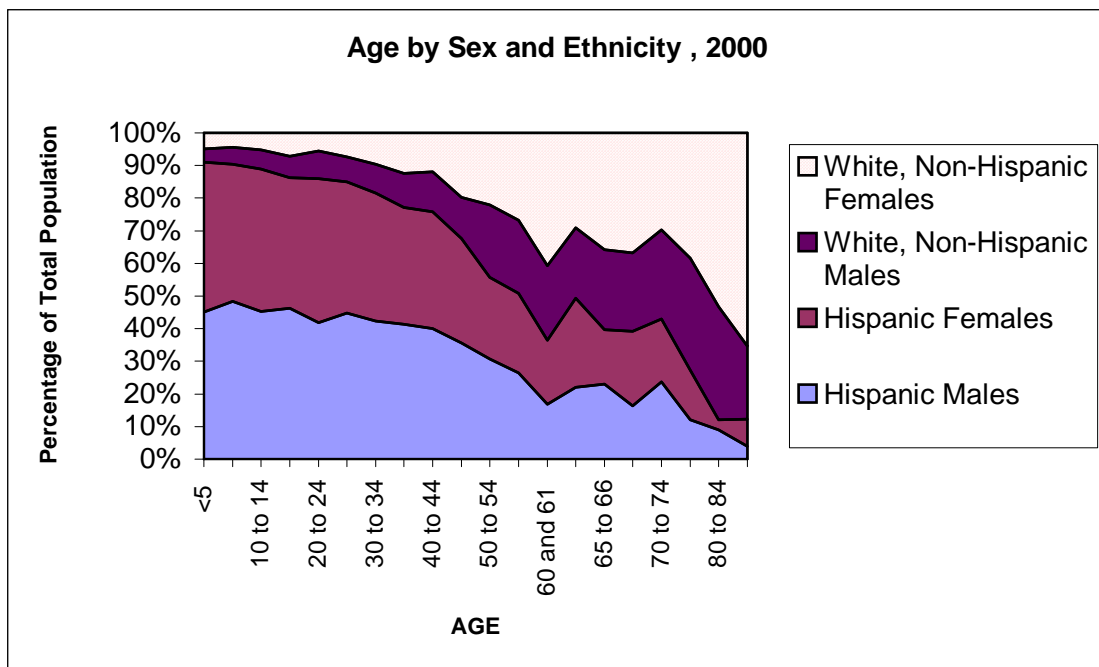


Figure 33. Age by sex and ethnicity for all four places, 2000 (Source: USBC 2000 STF 3).

### Conclusion

An analysis of census data from the last two decades shows that change has occurred over time in the population composition, educational attainment, and income levels of Hispanics in the Yakima Valley. It is clear from this data that Hispanics still lag far behind non-Hispanic whites in educational attainment and income levels. This examination of U.S. Census data provides a good foundation for an initial look at the communities of the lower Yakima Valley. However, quantitative data provides only a glimpse of the more complicated, qualitative aspects of these communities. The information in this chapter therefore serves as a basis for later chapters.

## CHAPTER 5

## GEOGRAPHIC INFORMATION SYSTEM ANALYSIS

This chapter will explore the spatial relationships and impacts of certain social characteristics of the Hispanic population of the lower Yakima Valley. Data from the 1990 census and 2000 census have been put into a Geographic Information System for analysis and the results are presented in several different choropleth maps. Each of these maps represents a different aspect of assimilation: economic, spatial, and cultural. For purposes of simplification, each stage of assimilation is based on one census variable. Economic assimilation is based on per capita income, spatial assimilation is based on residential segregation, and cultural assimilation on linguistic isolation.

Spatial Assimilation and GIS Studies

The residential settlement pattern of immigrant groups in the United States is the subject of much research. Where and how immigrants choose to reside has significant impacts on the communities in which they settle. These communities are responsible for overcoming cultural barriers that may require actions that range from government policies to educational modifications. These actions are particularly challenging when a foreign language inhibits communication, as is the case with many recent Hispanic immigrants. Yakima Valley is an example of an area that has undergone a demographic, as well as a cultural transformation, and has been forced to confront these issues. It is

within the context of this location that the topics of residential segregation and immigrant assimilation will be explored.

It is suggested that the more immigrant groups are concentrated together, the less interaction they will have with members of their host society. This level of interaction greatly influences how quickly and to what extent immigrants will adopt the practices of their host society. The connection between immigrant assimilation and residential location was formally developed by Massey in 1985 and is known as the model of spatial assimilation/residential segregation (Massey 1985). The model is based on the assumption that as immigrants become more familiar with their host country's culture and begin to earn more money, they become more geographically mobile. As their socio-economic status improves, immigrants tend to move away from areas of ethnic concentration, into neighborhoods dominated by a non-immigrant population. Once this residential integration (or spatial assimilation) occurs it is possible for primary level interaction to begin between the immigrants and their host society, facilitating a process of assimilation. Indeed, many studies highlight a tendency for immigrants to cluster together initially for support and then disperse from these areas over time as they become more familiar with their new country's culture and find better jobs (Allen and Turner 1996).

The model of spatial assimilation adds to the traditional model of assimilation, which was developed by Gordon in 1964 (Massey 1985). Gordon's model established seven stages of assimilation, each of which corresponds to an increasing level of interaction between the immigrant group and the host society and thus integration of the former

group into U.S. society. The first stage is cultural assimilation, whereby the immigrant group adopts the language and cultural practices of the host society. The second stage is structural assimilation, which involves both primary level interaction between the two groups (such as clubs and social organizations) as well as economic advancement (such as increased income and occupational status). Gordon's model assumes that once cultural and structural assimilation occur, all other stages will follow until the immigrant group becomes completely absorbed by the host society (Gordon 1964). According to these two models, spatial assimilation will occur alongside structural assimilation, but only after cultural assimilation.

Studies of residential segregation involve at least two ethnic groups. Results have generally supported the model of spatial assimilation; lower segregation corresponds to greater cultural and structural assimilation and immigrants with higher levels of education and income are less segregated than their cohorts of lower socio-economic status. In addition to immigrant groups, many studies have focused on residential segregation between blacks and non-blacks, as this has been a long-standing problem in many urban areas of the United States (Allen and Turner 1996). Research is primarily performed at the tract level and results are given as a general measure over an entire region. For this reason, levels of residential segregation have been heavily criticized as being "global" rather than "local". The lack of consideration given to issues of spatial variability and scale within segregation studies has prompted some scholars to develop GIS techniques that address these deficiencies (Downey 2003). One of the statistical methods used to calculate residential segregation will be introduced first, followed by a

description of an alternative method. Two scholars and their corresponding contributions to the field of residential segregation through GIS techniques will also be described.

The index of dissimilarity, also referred to as the 'D' index, is the most widely adopted statistical method used to compute segregation. The value of D ranges from zero (indicating no segregation) to one (indicating complete segregation) and is a measure of whether one particular group is distributed across areal units (such as block groups or census tracts) in a given area in the same way as another group. A high value indicates that the two groups tend to live in different tracts. D is usually converted into a percentage and a value of 60 or above is considered very high. It means that 60% or more of the members of one group would need to move to a different unit in order for the two groups to be equally distributed. A value of 40 or 50 is considered a moderate level of segregation, and a value of 30 or below is considered to be fairly low. The index of dissimilarity is limited in that it can only analyze segregation between two population groups (Wong 1996). Studies have also shown that the value of D increases when the size of the enumeration unit becomes smaller and therefore using smaller units produces relatively high segregation measures (Wu and Sui 2002).

The entropy based diversity index, also known as the spatial diversity index, or H, reflects whether an areal unit is diverse in its population composition, and is not a measure of residential segregation. A value of zero indicates complete dominance by one group, while a high value (this index is open-ended) suggests a relatively even distribution of population among groups. This index has several advantages over the index of dissimilarity; it can be used for multiple groups, mapped (each areal unit is

assigned a value), and therefore can reflect local variations in diversity. However, as with the index of dissimilarity, the spatial diversity index still fails to truly capture the influence of interaction between groups (Wong 1996).

In an effort to overcome the aspatial nature of many of the indexes used to measure residential segregation, Wong (2002) formulated an index called the local spatial segregation index. Wong modified the spatial diversity index to account for interaction between groups across boundaries. Wong's index can be calculated in several ways, each of which produces a slightly different result. An analysis may include only units that are adjacent to the areal unit under consideration, or it may include units that are within a specified distance from that areal unit. The latter of these two methods is based on the exposure concept and can be considered as a distance-decay function in which different weights are assigned to different locations based on their distance from a given areal unit. While this technique is easily implemented in GIS, results are very sensitive to the boundary effect, and are therefore less reliable (Wong 2002).

The topic of which index is most suitable for measuring residential segregation dominates the literature on this issue and it is therefore important to be aware of the differences between each method. One topic that is relatively less explored but just as important is the use of GIS to correct for the deficiencies of the previously described statistical measures. Studies of residential segregation are primarily based on calculations performed in statistical packages rather than in a GIS. While many results may be displayed on maps created in a GIS, few have used GIS as the primary method of analysis. The most common complaint about the previously described statistical methods

is that they are global in nature and therefore do not accurately portray spatial variation within regions nor do they account for interaction between groups which greatly effects the level of segregation. Through analysis, GIS has the capabilities to perform various operations that are explicitly spatial in nature, and thus of great benefit to the field of segregation studies. As Wong (1996) has suggested, one can analyze numerous socioeconomic variables in the census database to explore if segregation is related to any particular variable. This ability can help a researcher to identify factors that may be pertinent to the issue of residential segregation. Indeed, as Wong (1996) has pointed out, “we may learn more about the spatial aspects of segregation through GIS.”

Two studies that have analyzed residential segregation through the use of GIS were performed by Downey (2003) and Wu and Sui (2002). Both of these studies attempted to produce a more accurate portrayal of segregation levels through spatial analysis. Wu and Sui developed a multi-scale lacunarity analysis using ArcView Spatial Analyst to capture multiple dimensions of segregation patterns at multiple scales. Downey introduced a variable construction technique to measure the distance between social groups and hazardous manufacturing facilities. Both of these studies were performed in raster data models and relied primarily on techniques and functions supplied by the Spatial Analyst. Through their research, these scholars have demonstrated that GIS is an invaluable tool for use in segregation studies.

Given the value that GIS analysis has to offer to the field of segregation studies, the lack of research specifically addressing this topic is perplexing. However, the literature does suggest that as a focus on the spatial aspects of residential segregation continues to

be emphasized, there is a slow emergence in the incorporation of GIS analysis into this field. Wong (1996) has suggested that this lack of connection between GIS and segregation studies may be due in part to the nature of census data. He claims that because the calculation of indices for measures of segregation only requires data from Summary Tape Files, the “spatial domain” or cartographic aspect of the data is completely overlooked. Another possible explanation may be that many studies of segregation are performed by sociologists, who are less concerned (than geographers are) in the spatial dimension.

In addition to the multitude of benefits that GIS analysis brings to the field of segregation studies, there also exists the simple ability to display results visually on a map. The use of maps can help deepen our understanding of segregation issues by adding a visual dimension to statistical analysis that is often absent.

### Analysis

Two of the formulas described in the literature review were used in this analysis: the index of dissimilarity and the entropy index. The index of dissimilarity was used to calculate residential segregation and the entropy index was used to calculate diversity. Although both these methods have problems associated with them, they are widely incorporated measure used in this field. As a result, some accuracy may be sacrificed, but at the same time the legitimacy of using methods that are widely accepted in the field is gained.

The GIS analysis used in this thesis has functioned well as an example of the value of incorporating GIS into cultural geography. For example, a major aspect of this analysis was how to deal with changing census geographies between 1990 and 2000. Solving this problem was a task well suited to GIS and was approached by performing a union. A union is a GIS function in which a new data set (a new layer) is created from the features in two overlapping layers. A union also includes features from non-overlapping areas of the two original layers. This analysis highlights the value of integrating GIS and cultural geography, a much-needed task considering that both these fields are growing in their importance.

Each step of the analysis, along with the different layers involved are highlighted in Figure 34. The two original shapefiles (1990BG.shp and 2000BG.shp) were downloaded from the U.S. Census Bureau website. Their geographic coverage was then narrowed down to the block groups in the study area and the desired population characteristics were added. The two were merged so that each characteristic would be joined with a unique geography (See Appendix A).

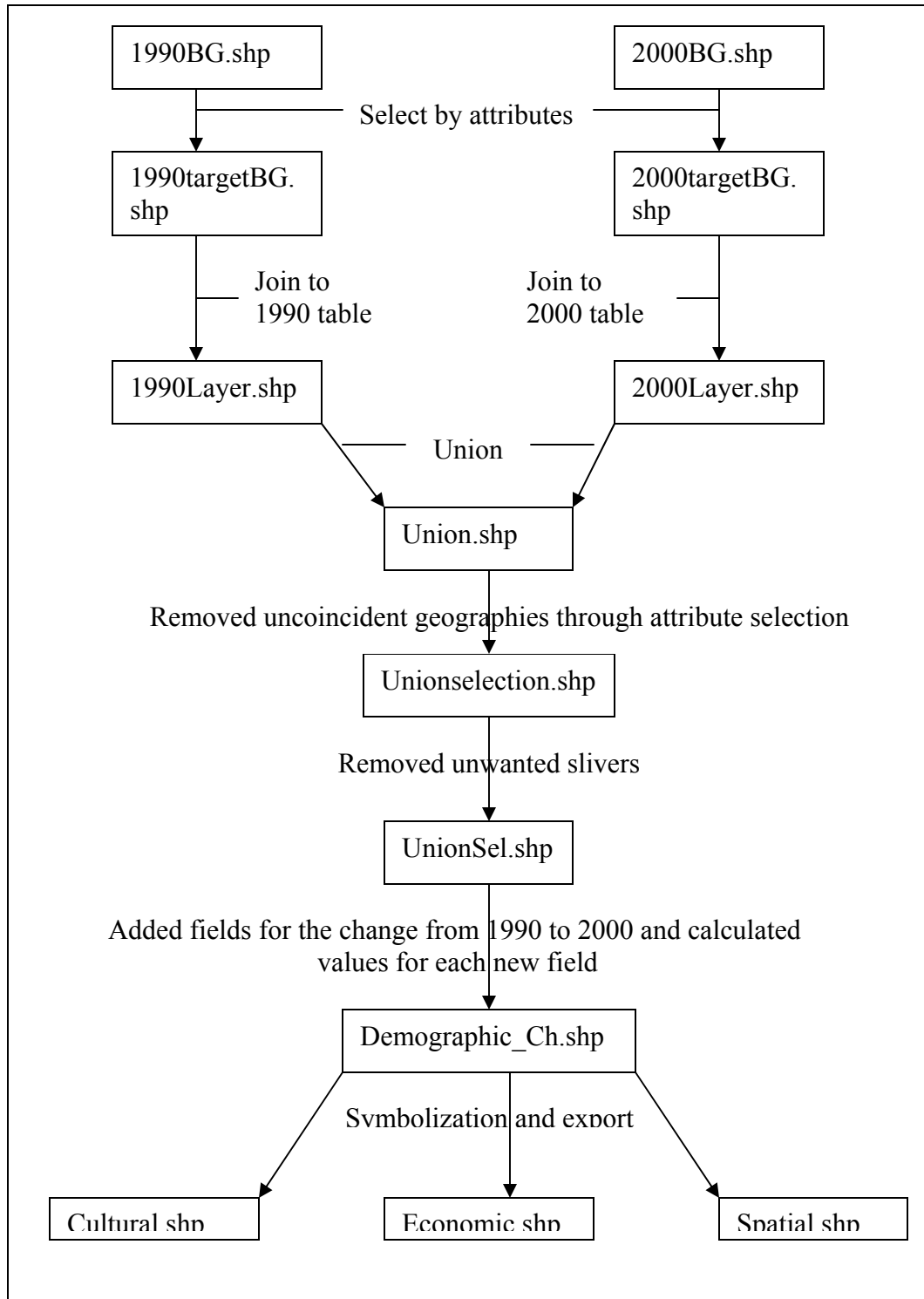


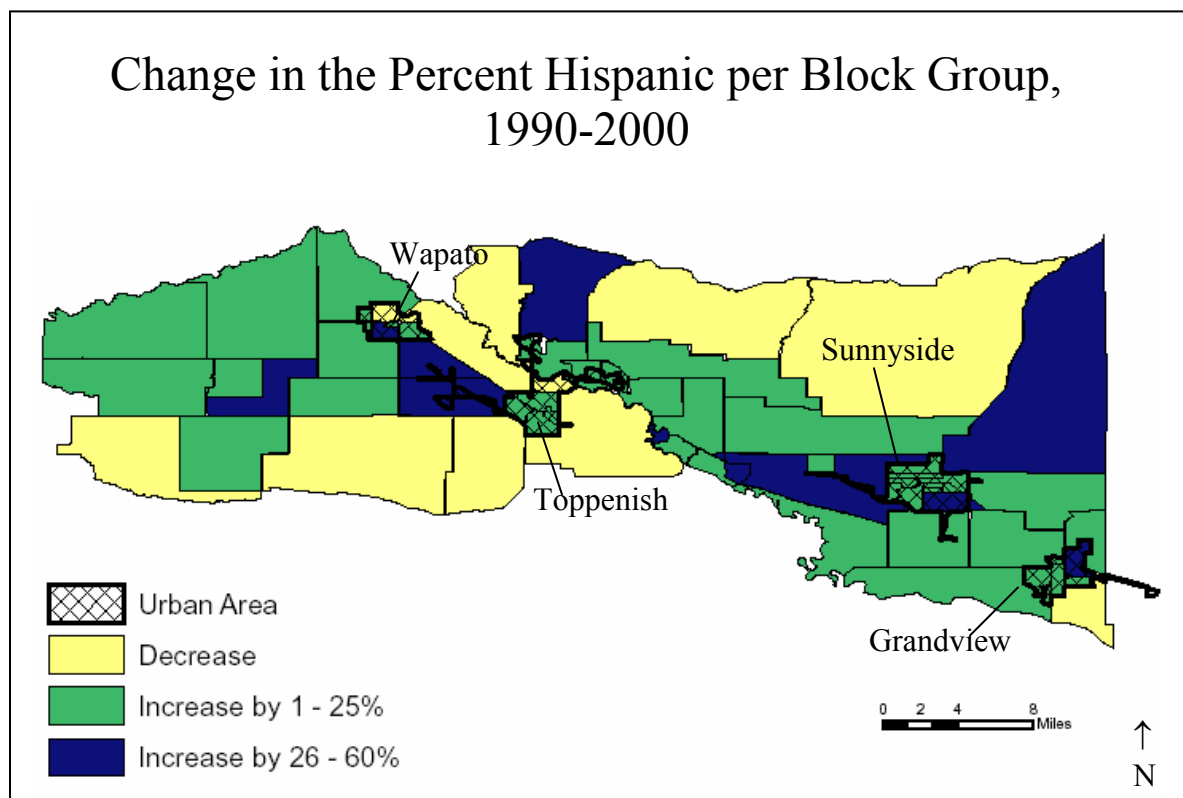
Figure 34. Flow Chart of GIS Analysis.

One of the major issues that arose from the temporal dimension of this analysis is referred to as the modifiable areal unit problem (MAUP). The MAUP exists because census boundaries, such as those for block groups or tracts, change over time with shifting populations. Therefore, the geographic extent covered by a block group in 1990 for example, may not be the same in 2000. Correcting for this problem is time consuming, yet well suited to GIS. First, all numerical data was converted into percentages, so that these numbers would still pertain to a new geography. After performing a Union, which overlapped the 1990 and 2000 layers, there was a new layer consisting of various new units of enumeration. Some of these units were the actual merger of a 1990 and 2000 block group, which created a unique geographic area that could then be tied to socioeconomic data. The rest of the resulting units were either geographies that were un-coincident between 1990 and 2000, or were tiny slivers where census boundaries did not quite meet up. The un-coincident geographies were identified in the attribute table and removed through attribute selection. The slivers were identified manually and removed through additional attribute selection.

Each of the three final layers (Cultural.shp, Economic.shp, and Spatial.shp) is displayed with the urban areas layer in separate data frames (Maps 7-10). The urban areas layer was also downloaded from the Census Bureau website. Each block group was symbolized using the choropleth technique.

## Results

Map 7 shows the spatial pattern in the change in the Hispanic population of the study area. The natural breaks classification method was used to display the data, which is appropriate because the data followed a natural distribution.

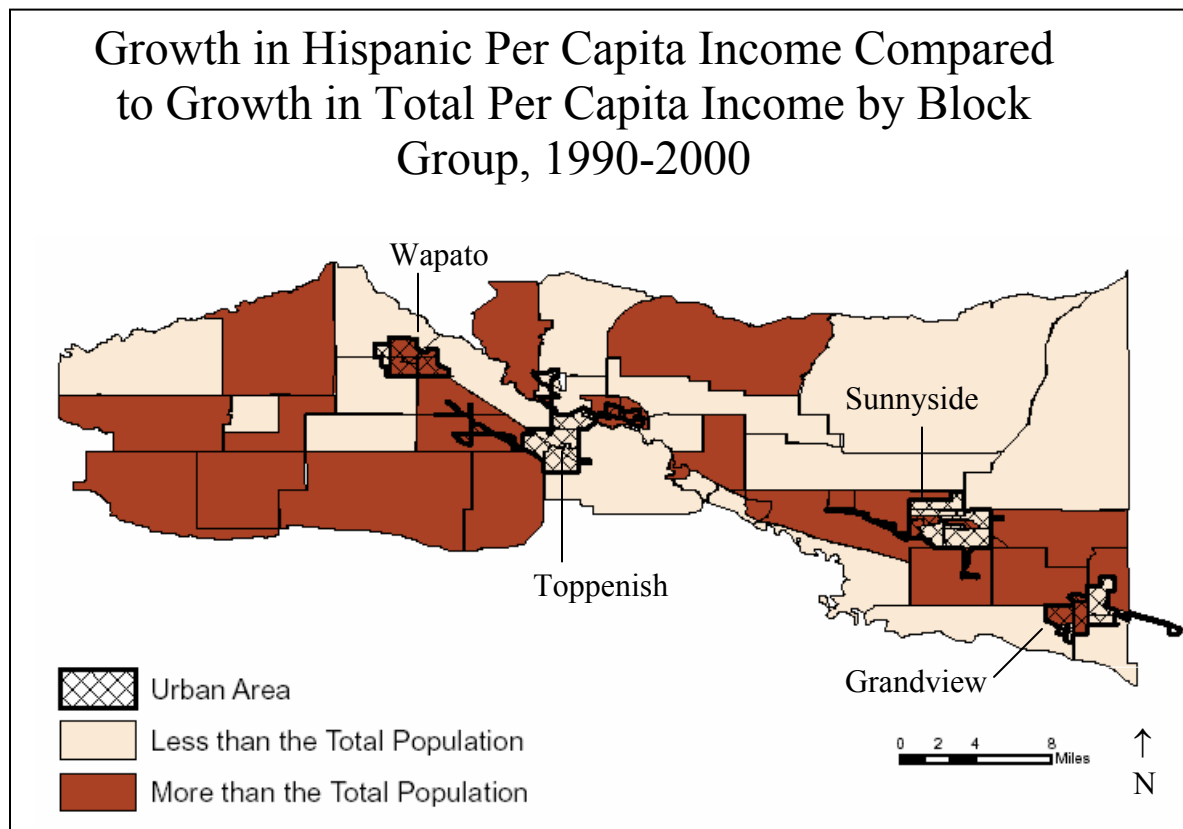


Map 7. The change in the Hispanic population of the study site per block group from 1990-2000.

Most block groups increased in the percentage of Hispanics, and only a few block groups decreased. As can be seen from Map 7, the areas that increased the most are in or adjacent to urban areas, and those that increased less or decreased tend to be in the more

rural areas further from town centers. Overall, the Hispanic population increased by an average of 14% from 1990 to 2000, compared to the national increase of 58% (USBC 1990; USBC 2000). While a strong spatial pattern is not evident, there is some clustering in the block groups that decreased as well as those that increased.

Map 8 displays the spatial variability in the growth of Hispanic per capita income compared to the growth in per capita income for the total population, per block group.



Map 8. Growth in Hispanic per capita income compared to the total population.

Data is displayed using a manual classification method in order to display results using only the two categories of 'less than the total population' and 'more than the total

population.’ Hispanic per capita income grew by an average of \$3,247 from 1990 to 2000, while total per capita income grew at an average of \$3,142. Again, while no striking spatial pattern is discernable, there does appear to be an association between block groups where Hispanic per capita income grew more than the total population and those where it grew less.

The change in the amount of residential segregation between Hispanics and non-Hispanics from 1990 to 2000 was calculated using the dissimilarity index discussed earlier in this chapter. Residential segregation for the study area was calculated using the standard equation:  $D=1/2 \sum |X_i - Y_i|$  where  $X_i$ = the percent of population X in area i and  $Y_i$ = the percent of the population Y in area i. In this case, area i is each individual block group, and populations X and Y are the percent Hispanic and the percent not Hispanic in each block group out of the sum of all block groups. An absolute value is calculated for each block group and then each individual result is summed together to give a general measure over the entire study site (See Appendix B). In 1990, the index of dissimilarity was 37.1% at the block group level, suggesting that 37.1% of one group would have to move to a different block group in order for the two groups to be equally distributed. Between 1990 and 2000, residential segregation decreased slightly from 37.1% to 36.3%. A map portraying residential segregation is not included here because there is only one value for the entire study area.

The index of dissimilarity, as previously mentioned, is very sensitive to the size of the enumeration unit and tends to increase with smaller units. This is true in the case of the study area, which shows lower levels of segregation at the census tract level. In 1990,

the value of D was 26% and in 2000 it was 28% at the census tract level. Analysis at the tract level, therefore, shows an increase in residential segregation, while analysis at the block group level shows a decrease. However, these changes are very small and because the study area has a small total population they are subject to inconsistencies. A minor change in the size of one of the population groups can produce a corresponding change in the dissimilarity index that is not accurately indicative of the actual residential experience of the average group member (Lewis Mumford Center for Comparative Urban and Regional Research, n.d.). Therefore, while accurate assessments of changes in residential segregation are difficult to make, residential segregation of the study area appears to be relatively small, especially when compared to levels for Yakima County. At the national level, residential segregation for Hispanics has hovered in the 50% range, and fluctuated little between 1980 and 2000 (USBC, n.d.). Table 4 summarizes the comparison of D values between the study area and Yakima County at several different enumeration units (See Appendix B for calculations for the study site).

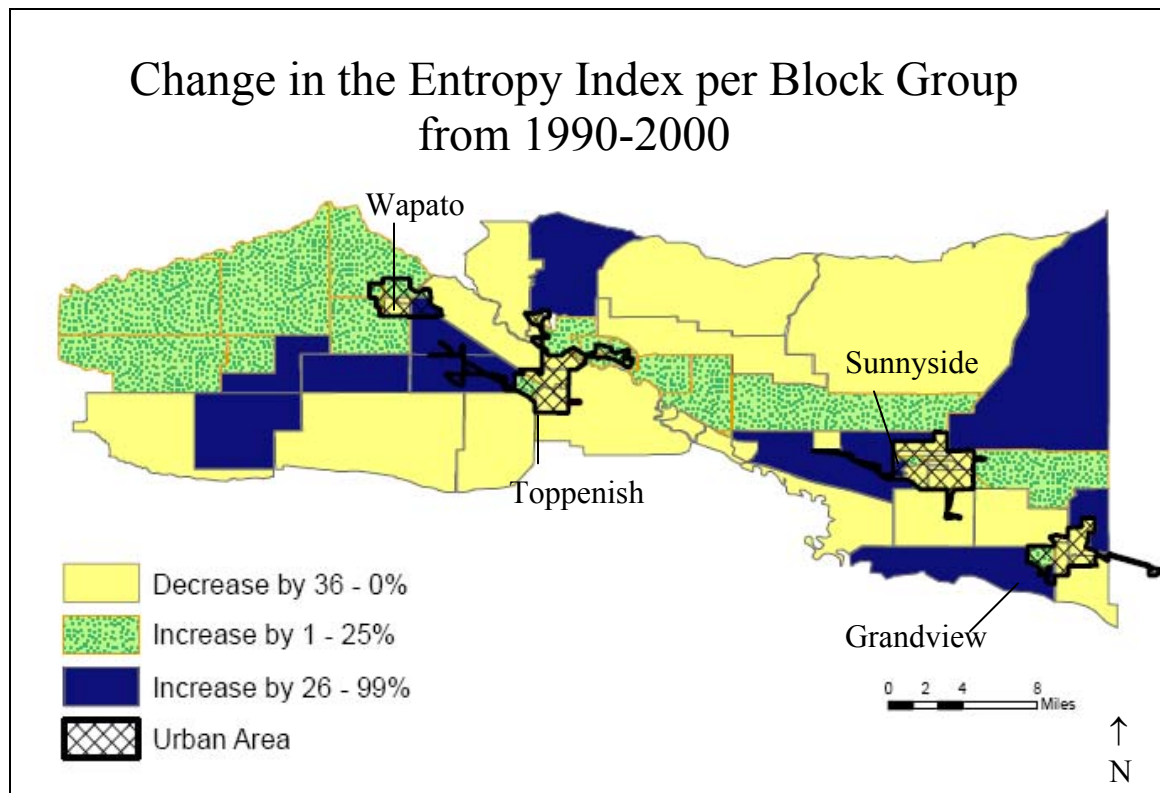
Enumeration Unit	1990		2000	
	Study Area	Yakima County	Study Area	Yakima County
Block	-----	64.8%	-----	79.1%
Block Group	37.1%	54.4%	36.3%	53.1%
Census Tract	26.0%	51.9%	28.0%	51.5%

Table 4. The index of dissimilarity for both the study area and Yakima County (Source USBC 1990 and 2000 STF1 and the Lewis Mumford Center for Comparative Urban and Regional Research).

Changes between 1990 and 2000 appear to be minor for both the study area and Yakima County. However, data for the study area from 1980 shows that a much greater increase occurred between 1980 and 1990 than between 1990 and 2000. In 1980, the index of dissimilarity at the census tract level was 18% for the study area. Therefore, the rate of growth in residential segregation at the tract level has decreased considerably, from an increase of 8% between 1980 and 1990 to an increase of only 2% from 1990 to 2000.

The entropy based diversity index, also known as H, was calculated for each block group. This was done so by using the standard formula:  $H = -\sum P_k * \text{Log } P_k$ , where  $P_k$  = the proportion of the population in the areal unit that belongs to population group k. The two population groups used in this calculation were Hispanic and not Hispanic. Calculations were performed for each block group for 1990 and 2000 (See Appendix B for all calculations). The maximum possible value of H, or the maximum possible diversity, is achieved when both population groups have an equal distribution in each block group. It is therefore important to insure that the results are normalized, so that they can be described on a scale of 0 to 100, with 0 representing no diversity and 100 representing complete diversity. This was done by performing the log function when each group is equally represented, or Log base 2 of .5. The resulting sum for the Hispanic and not Hispanic population groups equaled one (See Appendix B). Therefore, the entropy index for each block group can be interpreted as a value on a scale between 0 and 100. Map 9 shows the change in the entropy value between 1990 and 2000 for each block group in the study area. The data is displayed using a manual classification

method, in order to make Map 9 directly comparable to Map 7, which displays the change in the percent Hispanic per block group.

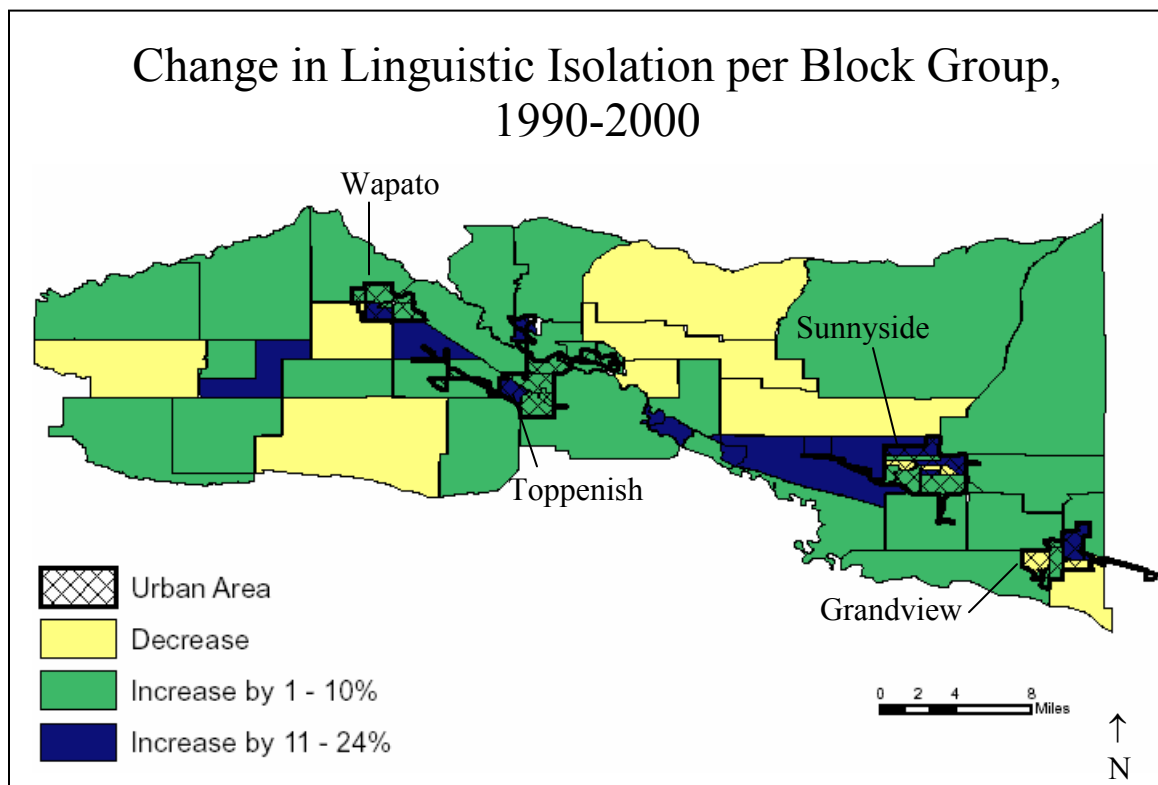


Map 9. Change in the entropy index per block group between 1990 and 2000.

Overall, the entropy index increased from an average of 79 in 1990 to an average of 84 in 2000. This finding is consistent with the decrease in residential segregation. Spatially, the block groups that experienced an increase or a decrease in the percentage of Hispanics correspond to the ones showing an increase or a decrease in the entropy index (See Map 7).

Linguistic isolation is a term used by the U.S. Census and is defined as a household in which all members older than thirteen years speak a non-English language and have

difficulty with English. Linguistic isolation in this case refers only to households that speak Spanish. Because language is said to be one of the strongest cultural bonds, an increase in linguistic isolation is equated with a decrease in cultural assimilation; as Spanish language usage increases, cultural characteristics are maintained. Linguistic isolation for the study site increased by an average of 4% from 1990 to 2000, which is higher than the national average of .3% during the same time span (USBC 1990; USBC 2000). As can be seen in Map 10, most of the block groups saw an increase of less than 10%, with only several experiencing a decrease or an increase of 11% to 24%. The data in Map 10 is displayed using the natural breaks classification method, which is suitable to the data set.



Map10. The change in linguistic isolation for the Spanish language from 1990 to 2000.

Table 5 summarizes how each measure of assimilation was calculated along with the results.

Stage of Assimilation	Measured By the Change Between 1990 & 2000 in:	Calculation per block group	Results
Economic	Per capita income	Growth in Hispanic per capita income compared to growth in total per capita income	On average, Hispanic per capita income grew more than total per capita income = Economic assimilation increased
Spatial	Residential segregation	The Dissimilarity Index	Residential segregation decreased by an average of .8% = Spatial assimilation increased slightly
	Diversity	The Entropy Index	Diversity increased by an average of 5%= Spatial assimilation increased
Cultural	Linguistic isolation	Linguistic Isolation	Linguistic isolation increased by an average of 4% = Cultural assimilation decreased

Table 5. Summary of GIS analysis and results.

Based on this analysis, Hispanics in the lower Yakima Valley are assimilating economically and spatially, but not culturally. Changes in residential segregation are not definitive enough to support the theoretical basis about spatial assimilation discussed in the literature review; that economic assimilation coincides with residential integration. However, the results do show that residential segregation is not increasing substantially, and the rate of increase in residential segregation has decreased considerably.

Furthermore, diversity has increased for the study area. Cultural assimilation decreased, despite a slight decrease in residential segregation, which indicates that Hispanics are maintaining a unique cultural identity despite a possible increase in their interactions with non-Hispanics. Further research is needed in order to qualify these findings, but this analysis of census data provides a good initial look at the dynamics of communities in the lower Yakima Valley.

## CHAPTER 6

THE YAKIMA VALLEY: CULTURAL LANDSCAPE  
AND SOCIAL INTEGRATION

This chapter is based largely on fieldwork that was undertaken for seven days in June and July of 2005. Each of the four towns in the study area were visited, and fieldwork consisted of a combination of personal observations, interviews, and archival research.

The term cultural landscape refers to the visible expression of human settlement on the physical landscape. The idea of the cultural landscape was first introduced by Carl Sauer in his seminal publication “The Morphology of Landscape.” Contrary to the ideas of environmental determinism so popular at the time, Sauer granted primacy to culture as a changing force. His beliefs are summed nicely in his famous quote: “the natural landscape is being subject to transformation at the hands of man, the last and for us the most important morphologic factor” (Sauer 1963, 344). Intrinsic to this term is the idea that different cultures transform their landscapes in different ways and therefore much can be inferred about a culture simply by observing the landscape that culture occupies (Rowntree et al 2003).

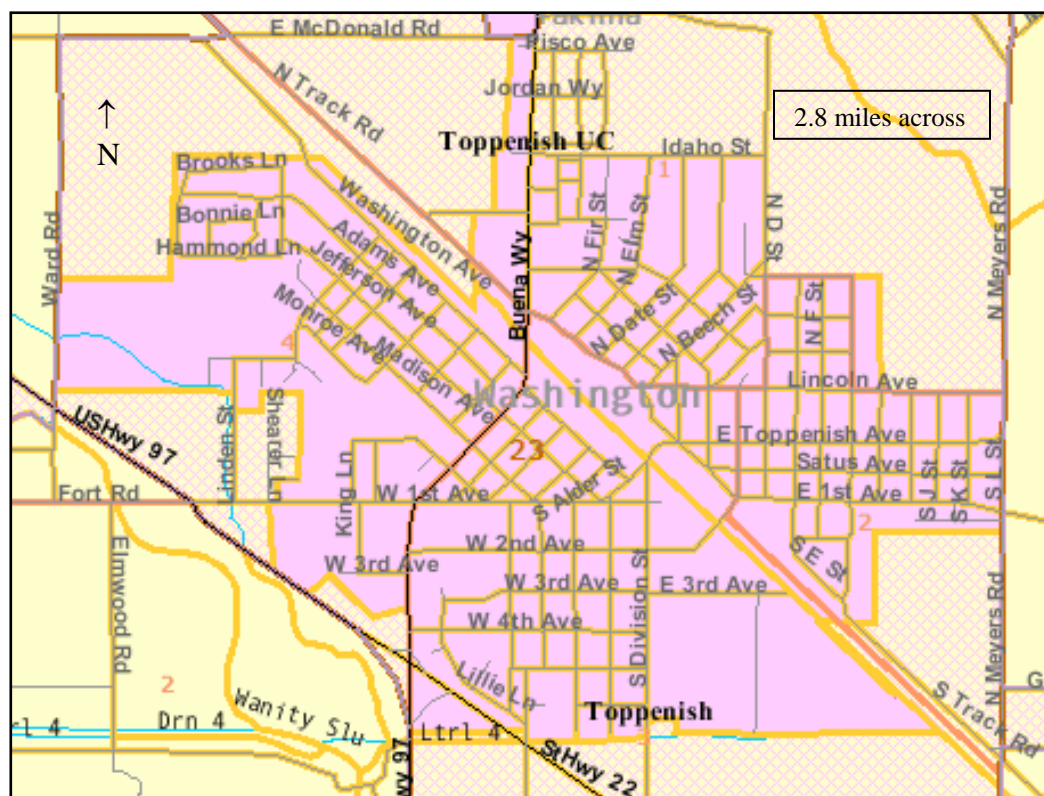
Haverluk (1992) described a type of cultural landscape that is associated uniquely with Hispanics, one he terms the “Hispanic imprint.” The Hispanic imprint is a contemporary phenomenon and includes things such as Hispanic social organizations, Spanish language media, Mexican food, Mexican-American housescaples, music, and art.

According to Haverluk, as the Hispanic imprint of an area increases, so does the likelihood that the non-Hispanic population of that area will become influenced by Hispanic cultural traits or “Hispanicized.” Therefore, an assessment of the cultural landscape of the study area provides valuable insight about the dynamics of assimilation in these communities. For example, if Hispanics did not have an obvious visible representation on the landscape, it is less likely that Anglos are being strongly influenced by the Hispanic culture. If, on the other hand, the Hispanic imprint is dominant in a community, it is probable that Anglos are at least in some way exposed to Hispanic culture. Language is the most visible representation of this influence. As stated by Haverluk, “language is a significant aspect of the Hispanic imprint and may be an appropriate diagnostic variable of regional change and/or maintenance” (Haverluk 1992, 98).

### Hispanic Imprints

Research on the cultural landscape of the Yakima Valley involved personal observation of each of the 4 communities. Data was initially collected by walking through the main streets of each place, taking pictures and notes. Next, interviews were conducted with the Chamber of Commerce for each place, which helped provide data on how the cultural landscape has changed in the past two decades. Interviewees were also very helpful in pointing out things that may not have been recognizable to an outsider.

Map 11 depicts the street layout of Toppenish, as an example of the layout of one of the researched towns. The map displays street names, with the place boundary shaded, and census blocks outlined.



Map 11. The street layout of the town of Toppenish (Source: [www.census.gov](http://www.census.gov)).

The main street of Toppenish runs along West 1st Avenue, and crosses over to the western part of E. Toppenish Avenue. Data on storefronts and signage was collected mostly in this area, where the Mural Society and the Chamber of Commerce are also located. The grocery stores and bigger commercial businesses are located on the western portion of West 1<sup>st</sup> Avenue. Residential areas are located throughout Toppenish, with the highest density located north of West 1<sup>st</sup> Avenue/E. Toppenish Avenue.

### Signage

A walk down the main street of Sunnyside or Grandview tells much about the population of those communities. One of the first noticeable things was the plethora of Hispanic businesses. These are establishments that cater solely to Hispanics and are owned, for the most part, by Hispanics. All signage for these stores is in Spanish, with little effort made by most proprietors to attract non-Spanish speaking customers. These businesses consist primarily of food stores and convenience stores, many of which sell phone cards and bus tickets for Mexico (Figures 35-38). What was most surprising was not the abundance of these businesses but the similarity they have with their counterparts in Mexico. The style, color, and presentation of storefronts is directly linked to Mexican culture. In fact, many residents (Hispanic and non-Hispanic alike) described these storefronts as a style particularly popular in Tijuana and other large Mexican cities.



Figure 35. Businesses that transfer money to and from Mexico are common in the Valley.



Figure 36. A Mexican restaurant in Grandview.

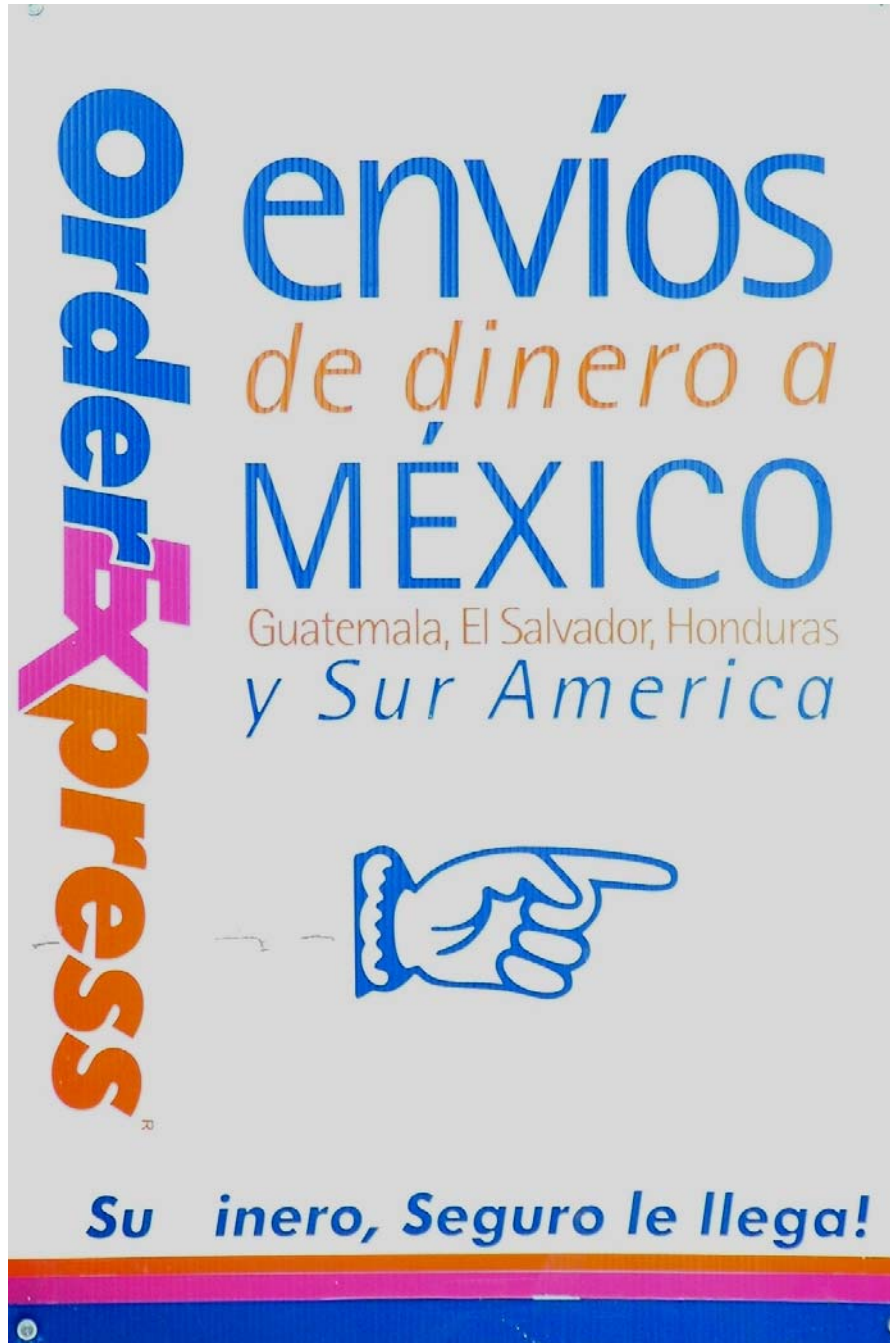


Figure 37. One of the many examples of Spanish language signage.



Figure 38. A convenience store in Toppenish oriented to Mexicans.

Some businesses are named after Mexican states and it is clear to see from Figure 39 that Michoacan is a common source for many Mexican migrants to the area.



Figure 39. Businesses with names that are closely tied to Mexico.

The next obvious representation of the Hispanic imprint is bilingual signage (Figures 40-42). Signs in both Spanish and English are very common on the streets of these communities and can be seen on larger local businesses, churches, and government offices. The phone book for lower Yakima Valley is also published in bilingual format.



Figure 40. Bilingual signage on a nationally owned business.



Figure 41. Bilingual signage on a local business.

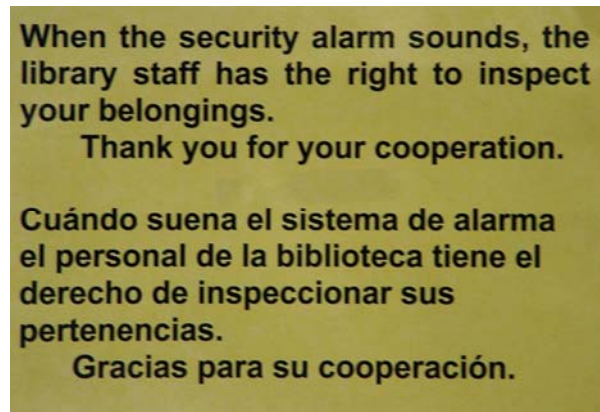


Figure 42. Bilingual signage in a public library.

## Shopping

The activity of shopping, whether for groceries or durable goods, provides a thorough exposure to the Hispanic imprint in these communities. National companies, such as Wal-Mart, Safeway, and Napa Auto Parts, are very accommodating to the Hispanic community, and are equipped with bi-lingual signage and sometimes bi-lingual employees. Wal-Mart seems to be the most sensitive to their Spanish speaking clientele, and had bi-lingual checkers and pharmacists on hand (Figure 43-45). Smaller local businesses tend to be less accommodating, although as can be seen from the signage for the Little Michoacan store in Figure 39, several in each community do attempt to attract both Spanish and English speaking customers.



Figure 43. Bilingual signage in a Wal-Mart in Sunnyside.



Figure 44. The Hispanic section of Wal-Mart.



Figure 45. The Wal-Mart in Sunnyside employs bilingual pharmacists.

Grocery shopping also proves to be a lesson in Mexican culture. Every size of store, from locally owned corner stores to national chains, caters to the Hispanic community in some way. The most Hispanic oriented and abundant type of stores are the small, locally owned grocery stores, many of which are located right downtown. Upon entering these stores, one is bombarded with a variety of Mexican products. Some of these products would be recognizable only if one had been to Mexico. As mentioned previously, these stores market to Hispanic customers, and most of the products are labeled only in Spanish. In addition to food items, these stores sell bus tickets to Mexico, long distance phone cards, Spanish language newspapers, and American magazines (such as *Star*) printed in Spanish (Figure 46).



Figure 46. Tortilla makers and warmers in a smaller locally owned grocery store.

In between the convenience type stores and the national chains, there are larger sized Mexican grocery stores. There seems to be only one of these per community and while they are much smaller than the national chains, they have a good deal more variety than the corner stores (Figure 47).



Figure 47. Mexican foods and other items in a medium sized store.

Finally, the large chain grocery stores have a strong mark of the Hispanic imprint. In contrast to the Hispanic oriented stores, where Mexican products are ubiquitous, these stores have a specific “Hispanic Foods” or “Mexican Foods” section (Figures 48-50).



Figure 48. The Mexican foods section of a Safeway in Toppenish.



Figure 49. Items in the Mexican foods section.



Figure 50. Cookies and piñatas in the Mexican food section.

While it is true that many Safeway stores across the country have a Hispanic foods isle, the Hispanic foods section of the stores in the Lower Yakima Valley are disproportionately large (especially given the small population size of this area). They also have a considerably larger variety of products, especially products that Anglos are less familiar with. Note the detail of items in Figures 49 and 50.

### Media.

The maintenance and growth of both the Spanish language and Mexican culture is greatly promoted by the availability of Spanish language media (Haverluk 1992). Hispanic media has a very strong and diversified presence in the lower Yakima Valley, including newspapers and radio stations. These Spanish language media range from programs that have been present for 40 years to ones that are still developing.

Newspaper. The Yakima Valley currently has three Spanish language weekly newspapers circulating, while Seattle only has one. The list includes El Sol de Yakima, Viva, and El Mundo. An interview was arranged with Jean Dibble, the head of administration for El Sol de Yakima, to learn about the nature of Spanish language weeklies. El Sol de Yakima started in December of 2003, and is a branch of the Yakima Herald Republic. According to Dibble, the Herald started El Sol partly for profit but also as a way to be involved in the Hispanic community, as she says, “to have a foot in the door of the growing Hispanic community” (Dibble, personal communication, 2005). They had initially thought to put a Spanish language page in the Yakima Herald

Republic, but predicted that the readership would be enough to warrant a separate publication. While circulation has been fluctuating in the first years of El Sol's distribution, circulation throughout the Yakima Valley averages 9,000 subscribers a month. This amounts to nearly 25% of the readership of the Yakima Herald Republic, which circulates 40,000 papers a month. El Sol is a free publication, supported by advertisements and partially subsidized by the Herald. However, Dibble expects El Sol to be financially independent in the near future. Advertisements appearing in El Sol are a mix of local and national advertisers (the national ones sought out the paper to advertise to Hispanics). The goal of the paper is to get to 40% advertisements, which is a challenge in the Hispanic community. El Sol has a Hispanic salesman who goes door to door to Hispanic businesses to convince them to advertise, but they are not used to advertising, so they have no market plan and are hesitant to spend the money.

The structure of El Sol is modeled after Mexican newspapers in style and format. Stories do not overlap between pages and the pages are more colorful and have bigger print than U.S. newspapers. El Sol consists of six pages of local news and the rest is "off the wire" from newspapers in Mexico. The paper's content usually consists of a large amount of immigration stories, some general international news, and a strong focus on soccer and boxing. El Sol also has a free social page, where people can discuss and promote local happenings (there is a charge for this in the Herald). El Sol participates in a story share with a newspaper in Michoacan, the state in Mexico where most of the Yakima Valley's Hispanic population originated from. The story share involves the

exchange of several articles each week through email (Dibble, personal communication, 2005).

Dibble says that El Sol is growing quickly and expects to be hiring more staff soon. She is the only non-Hispanic employee working for El Sol, and says she could not have got the job if she was not bi-lingual. Just a few days before the interview with her, Dibble received a phone call from a newspaper in a small town in Idaho; they were asking for any advice El Sol could give them on starting their own Spanish language newspaper.

*Viva!* is another Spanish language weekly newspaper, published in Toppenish. A woman who has worked there for twenty years says the paper's circulation has doubled in the last eight years and they now cover a larger area than they previously did. *Viva!* circulates 15,000 copies each month and is a free paper, similar to El Sol.

Radio. The Yakima Valley is serviced by several Spanish language radio stations, some of which are backed by big, national networks such as Clear Channel. The radio station with the longest history and most interactive presence in the surrounding communities is Radio KDNA (pronounced Cadeña by locals). Radio KDNA is similar to National Public Radio in that it has no commercials and is supported solely by fundraising and donations. The station began broadcasting in 1979 and was the first Spanish language radio station in the Pacific Northwest.

Gabriel Martinez, the Station Manager at Radio KDNA, was interviewed. Gabriel has been at the station for twenty-five years and stated that Radio KDNA is more

traditional, geared to older adults, and more local and family oriented than the other Spanish language stations in the area (Figures 51 and 52). He described some of the programs aired on the station, as well as ways in which the station is a service to the Hispanic community. Radio KDNA is truly a source of support for Hispanics, especially those that are new to the area. The station often receives phone calls with questions about everything from health services to bank accounts. They host a trade in program that airs for 45 minutes every day during which time callers advertise houses for rent, various items for sale, and a multitude of other things. The program is very popular and high in demand, with callers often on hold well before the program is scheduled to air. KDNA also airs public service announcements for social service agencies, but Gabriel said this can cause problems when the station sends people to those agencies and there is no one present that can speak Spanish.

In addition to being a unifying force in the Hispanic community, KDNA also addresses many issues which other agencies feel uncomfortable tackling. The Youth Issues Program hosted by the station has revealed that Hispanic students still feel segregated from their Anglo counterparts in school. According to Gabriel, drug trafficking and domestic violence are major problems in the Hispanic community in the Valley and while the main media channels avoid addressing these problems, KDNA has a program that encourages the community to discuss them.



Figure 51. Two murals encouraging Hispanic youth in their United States home adorn the walls outside of Radio KDNA in Granger.



Figure 52. Radio KDNA, Granger.

## Music

Mexican music in the Yakima Valley is made up of a variety of different styles, each of which reflects different groups within the Mexican community. The two styles that are the most popular are known as conjunto and norteño. The first style of Mexican music to arrive and remain in the Valley came with Mexican migrant workers from Texas and other parts of the Southwest who settled in the Valley in the 1940s and 1950s. This style, known as conjunto, is based on a lively polka rhythm centered on the accordion. Conjunto has been described as a “strong symbol of ethnic identity among Chicanos and Texas-Mexicans alike” (Ragland, n.d.).

The second style, norteño, arrived after conjunto, with the more recent influx of immigrants from Mexico that has occurred over the past twenty-five to thirty years. It is associated with traditions in Northern Mexico rather than the American Southwest. Norteño is popular in many Mexican immigrant communities throughout the United States. Like conjunto, norteño is also accordion based, but has a faster rhythm and a different subject matter. A typical norteño song is a narrative ballad about a specific event or local hero, while conjunto tends to feature romantic ballads (Ragland, n.d.). Although these distinct styles of music represent communities that are separate, they also serve to reinforce a common identity, as all these styles are tied to Mexican culture. As described by Gamboa:

Today the music of the Valley Mexicanos influences a wide spectrum of generations, classes, age and gender. From the songs of the early arrieros [mule packers] to today’s newest banda sound, the Yakima Valley has a long heritage of Mexican music. It is a musical repository of the common life experiences, whether tragic,

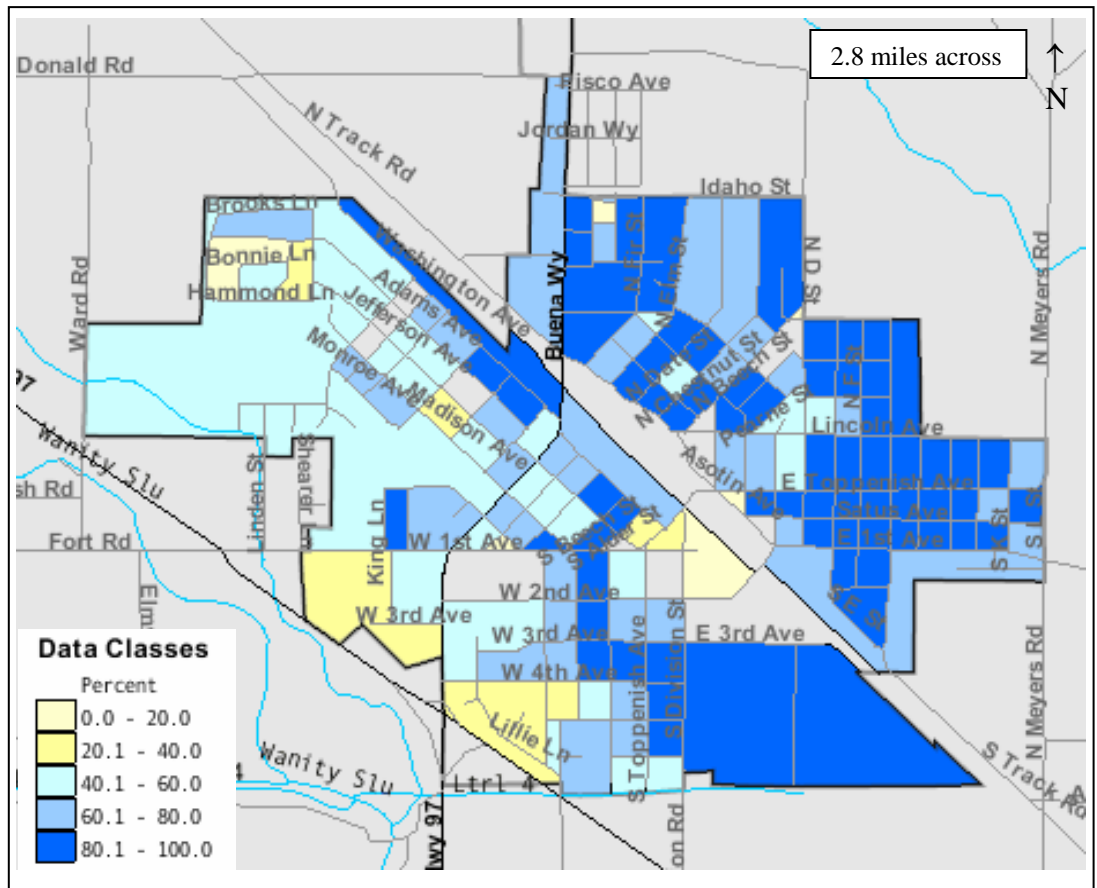
romantic, humorous, or political. Moreover, this music has served to inspire, to entertain, and to bond the Valley's Mexican community (Gamboa, n.d.).

The influence and representation of the Hispanic community on music in the Yakima Valley is best understood by examining the Gritos del Alma project. Gritos del Alma, which translates as "cries of the soul," was a project that began in 1992 as the result of a desire by the Washington State Arts Commission to recognize and honor the diverse traditions of the people of Mexican descent who reside in Washington. The project brought together eight local music groups to play at an afternoon concert at Radio KDNA in Granger. A Gritos del Alma cassette and booklet were also released as part of the project. Some of the bands that participated in the event are agricultural laborers who work in the fields during the day and play in local venues at night. For this reason, many local songs were about the life of a campesino (farm worker). Another subject matter played frequently at the event was the traditional Mexican folk song, which varies with each region of Mexico. This music is a form of nostalgia, which can reinforce memories of family and friends who may have been left behind in Mexico.

The Mexican population in the Yakima Valley has had a strong imprint on the music of the area. There are four or five Spanish language radio stations that can be heard from the Valley, making the sounds of Mexican music fairly familiar. Popular Mexican bands often make a stop in the Valley while on tour and some of the Valley's musicians are well known throughout Mexico (Washington State Arts Commission, n.d.).

### Housescapescapes

Driving through an unfamiliar town, it is nearly impossible to distinguish a home that is influenced by a unique cultural trait from one that is the neighborhood standard. This was the case for the fieldwork on Hispanic housescapescapes. While the beautifully manicured gardens and radiant flowers catch attention, there is little way to know undoubtedly if this is due simply to the climate, or influenced by Mexican culture. A professor from Heritage University, Dr. Apanakhi Buckley, was interested in this research and contributed greatly by giving a tour of her neighborhood in Toppenish. From her familiarity with her community, Buckley described the immaculate lawns and gardens as a very Hispanic characteristic (Buckley, personal communication, 2005). She herself lives in a Hispanic area, located in northeastern Toppenish. Map 12 displays the percent of the total population in each census block in Toppenish that is Hispanic, according to the 2000 Census. There are five data classes, based on an equal interval classification system. There are several clusters of census blocks in which the percentage of Hispanics reaches above 80%, marking the existence of Hispanic neighborhoods.



Map 12. The Hispanic percentage in each census block in Toppenish (Source: [www.census.gov](http://www.census.gov)).

Buckley says that most of her neighbors are Mexican and jokes about herself as “the white lady with the brown lawn.” She claims that Mexican men are the caretakers of their gardens and take great pride in them; to let their lawns go brown would be an embarrassment. The brightly colored gardens, manicured lawns, and chain link fences shown in Figures 53 and 54 are similar to what others have established as being characteristic of Mexican American housescaping (Benedict and Kent 2004; Arreola 1988).



Figure 53. A Mexican home adorned with bright colors, a chain link fence, and colorful flowers in Toppenish.



Figure 54. A Mexican housescape in Toppenish.

### Gang Graffiti

Another Hispanic imprint on the cultural landscape that Buckley pointed out is gang-related graffiti. While some gang activity exists on the nearby Native American reservation where Buckley works, there is little overlap with Mexican gangs in town. Therefore, the gang graffiti that appears in neighborhood streets is almost entirely Hispanic. Gang members often “tag” objects to make themselves known, but will also tag the homes and hangouts of other gang members, which could act to highlight Hispanic social spaces (Figures 55-57).



Figure 55. Gang graffiti on a mailbox in a Mexican neighborhood, Toppenish.



Figure 56. Gang graffiti on a dumpster in a Mexican neighborhood, Toppenish.



Figure 57. Gang graffiti on a home in a Mexican neighborhood, Toppenish.

### Social Integration

There are different avenues in which Hispanics and Anglos interact with each other. According to Jim Harriman, president of the Grandview Chamber of Commerce, social gatherings are often segregated due to culturally different practices; Hispanics tend to have large church and family gatherings, while Anglos don't tend to gather in such a way (Harriman, personal communication, 2005). There are, however, some areas of overlap. In fact, the large percentage of Hispanics in the lower Yakima Valley makes segregation between Anglos and Hispanics difficult. When asked if segregation was evident in the classroom, all of the teachers interviewed said that was nearly impossible because most classrooms had a minority of Anglo students. Three forces that serve as avenues for either social segregation or social integration are highlighted here; they are religious services, the business community, and the educational system.

#### Religious services

Religion is an avenue that can serve as both a socially integrating and a socially segregating force. It is true that a mark of Mexican culture is the Catholic religion, and many churches in the area with Spanish signage are Catholic. However, other denominations have reached out to Hispanics, and this creates a social atmosphere that appeals to both Hispanics and Anglos (Figure 58).



Figure 58. A reformed Christian church reaching out to the Hispanic community.

Some services are held bilingually (Figure 59). These services simply translate the sermon from English to Spanish, and are therefore attended by Anglos and Hispanics alike. However, there are other churches who have a Spanish-speaking pastor or priest who gives a Spanish only service in order to avoid the delay of translation. Figure 60 is an example of a Spanish mass that is held on the same day as the English mass, but at a different time. When asked in a survey what percentage of the congregation at your church is the same race as you, Hispanics estimated an average of 70% and non-

Hispanics estimated an average of 72% (*Yakima Herald Republic*, 22 December 2000).

Clearly, much segregation still exists in churches in the Valley.



Figure 59. A bilingual religious service.

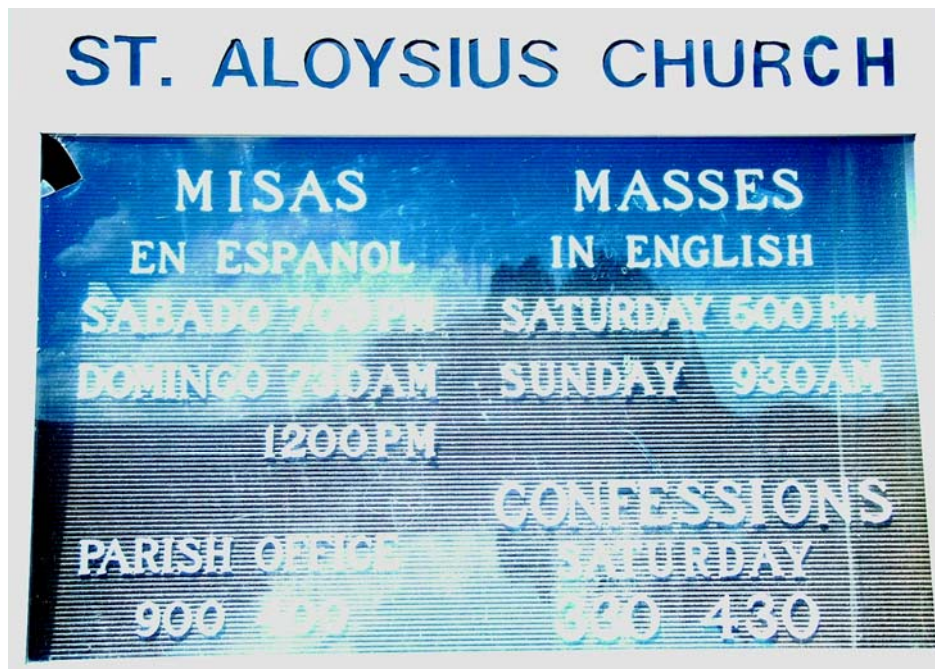


Figure 60. A mass held in Spanish and one held in English, offered at different times.

### Hispanic Businesses

One of the greatest concerns to the Chamber of Commerce (COC) of each of the four towns researched was the separation between Hispanic owned/oriented businesses and non-Hispanic owned or oriented businesses. There appears to be a dichotomy between the two, which creates an atmosphere of social segregation within these communities. The use of bilingual signs encourages both Hispanics and non-Hispanics to enter a store. However, advertising in one language only is likely to dissuade, if only slightly, customers that do not speak the language endorsed. In both Sunnyside and Grandview, the Hispanic owned stores are clustered in the downtown area, while the Anglo owned stores have been pushed to the periphery. This creates a social space that exists primarily around shopping. In addition to segregating customers from different shops and locales, business owners themselves are also segregated from each other. Interviews were conducted with Jim Harriman, president of the Grandview COC, and Rado Harrington, president of the Sunnyside COC to get an idea about the greatest challenges in these communities (Harriman, personal communication, 2005; Harrington, personal communication, 2005). Both replied that it is a struggle to integrate the Hispanic business owners with Anglo business owners. Harriman, a young man of about thirty, grew up in Grandview, and remembers when there were no Mexican businesses in the entire town. Now downtown Grandview is dominated by Hispanic businesses and Harriman has tried unsuccessfully to get them involved in the COC meetings. He tried sending out bilingual announcements to encourage participation, and also had translators at several COC meetings, but the Hispanic business owners showed little interest.

Harriman feels that the COC needs to establish a sense of trust within the Hispanic community in order to get them more involved. He also feels that Hispanics who do not assimilate linguistically and culturally hinder themselves as well as Anglo businesses and they need to market appropriately to the community as a whole. While Harriman says, “it is a struggle to get both sides involved,” his goal as president of the COC and a lifelong resident of his hometown is “to get the community integrated to represent the whole community” (Harriman, personal communication, 2005).

Rado Harrington expressed many similar sentiments. Sunnyside is a town with a population more than twice that of Grandview, and therefore has a much larger Chamber of Commerce. However, Harrington said that he also has a hard time getting Hispanics to attend COC meetings, despite having Spanish speakers hand out flyers in Spanish to advertise the meetings and encourage Hispanics to attend. Despite the plethora of Hispanic owned businesses and the large Hispanic population in Sunnyside, only two out of ten city council members are Hispanic. Many Hispanic business owners feel that ethnicity is an issue in Sunnyside’s businesses. They claim that they have not been included in the mainstream business community and haven’t been listened to. Paul Mendez, a Hispanic business man, feels that although business owners should learn English, he resents that past chamber meetings were held in English only. His opinion is that learning a language takes time and the fact of the matter is that many business owners only speak Spanish. “They’re just like any other business person,” says Mendez. “They want to get ahead, they want to make money” (*Yakima Valley Herald*, 15 May 2005, B1).

Harrington says that downtown Sunnyside has steadily degraded over the last three to five years, as sprawl has increased on the fringes. He stated that some Anglos feel as if they have been run out of the downtown, and that it's been taken over by Hispanics. About 90% of Sunnyside's downtown businesses are Hispanic owned and the majority of these are not bilingual. The Hispanic population in Sunnyside is so large that these businesses don't need to accommodate for Anglos at all and can survive solely on Hispanic consumers. In fact, the majority of Sunnyside's entrepreneurship is undertaken by Hispanics, most of whom are business owners that have moved from Texas or California. Harrington said that the labor force of these businesses tends to be family based. He also said that there are some local Mexicans who are very wealthy but chose to conceal it and this economic status is therefore unrevealed in census data.

Harrington described the annual Cinco de Mayo Festival held in Sunnyside. In the Pacific Northwest, it is second in size only to Seattle and is attended by both Anglos and Hispanics alike, but most tourists coming from out of town are Hispanic. Harrington was responsible for the festival this year and he feels that it hasn't been very well undertaken due what he calls a "cultural thing." The event, a huge tourist attraction for the City, is less attractive than it could be due to the use of "lean too's and the abundance of trash scattered throughout." He thinks that this tendency, along with the crime and Hispanic gang-related activity that plagues Sunnyside, has created a tension within the community. Harrington's goal as the newly appointed COC President is to revitalize the downtown area. The City is currently trying to pass an ordinance to make the downtown more attractive, and this is primarily aimed at the Hispanic owned businesses that employ

“garish colors” and excessive banners on their storefronts. Harrington employs two Hispanic secretaries in his office mainly because of their ability to speak Spanish. He recognizes that he cannot reach out to the Hispanic community if he does not have bilingual capabilities in his own office. When Harrington applied for his current position, his competition was a Hispanic man. When asked if he thought if a Hispanic leader could be more successful in uniting the community and getting Hispanic businesses involved, his response was that a Hispanic leader in his position “may produce an us versus them” attitude (Harrington, personal communication, 2005).

Harrington’s goals and approaches to those goals were discussed in an article printed in the Yakima Herald on May 15, 2005. The article, entitled “His Business Plan is Unflinching,” describes Harrington’s attention to what he calls the “race problem” in Sunnyside. He is quoted as saying “we have 81 percent of our community that is underrepresented in the majority of our activities, I think its time we changed that.” The article goes on to describe some reactions to Harrington’s direct approach to dealing with this division. City Councilwoman Bengie Anguilar, expressed the feeling that Harrington is “attempting to build a bridge that might be difficult to build,” but “I hope it gets done, it needs to get done” (*Yakima Valley Herald*, 15 May 2005, B1).

### Education

Schools in the Lower Yakima Valley face the challenges of cultural and linguistic barriers. Many children entering elementary and middle school have little or no English language ability, and often times their parents don’t either. This creates an even greater

challenge to students, parents, and the school district as academic standards have become more rigorous with the No Child Left Behind Act, which encourages schools to eliminate the achievement gap between diverse populations (*Yakima Herald Republic*, 27 January 2000). In response to these challenges, several schools in the Valley have turned to the Dual Language Enrichment Program, a controversial yet promising approach.

The Dual Language Program is new to Washington schools. It is a model that Dr. Richard Gomez, the Director of Bilingual and Migrant Programs for Washington State, introduced from Texas. In 2003, a group of teachers and administrators from Yakima Valley visited several schools in Texas to observe the Dual Language Program and design curriculum. Now roughly twenty-two of Washington's schools use some form of the Dual Language Program. Out of those twenty-two schools, eleven are in Yakima County and seven are in the study area. There are two versions of the Dual Language Program used in Yakima Valley schools; the two teacher model and the alternate days model. With the two teacher model, subjects are divided between a teacher who is dominant in English and one who is dominant in Spanish. The students (who are equally divided between English speakers and Spanish speakers) attend a morning session in several subjects in one language and an afternoon session in other subjects in another language. For example, math, reading, and art may be taught in English to both groups, while science, reading, and social studies are taught in Spanish to both groups. In this model, each teacher can greater specialize in a smaller group of subjects. The drawback is that certain subjects are only taught in one language, so for example, an English speaking student is forced to learn science in Spanish, which can be a major obstacle

(Office of the Superintendent of Public Instruction, n.d.). However, the two teacher model successfully avoids one of the greatest problems with the Dual Language Program, which is a lack of bi-lingual teachers.

In contrast to language by subject with the two teacher model, the alternate day model varies language by day. For example, in many schools using this approach, the first half of the school year consists of speaking Spanish for two days out of the week. For the second half of the school year, Spanish is spoken for three days of the week. Students in each classroom are divided the same way they are for the two teacher model; half are dominant in English and the other half are dominant in Spanish. In this way, students work together to help each other as “bilingual peer partners”. The drawback to the alternate day model is the lack of bi-lingual teachers. According to Blanca Manrique, reading coach at an elementary school in the Valley, many teachers who teach the alternate day model are not bi-lingual, but “they try” (*El Hispanic News*, 13 January 2005).

In a 1997 study, the Dual Language approach proved to be the most effective bilingual education model for addressing the academic needs of students. Research from the Dual Language Program in Texas has indicated that students who participate in this type of education outperform peers who are not in such programs, and this holds true for English and Spanish speaking students alike. Netty Hull, a teacher in one of Yakima Valley’s Dual Language schools, supports the program and says that “the academic piece is really great, but it also builds the cultural consciousness” (*El Hispanic News*, 13 January 2005). Emelda Miranda is a fourth grade Dual Language teacher who was

interviewed at Lincoln Elementary School in Toppenish, which is 92% Hispanic. She says that the attitude regarding Spanish language instruction has changed dramatically since she was in school. Born in Mexico, Miranda moved to Toppenish as a child and said that speaking Spanish was considered bad, but now there are so many Spanish speakers in the Valley, it is acceptable. She sees the Dual Language Program as a positive approach to the language issue in education. She also feels that teaching English speakers Spanish will be a huge benefit to them in the future (Miranda, personal communication, 2005). As the number of Hispanics in the Valley is increasing, so is the need for bilingual ability (Figure 61).



Figure 61. One example of the bilingual nature of Lincoln Elementary School, Toppenish.

There are two alternatives to the Dual Language Program: Transitional Bilingual Education and Sheltered Immersion. Some schools have abandoned these approaches in favor of the Dual Language Program, but they are still in use by the majority of schools in Yakima County. The Transitional Bilingual Education model is designed for English Language Learners (ELL) exclusively. The student's native language is used throughout the primary grades, with English being implemented according to the student's ability. The Sheltered Immersion approach uses English as a Second Language (ESL) to teach ELL children in the same classroom as English speaking students. Teachers are trained in ESL techniques and need only speak English. There are several types of Sheltered Immersion Programs and the most commonly utilized in Washington is the ESL Pull-Out Program. The Pull-Out Program separates ELL students from the mainstream classroom for 45 minutes each day, during which time assistance is given in either English language development or academic concerns. Unfortunately, this approach is the least effective (Office of the Superintendent of Public Instruction, n.d).

Bilingual education programs do not come without criticism. Many parents of English speaking children feel that their child's education is slowed by the time dedicated to learning Spanish. Some also believe that education should be an English only endeavor. In a survey performed by the Yakima Herald Republic of 800 Yakima Valley residents, 56% of non-Hispanics in Yakima County said that offering instruction in Spanish to Spanish-speaking students should be reduced or eliminated altogether, 16% of Hispanics felt the same way (*Yakima Herald Republic*, 13 January 2000).

Another major concern in Yakima Valley's schools is parental involvement and the migrant lifestyle. Three Hispanic teachers from different elementary schools were interviewed and all of them said that one of the biggest problems inhibiting education in their classrooms is migrant parents who take their children for extended trips to Mexico during the school year. This creates an obvious disadvantage for a student who is not only struggling to learn a new language, but must also try to catch-up on a large amount of coursework. Miranda sympathizes with the desire for Mexican nationals to visit their families at home. However, she attributes the lack of parental attentiveness to their child's education as a cultural issue. She said that in Mexico, parental involvement is non-existent, as the Mexican education system is much stricter and more formal than the U.S. system. Through personal outreach with migrant parents, she has managed to decrease the amount of time some of her students spend away from the classroom (Miranda, personal communication, 2005).

### Conclusion

This chapter has taken an in-depth look at the various Hispanic imprints in the study area, as well as avenues that exist in these communities for social integration or for social segregation between Hispanics and non-Hispanics. The volume and visibility of the numerous Hispanic imprints suggests a strong Hispanic presence in the Valley that is separate from the Anglo population. Through business signage, religious services, and various media outlets, the Spanish language creates a common identity within the Hispanic community. Mexican food items, housing style, and musical preference are

ways in which the Mexican community displays this common identity. The existence and strength of a common identity within the Mexican community combines with the degree to which this identity is segregated from the Anglo community to shape how assimilation occurs. For example, if more businesses operate in Spanish, then Spanish speakers are more likely to retain their language, as it can be advantageous to do so, especially in the case of employment. This situation creates a level of comfort and acceptance with Spanish, which could prevent the quick adoption of English, thus preventing cultural assimilation. Taking these factors into consideration, the pattern of assimilation of Hispanics in the Yakima Valley will be addressed in the next chapter.

## CHAPTER 7

THE EMERGING HISPANIC HOMELAND IN THE YAKIMA VALLEY:  
THEORIES AND PRACTICESTheories of Immigrant and Ethnic Incorporation

Assimilation is defined as the process by which an immigrant population (often a minority one) absorbs the culture and practices of their new host society, which is usually a majority. There are many factors that inhibit assimilation, and some are more prominent in the Mexican origin population than in other immigrant groups. For example, the close proximity of Mexico and the 2,000 mile border it shares with the United States puts Mexican immigrants and Mexican Americans in a unique position. Past immigrants arriving from Europe had little opportunity to travel the great distance back home, and present immigrants from Asia require a substantial financial commitment to return to their countries of origin. Mexicans, however, are able to maintain strong cultural ties through contact with friends and family in Mexico, as a trip there is only a bus ride away from practically anywhere in the U.S. (Englekirk and Marín 2000).

Continual immigration is another factor contributing to the lack of assimilation that has been noted in the Mexican population residing in the U.S. (Williams and Ortega 1990). Contact with newly arriving immigrants reinforces cultural identity, language, and ties to the homeland, which may prevent or at least slow down assimilation into the dominant society (Hardwick 2001).

The theory of immigrant assimilation is one that has always been contested and compared to the theories of pluralism and multiculturalism. When Gordon established seven distinct stages of assimilation in 1964, the debate did not end completely, but the academic world accepted a theoretical framework that guided a great deal of research on this topic. Gordon's theory and the theory of assimilation in general has faced considerable challenges over the last several decades, concurrent with the huge increase in the number of immigrants now living in the U.S. since the 1970s (Williams and Ortega 1990). The theories of multiculturalism/pluralism, cultural citizenship, transnationalism, and translocalism will be briefly discussed here to present alternatives to the traditional model of assimilation.

### Multiculturalism and Pluralism

Pluralism and multiculturalism are two distinct models that differ in their approach to diversity. While the model of assimilation assumes a single cultural core, both the multicultural and pluralist models strive to explain how different ethnic groups are able to maintain their cultural distinctiveness and that society benefits from understanding and appreciating the many cultures that constitute the larger society. Pluralism states that ethnic and racial differences should thrive, as long as the values and norms of the dominant culture are upheld. At its core, pluralism promotes a tolerance of diversity, rather than an acceptance of it. Multiculturalism, on the other hand, promotes the existence of multiple cultural norms. Rather than various cultural traditions blending into one core culture, the emphasis is on the co-existence of many heritages within one single

country (Kottak and Kozaitis 1999). Both of these models promote cultural democracy, but neither adequately explains how immigrant ethnic groups can actually change a society's social, cultural, and political norms (Camarillo and Bonilla 2001). Flores and Benmayor criticize both multiculturalism and pluralism because they assume "a stable and basically unchanging country where immigrants add color and spice," and go on to say that "analogies of a 'salad bowl' picture minorities as condiments or additives to the basic ingredients of lettuce, but fail to consider a whole new salad" (Flores and Benmayor 1997, 9).

### Cultural Citizenship

The idea of cultural citizenship was developed by two Hispanic scholars, William Flores and Rina Benmayor in 1997. This theory focuses on understanding how Hispanics and other groups not only make cultural contributions to a plural society, but also how they alter society. As Flores and Benmayor state, "in our opinion, what makes cultural citizenship so exciting is that it offers us an alternative perspective to better comprehend cultural processes that result in community building and in political claims raised by marginalized groups in the broader society" (Flores and Benmayor 1997, 15). Cultural citizenship has been increasing in relevancy as the influence of Hispanics in the U.S. continues to grow. The theory has provided valuable insights into the relationship between Hispanics and U.S. society and how the dynamic interactions between the two produce continual change. Cultural citizenship describes how immigrant groups, or other minorities that have typically been marginalized in society, build communities, develop

identities, and lay claim to cultural spaces, which can help elevate various subcultures to a level where no one culture dominates. As opposed to national or even legal citizenship, cultural citizenship describes a sense of belonging that is derived from shared cultural characteristics. This idea of a shared identity ties in closely with homeland formation because, according to Roark, “critical to the concept is a sense of group identity, a sense of nationalism” (Roark 1993, 6).

### Transnationalism

Transnationalism refers to an ambivalence of national identity often associated with immigrants. A transnational identity is one in which an immigrant identifies with both their country of origin and their country of residence. There are different levels of transnational identity, ranging from the U.S. born child who is raised with only descriptions of their ancestral homeland, to the immigrant grandmother who speaks no English and identifies very little with American culture (Greene and Pick 2005). Transnational identities can also differ with varying degrees of geographical proximity to the country of origin. For example, identifying with two cultures is more prominent along border communities where residents are confronted with both cultures on a daily basis (Arreola 2002).

### Translocalism: An Alternative

The previously described theories are only a handful in the attempt to create a model that can accurately describe and predict immigrants’ incorporation into American society. Most likely, immigrant experiences always have and always will be much more

complicated and varied than any one model can represent. The rejection of one single theory has been termed translocalism by Barkan who describes his theory:

Rather than one combined arena of social action embracing homeland and host society, we most likely observe dual arenas in a binary relationship wherein immigrants preserve varying degrees of overlap in terms of their activities, associations, networks, identity, etc... Nevertheless, in translocalism, while the homeland ties may be sporadic, even superficial, they retain some relevance and meaning for the immigrants, be they symbolic or tangible. Put another way, translocal newcomers are looking over their shoulder toward their homelands but have not entirely turned their backs on them (Barkan 2004, 340).

Barkan goes on to say that in order to preserve homeland ties, immigrants must struggle to determine how far to go in adapting to their new host society, which involves balancing the cultural and social bonds between two different countries. However, what happens when the new host society provides the immigrant with many cultural and social comforts of their homeland? What kind of identity is the immigrant assuming then? Is it more closely tied to the homeland, to the host society, or to a unique ethnic island that represents aspects of the two? These questions pertain intimately to the communities of the lower Yakima Valley, which are dominated by Mexicans and therefore often bear a closer resemblance to their immigrants' homeland than their new land. So, if an immigrant identifies with a predominately Hispanic community located in the U.S., are they identifying with a new homeland? The following paragraphs will attempt to answer this question by exploring different avenues of assimilation, as well as transnationalism, in the communities of the lower Yakima Valley.

### The Case of the Yakima Valley

The general theories discussed in the previous paragraphs establish a framework within which the case of the Yakima Valley can be explored. It will now be determined which theory best applies to the Valley based on how immigrants are assimilating there. The possibility and likelihood of this area being considered an emerging homeland will then be presented.

#### Economic Assimilation

When immigrants arrive in the U.S., they are often faced with the challenge of finding employment and earning a suitable wage. Historically, the foreign born population has been economically disadvantaged compared to the native born population. This is still the case today with the poverty rate for immigrants being 50% higher than that for natives and the annual median income of immigrants being about 76% of what it is for natives. However, there is a temporal connection between wages and year of entry for the foreign born; the longer immigrants are present in the U.S., the greater their income tends to be (Camarota 2001). This evidence supports the idea of economic assimilation and that, as immigrants become more familiar with the language and other aspects of their host society, they become more occupationally mobile. Only after they achieve higher incomes can immigrants leave ethnic enclaves and enter into other aspects of American culture.

Economic assimilation in the Yakima Valley was based on Hispanic businesses, income, and education. Data on Hispanic businesses were collected through personal

observation and interviews with the Chamber of Commerce of each community (See Chapter 6). According to individuals within this organization, Hispanic businesses occupy a significant place in the business community and often dominate the downtown area. This opinion is easily confirmed simply by walking along the main streets of these communities and observing the Hispanic storefronts and Spanish language signage (See Chapter 6). An article by the Yakima Herald Republic described this changing business atmosphere by quoting one local resident's comment on the growing Hispanicly oriented stores: "if you're in business, you better go that way, because that's your population" (*Yakima Herald Republic*, 10 December 2000).

Data on Hispanic income was collected through the U.S. Bureau of the Census (See Chapter 4). The gap between the percentage of Hispanic families below the poverty level compared to the total number of families below the poverty level has decreased in each community, with an overall average decreasing from 12% to 5.5% between 1980 and 2000 (See Chapter 4, Figure 28). This suggests some degree of economic assimilation on the part of Hispanics. However, a great deal of income inequality still exists between Hispanics and non-Hispanic whites. In 2000, only 10% of non-Hispanic white families were below the poverty level, while 32% of Hispanic families were below the poverty level (See Chapter 4, Figure 31). Furthermore, Hispanic households dominate the income bracket below \$40,000 while white alone households dominate the income bracket above \$40,000 (See Chapter 4, Figure 32).

Education for Hispanics follows a similar course as income levels; disparities have decreased but a great deal of inequality still exists. The white alone population averages

35% higher than Hispanics in the attainment of education beyond the high school level (See Chapter 4, Figure 29). Comparing educational attainment at all levels between Hispanics and non-Hispanic whites reveals that Hispanics are much more likely to have less than a high school education and much less likely to have a Bachelor's degree (See Chapter 4, Figure 30).

Based on this data, Hispanics in the Yakima Valley have not fully assimilated economically into the host society, which is reflective for the nation as a whole. However, they have integrated themselves very successfully into the business community and achieved some degree of economic mobility. Hispanics have, in a way, exhibited a certain degree of cultural citizenship within the business community of the Valley. They have created an identity based on shared cultural characteristics. This identity does more than just add businesses to the existing economy; it alters the economic system by re-orienting it to a culture that is quite different from the mainstream. Recalling the salad bowl analogy on page 152, it is possible to see how Hispanics are no longer just additives to the existing economy, but are in fact changing the very fabric of it.

### Spatial Assimilation

Spatial assimilation was discussed earlier in Chapter 5 and is often described as the precursor to structural assimilation; relocation by Hispanics into Anglo neighborhoods increases interaction between the two groups. The underlying assumption is that education, income, and occupational mobility facilitate this movement, which in turn

increases Anglo-Hispanic contact causing Hispanics to assimilate into Anglo culture (Haverluk 1998).

Spatial assimilation for the lower Yakima Valley was estimated using the Dissimilarity Index at the block group level and the census tract level (see Chapter 5). Analysis revealed that a change residential segregation from 1990 to 2000 depended on the unit of enumeration: segregation decreased slightly at the block group level but increased slightly at the census tract level. However, personal observations and interviews revealed a general consensus: Hispanics are less residentially segregated than they used to be, and while purely Hispanic neighborhoods still exist, more of these areas are integrated. This seems to be the result of the high growth in the number of Hispanics, which makes segregation less possible. This is certainly the case when comparing the growth in the percentage of Hispanics at the block group level with the change in the value of diversity (See Maps 7 and 10).

The “Race Relations in the Valley” series published by the Yakima Herald Republic revealed some attitudes of residents toward the issue of residential segregation. When asked if they would feel comfortable living in a racially integrated neighborhood, 65% of Hispanics and 64% of non-Hispanics answered yes. When asked if they currently live in an area surrounded mostly by persons of the same race or ethnic background 51% of Hispanics and 44% of non-Hispanics said yes. While two-thirds of respondents said they’d be comfortable living in a racially integrated neighborhood, less than half of them actually do. On similar social matters, less than  $\frac{1}{4}$  of respondents said they prefer to socialize with people of their own race, and more than  $\frac{3}{4}$  said they have “close friends” of

a race or ethnic background different from theirs (*Yakima Herald Republic*, 10 December 2000). So, while residential segregation still exists, it is decreasing, and people seem to be receptive to this.

### Cultural Assimilation

Immigrants adopt some degree of cultural assimilation in order to become economically assimilated. However, only after a large degree of interaction occurs between immigrants and members of the host society, are immigrants truly able to culturally assimilate. Language has been described as being one of the strongest cultural bonds that exists and the retention of which is therefore an appropriate indication of cultural assimilation (Sommers 1991). The cultural landscape is the most obvious indicator of the preponderance of the Spanish language, which is strongly represented in all four communities (See Chapter 6). Census data is another indicator of Spanish language usage. Linguistic isolation, defined in Chapter 5, increased by an average of 4% from 1990 to 2000 for all four communities. The percentage of the population in the study area older than 4 years who speak Spanish also increased by an average of 30% (Chapter 4, Figure 27). Personal comments from long time residents confirmed that the use of Spanish language signage as well as familiarity with Spanish has increased notably over the last twenty years. Furthermore, Spanish language media has increased in volume and circulation for both printed media and radio. It can therefore be concluded that Hispanics in the study area have maintained a strong connection with their language and, hence, their culture.

Many Valley residents also claim there is a difference between more recent immigrants and ones that arrived twenty years ago. Some insist that Mexican immigrants arriving today “come not with a quest for assimilation but more with a drive to maintain heritage” while others argue that “Hispanic families who have lived in the Valley for generations embrace the white culture better than new arrivals do” (*Yakima Herald Republic*, 10 December 2000). Some Mexican Americans feel that an immigrant’s inability to speak English (especially if the immigrant is illegal) can reflect badly upon the Hispanic community as a whole and foster further prejudice against them. Miranda, a Hispanic teacher in Toppenish, recalled that when she was in school about twenty years ago, speaking Spanish was viewed negatively. “Now there are so many Hispanics, it is acceptable,” she said (Miranda, personal communication, 2005). This shift in linguistic assimilation suggests that the use of Spanish will continue to grow in the future.

### Structural Assimilation

Structural assimilation is defined by Gordon (1964) as a stage in which the immigrant group enters large scale, primary level interaction with the host society such as cliques, clubs, and institutions. For the purpose of this thesis, the focus has been more on the social integration aspect of this stage in order to gauge the level of interaction between the two groups. Fieldwork revealed some cases in which Hispanics are socially segregated from the non-Hispanic community, mainly in the business community and church services (See Chapter 6). Interviews with teachers in the local schools revealed a common theme that had not been considered prior to incorporating the idea of structural

assimilation into this thesis: social segregation is difficult in the classroom where Hispanics commonly constitute close to 70% of the classroom. Therefore, while a certain level of social integration is inevitable given the demographic composition of these communities, purely Hispanic spaces still exist. These spaces span several avenues including food, religion, shopping, and Mexican celebrations. The non-Hispanic population has entered these spaces to a certain degree, but they are not the core foundation or focus of these spaces; Mexican culture is.

Mexican restaurants are a good example of a Hispanic space. While there are many Americanized Mexican restaurants in the Valley, there are also a few Yakima Valley restaurants owned by families from Michoacan that cater specifically to the Michoacan population. One example is Taqueria Mexicana in Toppenish which serves a clientele that is 97% Mexican and primarily Spanish speaking. Ruben Romero, who owns Sunnyside's La Fogata Restaurant decorates his restaurant based on restaurants in Michoacan with the solitary goal of making his customers feel more at home. In contrast, another Mexican restaurant, called Anguililla describes their customers as 70% white and 30% Mexican (*Yakima Herald Republic*, 1 March 1995, C1). And still another Mexican oriented restaurant, Los Girasoles, says "we get both Anglos and Latinos in here" (*Yakima Herald Republic*, 14 December 2000).

On the issue of inter-ethnic friendships and dating, a survey conducted by the Yakima Herald Republic found that the majority of Hispanics and non-Hispanics claim to have close friends who are of a different race or ethnic background than themselves. The response was similar to the issue of inter-racial dating and marriage: 81% of Hispanics

and 66% of non-Hispanics claimed to be comfortable with the issue (*Yakima Herald Republic*, 22 December 2000).

While segregation between Hispanics and non-Hispanics is decreasing and the general social atmosphere is more tolerant, rampant prejudice still exists. This prejudice surfaced in response to a series of articles on the immigration path between the Yakima Valley and the state of Michoacan in Mexico. The *Yakima Herald Republic* published a weeklong series on various aspects of life in Michoacan as well as the lives of Mexican immigrants in the Valley. The series was titled “Vecinos/Neighbors” and ran from February 26, 1995 to March 5, 1995. The goal of the series was to promote a better understanding of why so many immigrants are attracted to the area and to familiarize Valley residents with the cultural background of the Mexican immigrant population in the Yakima Valley. This series was first brought to attention when an employee at the *Herald Republic* was asked if she knew of any stories they had published that were focused specifically on the Hispanic population in the Valley. Discussion of the Michoacan series prompted comments from several nearby employees, which initiated a discussion of the controversy that it had caused. The *Herald Republic* had encouraged readers to use their phone-in line and leave messages commenting on the series. While some opinions were positive, many were so negative and offensive that the Hispanic woman whose job it was to record the comments became so upset that she had to be removed from the job. Many people also threatened to cancel their subscriptions to the paper. In response, the *Herald Republic* moved the story off of the cover page on March 3rd and published a sampling of these responses under a Commentary section as part of

the series on March 4<sup>th</sup> and 5<sup>th</sup>. Many people expressed anger and a feeling that they are being invaded or pushed out of their communities. One person commented that “I think your articles on Mexico are out of line. This is the United States of America,” while another said, “I don’t like this because the whole paper is taken up with Mexico and we’re overrun with Mexico now” (*Yakima Herald Republic*, 5 March 1995, F5). Other readers were delighted by the Herald’s efforts to promote cultural sensitivity in a place that obviously experiences ethnic intolerance. One reader declared “maybe this will help other Mexican people, such as ourselves, live better lives here in town and maybe give other people positive influence of the Hispanic culture” and another stated “I’m glad the paper is doing this project and I think it’s great. I think too many people in this area are ignorant and fearful about people from Mexico.” (*Yakima Herald Republic*, 5 March 1995, F5). Unfortunately, the overwhelming majority of responses printed in the two commentary sections were negative.

In response to this discontent, the Herald sought to explore the attitudes of local residents on social issues by publishing a weeklong series entitled “Race Relations in the Valley” in 2000 (See Chapter 4). The articles in the series were based on a survey of 800 respondents that was equally divided between Hispanic and non-Hispanic households. The survey found that many residents, both Hispanic and non-Hispanic alike feel that they have been discriminated against or are unhappy with changes in their communities associated with the increasing Hispanic population. The respondents were asked how they would rate the condition of race relations since they have lived in Yakima County. Approximately 18% of Hispanics and 31% of non-Hispanics felt the conditions had

worsened, while 45% of Hispanics and only 22% of non-Hispanics felt that conditions had improved. Hispanics were also more optimistic than non-Hispanics about the future of race relations in the Valley over the next ten years. While 56% of Hispanics felt that race relations would improve, only 31% of non-Hispanics shared this opinion. Interestingly, both Hispanics and non-Hispanics responded that they felt discrimination in employment, 21% and 28% respectively (*Yakima Herald Republic*, 22 December 2000). Another question asked “If someone was unfamiliar with the area and asked you to describe race relations in Yakima County, what would you tell them?” Table 6 summarizes the five most frequent responses:

RESPONSE	HISPANICS	NON-HISPANICS
Race relations are good	39%	29%
Race relations are not good	21%	29%
There is a large Hispanic population	6%	19%
It is an ethnically diverse area	9%	17%
There is a lot of Hispanic gang related activity, drugs, & crime	0%	13%
There is prejudice against Hispanic immigrants	7%	0%

Table 6. Survey responses to the race relations question.

The noted optimism on the part of the Hispanic respondents in this survey reveals the level of comfort that they feel in the communities throughout the Valley, but also their heightened sensitivity to discrimination, relative to non-Hispanics.

### Political/Social Organizations

Haverluk (1994) describes the rise of political and social organizations that serve the Hispanic population as a specific stage in the process of Hispanization. He suggests that these organizations form “as soon as the Hispanic population is large enough to organize and continue almost interminably” (Haverluk 1994, 30). In 1994, he described Yakima County as being in between the stages of “Creation of a Hispanic middle class and Hispanic organization” and “Political and Social Contestation.” It appears that this is still the case today. While Hispanics have undoubtedly increased their political clout, they still have a long way to go before their numbers are accurately reflected in the political process. A sample survey showed that while 84% of non-Hispanics are registered to vote, only 59% of Hispanics are (*Yakima Herald Republic*, 22 December 2000). In terms of political positions, the majority are still held by Anglos, but a growing number are being acquired by Hispanics. For example, in the towns of Sunnyside, Toppenish, Grandview, and Granger, Hispanics held nine of twenty-eight elected city offices in 2000. During the Bush/Gore campaign, both offices advertised through Spanish language media to attract the Hispanic vote. In 1990, the City of Toppenish had two Hispanic members elected to the city council (*Yakima Herald Republic*, 16 December 2000). The population of Toppenish almost doubled between 1990 and 2000, yet the number of Hispanic city council members remained the same in 2000.

While Hispanics remain underrepresented in the political process, the number of organizations supporting them is extraordinary. Ranging from health service organizations to legal counseling, there are a variety of organizations whose primary goal

is to aid Hispanics. At the local scale, social service organizations dominate, while organizations whose goal is to empower Hispanics exist primarily at the regional or national scale.

### Hispanic Imprint/Cultural Landscape

The Hispanic imprint in the communities of the lower Yakima Valley was described in detail in Chapter 6. It is evident from field research that the Hispanic imprint has increased dramatically in the past twenty-five years and is highly visible today. This strong imprint in each of the four communities suggests that Hispanics have maintained their culture as a unique identity separate from Anglo culture. The Anglo reaction to this imprint is an interesting aspect of the dynamics of these communities. Personal interviews with both Hispanics and non-Hispanics suggest that Anglos have mixed reactions to the Hispanic imprint. Some fully appreciate the diversity it affords these rural communities in the way of culture, food, and language. Others associate this imprint with the wave of crime that has accompanied increased Mexican immigration.

As described in Chapter 6, the presence of a Mexican population in the lower Yakima Valley is also apparent in the cultural landscape. The different ways in which this population occupies different aspects of the cultural landscape and what this reveals about the social processes that are occurring will now be explored. When observing how the Mexican population occupies the cultural landscape, it became clear that spaces exist which are more closely tied to Hispanics than to Anglos. The most obvious of these are economic spaces, residential spaces, and cultural spaces.

Economic Spaces. Hispanic owned businesses are the strongest representation of the economic space that the Mexican population occupies in the cultural landscape of the four studied communities. When observing this space, it is important to note several characteristics:

- Type of business
- Abundance and growth of these businesses
- The spatial cluster in downtown areas
- Orientation to Spanish speaking clientele

These characteristics are described in detail with accompanying examples in Chapter 6. They will only briefly be discussed here. The most apparent Hispanic owned businesses are grocery stores of various sizes, corner stores selling bus tickets and phone cards to Mexico, and money transfer/check cashing services. The abundance of these businesses is disproportionately large, given the relatively small population size of the towns in which they are located. Personal anecdotes also revealed that this is a fairly recent phenomenon, with almost no Hispanic owned businesses existing fifteen years ago. Also of note is the spatial concentration of these businesses in the downtown area. The larger towns of Sunnyside and Toppenish have experienced some sprawl in the last ten years, and many businesses therefore moved to peripheral locations. Consequently, with the growth of the Mexican population, Hispanic business owners took advantage of the lower rents available in downtown areas and created a very Hispanic economic space there. Furthering the existence of this space is the strong orientation these businesses have to

Spanish speaking customers. Due to the high number of Spanish speakers in these towns (an average of 62% in 2000) these businesses are able to advertise solely to Spanish speakers. Most in fact make no effort to cater to non-Spanish speaking customers, although exceptions exist (See Chapter 6). Due to these four characteristics, a very Hispanic, economic space exists in the downtown areas. What does this reveal about the social dynamics occurring in these communities? Interviews with the chamber of commerce of each town confirm what the cultural landscape suggests; an ethnically segregated business community exists in the lower Yakima Valley. According to the chamber of commerces, this is the greatest obstacle facing these towns and their main goal in economic development is to try to integrate the business community (See Chapter 6 for more detail).

Residential Spaces. Another way in which Mexicans occupy the cultural landscape is in residential spaces. The GIS analysis performed suggested that residential segregation decreased from 1990 to 2000 (See Chapter 5). However, survey results from the Yakima Herald Republic reveal that 51% of Hispanics and 44% of non-Hispanics still live in ethnically segregated neighborhood (*Yakima Herald Republic*, 22 December 2000). Therefore, it is logical to conclude that Hispanic residential spaces exist and an exploration of the cultural landscape confirms this. Hispanic neighborhoods are identifiable by the existence of colorful gardens, manicured lawns, and chain link fences (See Chapter 7). These descriptions are consistent with findings by others as being characteristically Mexican (Benedict and Kent 2004). The existence of these Mexican

housescaping represents a Hispanic residential space and suggests the degree to which residential segregation still exists.

Cultural Spaces. Language has been described as “the glue that holds Hispanic/Latino populations together and that gives them a common bond and unifies them as an ethnic population” (Arreola 2004, 16). Therefore, the use of Spanish that has been focused on in this thesis as a representation of the existence of a Hispanic cultural space in the landscape. As mentioned previously, the use of Spanish is evident in the business spaces of downtown areas. However, a more dynamic representation of Spanish language usage can be deduced via an analysis of two proliferating forces: the media and the educational system (both of which have been discussed in detail in Chapter 6). The use of Spanish language programming in the media, as well as the Dual Language Program used in some of the lower Valley’s schools suggest the existence of a Hispanic cultural space. This space has been growing in volume and influence, with the increasing percentage of Spanish speakers in the four study communities, which has grown by an average of 30% between 1980 and 2000 (See Figure 27). This cultural space that arises from the Spanish language can serve to bond groups together within the Mexican community that may be disparate (i.e. Mexican Americans versus new immigrants). Such is the case for one description of the integrating force of music in the Yakima Valley, offered by Cathy Ragland, an ethnomusicologist: “It is music that helps these communities maintain their connection to one another, to experience significant lifetime

events as a large extended family and to come together as Mexicans, Mexican-Americans, and members of the Yakima Valley region they call home” (Ragland, n.d.).

The Cultural Landscape as a Revealer of Social Dynamics. Cultural landscapes provide insight about the cultures that created them, but they are also a tool for discovering the underlying social processes occurring within such cultures (Benedict and Kent 2004). These processes may be power struggles, cultural integration, social transformations, or a number of other dynamics. Whatever the case, it is not enough to simply conclude that Hispanics occupy the cultural landscape due to their existence and numbers. In order to provide a valuable analysis, the obvious must be bypassed and questions asked. Next, is one example of how a deeper exploration of the cultural landscape can reveal insight into the social dynamics of a community.

Toppenish, self-proclaimed as the place “Where the West still Lives: City of Murals,” is a tourist oriented town whose main draw are the murals decorating the walls of buildings throughout town. Contrary to Sunnyside, Grandview, and Wapato, Toppenish has succeeded in attracting tourists to its sites and shops. The murals portray people and events that pertain to the history of Toppenish and many of them focus on the Native American tribes of the area. Despite the fact that Hispanics have been present in Toppenish for nearly sixty years, only one mural depicting their influence on the town’s history exists, and it is not easy to find. Most of the town’s murals are in obvious locations and are easily observed from the main streets. However, this mural is hidden

behind a grocery store, where it was blocked almost completely by a delivery truck at the time of observation (Figure 62-63).



Figure 62. The Bracero mural in Toppenish, located on a side street.



Figure 63. The mural depicting the Bracero Program is hard to find and often blocked from view.

The mural depicts the Bracero Program, which brought thousands of Mexican agricultural workers to the Yakima Valley during and after World War II (Figures 64 and 66).



Figure 64. The story behind the Bracero mural.

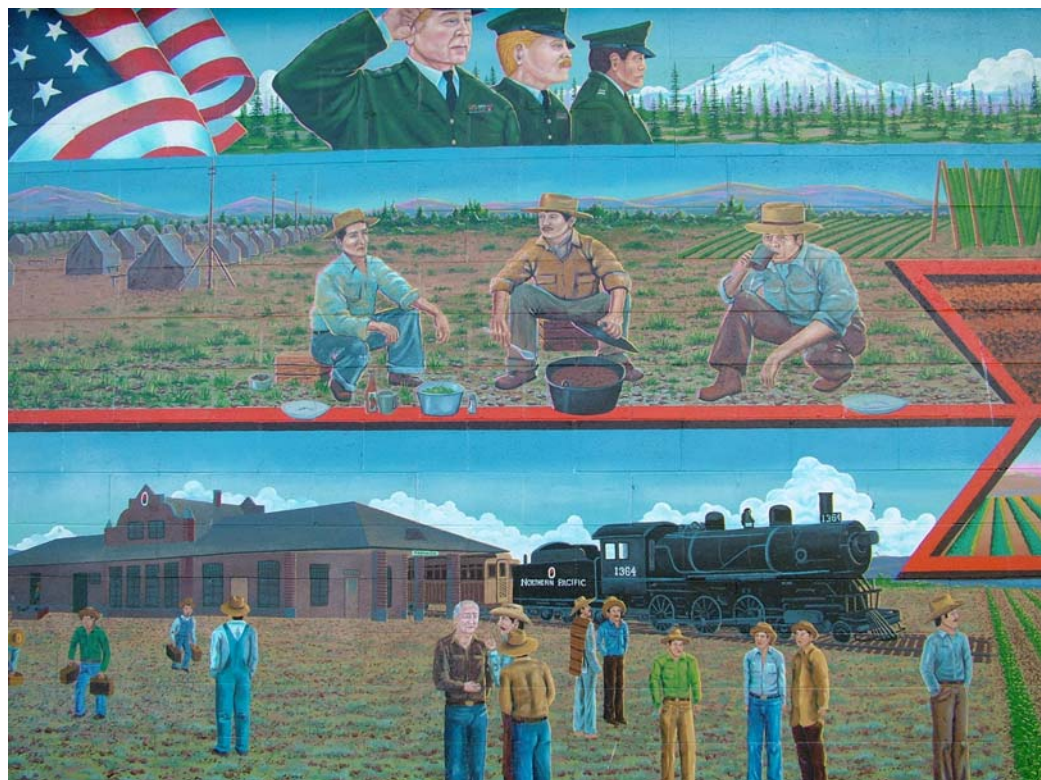


Figure 65. The Bracero mural.



Figure 66. Scenes from the Bracero mural, Toppenish.

Discussion with one local resident revealed that a considerable amount of resistance met with the production of this mural, however, this story was not confirmed by the Mural Society.

The Bracero mural is a powerful example of how the cultural landscape can reveal a social dynamic: the relative obscurity of the mural suggests the marginalization of the Mexican community. By analyzing the changing cultural landscapes of rural areas throughout the U.S. West, social processes similar to those described here can be

identified. A deeper analysis of the cultural landscape is invaluable to a deeper understanding of the identity and social undercurrents of places as well as place making.

### Summary of Results

Hispanics in the lower Yakima Valley show indications that they are assimilating economically, spatially, and structurally, but not culturally. Many Hispanics in the lower Yakima Valley feel that it provides all the comforts of their homes in Mexico and claim to be very attached to the feeling of the place. However, many still refer to Mexico as home. They are therefore characterized by a transnational identity. The question that remains is: does a transnational identity inhibit the development of an ethnic homeland in the host country? If we return to the key homeland ingredients discussed in the first chapter, it is clear that Hispanics in the lower Yakima Valley have fulfilled enough of the requirements to be considered an *emerging* homeland. They have clearly bonded with the land, as can be seen throughout the cultural landscape. They also exhibit a certain degree of control of place; while political control is still developing, home ownership by Hispanics has increased considerably in the last ten years (*Yakima Herald Republic*, 14 December 2000). One of the early definitions of the homeland concept, offered by Nostrand (1992), is applicable to the communities researched for this thesis:

The concept of a 'homeland,' although abstract and elusive, has at least three basic elements: a people, a place, and identity with place. The people must have lived in a place long enough to have adjusted to its natural environment and to have left their impress in the form of a cultural landscape. And from their interactions with the natural and cultural totality of the place they must have developed an identity with the land- emotional feelings of attachment, desire to possess, and even compulsion to defend (Nostrand 1992, 214).

Both Hurt (2003) and Conzen (2001) stress the importance of a sense of community and a feeling of belonging as essential elements in a homeland. The Hispanics in the Yakima Valley describe an emotional attachment to their communities that fits those elements. They also portray a physical sense of attachment to place in the cultural landscape that is a necessary precursor to the development of a homeland. Both of these attachments are extremely transnational in nature and, while they create a bond between Hispanics and their new homes in the Yakima Valley, they also serve to reinforce ties with homes in Mexico. Contrary to the Highland Hispano homeland, in which Hispanics created a new homeland for themselves, Hispanics in the Yakima Valley are, in a way, creating a surrogate homeland that may serve only as a temporary replacement until they return to their country of origin. The existence and formation of this surrogate homeland is strengthened by the sense of cultural citizenship that Hispanics in the Valley exhibit. Furthermore, chain migration and a majority population may contribute to Hispanization, a process by which non-Hispanics are influenced by and adopt Hispanic cultural traits. Over time, this Hispanization will contribute further to a sense of place that is more closely tied to Hispanics than to Anglos, increasing the viability of this emerging homeland.

## CHAPTER 8

## CONCLUSION

An exploration of the Hispanic population of Yakima Valley reveals different avenues as well as different degrees of assimilation by an immigrant population into their host society. The situation in the Valley is unique because in all the towns researched Hispanics are a majority. This fact shapes and controls the way in which Hispanics assimilate and also results in Hispanization, or reverse assimilation in which non-Hispanics are influenced by the Hispanic population. Their numbers have allowed them to maintain a cultural cohesiveness necessary to retain an identity that is separate from the Anglo community. This has also afforded them a level of comfort that is further strengthened by a strong sense of belonging, contributing to a unified cultural citizenship. The result is a place that closely resembles the immigrants' home and is steadily emerging into a new homeland for its Hispanic population. Consistent with the theory of transnationalism, this population is emotionally tied to their country of origin, yet physically committed to their country of destination.

The value of this research lies in its ability to serve as an example to non-metropolitan areas throughout the American West that are experiencing, or may soon experience, similar demographic changes. Thilmany (2003) has established a positive correlation between growth in the agricultural sector and growth in the Hispanic population in the Western mountain states of Montana, Idaho, Washington, Oregon, Utah, Nevada, Colorado, and Wyoming (Thilmany 2003). Combined with production

agriculture are the allied fields of ornamental plant production, golf course maintenance, and landscaping. Similar to the agricultural sector, these jobs employ a large number of immigrants, most of whom are Hispanic. The use of Hispanic immigrant labor is also closely tied to the service industry, which is growing rapidly in the West as amenity driven tourism increases in places such as Montana, Wyoming, Utah, and Nevada. As these industries expand, it is very likely that demand for immigrant labor will continue to grow (Thilmany 2003). Combined with this demand is the increasing supply of Hispanic immigrants. Between January 2000 and March 2005, 7.9 million new immigrants (legal and illegal) arrived in the United States, making it the highest five-year period of immigration in history (Camarota 2005). Therefore, it is appropriate to assume that more and more towns throughout the Western mountain states will undergo the same demographic changes that the Yakima Valley has.

This case study of the Yakima Valley reveals three main areas of contention that have accompanied an increasing Hispanic population. Many studies aim to predict the influence of a large Hispanic population on a community via an analysis of general economic impacts or the use of social services (Kritz and Gurak 2004). However, this thesis provides a unique perspective by examining how the local residents feel about the demographic changes in their communities and, more importantly, how they react to those changes. It is through those feelings and reactions that social processes, be them Hispanization or assimilation, create and transform not only identity, but also place. Through this place making process, the three areas of contention arise: a segregated business community, educational challenges, and disparate socioeconomic conditions.

A glance at the growth of Hispanic businesses in any of the studied towns would suggest a positive situation for Hispanics. By simply analyzing the numbers, one could conclude that Hispanics in these towns are integrating into the business community and assimilating economically. However, as this study has demonstrated, the growth in Hispanic businesses has not translated into an integrated business community but has, in fact, led to a very segregated economic system. Hispanic businesses in Sunnyside, for example, are clustered in the downtown area, while many Anglo owned businesses have moved out of downtown, and are now located on peripheral areas. This physical segregation may be partially dependent on the size of each town. For example, the smaller towns of Wapato and Grandview have experienced less sprawl than the larger town of Sunnyside and therefore still retain some Anglo businesses in their downtown areas. Cultural and linguistic barriers have added to these differing degrees of geographical segregation to create two distinct business communities based on ethnicity. While this may not be detrimental to Hispanic business owners per se, it is a drawback to the community as a whole because this situation prevents the business community from uniting and working together to strengthen the economic development of Sunnyside (see Chapter 6 for more detail). With the gift of hindsight, it is possible to identify approaches that could have prevented these obstacles from arising. Such an approach could range from zoning laws to the formation of interethnic committees to simple communication between Anglo and Hispanic business owners. It is important to keep in mind of course, that such approaches are site specific and depend on a variety of factors. However, the

case of the Yakima Valley provides a blueprint for the possible problems other communities may encounter as Hispanic businesses increase.

Another area of contention that the towns of the Yakima Valley have faced is the challenge of a monolingual Spanish speaking student body. As the number of Spanish only speakers has increased, schools throughout Washington State have reacted with different strategies and programs aimed at accounting for this issue (see Chapter 6). These programs range from segregating Spanish only speakers from the mainstream classroom for intensive English classes to the Dual Language Program, which teaches all students both Spanish and English simultaneously. While the problem is far from being resolved, the Dual Language Program has exhibited promising results. This program, of course, does not come without criticism, but it does have the potential to serve as a common ground between the Spanish and English speaking populations as a whole. It is a program that is not only sensitive to the specific needs of the community, but also aims to develop cooperation within the classroom that can hopefully extend to the world outside.

The final area of contention is the disparate socioeconomic conditions between Hispanics and Anglos. Census data for the Yakima Valley reveals a considerable gap across a number of economic indicators including educational attainment, income, and poverty status (see Chapter 4). Data does suggest a narrowing of these disparities, but it is slow in coming. On a discouraging note, these disparities reflect the national trend and therefore may require policy approaches that operate on a larger scale than the local level. The important issue here is that the challenges of solving these areas of contention and

strengthening a community are greatly magnified in the presence of inequality. It is with this rhetoric in mind that policy implications will now be addressed.

### Policy Implications

Immigration policy is currently a very timely subject and it no doubt will continue to be in the years to come. At the time of writing this thesis the number of immigrants arriving in the U.S. annually reached historic highs prompting the introduction of comprehensive immigration reform bills. The debate over which policies are adequate and appropriate is extremely complicated and beyond the scope of this thesis. However, case studies such as the one performed in this thesis, can serve to inform discussions by providing historical anecdotes about the multitude of consequences policies can have.

In 2004, the Bush Administration proposed a temporary guest worker program. The Administration cited a plethora of benefits to such a program, including a more prosperous economy, a reduction in the amount of illegal immigrants, and decreased pressure on the border. The program would provide guest workers with an economic incentive to return home, in the form of tax incentives and retirement credits (Office of the Press Secretary 2004). However, historical examples provide sufficient proof that “there is nothing more permanent than temporary workers” (Martin 2001, 1). A study of a rural town in Mexico found that 64% of its residents who worked as braceros between 1942 and 1949 eventually reentered the U.S. (Gamboa 1990). The Bracero Program, enacted as a temporary wartime measure, initiated a migration stream to the Yakima

Valley that has transformed the economy and culture of that area (See Chapter 3 for details on the Bracero program). The program also had a large impact on Mexico. The cost of transportation encouraged potential braceros to move to the border, resulting in a rural to urban shift that effectively established impoverished border cities. This in turn has fed into illegal immigration, as an abundance of unemployed workers have settled along the U.S.-Mexican border (Martin 2001). It is a powerful reminder of how the past can inform the present and is extremely pertinent to the current debate concerning immigration reform.

In addition to national immigration policies, state and local policies can also be informed by this case study. As mentioned in Chapter 6, educational considerations differ greatly in a community that is a majority Hispanic. It is vital that these differences be considered if they are to be addressed appropriately. Furthermore, as the Hispanic presence in rural areas of the U.S. West continues to increase, research that can be used in a comparable way will be important as a guideline for development and to function as an outline for what works and what doesn't. The issues of language, education, and political involvement that are just beginning to appear in many places can be tackled more effectively only by a better understanding of similar communities. In the words of Roseman, "Micro studies of ethnic communities will further our understanding of ethnic change in the United States by weaving together a more complete picture of changing ethnic settlement patterns, and the processes contributing to those patterns" (Roseman 2002, 36).

An analysis of the cultural landscape is one technique that can be used to steer economic development in a successful direction, which in the case of the lower Yakima Valley involves integrating and considering both Spanish and English speaking clientele. The frequent use of the Spanish language in the cultural landscape can inform educational policies that benefit the entire community, such as the Dual Language Program does the study area.

The changing ethnicity of the lower Yakima Valley brings with it changes not only to the cultural landscape, but also to the social fabric of the area. Issues of social inequality, income disparity, and increasing crime are just a handful of considerations that are facing these communities, as well as many others throughout the Western United States. The growing number of Hispanics in the communities researched in this thesis suggests policy solutions that may begin to change as Hispanics increase what is already majority status. In his classification of different types of Hispanic communities, Haverluk (1998) described Yakima County as a 'new community' where Hispanics are relatively new immigrants; they lack political control and assimilate relatively quickly. However, contrary to other new communities, Hispanics in the Valley are not faced with the same pressure to assimilate, as are Hispanics in many other areas of the U.S., and therefore have chosen to assimilate in certain ways but not in others. Research on Hereford Texas, another "new community" that has become a majority Hispanic, shows similar results. As described by Arreola (2004), "we may be witnessing a fundamentally new process of Hispanic place making, in which former Anglo-dominant towns transform entirely into

Latino places, hybridizing with non-Hispanic populations” (Arreola 2004, 11). What impact does this new type of place making have on local policy?

One example is job discrimination. Due to the high number of Spanish speakers in the Yakima Valley, bilingual skills have become a priority for many businesses. As a consequence, more non-Hispanics than Hispanics claim to have felt discrimination in employment (28% and 21% respectively) (*Yakima Herald Republic*, 22 December 2000). Despite a clear income disparity that still favors non-Hispanic whites, this response points to a changing situation that policy makers will need to consider if they are to provide for the majority Mexican population as well as the minority Anglo population of these places. The Dual Language Program is one attempt to integrate these ethnic groups linguistically and therefore reduce language barriers that exist on both sides of the spectrum (i.e. for Spanish and non-Spanish speakers alike). However, it is important that such efforts accompany the changes these towns are experiencing and aim to eliminate any imbalance of power that exists. By advancing equality, discrimination and prejudice, be it on the part of either ethnicity, are more likely to decrease. In the words of Haverluk (2004), “towns ... are living laboratories for a number of the contemporary social, economic, demographic, and cultural issues facing Hispanic Americans” (Haverluk 2004, 291).

## REFERENCES

- Allen, J., and Eugene Turner. 1996. "Spatial patterns of immigrant assimilation." *Professional Geographer* 48 (1): 140-155.
- Arreola, D. 1988. "Mexican American Housescapes." *Geographical Review* 78 (3): 299-315.
- . 2000. "Mexican Americans". In *Ethnicity in Contemporary America: A Geographical Appraisal*, 111-138. Oxford: Rowman & Littlefield.
- . 2002. *Tejano South Texas: A Mexican American Cultural Province*. Austin: University of Texas Press.
- . 2004. "Hispanic American Legacy, Latino American Diaspora". In *Hispanic Spaces, Latino Places*, ed. Daniel Arreola, 13-35. Austin: University of Texas Press.
- Barkan, E. 2004. "America in the Hand, Homeland in the Heart: Transnational and Translocal Immigrant Experiences in the American West." *Western Historical Quarterly* 35 (3): 331-354.
- Benedict, A. and Robert Kent. 2004. "The Cultural Landscape of a Puerto Rican Neighborhood in Cleveland, Ohio". In *Hispanic Spaces, Latino Places*, ed. Daniel Arreola, 187-205. Austin: University of Texas Press.
- Brady, S. 2004. Central Washington's Emerging Hispanic Landscape. *FOCUS on Geography* 47 (4): 15-20.
- Buckley, A. 2005. Interview by Laurie Darian. Toppenish, Washington.
- Camarillo, A. and Frank Bonilla. 2001. Latinos and the Changing Face of America. Population Reference Bureau. [www.prb.org](http://www.prb.org).
- Camarota, S. 2001. Immigrants in the United States-2000: A Snapshot of America's Foreign-Born Population. Center for Immigration Studies. [www.cis.org](http://www.cis.org).
- . 2005. Immigrants at Mid-Decade: A Snapshot of America's Foreign-Born Population in 2005. Center for Immigration Studies. [www.cis.org](http://www.cis.org).
- Camarota, S. and Nora McArdle. 2003. Where Immigrants Live: An Examination of State Residency of the Foreign Born by Country of Origin in 1990 and 2000. Center for Immigration Studies. [www.cis.org](http://www.cis.org).
- Conzen, M. 2001. "American Homelands: A Dissenting View". In *Homelands: A*

*Geography of Culture and Place across America*, ed. Richard Nostrand and Lawrence Estaville, 238-271. Baltimore: Johns Hopkins University Press.

Dibble, J. 2005. Interview by Laurie Darian. Yakima, Washington.

Downey, L. 2003. "Spatial Measurement, Geography, and Urban Racial Inequality." *Social Forces* 81 (3): 16-26.

Englekirk, A. and Marguerite Marín. 2000. "Mexican Americans". *Gale Encyclopedia of Multicultural America, Volume 2, 2<sup>nd</sup> Edition*. Ed. Jeffrey Lehman, 1190-1222. Detroit: Gale.

Flores, W. and Rina Benmayor. 1997. "Constructing Cultural Citizenship." In *Latino Cultural Citizenship: Claiming Identity, Space, and Rights*, ed. W. Flores and R. Benmayor, 1-23. Boston: Beacon Press.

Gamboa, E. 1981. "Mexican Migration into Washington State: A History, 1940-1950." *Pacific Northwest Quarterly* 72 (3): 121-131.

———. 1984. *Under the Thumb of Agriculture: Bracero and Mexican American Workers in the Pacific Northwest, 1940-1950*. PhD dissertation, University of Washington.

———. 1990. *Mexican Labor and World War II: Braceros in the Pacific Northwest, 1942-1947*. Austin: University of Texas Press.

———. n.d. Notes on the Music of the Yakima Valley's Mexican American Community. Mexican-American Traditions of Washington State. Washington State Arts Commission. [www.arts.wa.gov](http://www.arts.wa.gov).

Gordon, M. 1964. *Assimilation in American Life*. New York: Oxford University Press.

Greene, R. and James Pick. 2005. *Exploring the Urban Community: A GIS Approach*. Ed. Keith Clarke. New Jersey: Pearson Prentice Hall.

Hardwick, S. 2001. California's Emerging Russian Homeland. In *Homelands: A Geography of Culture and Place across America*, ed. Richard Nostrand and Lawrence Estaville, 210-224. Baltimore: Johns Hopkins University Press.

Harriman, J. 2005. Interview by Laurie Darian. Grandview, Washington.

Harrington, R. 2005. Interview by Laurie Darian. Sunnyside, Washington.

Haverluk, T. 1992. *Mex-America: the Maintenance and Expansion of an American Cultural Region*. PhD dissertation, University of Minnesota.

———. 1994. A Descriptive Model for Understanding the Wider Distribution and

- Increasing Influence of Hispanics in the American West. Hispanic Research Center Working Paper 04, University of Texas at San Antonio.
- . 1998. "Hispanic community types and assimilation in Mex-America." *Professional Geographer* 50 (4): 465-480.
- . 2003. "Mex-America: From Margin to Mainstream". *Western Places, American Myths: How we think about the West*, ed. Gary Hausladen, 166-183. University of Nevada Press, Las Vegas.
- . 2004. Hispanization of Hereford, Texas. *Hispanic Spaces, Latino Places*, ed. Daniel Arreola, 277-291. Austin: University of Texas Press.
- Hurt, D. 2003. "Defining American homelands: a Creek Nation example, 1828-1907." *Journal of Cultural Geography* 21: 19-25.
- Kandel, W. and Emilio Parrado. 2004. "Hispanics in the American South and the Transformation of the Poultry Industry". *Hispanic Spaces, Latino Places*, ed. Daniel Arreola, 255-276. Austin: University of Texas Press.
- Kottak, C. and Kathryn Kozaitis. 1999. *On Being Different: Diversity and Multiculturalism in the North American Mainstream*. McGraw-Hill College.
- Kritz, M. and Douglas Gurak. 2004. Immigration and a Changing America. Russell Sage Foundation/Population Reference Bureau. [www.cis.org](http://www.cis.org).
- Leek, M., Mark Vandekamp, and Susan Kinne. 1991. A Community Analysis of the Hispanic Population in Yakima County. Fred Hutchinson Research Center, Seattle.
- Lewis Mumford Center for Comparative Urban and Regional Research. n.d. <http://mumford1.dyndns.org/cen2000/WholePop/WPsort.html>.
- Maldonado, C. 1995. An Overview of the Mexicano/Chicanos in the Pacific Northwest. In *The Chicano Experience in the Northwest*, ed. Carlos Maldonado and Gilberto Garcia, 1-33. Iowa: Kendall/Hunt.
- Massey, D. 1985. Ethnic residential segregation: A theoretical synthesis and empirical review. *Sociology and Social Research* 65: 311-322.
- Massey, D., and Brendan Mullan. 1984. "Processes of Hispanic and black spatial assimilation." *American Journal of Sociology* 89 (4): 836-873.
- McKee, J. 2000. "Humanity on the Move". *Ethnicity in Contemporary America: A Geographical Appraisal*, ed. Jesse McKee, 19-45. Oxford: Rowman and Littlefield.

- Miranda, E. 2005. Interview by Laurie Darian. Toppenish, Washington.
- Nostrand, R. 1970. "The Hispanic-American Borderland: Delimitation of an American Cultural Region." *Annals of the Association of American Geographers* 60 (4): 638-661.
- . 1992. *The Hispano Homeland*. Norman: University of Oklahoma Press.
- Nostrand, R. and Lawrence Estaville. 2001. "Free Land, Dry Land, Homeland". In *Homelands: A Geography of Culture and Place across America*, ed. Richard Nostrand and Lawrence Estaville. Baltimore: The Johns Hopkins University Press.
- Office of Superintendent of Public Instruction, Washington. n.d. Description of Bilingual Education Instructional Models. [www.k12.wa.us](http://www.k12.wa.us).
- Ragland, C. n.d. Gritos del Alma: Introduction. Mexican-American Traditions of Washington State. Washington State Arts Commission. [www.arts.wa.gov](http://www.arts.wa.gov).
- Roark, M. 1993. "Homelands: A Conceptual Essay." *Journal of Cultural Geography* 13 (2): 5-11.
- Roseman, C. 2002. "The Changing Ethnic Map of the United States". *Geographical Identities of America- Race, Space, and Place*, 15-37. Reno, Nevada: University of Nevada Press.
- Rowntree, L., Martin Lewis, Marie Price, and William Wyckoff. 2003. *Diversity Amid Globalization: World Regions, Environment, Development*. Upper Saddle River, New Jersey: Prentice Hall.
- Rubenstein, J. 2002. *The Cultural Landscape: An Introduction to Human Geography*. Upper Saddle River, New Jersey: Prentice Hall.
- Saenz, R. 2004. Latinos and the Changing Face of America. Population Reference Bureau. [www.prb.org](http://www.prb.org).
- Sandefur, G, Molly Martin, Jennifer Eggerling-Boeck, Susan Mannon, and Ann Meier. 2001. An Overview of Racial and Ethnic Demographic Trends. *America Becoming: Racial Trends and Their Consequences, Volume 1*. Ed. Neil Smelser, William Wilson, and Faith Mitchell. Washington D.C.: National Academy Press.
- Sauer, C. 1963. *The Morphology of Landscape*. Ed. John Leighly. Los Angeles: University of California Press.

- Smith, M. 1998. *A Historical Guide to the U.S. Government*. London: Oxford University Press.
- Sommers, L. 1991. "Inventing Latinismo: The creation of "Hispanic" panethnicity in the United States." *The Journal of American Folklore* 104 (411): 32-53.
- Thilmany, D. 2003. Exploring trend and interdependence for the agricultural workforce and Hispanic population growth in western mountain states.  
[www.migration.ucdavis.edu/cf](http://www.migration.ucdavis.edu/cf).
- United States Bureau of the Census. 1980. Census of Population, Volume 1, Chapter C: General Social and Economic Characteristics.
- . 1990. Summary Tape Files 1 and 3. [www.census.gov](http://www.census.gov).
- . 2000. Summary Tape Files 1 and 3. [www.census.gov](http://www.census.gov).
- . n.d. [www.census.gov](http://www.census.gov).
- United States Department of the Interior. 1964. *The Story of the Columbia Basin Irrigation Project*. Washington, D.C.
- Washington State Arts Commission. n.d. Folk Arts Project: Gritos del Alma.  
[www.arts.wa.gov](http://www.arts.wa.gov).
- Weinberg, D. 1995. *Measuring Poverty: Issues and Approaches*. United States Bureau of the Census, Washington D.C.
- Williams, A. and Suzanne Ortega. 1990. "Dimensions of Ethnic Assimilation: An Empirical Appraisal of Gordon's Typology." *Social Science Quarterly* 71 (4): 697-710.
- Wong, D. 1996. "Enhancing Segregation Studies Using GIS." *Computers, Environment, and Urban Systems* 20 (2): 99-109.
- . 2002. "Modeling Local Segregation: A Spatial Interaction Approach." *Geographical and Environmental Modeling* 6 (1): 81-97.
- Wu, X. and Daniel Sui. 2002. "GIS-Based Lacunarity Analysis for Assessing Urban Residential Segregation." Proceedings of the 22<sup>nd</sup> Annual ESRI User Conference. [www.GIS.ESRI.com](http://www.GIS.ESRI.com).

APPENDICES

APPENDIX A

GIS DATA AND ATTRIBUTES

## DEFINITION OF GIS ATTRIBUTES LABELS

LABEL	DEFINITION
FID	Field Identification
SHAPE	Geometrical form/feature type
FID_2000Fi	Field Identification
AREA	Geographical extent
PERIMETER	Geographical extent
ID	Block group number
OID_	Object Identification
2000_Ent	Entropy Index, 2000
2000_HISPA	Percent Hispanic, 2000
2000_TSPKS	Percent of the total population who speak Spanish, 2000
2000_HSPKS	Percent of Hispanics who speak Spanish, 2000
2000LINGIS	Number of linguistically isolated households, 2000
2000_FB	Percent foreign born, 2000
2000MEDIAN	Median income, 2000
2000TMEDFA	Median family income for the total population, 2000
2000TPERCA	Per capita income for the total population, 2000
2000HPERCA	Per capita income for the Hispanic population, 2000
2000_Diss	Dissimilarity Index (in percent), 2000
Pct_Lingis	Percent of households that are linguistically isolated, 2000
FID_1990Fi	Field Identification
AREA_1	Geographical extent
PERIMETE_1	Geographical extent
AREALAND	Geographical extent
ID_1	Block group number
OID1	Object Identification
1990_Ent	Entropy Index, 1990
1990_HISP	Percent Hispanic, 1990
1990_TSPKS	Percent of the total population who speak Spanish, 1990
1990_HSPKS	Percent of the Hispanic population who speak Spanish, 1990
1990LINGIS	Number of linguistically isolated households, 1990
1990_FB	Percent foreign born, 1990
1990MEDHH	Median household income, 1990
1990MEDFAM	Median family income for the total population, 1990
1990TPERCA	Per capita income for the total population, 1990
1990HPERCA	Per capita income for the Hispanic population, 1990
1990Pct_Li	Percent of households that are linguistically isolated, 1990
1990_Diss	Dissimilarity Index (in percent), 1990
Ch_Hisp	Change in the percent Hispanic, 1990-2000
Ch_TSpks	Change in the percent of the total population who speak Spanish, 1990-2000

## DEFINITION OF GIS ATTRIBUTES LABELS CONTINUED

Ch_HSpks	Change in the percent of the Hispanic population who speak Spanish, 1990-2000
Ch_FB	Change in the percent of the population who are foreign born, 1990-2000
Ch_Median	Change in median income, 1990-2000
Ch_MedFam	Change in median family income, 1990-2000
Ch_TPerca	Change in per capita income for the total population, 1990-2000
Ch_HPerca	Change in per capita income for the Hispanic population, 1990-2000
Ch_Diss	Change in the Dissimilarity Index, 1990-2000
Ch_Ent	Change in the Entropy Index, 1990-2000
Ch_PctLing	Change in the percent of linguistically isolated households, 1990-2000

## GIS ATTRIBUTES

FID	SHAPE	FID_ 2000Fi	AREA	PERIMETER	ID	OID_ _Ent	2000 _Ent	2000_ HISPA	2000_ TSPKS	2000 LINGIS
0	Polygon	0	0.00338	0.29446	5307700261	41	99	44	35	36
1	Polygon	1	0.01286	0.61337	5307700265	45	88	30	24	24
2	Polygon	1	0.01286	0.61337	5307700265	45	88	30	24	24
3	Polygon	2	0.01689	0.64432	5307700181	5	100	52	39	45
4	Polygon	2	0.01689	0.64432	5307700181	5	100	52	39	45
5	Polygon	3	0.01327	0.66318	5307700225	27	99	43	33	10
6	Polygon	3	0.01327	0.66318	5307700225	27	99	43	33	10
7	Polygon	4	0.00339	0.33029	5307700226	28	84	27	22	22
8	Polygon	5	0.02425	0.85800	5307700215	22	98	42	33	23
9	Polygon	5	0.02425	0.85800	5307700215	22	98	42	33	23
10	Polygon	6	0.00841	0.72504	5307700244	36	90	32	29	22
11	Polygon	6	0.00841	0.72504	5307700244	36	90	32	29	22
12	Polygon	7	0.00040	0.10494	5307700251	37	94	65	49	105
13	Polygon	8	0.00004	0.03337	5307700252	38	60	86	60	70
14	Polygon	9	0.00242	0.21140	5307700262	42	95	37	31	24
15	Polygon	10	0.00025	0.07269	5307700253	39	88	86	57	144
16	Polygon	11	0.00028	0.07825	5307700254	40	75	21	16	11
17	Polygon	12	0.00552	0.55979	5307700224	26	68	18	18	0
18	Polygon	12	0.00552	0.55979	5307700224	26	68	18	18	0
19	Polygon	13	0.00034	0.09178	5307700223	25	89	69	55	50
20	Polygon	14	0.00126	0.17673	5307700221	23	78	23	16	22
21	Polygon	14	0.00126	0.17673	5307700221	23	78	23	16	22
22	Polygon	15	0.00366	0.27458	5307700243	35	100	48	31	49
23	Polygon	15	0.00366	0.27458	5307700243	35	100	48	31	49
24	Polygon	16	0.00295	0.26011	5307700263	43	99	57	47	35
25	Polygon	16	0.00295	0.26011	5307700263	43	99	57	47	35
26	Polygon	17	0.01410	0.64909	5307700264	44	70	19	15	6
27	Polygon	17	0.01410	0.64909	5307700264	44	70	19	15	6
28	Polygon	17	0.01410	0.64909	5307700264	44	70	19	15	6
29	Polygon	18	0.00056	0.13155	5307700222	24	82	26	17	21
30	Polygon	19	0.01110	0.49327	5307700241	33	97	40	29	14
31	Polygon	19	0.01110	0.49327	5307700241	33	97	40	29	14
32	Polygon	20	0.00201	0.22103	5307700214	21	99	43	36	38
33	Polygon	21	0.00039	0.11233	5307700231	29	85	73	48	106
34	Polygon	22	0.00025	0.07050	5307700234	32	100	52	42	111

## GIS ATTRIBUTES CONTINUED

2000_ FB	2000 MEDIAN	2000T MEDFA	2000T PERCA	2000H PERCA	FID_ 1990Fi	AREA_1	PERIMETE_ 1	AREALAND	ID_1
17	27667	27538	9952	5932	0	0.00339	0.29256	28.837	530770026001
16	38250	41184	13853	8583	1	0.00684	0.38999	58.508	530770026009
16	38250	41184	13853	8583	7	0.00598	0.40352	51.210	530770026008
22	41750	47067	16448	13533	2	0.01338	0.56384	114.476	530770018001
22	41750	47067	16448	13533	42	0.00357	0.29678	30.628	530770018002
16	37500	38750	15904	7055	3	0.00438	0.33357	37.452	530770022008
16	37500	38750	15904	7055	6	0.00894	0.47172	76.287	530770022006
8	35150	36100	21924	12272	4	0.00337	0.33974	28.904	530770022009
17	39601	42163	13149	7615	5	0.01832	0.64334	156.671	530770021008
17	39601	42163	13149	7615	30	0.00592	0.47221	50.702	530770021007
17	28182	28359	9517	4757	8	0.00301	0.37522	25.665	530770024006
17	28182	28359	9517	4757	27	0.00540	0.39131	46.270	530770024007
23	25363	23050	11136	9005	9	0.00039	0.10545	3.320	530770025001
35	28854	25000	7529	6940	11	0.00005	0.03124	0.392	530770025002
27	36250	35972	10578	7065	12	0.00242	0.21141	20.731	530770026002
37	24643	27857	9110	8295	13	0.00025	0.07125	2.113	530770025003
9	31250	33125	10135	16799	10	0.00028	0.08491	2.437	530770025004
13	36189	37409	14945	5231	14	0.00440	0.48478	37.568	530770022005
13	36189	37409	14945	5231	23	0.00116	0.18780	9.853	530770022004
40	26471	28182	8616	5045	15	0.00023	0.07412	1.900	530770022003
9	37297	38125	14090	8557	16	0.00097	0.18566	8.284	530770022007
9	37297	38125	14090	8557	21	0.00035	0.09095	2.996	530770022001
18	27292	35700	10928	7297	17	0.00132	0.17266	11.255	530770024005
18	27292	35700	10928	7297	25	0.00234	0.23677	20.033	530770024004
21	36875	41635	11769	7065	19	0.00109	0.14436	9.361	530770026003
21	36875	41635	11769	7065	20	0.00186	0.25778	15.884	530770026004
9	49013	62708	15397	14941	18	0.00484	0.34916	41.389	530770026007
9	49013	62708	15397	14941	34	0.00428	0.28436	36.355	530770026005
9	49013	62708	15397	14941	35	0.00500	0.43484	42.739	530770026006
9	41042	48523	18142	9666	22	0.00054	0.12421	4.562	530770022002
23	31625	32308	10666	7895	24	0.00247	0.22769	21.138	530770024001
23	31625	32308	10666	7895	33	0.00862	0.43466	73.783	530770024002
16	22414	19671	9879	5921	26	0.00218	0.24944	18.828	530770021006
43	30833	30469	8429	6535	28	0.00039	0.11103	3.326	530770023001
24	28494	31197	11363	7349	29	0.00026	0.06912	2.186	530770023004

## GIS ATTRIBUTES CONTINUED

1990 _Ent	1990_ Diss	OI D1	1990_ HISP	1990_ TSPKS	1990 LINGIS	1990 _FB	1990MED HH	1990MED FAM	1990T PERCA	1990H PERCA	Ch_Hisp
92	37.1	52	33	22	18	12	16689	18289	6217	3920	11
69	37.1	60	18	12	2	11	25870	27188	8492	3638	12
68	37.1	59	18	4	0	1	23750	28009	8419	5974	12
42	37.1	0	8	7	0	3	30481	30962	10370	13424	44
90	37.1	1	31	24	20	19	30714	31786	11545	3429	21
49	37.1	35	11	6	0	8	21250	23889	8951	6213	32
99	37.1	33	55	55	16	33	23750	23750	10990	1171	-12
86	37.1	36	29	13	9	11	27019	26250	12816	4513	-2
100	37.1	27	52	39	0	12	19191	31071	6199	5029	-10
85	37.1	26	28	24	39	14	32583	34917	12263	5532	14
91	37.1	46	33	24	8	4	33365	33365	6900	4948	-1
92	37.1	47	34	22	0	22	19187	19659	7811	4156	-2
93	37.1	48	65	46	71	26	17245	20000	5933	4381	0
96	37.1	49	61	46	49	35	16389	16481	4844	3302	25
86	37.1	53	29	20	28	21	20658	21645	8486	4922	8
98	37.1	50	57	39	27	22	19974	24338	7884	4790	29
47	37.1	51	10	7	0	5	21111	16875	8886	1640	11
43	37.1	32	9	10	28	6	41375	42375	14530	29367	9
48	37.1	31	10	5	8	6	38077	38000	11964	7231	8
94	37.1	30	64	44	6	38	15353	15962	4692	4139	5
61	37.1	34	15	12	0	4	50744	55174	15785	7520	8
61	37.1	28	15	9	9	6	21900	30658	10353	4947	8
60	37.1	45	15	7	0	1	23250	25536	12086	3889	33
68	37.1	44	18	14	21	7	11667	12679	5771	3320	30
98	37.1	54	41	33	15	17	19079	19605	7021	4046	16
0	37.1	55	0	6	0	0	29861	35875	16851	0	57
47	37.1	58	10	7	6	5	24688	23906	7586	4850	9
0	37.1	56	0	6	0	0	14792	22115	10248	0	19
96	37.1	57	62	38	0	18	16806	16458	4203	2116	-43
60	37.1	29	15	12	20	9	24779	28562	10635	6195	11
63	37.1	41	16	15	0	3	18967	17609	5855	8697	24
99	37.1	42	45	42	52	26	9371	18750	5323	2431	-5
88	37.1	25	30	18	10	10	19412	15764	9383	2542	13
95	37.1	37	63	53	86	25	19821	21154	6765	5008	10
98	37.1	40	41	28	42	13	18125	23152	8895	4459	11

## GIS ATTRIBUTES CONTINUED

Ch_T Spks	Ch_H Spks	Ch_ FB	Ch_ Median	Ch_Med Fam	Ch_T Perca	Ch_H Perca	2000_ Diss	Pct_ Lingis	1990 Pct_Li	Ch_Pct Ling	Ch_ Diss	Ch_ Ent
13	15	5	10978	9249	3735	2012	36.3	8	5	3	-0.80	7
12	15	5	12380	13996	5361	4945	36.3	4	1	3	-0.80	19
20	57	15	14500	13175	5434	2609	36.3	4	0	4	-0.80	20
32	-14	19	11269	16105	6078	109	36.3	9	0	9	-0.80	58
15	-1	3	11036	15281	4903	10104	36.3	9	8	1	-0.80	10
27	24	8	16250	14861	6953	842	36.3	4	0	4	-0.80	50
-22	-24	-17	13750	15000	4914	5884	36.3	4	36	-32	-0.80	0
9	36	-3	8131	9850	9108	7759	36.3	8	4	4	-0.80	-2
-6	5	5	20410	11092	6950	2586	36.3	4	0	4	-0.80	-2
9	-9	3	7018	7246	886	2083	36.3	4	8	-4	-0.80	13
5	18	13	-5183	-5006	2617	-191	36.3	10	10	0	-0.80	-1
7	27	-5	8995	8700	1706	601	36.3	10	0	10	-0.80	-2
3	5	-3	8118	3050	5203	4624	36.3	18	14	4	-0.80	1
14	-4	0	12465	8519	2685	3638	36.3	25	19	6	-0.80	-36
11	13	6	15592	14327	2092	2143	36.3	6	7	-1	-0.80	9
18	14	15	4669	3519	1226	3505	36.3	22	4	18	-0.80	-10
9	6	4	10139	16250	1249	15159	36.3	8	0	8	-0.80	28
8	-19	7	-5186	-4966	415	-24136	36.3	0	13	-13	-0.80	25
13	52	7	-1888	-591	2981	-2000	36.3	0	5	-5	-0.80	20
11	10	2	11118	12220	3924	906	36.3	21	3	18	-0.80	-5
4	-12	5	-13447	-17049	-1695	1037	36.3	6	0	6	-0.80	17
7	6	3	15397	7467	3737	3610	36.3	6	4	2	-0.80	17
24	15	17	4042	10164	-1158	3408	36.3	11	0	11	-0.80	40
17	-15	11	15625	23021	5157	3977	36.3	11	7	4	-0.80	32
14	4	4	17796	22030	4748	3019	36.3	14	10	4	-0.80	1
41	-96	21	7014	5760	-5082	7065	36.3	14	0	14	-0.80	99
8	7	4	24325	38802	7811	10091	36.3	3	6	-3	-0.80	23
9	-43	9	34221	40593	5149	14941	36.3	3	0	3	-0.80	70
-23	16	-9	32207	46250	11194	12825	36.3	3	0	3	-0.80	-26
5	-14	0	16263	19961	7507	3471	36.3	3	3	0	-0.80	22
14	-23	20	12658	14699	4811	-802	36.3	4	0	4	-0.80	34
-13	-23	-3	22254	13558	5343	5464	36.3	4	26	-22	-0.80	-2
18	24	6	3002	3907	496	3379	36.3	13	3	10	-0.80	11
-5	-19	18	11012	9315	1664	1527	36.3	18	17	1	-0.80	-10
14	12	11	10369	8045	2468	2890	36.3	18	7	11	-0.80	98

## GIS ATTRIBUTES CONTINUED

FID	SHAPE	FID_2000Fi	AREA	PERIMETER	ID	OID_	2000_Ent	2000_HISPA	2000_TSPKS	2000_LINGIS
35	Polygon	23	0.00011	0.04949	5307700232	30	39	92	67	174
36	Polygon	24	0.00038	0.08417	5307700233	31	87	71	54	140
37	Polygon	25	0.00402	0.25591	5307700242	34	71	19	16	0
38	Polygon	26	0.00053	0.13601	5307700212	19	71	80	60	69
39	Polygon	26	0.00053	0.13601	5307700212	19	71	80	60	69
40	Polygon	27	0.00373	0.60235	5307700211	18	72	80	60	123
41	Polygon	27	0.00373	0.60235	5307700211	18	72	80	60	123
42	Polygon	27	0.00373	0.60235	5307700211	18	72	80	60	123
43	Polygon	28	0.00480	0.47417	5307700213	20	99	57	41	107
44	Polygon	28	0.00480	0.47417	5307700213	20	99	57	41	107
45	Polygon	28	0.00480	0.47417	5307700213	20	99	57	41	107
46	Polygon	29	0.00038	0.11323	530770020.011	0	57	87	70	227
47	Polygon	30	0.00030	0.10551	530770020.013	2	75	79	61	166
48	Polygon	31	0.00016	0.09296	530770020.012	1	92	66	55	44
49	Polygon	32	0.00012	0.06403	530770020.021	14	99	55	39	22
50	Polygon	33	0.00014	0.06510	530770020.024	17	80	24	25	19
51	Polygon	34	0.00029	0.10397	530770020.023	16	93	65	48	84
52	Polygon	35	0.00013	0.06848	530770020.014	3	60	85	70	65
53	Polygon	36	0.00005	0.03794	530770020.015	4	61	85	64	79
54	Polygon	37	0.00053	0.10174	530770020.022	15	74	79	58	106
55	Polygon	38	0.00278	0.24954	5307700182	6	97	60	53	78
56	Polygon	38	0.00278	0.24954	5307700182	6	97	60	53	78
57	Polygon	39	0.00276	0.21874	5307700183	7	94	64	49	29
58	Polygon	39	0.00276	0.21874	5307700183	7	94	64	49	29
59	Polygon	40	0.00259	0.37354	5307700185	9	87	29	19	7
60	Polygon	40	0.00259	0.37354	5307700185	9	87	29	19	7
61	Polygon	41	0.00046	0.12175	5307700191	10	81	75	58	123
62	Polygon	42	0.00027	0.07156	5307700193	12	89	69	51	143
63	Polygon	43	0.00031	0.07150	5307700194	13	100	51	33	20
64	Polygon	44	0.00383	0.40196	5307700184	8	92	34	30	29
65	Polygon	45	0.00016	0.05957	5307700192	11	73	80	55	0

## GIS ATTRIBUTES CONTINUED

2000_ FB	2000 MEDIAN	2000T MEDFA	2000T PERCA	2000H PERCA	FID_ 1990Fi	AREA_1	PERIMET E_1	AREALAN D	ID_1
37	24673	25150	7179	6813	31	0.00011	0.04941	0.930	530770023002
30	24646	24704	9389	6150	32	0.00038	0.08410	3.266	530770023003
3	54297	52188	18621	14257	36	0.00402	0.25738	34.438	530770024003
29	32019	32625	9035	7122	26	0.00218	0.24944	18.828	530770021006
29	32019	32625	9035	7122	37	0.00037	0.09320	3.133	530770021002
40	30313	30966	9074	6116	38	0.00043	0.11635	3.697	530770021001
40	30313	30966	9074	6116	39	0.00471	0.47515	40.210	530770021004
40	30313	30966	9074	6116	49	0.00298	0.45996	24.908	530770021005
23	27188	26094	11625	7192	26	0.00218	0.24944	18.828	530770021006
23	27188	26094	11625	7192	39	0.00471	0.47515	40.210	530770021004
23	27188	26094	11625	7192	40	0.00033	0.07491	2.799	530770021003
43	24491	23446	6973	5912	41	0.00038	0.11291	3.257	530770020011
49	22308	24201	8524	6318	43	0.00029	0.10507	2.592	530770020013
27	34063	40156	10561	7676	44	0.00017	0.09226	1.404	530770020012
23	35197	36528	14414	9863	45	0.00012	0.05997	0.987	530770020021
13	41774	40662	20444	13075	46	0.00014	0.06437	1.185	530770020024
31	27966	29448	12150	6986	47	0.00030	0.10551	2.601	530770020025
40	30804	30714	10074	7481	48	0.00013	0.06846	1.068	530770020014
39	30625	26542	8810	6317	50	0.00005	0.03794	0.459	530770020015
31	22727	23864	9035	6998	51	0.00052	0.10116	4.508	530770020026
30	40705	42115	11073	6803	42	0.00357	0.29678	30.628	530770018002
30	40705	42115	11073	6803	53	0.00271	0.23446	23.182	530770018003
27	47868	48529	12927	9398	47	0.00030	0.10551	2.601	530770020025
27	47868	48529	12927	9398	52	0.00275	0.21313	23.522	530770018004
4	46607	53125	16707	6198	54	0.00109	0.18569	9.302	530770018007
4	46607	53125	16707	6198	59	0.00150	0.20570	12.717	530770018006
34	25604	26100	10360	8476	55	0.00046	0.11848	3.937	530770019001
25	31912	35556	12343	10835	56	0.00027	0.07144	2.296	530770019003
15	51250	53445	17324	13379	57	0.00031	0.07037	2.634	530770019004
14	33542	41458	18578	8407	58	0.00383	0.39968	31.294	530770018005
36	28750	26761	8379	6422	60	0.00016	0.05899	1.381	530770019002

## GIS ATTRIBUTES CONTINUED

1990 _Ent	1990_ Diss	OID1	1990_ HISP	1990_ TSPKS	1990 LINGIS	1990 _FB	1990MED HH	1990MED FAM	1990T PERCA	1990H PERCA	Ch_ Hisp
64	37.1	38	84	65	108	38	20137	20154	5410	4571	8
98	37.1	39	59	49	74	29	21398	22738	6761	4799	12
94	37.1	43	36	27	0	8	20192	23750	5787	3186	-17
88	37.1	25	30	18	10	10	19412	15764	9383	2542	50
95	37.1	21	63	50	25	10	19191	20972	7026	5433	17
87	37.1	20	71	56	54	19	16424	18750	5757	4522	9
72	37.1	23	20	17	25	6	25000	30469	12966	2703	60
89	37.1	24	69	58	22	28	20313	21833	8051	5372	11
88	37.1	25	30	18	10	10	19412	15764	9383	2542	27
72	37.1	23	20	17	25	6	25000	30469	12966	2703	37
100	37.1	22	51	39	9	22	20469	21250	5542	3117	6
78	37.1	11	77	58	104	31	18553	19239	5049	3644	10
98	37.1	13	58	46	77	25	15521	26510	8758	5034	21
98	37.1	12	59	56	37	18	30729	30150	8533	4630	7
92	37.1	16	34	29	32	11	33869	35000	11901	6598	21
41	37.1	17	8	4	5	5	42500	45114	15244	7514	16
100	37.1	18	50	36	59	11	21148	23750	9666	5643	15
87	37.1	14	71	62	121	30	15918	16362	4739	3417	14
73	37.1	15	80	62	24	34	21250	23229	6709	5180	5
100	37.1	19	49	38	80	24	16932	20884	6336	4170	30
90	37.1	1	31	24	20	19	30714	31786	11545	3429	29
100	37.1	2	47	35	35	19	20909	21477	13459	3613	13
100	37.1	18	50	36	59	11	21148	23750	9666	5643	14
100	37.1	3	48	32	19	11	21719	24432	10303	5688	16
53	37.1	6	12	10	0	6	25729	22344	21976	2433	17
99	37.1	5	55	43	15	25	24500	26964	8885	4271	-26
97	37.1	7	40	24	51	13	19677	19783	7724	5987	35
100	37.1	9	53	41	138	17	18320	24167	7836	4527	16
93	37.1	10	34	30	43	12	27763	29770	11761	4683	17
50	37.1	4	11	11	0	3	32981	33566	14055	6494	23
88	37.1	8	70	52	56	31	14777	17803	4746	3352	10

## GIS ATTRIBUTES CONTINUED

Ch_T Spks	Ch_H Spks	Ch_ FB	Ch_ Median	Ch_Med Fam	Ch_T Perca	Ch_H Perca	2000_ Diss	Pct_ Lingis	1990 Pct_Li	Ch_Pct Ling	Ch_ Diss	Ch_ Ent
2	-4	-1	4536	4996	1769	2242	36.3	29	22	7	-0.80	-25
5	-6	1	3248	1966	2628	1351	36.3	22	13	9	-0.80	-11
-11	6	-5	34105	28438	12834	11071	36.3	0	0	0	-0.80	-23
42	15	19	12607	16861	-348	4580	36.3	27	3	24	-0.80	-17
10	-4	19	12828	11653	2009	1689	36.3	27	10	17	-0.80	-24
4	-4	21	13889	12216	3317	1594	36.3	24	16	8	-0.80	-15
43	-9	34	5313	497	-3892	3413	36.3	24	7	17	-0.80	0
2	-8	12	10000	9133	1023	744	36.3	24	15	9	-0.80	-17
23	11	13	7776	10330	2242	4650	36.3	21	3	18	-0.80	11
24	-13	17	2188	-4375	-1341	4489	36.3	21	7	14	-0.80	27
2	-5	1	6719	4844	6083	4075	36.3	21	9	12	-0.80	-1
12	4	12	5938	4207	1924	2268	36.3	38	22	16	-0.80	-21
15	-1	24	6787	-2309	-234	1284	36.3	31	12	19	-0.80	-23
-1	-11	9	3334	10006	2028	3046	36.3	16	16	0	-0.80	-6
10	-15	12	1328	1528	2513	3265	36.3	5	10	-5	-0.80	7
21	58	8	-726	-4452	5200	5561	36.3	6	2	4	-0.80	39
12	2	20	6818	5698	2484	1343	36.3	10	8	2	-0.80	-7
8	-7	10	14886	14352	5335	4064	36.3	20	35	-15	-0.80	-27
2	-1	5	9375	3313	2101	1137	36.3	26	8	18	-0.80	-12
20	-5	7	5795	2980	2699	2828	36.3	18	15	3	-0.80	-26
29	14	11	9991	10329	-472	3374	36.3	16	8	8	-0.80	7
18	15	11	19796	20638	-2386	3190	36.3	16	10	6	-0.80	-3
13	5	16	26720	24779	3261	3755	36.3	9	8	1	-0.80	-6
17	10	16	26149	24097	2624	3710	36.3	9	6	3	-0.80	-6
9	-17	-2	20878	30781	-5269	3765	36.3	2	0	2	-0.80	34
-24	-12	-21	22107	26161	7822	1927	36.3	2	8	-6	-0.80	-12
34	16	21	5927	6317	2636	2489	36.3	21	9	12	-0.80	-16
10	-4	8	13592	11389	4507	6308	36.3	17	16	1	-0.80	-11
3	-23	3	23487	23675	5563	8696	36.3	3	6	-3	-0.80	7
19	-13	11	561	7892	4523	1913	36.3	5	0	5	-0.80	42
3	-5	5	13973	8958	3633	3070	36.3	0	35	-35	-0.80	-15

APPENDIX B

CALCULATIONS OF RESIDENTIAL SEGREGATION AND  
THE ENTROPY INDEX

## Calculations of the index of dissimilarity for 1990 by block group

Block Group	Total Population	Not Hispanic	Hispanic	% Hispanic	% Not Hispanic	Absolute Value of Difference
530770018001	592	545	47	0.0017	0.0160	0.014
530770018002	786	542	244	0.0091	0.0159	0.007
530770018003	1090	578	512	0.0190	0.0169	0.002
530770018004	1125	585	540	0.0200	0.0171	0.003
530770018005	1176	1047	129	0.0048	0.0307	0.026
530770018006	612	275	337	0.0125	0.0081	0.004
530770018007	247	217	30	0.0011	0.0064	0.005
530770019001	1918	1151	767	0.0285	0.0337	0.005
530770019002	620	186	434	0.0161	0.0054	0.011
530770019003	2625	1234	1391	0.0516	0.0361	0.016
530770019004	1962	1295	667	0.0248	0.0379	0.013
530770020011	1944	447	1497	0.0556	0.0131	0.042
530770020012	848	348	500	0.0186	0.0102	0.008
530770020013	1688	709	979	0.0363	0.0208	0.016
530770020014	1283	372	911	0.0338	0.0109	0.023
530770020015	1123	225	898	0.0333	0.0066	0.027
530770020021	931	614	317	0.0118	0.0180	0.006
530770020024	869	799	70	0.0026	0.0234	0.021
530770020025	2278	1139	1139	0.0423	0.0334	0.009
530770020026	1829	933	896	0.0333	0.0273	0.006
530770021001	1278	371	907	0.0337	0.0109	0.023
530770021002	853	316	537	0.0199	0.0093	0.011
530770021003	385	189	196	0.0073	0.0055	0.002
530770021004	1151	921	230	0.0085	0.0270	0.018
530770021005	479	148	331	0.0123	0.0043	0.008
530770021006	860	602	258	0.0096	0.0176	0.008
530770021007	1526	1099	427	0.0159	0.0322	0.016
530770021008	412	198	214	0.0079	0.0058	0.002
530770022001	604	513	91	0.0034	0.0150	0.012
530770022002	1646	1399	247	0.0092	0.0410	0.032
530770022003	613	221	392	0.0146	0.0065	0.008
530770022004	493	444	49	0.0018	0.0130	0.011
530770022005	685	623	62	0.0023	0.0182	0.016

## Calculations of the index of dissimilarity for 1990 by block group (continued)

Block Group	Total Population	Not Hispanic	Hispanic	% Hispanic	% Not Hispanic	Absolute Value of Difference
530770022006	149	67	82	0.0030	0.0020	0.001
530770022007	329	280	49	0.0018	0.0082	0.006
530770022008	509	453	56	0.0021	0.0133	0.011
530770022009	707	502	205	0.0076	0.0147	0.007
530770023001	1672	619	1053	0.0391	0.0181	0.021
530770023002	2062	330	1732	0.0643	0.0097	0.055
530770023003	1934	793	1141	0.0424	0.0232	0.019
530770023004	1861	1098	763	0.0283	0.0322	0.004
530770024001	591	496	95	0.0035	0.0145	0.011
530770024002	863	475	388	0.0144	0.0139	0.000
530770024003	725	464	261	0.0097	0.0136	0.004
530770024004	876	718	158	0.0059	0.0210	0.015
530770024005	418	355	63	0.0023	0.0104	0.008
530770024006	359	241	118	0.0044	0.0071	0.003
530770024007	494	326	168	0.0062	0.0095	0.003
530770025001	1840	644	1196	0.0444	0.0189	0.026
530770025002	874	341	533	0.0198	0.0100	0.010
530770025003	1868	803	1065	0.0395	0.0235	0.016
530770025004	565	508	57	0.0021	0.0149	0.013
530770026001	1313	880	433	0.0161	0.0258	0.010
530770026002	1253	890	363	0.0135	0.0261	0.013
530770026003	484	286	198	0.0074	0.0084	0.001
530770026004	292	292	0	0.0000	0.0086	0.009
530770026005	211	211	0	0.0000	0.0062	0.006
530770026006	297	113	184	0.0068	0.0033	0.004
530770026007	395	355	40	0.0015	0.0104	0.009
530770026008	516	423	93	0.0035	0.0124	0.009
530770026009	1100	902	198	0.0074	0.0264	0.019
	<b>61088</b>	<b>34150</b>	<b>26938</b>			<b>0.742</b>

**.742 divided by 2 yields a dissimilarity index of .371 or 37.1%**

## Calculations of the index of dissimilarity for 2000 by block group

Block Group	Total Population	Not Hispanic	Hispanic	% Hispanic	% Not Hispanic	Absolute Value of Difference
530770020.011	2662	356	2306	0.0543	0.0120	0.042
530770020.012	1001	338	663	0.0156	0.0114	0.004
530770020.013	1763	378	1385	0.0326	0.0128	0.020
530770020.014	1238	180	1058	0.0249	0.0061	0.019
530770020.015	1155	172	983	0.0231	0.0058	0.017
5307700181	1734	829	905	0.0213	0.0280	0.007
5307700182	1796	721	1075	0.0253	0.0243	0.001
5307700183	1156	418	738	0.0174	0.0141	0.003
5307700184	1557	1029	528	0.0124	0.0347	0.022
5307700185	882	625	257	0.0061	0.0211	0.015
5307700191	2243	557	1686	0.0397	0.0188	0.021
5307700192	1014	205	809	0.0191	0.0069	0.012
5307700193	2736	852	1884	0.0444	0.0287	0.016
5307700194	2096	1022	1074	0.0253	0.0345	0.009
530770020.021	1274	574	700	0.0165	0.0194	0.003
530770020.022	2283	482	1801	0.0424	0.0163	0.026
530770020.023	3102	1085	2017	0.0475	0.0366	0.011
530770020.024	804	609	195	0.0046	0.0205	0.016
5307700211	2144	426	1718	0.0405	0.0144	0.026
5307700212	1110	217	893	0.0210	0.0073	0.014
5307700213	1699	728	971	0.0229	0.0246	0.002
5307700214	912	517	395	0.0093	0.0174	0.008
5307700215	2287	1324	963	0.0227	0.0447	0.022
5307700221	1232	944	288	0.0068	0.0318	0.025
5307700222	1731	1289	442	0.0104	0.0435	0.033
5307700223	980	299	681	0.0160	0.0101	0.006
5307700224	1259	1032	227	0.0053	0.0348	0.029
5307700225	698	396	302	0.0071	0.0134	0.006
5307700226	743	545	198	0.0047	0.0184	0.014
5307700231	2559	701	1858	0.0438	0.0236	0.020
5307700232	2424	189	2235	0.0526	0.0064	0.046
5307700233	2400	698	1702	0.0401	0.0235	0.017
5307700234	2162	1047	1115	0.0263	0.0353	0.009

## Calculations of the index of dissimilarity for 2000 by block group (continued))

Block Group	Total Population	Not Hispanic	Hispanic	% Hispanic	% Not Hispanic	Absolute Value of Difference
5307700241	1476	882	594	0.0140	0.0298	0.016
5307700242	590	475	115	0.0027	0.0160	0.013
5307700243	1393	727	666	0.0157	0.0245	0.009
5307700244	783	532	251	0.0059	0.0179	0.012
5307700251	2348	825	1523	0.0359	0.0278	0.008
5307700252	1283	186	1097	0.0258	0.0063	0.020
5307700253	2295	683	1612	0.0380	0.0230	0.015
5307700254	566	445	121	0.0028	0.0150	0.012
5307700261	1475	821	654	0.0154	0.0277	0.012
5307700262	1362	854	508	0.0120	0.0288	0.017
5307700263	913	396	517	0.0122	0.0134	0.001
5307700264	797	645	152	0.0036	0.0218	0.018
5307700265	1995	1392	603	0.0142	0.0470	0.033
	<b>72112</b>	<b>29647</b>	<b>42465</b>			<b>0.727</b>

**.727 divided by 2 yields a dissimilarity index of .363 or 36.3%**

Calculations of the index of dissimilarity for all census tracts in the study area for  
1980, 1990, and 2000

Index of Dissimilarity, 1980					
Census Tract	Hispanics	Not Hispanics	% Hispanic	%Not Hispanic	Absolute Value of Difference
53077001800	1522	4367	0.09	0.11	0.020
53077001900	1716	4550	0.10	0.12	0.010
53077002000	3705	6924	0.22	0.18	0.040
53077002100	2190	4223	0.13	0.11	0.020
53077002200	607	4529	0.04	0.12	0.080
53077002300	2940	3863	0.18	0.10	0.080
53077002400	954	2821	0.06	0.07	0.020
53077002500	1864	2820	0.11	0.07	0.040
53077002600	1142	4549	0.07	0.12	0.050
	<b>16640</b>	<b>38646</b>			<b>0.360</b>

**.36 divided by 2 yields a Dissimilarity Index of .18 or 18%**

Index of Dissimilarity, 1990					
	Hispanics	Not Hispanics	% Hispanic	%Not Hispanic	Absolute Value of Difference
53077001800	1943	3816	0.07	0.11	0.040
53077001900	3586	3548	0.13	0.10	0.030
530770020.01	4496	2183	0.17	0.06	0.100
530770020.02	2444	3381	0.09	0.10	0.010
53077002100	3199	3886	0.12	0.11	0.000
53077002200	1222	4513	0.04	0.13	0.090
53077002300	4697	2918	0.17	0.09	0.090
53077002400	1111	2916	0.04	0.09	0.050
53077002500	2921	2439	0.11	0.07	0.040
53077002600	1589	4237	0.06	0.13	0.070
	<b>27208</b>	<b>33837</b>			<b>0.520</b>

**.52 divided by 2 yields a Dissimilarity Index of .26 or 26%**

	Index of Dissimilarity, 2000				
	Hispanics	Not Hispanics	% Hispanic	%Not Hispanic	Absolute Value of Difference
53077001800	3498	3,627	0.08	0.12	0.040
53077001900	5448	2,641	0.13	0.09	0.040
530770020.01	6325	1,494	0.15	0.05	0.100
530770020.02	4717	2,746	0.11	0.09	0.020
53077002100	4919	3,233	0.12	0.11	0.010
53077002200	2147	4,496	0.05	0.15	0.100
53077002300	6954	2,591	0.16	0.09	0.080
53077002400	1629	2,613	0.04	0.09	0.050
53077002500	4346	2,146	0.10	0.07	0.030
53077002600	2441	4,101	0.06	0.14	0.080
	<b>42424</b>	<b>29,688</b>			<b>0.550</b>

*.55 divided by 2 yields a Dissimilarity Index of .28 or 28%*

## Calculations of the Entropy Index (H) for 1990 by block group

Block Group	Total Pop	Not Hispanic	Hispanic	% Hispanic	% Not Hispanic	-% Hispanic * Log of % Hispanic	-% Not Hispanic * Log of % Not Hispanic	Sum of %	H Value
530770018001	592	542	50	0.0845	0.9155	0.3011	0.1166	0.42	<b>42</b>
530770018002	786	539	247	0.3142	0.6858	0.5248	0.3732	0.90	<b>90</b>
530770018003	1090	575	515	0.4725	0.5275	0.5111	0.4867	1.00	<b>100</b>
530770018004	1125	590	535	0.4756	0.5244	0.5099	0.4883	1.00	<b>100</b>
530770018005	1176	1047	129	0.1097	0.8903	0.3498	0.1492	0.50	<b>50</b>
530770018006	612	277	335	0.5474	0.4526	0.4759	0.5176	0.99	<b>99</b>
530770018007	247	217	30	0.1215	0.8785	0.3694	0.1641	0.53	<b>53</b>
530770019001	1918	1154	764	0.3983	0.6017	0.5290	0.4410	0.97	<b>97</b>
530770019002	620	183	437	0.7048	0.2952	0.3557	0.5196	0.88	<b>88</b>
530770019003	2625	1242	1383	0.5269	0.4731	0.4871	0.5108	1.00	<b>100</b>
530770019004	1962	1291	671	0.3420	0.6580	0.5294	0.3973	0.93	<b>93</b>
530770020011	1944	454	1490	0.7665	0.2335	0.2941	0.4900	0.78	<b>78</b>
530770020012	848	346	502	0.5920	0.4080	0.4478	0.5277	0.98	<b>98</b>
530770020013	1688	706	982	0.5818	0.4182	0.4547	0.5260	0.98	<b>98</b>
530770020014	1283	377	906	0.7062	0.2938	0.3544	0.5192	0.87	<b>87</b>
530770020015	1123	227	896	0.7979	0.2021	0.2599	0.4662	0.73	<b>73</b>
530770020021	931	619	312	0.3351	0.6649	0.5286	0.3915	0.92	<b>92</b>
530770020024	869	798	71	0.0817	0.9183	0.2952	0.1129	0.41	<b>41</b>
530770020025	2278	1142	1136	0.4987	0.5013	0.5006	0.4994	1.00	<b>100</b>
530770020026	1829	941	888	0.4855	0.5145	0.5061	0.4933	1.00	<b>100</b>
530770021001	1278	368	910	0.7121	0.2879	0.3489	0.5172	0.87	<b>87</b>
530770021002	853	314	539	0.6319	0.3681	0.4185	0.5307	0.95	<b>95</b>
530770021003	385	190	195	0.5065	0.4935	0.4971	0.5028	1.00	<b>100</b>
530770021004	1151	923	228	0.1981	0.8019	0.4627	0.2554	0.72	<b>72</b>
530770021005	479	148	331	0.6910	0.3090	0.3684	0.5235	0.89	<b>89</b>
530770021006	860	605	255	0.2965	0.7035	0.5200	0.3570	0.88	<b>88</b>
530770021007	1526	1104	422	0.2765	0.7235	0.5128	0.3379	0.85	<b>85</b>
530770021008	412	197	215	0.5218	0.4782	0.4897	0.5090	1.00	<b>100</b>
530770022001	604	513	91	0.1507	0.8493	0.4114	0.2001	0.61	<b>61</b>
530770022002	1646	1407	239	0.1452	0.8548	0.4042	0.1935	0.60	<b>60</b>
530770022003	613	218	395	0.6444	0.3556	0.4086	0.5304	0.94	<b>94</b>
530770022004	493	442	51	0.1034	0.8966	0.3386	0.1412	0.48	<b>48</b>
530770022005	685	625	60	0.0876	0.9124	0.3077	0.1207	0.43	<b>43</b>
530770022006	149	67	82	0.5503	0.4497	0.4742	0.5185	0.99	<b>99</b>

## Calculations of the Entropy Index (H) for 1990 by block group (continued)

Block Group	Total Pop	Not Hispanic	Hispanic	% Hispanic	% Not Hispanic	-% Hispanic * Log of % Hispanic	-% Not Hispanic * Log of % Not Hispanic	Sum of %	H Value
530770022007	329	280	49	0.1489	0.8511	0.4092	0.1980	0.61	<b>61</b>
530770022008	509	455	54	0.1061	0.8939	0.3434	0.1446	0.49	<b>49</b>
530770022009	707	504	203	0.2871	0.7129	0.5169	0.3481	0.86	<b>86</b>
530770023001	1672	619	1053	0.6298	0.3702	0.4201	0.5307	0.95	<b>95</b>
530770023002	2062	334	1728	0.8380	0.1620	0.2136	0.4254	0.64	<b>64</b>
530770023003	1934	791	1143	0.5910	0.4090	0.4484	0.5275	0.98	<b>98</b>
530770023004	1861	1091	770	0.4138	0.5862	0.5268	0.4517	0.98	<b>98</b>
530770024001	591	497	94	0.1591	0.8409	0.4219	0.2102	0.63	<b>63</b>
530770024002	863	477	386	0.4473	0.5527	0.5192	0.4728	0.99	<b>99</b>
530770024003	725	467	258	0.3559	0.6441	0.5305	0.4087	0.94	<b>94</b>
530770024004	876	719	157	0.1792	0.8208	0.4445	0.2339	0.68	<b>68</b>
530770024005	418	357	61	0.1459	0.8541	0.4052	0.1944	0.60	<b>60</b>
530770024006	359	241	118	0.3287	0.6713	0.5276	0.3860	0.91	<b>91</b>
530770024007	494	326	168	0.3401	0.6599	0.5292	0.3957	0.92	<b>92</b>
530770025001	1840	637	1203	0.6538	0.3462	0.4008	0.5298	0.93	<b>93</b>
530770025002	874	339	535	0.6121	0.3879	0.4334	0.5300	0.96	<b>96</b>
530770025003	1868	795	1073	0.5744	0.4256	0.4594	0.5245	0.98	<b>98</b>
530770025004	565	509	56	0.0991	0.9009	0.3305	0.1357	0.47	<b>47</b>
530770026001	1313	874	439	0.3343	0.6657	0.5285	0.3908	0.92	<b>92</b>
530770026002	1253	895	358	0.2857	0.7143	0.5164	0.3467	0.86	<b>86</b>
530770026003	484	284	200	0.4132	0.5868	0.5269	0.4513	0.98	<b>98</b>
530770026004	292	292	0	0.0000	1.0000	0.0000	0.0000	0.00	<b>0</b>
530770026005	211	211	0	0.0000	1.0000	0.0000	0.0000	0.00	<b>0</b>
530770026006	297	114	183	0.6162	0.3838	0.4305	0.5302	0.96	<b>96</b>
530770026007	395	355	40	0.1013	0.8987	0.3346	0.1384	0.47	<b>47</b>
530770026008	516	422	94	0.1822	0.8178	0.4475	0.2373	0.68	<b>68</b>
530770026009	1100	898	202	0.1836	0.8164	0.4490	0.2390	0.69	<b>69</b>
<i>Maximum possible diversity</i>				<i>0.5</i>	<i>0.5</i>	<i>0.5000</i>	<i>0.5000</i>	<i>1.00</i>	<i>100</i>

## Calculations of the Entropy Index (H) for 2000 by block group

Block Group	Total Pop	Not Hispanic	Hispanic	% Hispanic	% Not Hispanic	-% Hispanic * Log of %	-% Not Hispanic * Log of %	Sum of %	H Value
5307700181	1734	829	905	0.5219	0.4781	0.4896	0.5090	0.999	<b>100</b>
5307700182	1796	721	1075	0.5986	0.4014	0.4432	0.5286	0.972	<b>97</b>
5307700183	1156	418	738	0.6384	0.3616	0.4133	0.5307	0.944	<b>94</b>
5307700184	1557	1,029	528	0.3391	0.6609	0.5291	0.3949	0.924	<b>92</b>
5307700185	882	625	257	0.2914	0.7086	0.5184	0.3521	0.871	<b>87</b>
5307700191	2243	557	1686	0.7517	0.2483	0.3096	0.4991	0.809	<b>81</b>
5307700192	1014	205	809	0.7978	0.2022	0.2600	0.4663	0.726	<b>73</b>
5307700193	2736	852	1884	0.6886	0.3114	0.3707	0.5241	0.895	<b>89</b>
5307700194	2096	1,022	1074	0.5124	0.4876	0.4943	0.5053	1	<b>100</b>
530770020.011	2662	356	2306	0.8663	0.1337	0.1794	0.3882	0.568	<b>57</b>
530770020.012	1001	338	663	0.6623	0.3377	0.3937	0.5289	0.923	<b>92</b>
530770020.013	1763	378	1385	0.7856	0.2144	0.2735	0.4763	0.75	<b>75</b>
530770020.014	1238	180	1058	0.8546	0.1454	0.1937	0.4045	0.598	<b>60</b>
530770020.015	1155	172	983	0.8511	0.1489	0.1980	0.4091	0.607	<b>61</b>
530770020.021	1274	574	700	0.5495	0.4505	0.4747	0.5182	0.993	<b>99</b>
530770020.022	2283	482	1801	0.7889	0.2111	0.2699	0.4737	0.744	<b>74</b>
530770020.023	3102	1,085	2017	0.6502	0.3498	0.4038	0.5301	0.934	<b>93</b>
530770020.024	804	609	195	0.2425	0.7575	0.4957	0.3036	0.799	<b>80</b>
5307700211	2144	426	1718	0.8013	0.1987	0.2561	0.4632	0.719	<b>72</b>
5307700212	1110	217	893	0.8045	0.1955	0.2525	0.4604	0.713	<b>71</b>
5307700213	1699	728	971	0.5715	0.4285	0.4613	0.5239	0.985	<b>99</b>
5307700214	912	517	395	0.4331	0.5669	0.5228	0.4642	0.987	<b>99</b>
5307700215	2287	1,324	963	0.4211	0.5789	0.5254	0.4565	0.982	<b>98</b>
5307700221	1232	944	288	0.2338	0.7662	0.4902	0.2943	0.785	<b>78</b>
5307700222	1731	1,289	442	0.2553	0.7447	0.5029	0.3167	0.82	<b>82</b>
5307700223	980	299	681	0.6949	0.3051	0.3649	0.5225	0.887	<b>89</b>

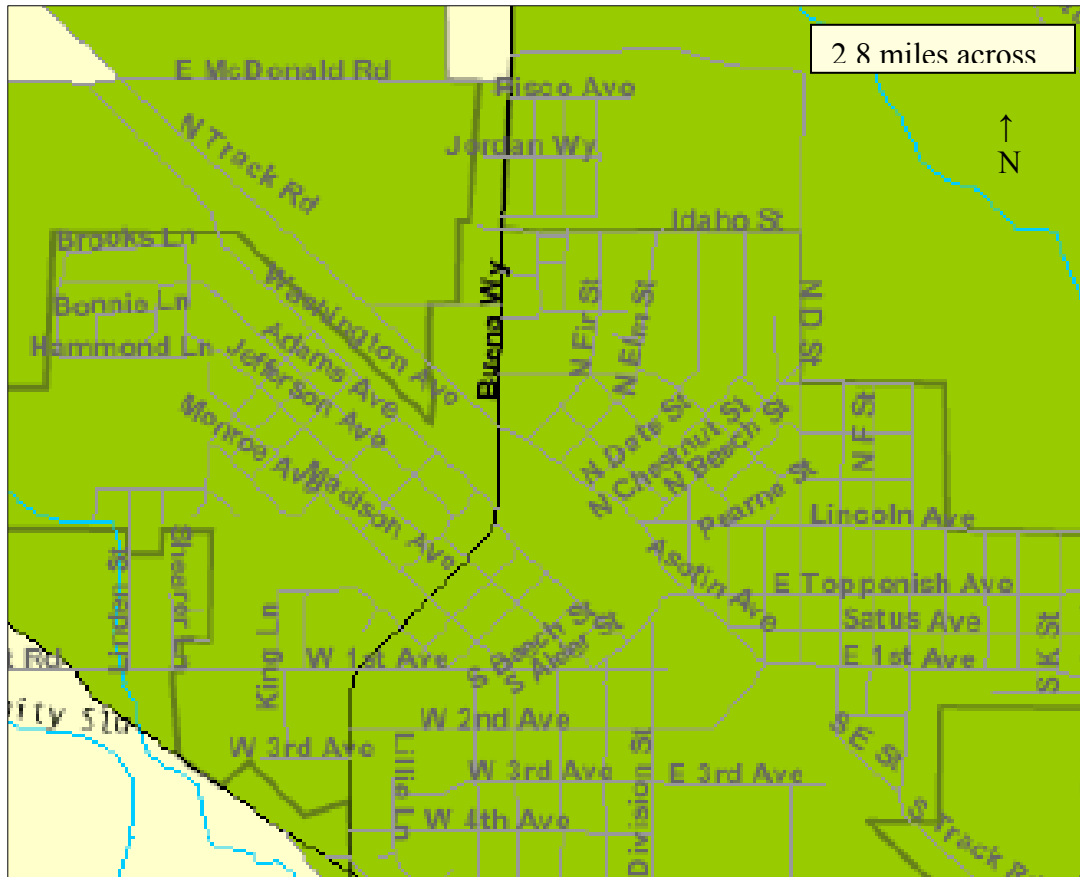
## Calculations of the Entropy Index (H) for 2000 by block group (continued)

Block Group	Total Pop	Not Hispanic	Hispanic	% Hispanic	% Not Hispanic	-% Hispanic * Log of % Hispanic	-% Not Hispanic * Log of % Not Hispanic	Sum of %	H Value
5307700224	1259	1,032	227	0.1803	0.8197	0.4456	0.2351	0.681	<b>68</b>
5307700225	698	396	302	0.4327	0.5673	0.5230	0.4639	0.987	<b>99</b>
5307700226	743	545	198	0.2665	0.7335	0.5084	0.3280	0.836	<b>84</b>
5307700231	2559	701	1858	0.7261	0.2739	0.3353	0.5117	0.847	<b>85</b>
5307700232	2424	189	2235	0.9220	0.0780	0.1080	0.2870	0.395	<b>39</b>
5307700233	2400	698	1702	0.7092	0.2908	0.3516	0.5182	0.87	<b>87</b>
5307700234	2162	1,047	1115	0.5157	0.4843	0.4927	0.5066	0.999	<b>100</b>
5307700241	1476	882	594	0.4024	0.5976	0.5285	0.4439	0.972	<b>97</b>
5307700242	590	475	115	0.1949	0.8051	0.4598	0.2518	0.712	<b>71</b>
5307700243	1393	727	666	0.4781	0.5219	0.5090	0.4896	0.999	<b>100</b>
5307700244	783	532	251	0.3206	0.6794	0.5261	0.3788	0.905	<b>90</b>
5307700251	2348	825	1523	0.6486	0.3514	0.4051	0.5302	0.935	<b>94</b>
5307700252	1283	186	1097	0.8550	0.1450	0.1932	0.4039	0.597	<b>60</b>
5307700253	2295	683	1612	0.7024	0.2976	0.3580	0.5204	0.878	<b>88</b>
5307700254	566	445	121	0.2138	0.7862	0.4758	0.2728	0.749	<b>75</b>
5307700261	1475	821	654	0.4434	0.5566	0.5203	0.4705	0.991	<b>99</b>
5307700262	1362	854	508	0.3730	0.6270	0.5307	0.4222	0.953	<b>95</b>
5307700263	913	396	517	0.5663	0.4337	0.4646	0.5227	0.987	<b>99</b>
5307700264	797	645	152	0.1907	0.8093	0.4559	0.2471	0.703	<b>70</b>
5307700265	1995	1,392	603	0.3023	0.6977	0.5217	0.3623	0.884	<b>88</b>
<i>Maximum possible diversity</i>				<i>0.5</i>	<i>0.5</i>	<i>0.5000</i>	<i>0.5000</i>	<i>1.00</i>	<i>100</i>

APPENDIX C

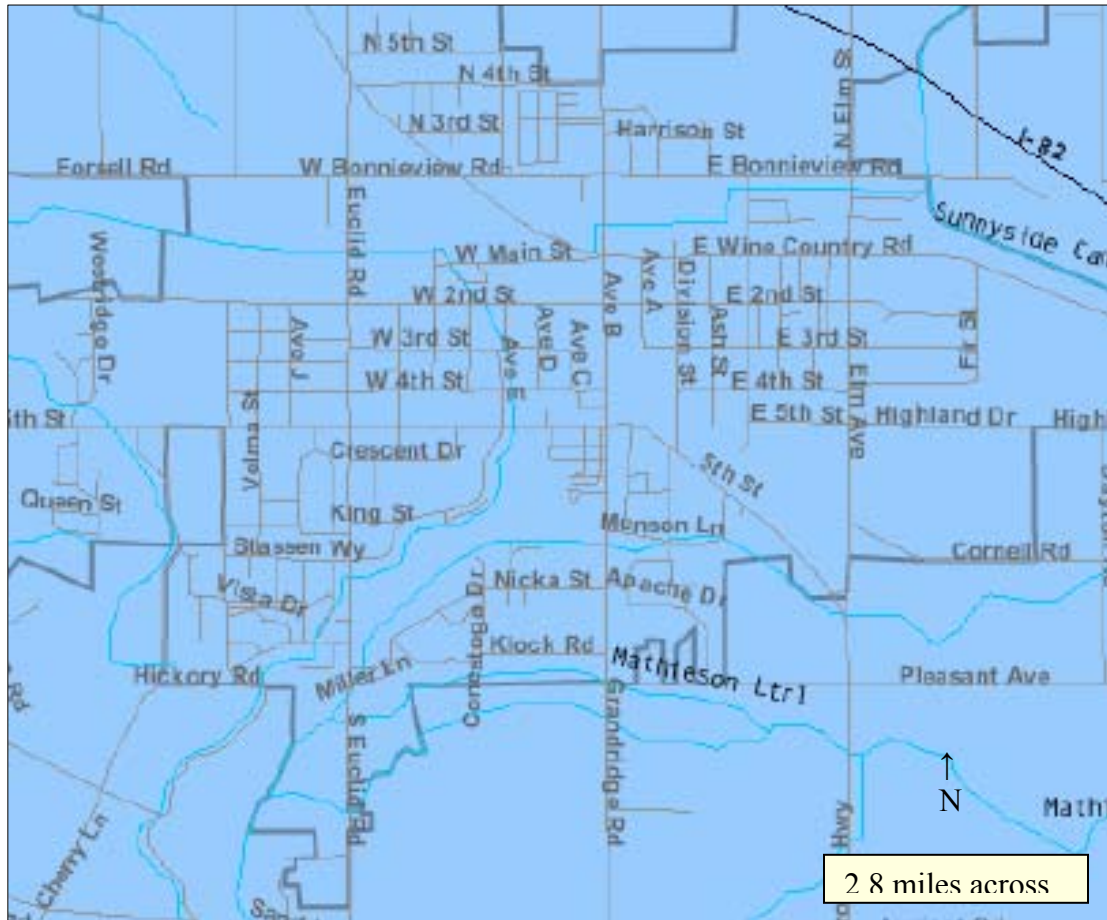
DELINEATION OF THE DOWNTOWN AREA FOR THE TOWNS OF  
TOPPENISH, GRANDVIEW, SUNNYSIDE, AND WAPATO

TOPPENISH



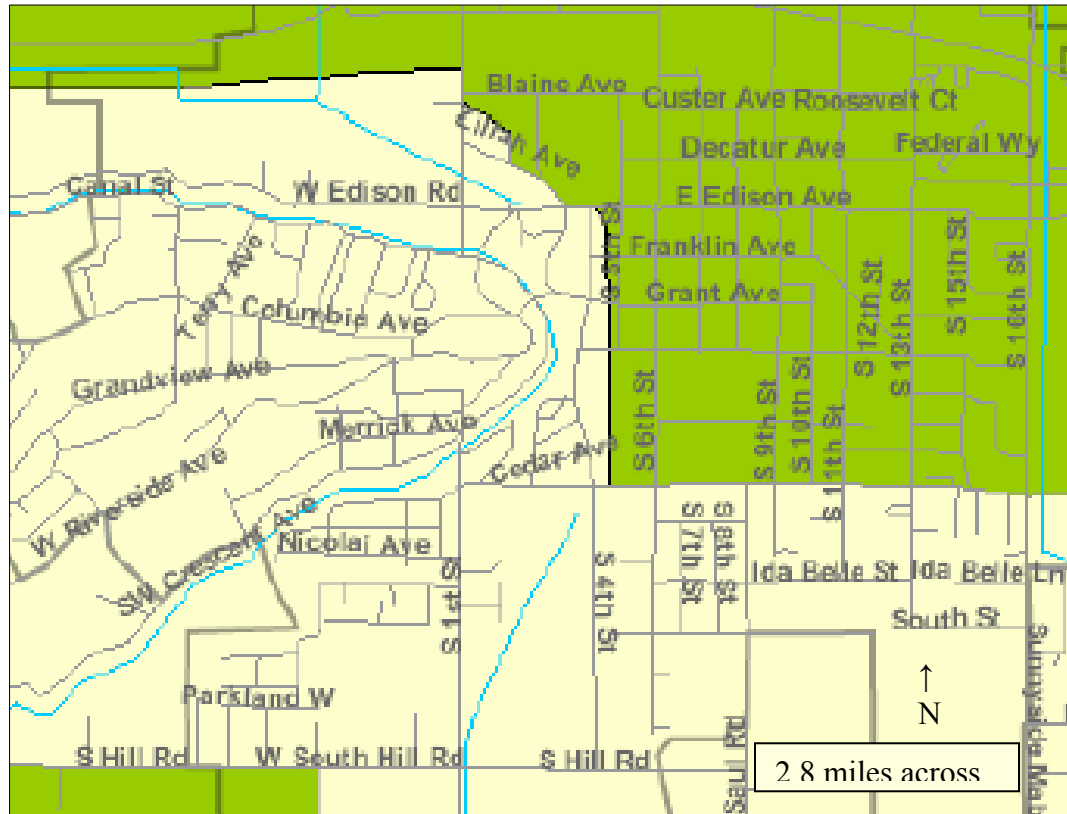
The “downtown” area of Toppenish described in this thesis spans along W 1<sup>st</sup> Ave and E Toppenish Ave, between Buena Way and the railroad tracks.

GRANDVIEW



The downtown area of Grandview described in this thesis spans along Division Street.

SUNNYSIDE



The downtown area of Sunnyside described in this thesis runs along S 6<sup>th</sup> St.

WAPATO



The downtown area of Wapato described in this thesis runs along W 1<sup>st</sup> St, east of US Highway 97.