

Utah State University

DigitalCommons@USU

---

All Graduate Theses and Dissertations

Graduate Studies

---

5-2005

## Repeat Migration in the United States: A Comparison of Black, Hispanic, and White Return and Onward Migrants

Beth A. Wilson  
*Utah State University*

Follow this and additional works at: <https://digitalcommons.usu.edu/etd>



Part of the [Sociology Commons](#)

---

### Recommended Citation

Wilson, Beth A., "Repeat Migration in the United States: A Comparison of Black, Hispanic, and White Return and Onward Migrants" (2005). *All Graduate Theses and Dissertations*. 4356.  
<https://digitalcommons.usu.edu/etd/4356>

This Dissertation is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Theses and Dissertations by an authorized administrator of DigitalCommons@USU. For more information, please contact [digitalcommons@usu.edu](mailto:digitalcommons@usu.edu).



REPEAT MIGRATION IN THE UNITED STATES: A COMPARISON OF BLACK,  
HISPANIC, AND WHITE RETURN AND ONWARD MIGRANTS

by

Beth A. Willisson

A dissertation submitted in partial fulfillment  
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Sociology

UTAH STATE UNIVERSITY  
Logan, Utah

2005

Copyright © Beth A. Wilson

All Rights Reserved

ABSTRACT

Repeat Migration in the United States: A Comparison of Black, Hispanic and White  
Return and Onward Migrants

by

Beth A. Wilson, Doctor of Philosophy

Utah State University, 2005

Major Professor: Dr. E. Helen Berry

Department: Sociology

The primary objective of this study is to examine U.S. repeat migration for blacks, Hispanics, and whites. It investigates the relationships and patterns of these different racial/ethnic groups utilizing the National Longitudinal Survey of Youth 1979 (NLSY79). Repeat migration within and across categories of individual characteristics for blacks, Hispanics, and whites, is compared in order to determine if there are

differences in the overall rates of repeat migration for these groups, once other factors are controlled.

To do this several statistical procedures are utilized, and the results of selected descriptive and logistic analyses are presented. The descriptive statistics control for race/ethnicity and examine patterns within the groups; these findings display important relationships to onward and return migration. The inferential statistical method employed is logistic regression for the sample as a whole, which examines the effects across the groups, and the direction of migration.

Where past research has not investigated the complexities of repeat migration in combination with race/ethnicity, there are several notable results from this study. Specifically, this research finds that in terms of onward migration, whites are significantly more likely to move onward than are blacks or Hispanics even after controlling for key socioeconomic factors. Changes in marital status are significantly related to migration, and to the direction of repeat migration; individuals who change from "single to married" are likely to be onward migrants, whereas those who change from "married to single" are likely to be return migrants. This study finds there are differences in rates of return migration by level of education for racial/ethnic groups. Moreover, the relationship between onward migration and employment status is different for Hispanics than blacks and whites.

## ACKNOWLEDGMENTS

v

I would like to express appreciation to the members of my graduate committee, Dr. Eddy Berry, Dr. Mike Toney, Dr. Reed Geertsen, Dr. David Lancy, and Dr. Julie Gast. Specifically Drs. Berry and Toney have been instrumental in my pursuit of demographic studies, with an emphasis on migration, using longitudinal data. I would also like to thank my friends, Dr. Young-Taek Kim and Dr. Linda Hodges for their assistance, support, and exemplar dissertation work.

This dissertation research was supported, in part, by funds from the National Research Initiative Competitive Program of the United States Department of Agriculture. I was also assisted in this research by participating in a workshop for National Longitudinal Surveys Users funded by The Ohio State University Center for Human Resource Research and The U.S. Bureau of Labor Statistics.

My family and friends have provided a great amount of help, love, and support during my doctoral work. I acknowledge this assistance and express my sincere appreciation to them. Specifically, my son Jarrod has shown great patience throughout this process, and without the help of my parents, Milton and Dianne Anderson, this work would not have been possible.

I would also like to extend my gratitude to all colleagues, professors, and administrative staff in the department of Sociology, Social Work and Anthropology at Utah State University.

Beth A. Wilson

## CONTENTS

vi

	Page
ABSTRACT .....	iii
ACKNOWLEDGMENTS .....	v
LIST OF TABLES .....	viii
CHAPTER	
I. INTRODUCTION .....	1
Research Objectives and Rationale .....	9
Overview of the Research .....	13
II. LITERATURE REVIEW .....	15
Review of Relevant Theoretical Literature .....	15
General Theories of Migration .....	16
Specific Theories of Repeat Migration .....	19
Review of Literature Relevant to Individual Characteristics .....	23
Race and Ethnicity .....	23
Place .....	27
Age .....	29
Education .....	31
Gender and Family .....	33
Home Ownership .....	35
Employment, Occupation, and Income .....	37
III. DATA AND METHODS .....	42
The National Longitudinal Survey of Youth 1979.....	42
Operationalizing the Data .....	43
Dependent Variables .....	46
Independent Variables .....	47
Analysis .....	53
Hypotheses .....	59
Limitations of the Data .....	60

IV. RESULTS .....	62
Descriptive Statistics .....	62
Repeat Migration Frequencies by Individual Characteristics .....	63
Direction of Repeat Migration by Individual Characteristics .....	65
Direction of Repeat Migration Rates by Racial/Ethnic Group.....	71
Summary of Descriptive Techniques .....	77
Logistic Regression Models .....	78
Summary of Multivariate Logistic Regression Techniques .....	85
V. SUMMARY AND CONCLUSION .....	87
Major Findings .....	89
Onward Migration Across Race/Ethnicity .....	89
Repeat Migration and Change in Marital Status .....	92
Return Migration, Race/Ethnicity, and Education .....	93
Onward Migration, Race/Ethnicity, and Employment Status .....	94
Limitations .....	96
Conclusions .....	96
REFERENCES .....	99
END NOTES .....	106
CURRICULUM VITAE .....	107



## LIST OF TABLES

viii

Table		Page
1	SUMMARY OF THE DEPENDENT AND INDEPENDENT VARIABLES .....	53
2	DESCRIPTIVE INDIVIDUAL CHARACTERISTICS OF NLSY79 (1980-2002) BY REPEAT MIGRATION STATUS .....	67
3	DESCRIPTIVE INDIVIDUAL CHARACTERISTICS OF NLSY79 (1980-2002) BY DIRECTION OF REPEAT MIGRATION .....	70
4	REPEAT MIGRATION RATES BY RACE/ETHNIC GROUP.....	74
5	ODDS RATIOS FOR INDIVIDUAL LEVEL FACTORS OF THE PROBABILITY OF REPEAT MIGRATION .....	80

## CHAPTER I

### INTRODUCTION

The United States is a mobile society. Migration<sup>1</sup> has been historically, and continues to be, an integral part of the American experience. According to Bridges (1980) Americans live their lives in a state of constant transitionality. This is evidenced by the changes in residences of the U.S. population that occur each year. According to the Current Population Survey, which includes data on the annual rate of migration and the characteristics of migrants and nonmigrants by type of move, slightly over 40 million Americans moved between 2002 and 2003, with 15.4 million of these movers being inter-county migrants (U.S. Bureau of the Census 2004). Even with recent declines in migration, the movement of individuals and families stands out as a prominent feature of American society.

Migration is significant in the lives of individuals because it may allow them to pursue economic opportunities and to reside in places that meet their social and other desires. Migration is important to societies at large and local communities because it accounts for changes in population composition, and much population growth; in demographic terms population growth is change in population size, and can occur in either a positive or a negative direction. The size of a population impacts the physical, environmental, cultural, economic, political, infrastructure, and tax-base make-up of a geographic area. Further, migration is a major determinant of concurrent changes in

regional economic growth. These are all components directly related to the "quality of life" one may experience in any particular area. Migration may also be a consequence of changes in regional economic growth; it is intertwined in a complex causal scheme as both a determinant and consequence of economic and other conditions that characterize places.

By understanding the patterns and processes of migration, and migrants themselves, researchers may explain and predict the effects of migration on the U.S. population, specific communities, and American residents. It is the charge of the demographer to enumerate and predict the actual size, in numbers, of populations. "No matter how a population is defined, there are only two ways of entering it: being born into it; or migrating into it" (Preston, Heuveline, and Guillot 2001:2). Accordingly, there are only two ways of exiting a population; by dying or migrating out of it. Because of the part it plays in America's past, present, and future, the study of migration is one of interest and importance to social scientists, including historians, economists, political scientists, and specifically demographers.

Repeat migration accounts for much of the nation's high yearly migration rates (DaVanzo and Morrison 1981). Indeed, one of the strongest relationships in migration research is between prior migration and subsequent migration, with prior migrants being much more likely to migrate than individuals who have never migrated. In addition, most repeat migration takes place during the young adult years when individuals are searching for places that meet their social and economic needs and desires. Repeat migrations also

appear to occur in rapid sequences in which individuals and families may try out a number of potential residences.

Primary migrants are those who make their first move away from their place of birth. After this initial move migrants may become return migrants if they return to their place of birth, or a place where they have previously lived. Or, they may become onward migrants if they do not return to a previous place (DaVanzo and Morrison 1981; Newbold 1997). Place may be defined with respect to some small geographical spaces, such as a neighborhood, or large geographical units, such as a region or country.

Cromartie and Stack (1989) argue migrants whose kin resided in a destination area in the past ought to be considered return migrants because evidence indicates they are returning to a homeplace that is important in the migrant's family history, even if the area is not a place of prior residence for the particular migrants. Although this is a sound case for classifying migrants on the extent of prior contact with a destination, this study will define onward and return migration as any change in county of residence by the individual, not by kin, as specified by DaVanzo and Morrison (1981), DaVanzo (1983), and Newbold (1997).

County is the spatial unit typically used by the census to define migration, largely because it is considered the smallest unit respondents can identify when asked to recall places of recent residence. The county is a unit in which daily social interactions are most intense (Taeuber 1979). The use of any geographical unit for defining migration is limited because of variations in their size and the unequal distribution of population in relation to the unit's boundaries. (The justification for using this definition of return

migration is driven by the fact that the panel data to be employed in this research does not have full residential information for respondent's family members, despite the fact that the data does contain information on parents' states of birth.)

Comparisons of the rates at which non-Hispanic blacks and whites, and Hispanics<sup>2</sup> make repeat migrations, and whether patterns of return and onward migrations hold across different racial and ethnic groups, is important. The redistribution of these groups within the larger society is influenced by repeat migration, and for the individual the rates might be important for increasing understanding of whether migration is utilized differentially during the years when careers and families are being built. Moreover, there is a need for racial and ethnic comparisons of the various facets of migration in American society.

The migration process provides means for individuals to escape less desirable local conditions and/or to seek opportunities in nearby or distant locations. As such, migration may be genuinely viewed as an adjustment of individuals to differential opportunity levels, with opportunities defined broadly to include the economic and social structure of places. If members of some groups are spatially separated from areas of greatest opportunities, or concentrated in areas with limited opportunities, their prospect for upward mobility is thereby limited. Migration is a key way to resolve this inequity.

Migration has played a remarkable role in the history of racial and ethnic groups in the United States. The historical dispersion of the white population from the east coast, into the mid-land and to the west coast, stand out in the history of the nation. The migration of black Americans from the south in what has been termed the "Great

Migration” is a famous and important part of this group’s history. This occurred between 1915 and 1970; prior to this more than 90 percent of the U.S. black population lived in the rural South. However, the labor demand in Northern cities caused by World War I coupled with the poor social and economic conditions of the South, led to the increase in migrants to the North. With the exception of the Great Depression, this trend continued through the early 1970s (Carrington, Detragiache, and Vishwanath 1996; Tolnay, Crowder, and Adelman 2000). The recent arrival of large numbers of Hispanic immigrants and their migrations to places throughout the country is being recognized as one of today’s most important demographic and socioeconomic developments.

According to Stack (1996), in the mid 1970s the U.S. Census Bureau released numbers suggesting the exodus of black Americans from the South to the cities of the North and West was turning back on itself. Black Americans who had spent all, or part of a lifetime, in large industrial cities, were abandoning urban life and moving South, sometimes back to the homeplaces of their childhood.

By 1990 the South had gained more than half a million black Americans who were leaving the North – or more precisely, the South had regained from the cities of the North the half-million black citizens it had lost to northward migration during the 1960s. The Census Bureau now predicts that the southward trend will continue “well into the next century” (Stack 1996:xiv).

This migration of blacks from the South after the civil war, and the large number of blacks recently returning to the South, attests to the importance of migration for members of race and ethnic groups in American society.

Return migration is an important facet because return migrants tend to differ from other migrants in past achievement levels and socioeconomic attributes (DaVanzo and Morrison 1981). Return migration is also statistically important, accounting for up to 30

percent of the annual internal migrations in the United States. Although the return migration of blacks has received considerable attention, there remains a gap in research that precisely compares their rates with rates of return for race and ethnic groups.

There is little research on repeat migration because it requires data about places of residence at many points in an individual's life. Census data provide only three data points for migrants: place of birth, residence five years earlier, and current residence. This lack of information is particularly problematic for studying repeat migration because much of this migration is sequenced over a few intervals. According to Toney, Berry, and Cromartie (2004) a complete distinction between primary and repeat migration, and the subcategories of repeat migration, onward and return migration, requires the identification and timing of all prior residences.

A distinguishing quality of the present research is a statistically precise computation of rates of repeat migration. This is a product of the availability of information that reveals whether respondents had migrated prior to the time of their first interview, although there is no identification of all prior places of residence. The panel data used in DaVanzo's and Morrison's (1981) benchmark studies did not include this information. The use of panel data permits rates that are more statistically precise, by comparison, and better reveal the proportion of those who leave and return than do cross sectional, or retrospective data.

In the U.S. the race/ethnicity of individuals is an increasingly important characteristic of a population's composition, and demands the attention of present-day research. In the 2000 census, nearly 7 million people (2.4 percent of the U.S. population)

described themselves by checking more than once racial category. Hispanics numbered more than 35 million, 12.5 percent of the U.S. population (U.S. Bureau of the Census 2001). The absence of ethnic and racial comparisons of repeat migration is a most important breach in investigation to date in the line of research on repeat migration.

The deficiency of repeat migration research is particularly significant for Hispanics. A major reason for this gap is that the earliest panel data did not include enough Hispanics for meaningful comparisons. Early panel data sets, such as the PSID that was used in DaVanzo and Morrison's authoritative study (1981), did not include a sufficient number of blacks or Hispanics for comparisons. The time period for the PSID was also relatively short, covering 1968-1975 at the time of DaVanzo and Morrison's analysis.

As data and methodology in relation to the study of migration become more readily available and advanced, further research in this area is essential. As the U.S. population becomes more diverse, the investigation of migration can lead to a better understanding of differences between individuals and groups, specifically those of differing race/ethnicities. If we are to understand social and related change, in the context of continuing U.S. demographic change, we need to take into account the differences in migration patterns of the full array of socioeconomic groups in American society.

This study will uncover whether some of the relationships commonly found in migration patterns exist across racial/ethnic groups. This research will build on prior research by DaVanzo and Morrison. In particular, the study will break repeat migration into its two types, namely return and onward. In her analysis DaVanzo (1983) indicates that migration should not be treated as a once-and-for-all event but rather as part of a



process in which a sequence of migrations often occur.

The primary goal of this research is to compare repeat migration within categories of individual characteristics for blacks, Hispanics and whites utilizing the 1979 National Longitudinal Survey of Youth. The NLSY79 is excellent for this purpose because it provides information essential for identifying individuals at risk of making a repeat migration. In 1979 respondents were asked whether they had always lived in their current place (county) of residence. Without information on prior migration it is impossible to separate those at risk of a primary, or first migration, from those at risk of a repeat migration. Length of residence in 1979; place of birth; residence at age 14, and in 1978, is also available for respondents.

Another main goal will be to determine if there are differences in the overall rates of repeat migration, including onward migration and return migration, for these groups once other factors are controlled. Certain socio-demographic characteristics of individuals shape their propensity to migrate, and are also important to the structure of communities at origins and destinations. Some of these characteristics are particularly important at the community level, specifically the age structure and educational background of its residents. "Changes in the distribution of educational achievement through migration doubtlessly have important implications for both the localities losing and those gaining population" (Freedman and Hawley 1950:161). However, this research does not study the changes that migration has on a place, but instead examines the characteristics that migrants possess, and the differences of these characteristics within and among racial and ethnic groups.

Key personal characteristics examined include: (1) age, (2) education, (3) employment/occupation/income, (4) gender and family composition, (5) length of residence, (6) homeownership, and (7) place of residence (urban/rural).

### **Research Objectives and Rationale**

The National Longitudinal Study of Youth is a survey funded by the Bureau of Labor Statistics that has been ongoing since 1979 (NLSY79). Data in the NLSY79 allows for comparisons of race and ethnic propensities for repeat migration, and examination as to whether differences exist in risk with respect to return versus onward migration.

Demographic analysis makes abundant use of rates, which most appropriately applies to the number of demographic events in a given period of time divided by the population at risk during that period (Shryock and Siegel 1976). This study defines the population at risk of repeat migration by analyzing the NLSY79 data on counties of residence at each interview date, as well as county of birth, and county of residence at age 14, for each respondent.

The NLSY79 lends itself nicely to the exploration of migration patterns among young adults, as the study includes information about the respondent's county and state of residence, coded with Federal Information Processing Standard (FIPS) codes.<sup>3</sup> This geo-code file identifies migrant's origins and destinations between each interview. Further, the first survey asked respondents if they had always lived in their current place of residence (identified at the county level).

Another key feature of the NLSY79 is that it gathers information that can be arranged in an event history format, in which dates can be associated with the beginning and ending of important life events and experiences. The final year of data available for this study was 2002. These data also allow for the identification of many of the socioeconomic characteristics at both origins and destinations of migrants, including rural-urban characteristics of the places.

Unfortunately, the NLSY79 does not provide a complete residential history to fully distinguish between return and onward migration subsequent to 1979. Yet, this is considerably more information than was available in the Income Dynamics Panel data set utilized by DaVanzo and Morrison. Counties of residence at the times of each interview are compared with place of birth, at age 14, in 1978, and at prior interview dates, to distinguish between return and onward migration. Place of birth and place of residence, and at age 14, are regarded as critical from a human development perspective (Sandefur 1985).

Specific descriptive questions addressed by the research are:

- Are patterns of return and onward migration the same for blacks, Hispanics and whites within categories of individual characteristics?
- Are onward migrants better educated within all three of the racial/ethnic groups?
- Are the less educated in all three racial/ethnic groups more likely to return migrate?
- Are individuals between the ages of 21-25 the most likely to make repeat migrations regardless of race/ethnicity?

- Are other characteristics of return and onward migrants consistent across race/ethnicity?
  
- How are the characteristics of these migrants different across race/ethnicity?

To address these questions, a multivariate analysis of repeat migration and its two types is conducted for blacks, Hispanics, and whites. Eight hypotheses have been developed to address these questions; they are found in the Method section of this work, and are based on previous migration studies cited in the Introduction and Literature Review sections.

Beyond what previous researchers have done however, this study asserts the null hypothesis; that there are no differences in the repeat migration patterns of blacks, Hispanics, and whites. Simply put, the patterns found to exist in both return and onward migrants will be present in all three racial/ethnic groups. These presuppositions do not discredit, nor disagree with minority group status perspectives, which see minorities, including people of certain races and ethnicities, as categories of people that society sets apart, making them both distinct and disadvantaged. Rather, this discernment comes from a notion that those who migrate repeatedly share patterns of significant common characteristics beyond race/ethnicity.

### **Summary**

The history of American society is particularly rich in migration. This phenomenon of human movement has been affecting American individuals, populations, and communities at both origins and destinations for all of time. The study of migration is

important to society, and the individuals within given societies, as it directly influences population change and structure. It can also account for economic opportunity, and other quality of life indicators. By studying migration academics can better understand, explain and predict its affects on populations and individuals. Migration is particularly important for race and ethnic groups in American society because of its central role in assimilation and for its implications for how members of these groups pursue opportunities that are scattered throughout the nation's geography.

Past research on migration has been limited due to the nature of the study requiring longitudinal data sets that collect accurate residential information from individuals over long periods of time. There is an even bigger dearth of research comparing the migrational patterns of U.S. racial/ethnic groups, specifically Hispanics. It is important to make comparisons between these groups and determine if individuals are more likely to make a repeat migration, and the direction of the repeat migration, based on their race/ethnicity.

A primary goal of this research is to make comparisons of repeat migration within categories of blacks, Hispanics and whites using data extracted from the NLSY79. This examination is driven by several research questions, and eight hypotheses, which may or may not lend support to past migrational theories covered in the Literature Review section of this work. Another key purpose is to determine differences in overall rates of migration for these groups once other factors are controlled.

## Overview of the Research

Chapter II reviews theoretical and empirical explanations of migration, incorporating general theories of migration, and those specific to repeat migration. Rather than seeking to model migration using a single homogeneous framework, the research explores utilities of several migration models to explain the differences in migration among internal U.S. migrants. It also reviews research findings specific to individual characteristics of migrants, particularly race/ethnicity, age, education, gender and family, employment and income, home ownership, and place (be it rural or urban/ metro or non-metro).

Chapter III further describes the data source. It discusses the specification of variables, and the methodological framework for analyzing the migration patterns, and direction of migration for the NLSY79 from 1980 to 2002, for the three race/ethnic groups of blacks, Hispanics and whites. There are eight hypotheses listed here, which are tested by the descriptive and multivariate logistic analyses. Because the limitations of this study are considered methodological pertinent to the data set, this chapter also discusses limitations of this study.

Chapter IV is a presentation of the empirical results. The first part of the chapter describes the general characteristics and repeat migration, by percentages, of the panel data for the at-risk population of repeat migration. Percentages are then presented in relation to the three racial/ethnic groups of blacks, Hispanics, and whites. The second part of this chapter reports results of the logistic regression analyses for the determinants of the direction of repeat migration (onward and return) for blacks, Hispanics, and whites.

Chapter V reports the empirical findings of this study and discusses the similarities and differences in onward and return migration patterns of blacks, Hispanics, and whites. The final chapter also briefly summarizes the purpose, highlights the major findings, lists theoretical limitations, and implications for future research.

## CHAPTER II

### LITERATURE REVIEW

#### **Review of Relevant Theoretical Literature**

There are several historical and contemporary theories as to the migrational "who," "why," "when," and "where." Most simply put, people migrate out of a notion that the benefits of moving will outweigh the costs (DaVanzo 1983). However, the topic of migration is very complex; the reasons people move are sometimes complicated, and often vary between individuals. "[A]lthough migrants may have characteristics that are identical with those of non-migrants, migration places individuals in a novel situation, which calls forth particular ways of acting" (Freedman and Hawley 1950:166).

The study of migration focuses on patterns and processes of human movement, whereby social scientists have considered the determinants and constraints of migration decision making, the personal characteristics of the mover, and his or her propensity to migrate, and the social, economic and geographical characteristics of origins and destinations. The theoretical framework for this research comes from (but is not limited to) the classical and contemporary theories of: (1) push-pull, (2) human capital, (3) selectivity, and (4) duration.

In specific relation to repeat migration, this work builds on theories of location specific capital, learning by doing, and the sound information hypothesis. Support for all of these theories is found in research investigating the individual characteristics of migrants, specifically those studies focusing on race/ethnicity, age, education, gender,



and family. Moreover, there is a large body of research examining places themselves, with attention paid to the characteristics of those places.

### **General Theories of Migration**

Perhaps the oldest and most central theory associated with human migration is the model of "push-pull." Ideas put forth by Ravenstein (1889), Lee (1966), and Lowry (1966) suggest the combination of better conditions (or the perception of such conditions) exert a powerful attraction, or pull for individuals to relocate themselves to particular areas. In tandem, if undesirable conditions outweigh the desirable, people are pushed from the origin to the potential destination that exerts the greatest pull. Economic and sociological theories of migration share roots from this push-pull ideology.

Drawing on economic theory, migration is often viewed as an investment in human capital that entails costs and produces benefits. People migrate if they expect the benefits to outweigh the costs. The perceived net benefit of migration, a function of both pecuniary and non-pecuniary factors, is regarded as the deciding factor in whether, and where, to move (DaVanzo and Morrison 1981). In the Human Capital Model, migration is viewed as an investment in human capital that, like all investments, incurs costs and produces benefits. If the expected benefits exceed the expected costs, then individuals migrate (Sjaastad 1962).

According to Blaug (1976) the concept of human capital is the idea that people spend on themselves in diverse ways, not for the sake of present enjoyments, but for the sake of future financial and non-financial returns.

All these phenomena - health, education, job search, information retrieval, migration and in-service training - may be viewed as investment rather than consumption, whether undertaken by individuals on their own behalf or undertaken by society on behalf of its members. What knits these phenomena together is not the question of who undertakes what, but rather the fact that the decision-maker, whoever he is, looks forward to the future for the justification of his present actions (Blaug 1976:829).

Weisbrod (1962) views the principal forms of direct investment in the productivity and well being of people as: health, learning (both in school and on the job), and location (migration).

Liu (1975) claims studies concerned with gross migration always agree that employment or income consideration dominate other factors in making locational decisions among migrants. Similarly, Schwartz (1976) argues that variation in the rate of migration (by age and education) depends on the same human capital factors that determine the corresponding variation in earnings. Shumway and Hall (1996) find that characteristics of return migration do not appear to be related to lower earnings profiles; return migrants have higher levels of human capital, and are more likely to be in professional or managerial occupations. These findings suggest return migrants seek new opportunities rather than old friends, and do not support theories of failure at other destinations, or negative selectivity.

The term selectivity in demographic study relates to characteristics of a group doing a thing or action, different from those not doing that thing or action. In theories of selective migration we recognize certain similar characteristics among individuals that make them more likely to migrate; these characteristics seem to be missing in those who do not migrate. Because migration is selective, there is a difference, depending on age, sex, race, and education, in migration rates of various groups. Also, the greater the

barriers to migration, the greater the selectivity; Hispanics and blacks face differential barriers than whites.

Those migrants who are pushed, and presumably exercise comparatively little choice, are described as "negatively" selected; those who are pulled, and presumably chose to move, are seen as "positively" selected (Falk, Hunt, and Hunt 2004:491).

According to DaVanzo and Morrison (1981) a migrant's information system is highly selective; it is powerfully shaped by networks of kinship and friends, by people's conceptions of distance, and by their preconceived notions about what various places in the nation are like. Places themselves can also have selective characteristics. In a study comparing migration trends of two Michigan cities following the depression, researchers write: "[I]t appears that while the two migration streams were selective at the sources, each city drew migrants that closely resembled its resident population" (Freedman and Hawley 1950:163).

Another area of theoretical importance in any study of migration is duration of residence. Individuals reside in particular locations for longer or shorter intervals of time. Huff and Clark (1978) argue that the probability of migration is a function of cumulative inertia and residential stress. The cumulative inertia effect refers to the increasing tendency to dwell at a place of residence, and the residential stress effect refers to the dissatisfaction with the current residential area. Bailey (1989) argues that among factors that determine an individual's propensity to migrate, the variations in duration of previous residence are strongly associated with one's future mobility.

Toney (1976) describes length of residence as a measure of the extent of local ties, and of satisfaction with community. Toney et al. (2004) find that high rates of repeat

migration suggest that people with short durations of residence would be more likely to migrate than prior migrants who had not made a recent migration. DaVanzo and Morrison (1981) find migrants who have just migrated are more likely to move back to their original place of residence. Furthermore, migration may be an economic investment requiring a lengthy period before the dividends of higher earning are realized (Tienda and Wilson 1992), as is non-migration.

The examination of who is moving, when they are moving, why they are moving, and where they are moving, is complex. It illustrates that individual reasons for migrating or not migrating vary, and are complicated. By focusing on the predictors and constraints of migrating, the personal characteristics of the migrant, and characteristics of origins and destinations, several theoretical explanations have been proposed. Those models created from theoretical bases of push-pull, human capital, selectivity and duration guide this research, as well as three models specific to repeat migration.

### **Specific Theories of Repeat Migration**

Primary migrants are those who make their first move away from their place of birth. After this initial move migrants may become return migrants, if they return to their county of birth, or a county in which they have previously lived. Or, they may become onward migrants if they do not return to a county in which they have previously lived (DaVanzo and Morrison 1981; Newbold 1997). Approximately 20 to 30 percent of U.S. migrants are returnees by one definition or another (DaVanzo and Morrison 1981).

The investigation of direction of repeat migration has lent support to theories of selectivity and duration. Since only those who anticipate positive net benefits of migrating will move, initial migration should select against those who underestimate the net returns of migration, and attract those who overestimate them. In turn, the propensity to return should be lower the longer an individual stays away.

According to DaVanzo and Morrison (1981) through a process of self-selection, migrants who return should differ from those who do not in their motives, characteristics and circumstances, both before and after the initial move, and any subsequent moves. This work claims non-return migrants tend to be younger, better educated, more highly skilled, and better informed about opportunities and amenities at an array of possible destinations, than are return migrants. Shumway and Hall (1996) also find significant differences between return and onward migrants with respect to individual and locational characteristics.

In conjunction with these precepts of selectivity and duration, researchers have created models specific to the process of return migration, and have found that migrants who have recently migrated are more likely to move back to their original place than those who moved further in the past. About a quarter of all migrants in the U.S. during 1968-1975 were returnees (DaVanzo and Morrison 1981).

DaVanzo (1983; DaVanzo and Morrison 1981) examine propositions about return moves by using longitudinal data from the 1968-75 Panel Study of Income Dynamics. They expected that a return move would be most likely if migrants were poorly informed and therefore disenchanted, and if migrants have high levels of location specific capital at their previous location. Location specific capital denotes factors that tie a person to a

particular place; it refers to assets or features specific to a place that are valuable to an individual who lives there rather than somewhere else. Job seniority, personal knowledge, community ties, family and friendships are examples of location specific capital.

The propensity to return to an area should be greater the more location specific capital is left behind (DaVanzo and Morrison 1981). And, it may be higher if the potential return destination is also the person's area of upbringing, where the migrant presumably has more location specific capital than in other areas. The concept of location specific capital suggests the following to explain migration: (1) the propensity to return to an area should be greater the more location specific capital in that area, other things equal, and (2) the propensity to return to that area should be lower the longer the person stays away, since most location specific capital depreciates in value. Moreover, the value of information about an area depreciates as conditions there change.

Other theories specific to return migration are those of sound information and learning by doing. When the benefits of living in a new place have been overestimated or may not materialize at all, individuals are likely to reinvest in migration soon thereafter. The concept of imperfect information accounts for repeat migration as a prompt corrective act; a return move may be the most attractive course of action to the discouraged migrant who finds he or she has miscalculated. The rationale behind the learning by doing hypothesis assumes that by moving, migrants gain experience with the relocation process, which reduces the costs of subsequent moves. The success or failure of the initial move may serve as an important determinant of the propensity to migrate again, and of whether the repeat move will be back to a previous area or onward to a new one.

According to DaVanzo and Morrison (1981) the migrant who ends up being unemployed tends to fall back on return migration, while the migrant who meets with success may have "learned" to seek new opportunities instead of old friends. DaVanzo (1983) posits initial moves apparently pressured by unemployment (and possibly based on inferior information) tend to be followed by return moves. "The less reliable the information on which the initial move is based the more likely is a subsequent 'corrective' move" (DaVanzo 1983:557). In addition, learning by doing lowers the information costs of a subsequent move (Bowman and Myers 1967), which may explain why recent migrants have much higher rates of subsequent migration than do individuals who never migrated.

Migrational research is broken down into the categories of primary and repeat migration, with subcategories of return and onward migration. Studies specific to those directional subcategories have lent support to general migrational theories of selectivity and duration, and have spurred the creation of direction specific concepts, theories, and models. Location specific capital refers to things individuals value being in particular areas; sound information addresses whether or not a migrant had sound or imperfect information prior to a migration, and can determine the time and direction of a subsequent migration. The learning by doing hypothesis argues migrants learn from their migratory experiences and draw on this wisdom in future migration decisions. The hypotheses, which guide this research, are fundamentally rooted in the above-mentioned general and specific theories of migration. They are also driven by the individual characteristics repeatedly illustrated in migration research.

## **Review of Literature Relevant to Individual Characteristics of Migrants**

Research on migration, age, and education is defined by cultural circumstance, and spurs sociological interest. Some see studying these components as ways of addressing, even predicting issues of population size and communal impacts.

[U]nder conditions of recent educational efforts that are reflected in strong age differentials in educational attainment and strong educational fertility differentials, the explicit consideration of education in population projections does have a significant impact even on purely demographic output parameters such as total population size (Lutz, Goujon and Doblhammer-Reiter 1998:51-52).

Race/ethnicity, age, education, employment, income, family, home ownership, and length of residence (duration) prove to be significant factors in all migration analyses.

The following sections review the research specific to the individual characteristics most often related to the migration process. These categories however, may not be mutually exclusive, or operating independently of other factors, or one another. For example, individuals in the U.S. typically attain educational credentials at age specific times. Moreover there are some who argue race/ethnicity affects every aspect of an individual's life experience, which makes it difficult to assert accurate comparisons between groups. For these reasons this study will focus on comparisons within groups as well as between them.

### **Race and Ethnicity**

In the U.S. race and ethnicity are part of people's personal identity. The term race refers to a socially constructed category of people who share biologically transmitted



traits that a society defines as important. While race revolves around biological traits, ethnicity is a matter of culture. Ethnicity refers to a shared cultural heritage, which typically involves common ancestors, a traditional language, and often a conventional religion. Although results have been somewhat mixed, empirical studies show there are differences in the migration patterns of blacks, Hispanics, and whites (Long and Hansen 1977; Tarver and McLeod 1976). These differences are due to structural events such as industrialization and war, as well as individual characteristics such as educational attainment, age and income level.

Newbold (1997) compares primary, return and onward migration patterns of blacks and whites based on census data, and finds similarities with respect toward Southern and Western state migration patterns. However, this work cites data limitations, and does not include controls for factors such as education, which most likely influences the relationship between race and migration. Again, it is important to note that census data do not provide information to fully distinguish between primary and repeat migration because of the limited amount of information on prior residence, and the absence of information on duration, or length, of residence.

According to Liu (1975) individual status motivates most migrants while proportionally more non-white migrants are most concerned about living conditions. In this work net migration rates are taken from the 1971 *Statistical Abstract*, which defines the non-white category as the combination of all individuals who do not report white as their race (U.S Bureau of the Census 1963). This study finds economic status and educational development, state and local governments, and individual status indicators are the most influential variables affecting non-white net migration rates. Here the

"Individual Status" variable is constructed by combining measures of: (1) existing opportunity for self-support, (2) promote maximum development of individual capabilities, and (3) widen opportunity for individual choice; the "Living Conditions" variable is constructed by combining measures of: (1) general conditions, (2) facilities, and (3) social and environmental conditions.

By examining census data from 1850 through 1990, Rosenbloom and Sundstrum (2001) find that black interstate migration in the U.S. only exceeded that of whites during the 1940s. South and Crowder (1997) assert that blacks are less likely to move from cities to suburbs than whites, while blacks are more likely to move from suburbs to cities. Correspondingly, Hispanics are more likely to live in metropolitan settings than whites (Therrien and Ramirez 2001). According to 2000 census data, more than 46 percent of Hispanics live within metropolitan areas.

Some literature depicts black return migrants to the South as having lower incomes, and less likelihood of being employed than non-return migrants in the North (Lieberson 1978). Alternatively some studies claim return migrants are more educated, more employable, and have higher incomes than Southern blacks (Campbell, Johnson, and Strangler 1974). Adelman, Morett and Tolnay (2000) find black female return migrants tend to be more educated, and younger than those who stayed in the North. Recent work by Falk et al. (2004) finds blacks returning to the South are young, and more likely to be male (although the proportions of females increased at the end of the century). This work claims that that the pattern of black return migration to the South is not one that reflects major structure transformations in the larger society, but is

movement that follows from the characteristics of personal situations motivating a return to home.

Less is known about the national migration patterns of the U.S. Hispanic population, despite the fact that their international migration behaviors are well documented. Wilson-Figueroa, Berry, and Toney (1991) find Hispanic youth with higher socioeconomic backgrounds are more likely to migrate than youth from areas of high unemployment. This research suggests there are influences other than human capital and poverty triggering migration among this population.

In prior research comparing migration propensities using the NLSY79, Knapp (2003) finds no significant difference between the migration patterns of Hispanics under and over the age of 25. This work shows rural residents in the three categories (blacks, Hispanics, and whites) are more likely to migrate than urban respondents, especially Hispanic respondents. Education and income variables also show statistical significance in the migration propensities of the three groups.

Using this longitudinal data set (NLSY79), Toney et al. (2004) compare the primary and repeat patterns of migration between blacks, Hispanics, and whites. They find lower rates of primary migration and repeat migration for Hispanics than for blacks or whites; the differences are most prominent with respect to repeat migration. Hispanics who have previously migrated are far less likely to make a repeat migration than blacks or whites, regardless of their duration of residence, level of education, or rural/urban residence type.

Race is a socially constructed category based on physical traits a society defines as important; ethnicity refers to a shared cultural heritage. Research examining the

relationship between race/ethnicity and migration has provided mixed results, but there do appear to be differences in the migrational patterns of differing groups. Taking into account the different data sources and their appropriateness to migrational research, studies also show some similarities between different racial/ethnic groups. There are differences in the quality of life measures of locations among groups, and differences in preferences for cities, suburbs and metropolitan areas. Research specific to black migration varies in findings, and to date there is little research on the internal migration patterns of Hispanics. Recent extraction of the NLSY79 data shows relationships between age, rural and urban locations, education, and income in the migrational actions of blacks, Hispanics and whites. Furthermore, this data shows lower rates of both primary and repeat migration for Hispanics.

### **Place**

The environmental or geographic setting of a place is an often explored factor of migration. A large body of literature investigates the propensities for some to move to urban versus rural settings, or rural versus urban. According to Smith (2002) Hispanics, despite intense feelings of loyalty to their rural villages, moved en masse to cities in the 1940s. Since the 1950s people in their 20s have moved the most from rural to urban areas (Johnson 1999). Rural counties rich in amenities such as scenery, clean air, and outdoor recreational opportunities are currently attracting migrants of all ages; most specifically these areas are attracting older migrants.

Von Reichert (2002) claims different types of places may attract different types of people, as different types of people have different preferences. Conversely, similar types of people may seek out similar types of places. Garasky and Haurin (2001) find rural adolescents prefer to stay close to parents and relatives when leaving the parental home compared with urban youths. Moreover, rural black youths are more likely to remain with their parents, and more likely to leave the state upon exiting than rural white youth. Long (1973) states at each age blacks have higher rates of moving within counties, and whites have higher rates of moving between counties.

In the past, differences in the amount of migration and the places minorities have typically lived were evident; patterns of black and white migrants have varied by geographic region (Garasky and Haurin 2001). According to Sandefur and Jeon (1991) rates of interstate migration of all minority groups moved closer to, or surpassed, those of whites by 1975. They use the term geographical assimilation to depict the extent to which the patterns of migration and regional distribution of minority groups resemble those of whites. This research claims racial and ethnic differences in migration and regional distribution are narrowing. In fact, the similarity of minority group interregional migration patterns to those of whites from 1975-1980 indicate minority group members responded to regional opportunity differentials in a fashion similar to that for whites. This has not always been the case; from 1965-1970 blacks continued to leave the South for the Midwest and Northeast, whereas whites were leaving the Midwest and Northeast for the South.

McHugh (1987) claims shifts in black migration patterns at the regional and sub-regional scale reflect the joint influence of structural forces and behavioral processes. At

the regional level the Southern shift to net in-migration by blacks after almost a century of out-movement is attributable to social and economic forces that exert pushes and pulls in the migration system. In general, the return migration of blacks to the South appears to be one where blacks are abandoning urban residences and moving to smaller scale living, including residence in rural places (Falk et al. 2004).

The investigation of migration and place is often broken down into a comparison of movement from rural to urban areas or vice versa. Historically age has driven working age individuals to urban areas for employment, but more and more individuals of all ages are exploring life in amenity-rich rural areas. Research in this vein shows that there are not only differences in types of places, but also in peoples preferences, and people themselves. Studies have compared the differences of racial/ethnic groups in different types of places, and use the term geographic assimilation to explain the migrational patterns of non-white groups reflecting those of whites. These studies support that pushes and pulls at origins and destinations are primary factors in the process of migration.

### **Age**

“While the amount of migration has varied from decade to decade since the 1950s, there is striking consistency in overall age” (Johnson 1999:5). Age, and life cycle stages, are invariably related to migration patterns. However, as we age, or progress through the life cycle, we change. Von Reichert (2002) finds an effect of age on changing preferences, claiming people’s preferences change as they progress through life.

Moreover, situational factors such as age, life cycle, and occupation change slowly over time (Gordon and Molho 1995).

Age is seen to have an effect on the type of migration an individual makes; some literature suggests that younger migrants are more likely to return to areas they have previously resided in. DaVanzo (1983) claims younger people are usually less experienced decision makers, may be less informed about opportunities in alternative locations, and may process that information less efficiently. This work finds very young household heads (age < 20) are especially prone to return within a year of their initial move.

Other migration literature finds correlation with age in relationship to distance, destination, and length of residence. Long (1973) finds long distance movement is more highly concentrated at the 18-25 range than short distance movement. In a study of the geographic destination of youths leaving their parental home, Garasky and Haurin (2001) find 30.5 percent of first exits are outside of the parents' home county with nearly half of these to destinations out of the home state; the remaining first exits are to locations in the home county.

Drawing on human capital theory, Shumway and Hall (1996) develop a model in which they see people having different utility functions at different stages of the life course; these require migration in order to maximize lifetime income. Correspondingly, DaVanzo and Goldscheider (1990) find living arrangements of young adults are influenced by factors that would not necessarily have the same effects at later ages.

Age is consistently related to migrational patterns in the U.S. With changing ages come changing roles, occupations and preferences. Research on age and migration has

shown effects on the distance of a migration, the destination of a migration, the length of stay, and the direction of the migration (return or onward). Moreover, there are different factors at play in the migration decision-making process for individuals of different ages.

### **Education**

According to human capital models, education is an investment individuals make in their futures. In relation to migration, education variables consistently show statistical significance. Studies examining the link between migration and education have provided an array of information. Schwartz (1976) asserts that for any educational level, the rate of migration declines with age, and the rate of migration for any age increases with education. More educated individuals move, on the average, longer distances and are less risk averse than are less-educated persons.

In a study comparing migration trends of Jewish and non-Jewish Americans, Rebhun (1997) finds that in accordance with their changing educational and occupational composition, young Jews move more today than in earlier decades. Weisbrod (1962) sees the process of migration as one of spatial shifting based on external effects of education. In a quality of life study, Liu (1975) examines the relationship between the variation in net migration rates among states, and the levels of quality of life measured in those states. Here educational development is a measure of the quality of life that shows statistical significance in relation to migration.

Which repeat migration sequence unfolds, return or onward, depends on the ex-



residents educational level, and experience of unemployment (DaVanzo and Morrison 1981). Non-return migrants tend to be younger, better educated, more highly skilled and better informed about opportunities and amenities at an array of possible destinations than are return migrants. These results show that by comparison those in the age group 25-34 have the largest onward to return ratio; other age categories are: (1) under 25 years, (2) 35-54 years, and (3) 55+ years. Moreover, the most educated are most prone, when making a short-interval repeat move, to favor a new destination; the less educated tend to retreat to areas where they lived before. In addition, DaVanzo (1983) claims the less educated are the likeliest to return quickly.

As noted above, past research shows migration declines with age at any educational level, but migration at any age increases with education, and the more education an individual has, the longer distance they are likely to move. Studies show education having external effects on individuals, and relatedness to quality of life measures. One's level of education affects the direction of migration, specifically onward migrants are said to have more education, and return migrants are less educated, especially those who return quickly (DaVanzo 1983).

These findings drive several of the questions this study will address. However, examination of education and migration alone may yield different results than when race/ethnicity is incorporated. The dominant ideology of education in America assumes that society is a place where an individual's status depends on talent and motivation, not inherited position, connections, or privileges linked to ascriptive characteristics like race or ethnicity. To compete fairly, everyone must have access to education free of the fetters of family background or race/ethnicity. This study will not only consider the effect of

education on migration, but will also examine differences between migration, education and race/ethnicity within each respective group.

### **Gender and Family**

According to Kandel and Massey (2002) international migration to the U.S. is cultural in the sense that the aspiration to migrate is transmitted across generations, and between people through social networks. Calling the cultural transmission of migration a gendered process, this work claims males come to see migration as a normal part of the life course - representing a marker of the transition to manhood. In addition, Curran and Rivero-Fuentes (2003) claim Mexican migrant networks influence patterns of migration, and are affected by the gender of the previous migrants to whom individuals are linked.

Men and women live the migration process differently; they have been found to have different patterns of remittances, investments in communities of origin, and expectations about returning migration. The research of Tienda and Wilson (1992) yield results showing strong effects of ethnic concentration on Hispanic men's propensity to move, and emphasize the alliance of social factors in shaping migration and tempering economic payoffs.

Beyond gender, the social network of an individual, specifically the composition of family, is a significant determinant of his or her migration tendencies. Von Reichert (2002) finds family oriented moves are the leading primary reason for moving, not only for returning migrants but especially for new migrants. In this research on return migration to Montana, a high proportion of return migration does suggest that places have a hold on

people, and that the concern for family prominently effects decisions on where and how people wish to live their lives. Mincer (1978) claims "family gain" is a necessary but not sufficient condition for the decision to move, or not to move as a family. The presence of family deters migration of families even though it creates tied movers. This work finds married persons are less likely to move than singles, and the mobility of separated and divorced individuals are by far the highest.

Wilson (1993) agrees with Kandel and Massey (2002) that, whether permanent or temporary, within Mexico or to the U.S., migration is mediated by networks of kin and friends who offer the migrants' food, lodging, loans of money, and/or orientation to labor markets. Why they move however, is determined by macroeconomic variables, and by the way these variables are experienced/interpreted. Networks are of prime importance in determining where people go to search for employment, and a prominent variable in determining who is able to migrate.

Saenz and Davila (1992) assert that return migration is more likely to occur when ethnic migrants do not have access to an ethnic support system, and elect to migrate back to their place of origin, because the non-pecuniary costs involving the absence of co-ethnics associated with the initial move were too high. McHugh (1987) posits that return migration of Southern born blacks to native states reflects the influence of interpersonal information exchange through familial and social networks. "The fact that the divorced/separated status is a particularly strong predictor of this component of the return migration phenomenon suggests a motivation to return to kin-defined places as a survival strategy" (Falk et al. 2004:506).

Migration has been viewed as both a cultural, and a gendered process among some groups. Migrant networks influence patterns of migration, and men and women are perceived to live these migration processes differently. Studies show family composition can affect migration tendencies, and family oriented moves are typical in some areas. Married individuals are less likely to move than single individuals, and separated or divorced individuals show the highest rates of migration. Although some of these gender and familial aspects differ among racial/ethnic groups, the importance of networks, both social and familial, play a large part in the migration decision-making process.

### **Home Ownership**

Whether an individual owns or rents a property of primary residence at a particular place has been viewed as an important determinant of his or her propensity to move. Researchers have investigated the relationship between home ownership, renting, and mobility. There are important distinctions between mobility and migration; mobility includes any move, not only those across specific geographic boundaries. Although migration, not mobility, is the focus of this study, a review of this literature is included, which supports the importance of age and duration of residence in relation to human movement. Research in relation to homeownership focuses attention on the differences between owning and renting at any particular location.

Speare (1970) finds when mobility rates are examined by home ownership, age-marital status, and duration of previous residence, there is little variation in mobility rates by duration for home owners, while the mobility rates for renters declines with duration.

[T]he home owner acquires an economic bond to a particular location when he buys a home. This bond is formed immediately when the transaction is made in comparison with the social bonds of renters, which are built up over time (Speare 1970:457).

This study reports renters being four to five times more likely to move than home owners. Even among those who had lived for 20 or more years in the same place, mobility rates for renters are two to three times greater than those for home owners. Green and Hendershott (2001) assert young households have accumulated little wealth, and have had less time to become attached to geographical areas than middle-aged households, and are therefore more likely to respond to factors such as unemployment by relocating. This research finds those who have long expected lengths of stay will tend to have lower user costs for owning, and thus are more likely to be owners, than those with short expected lengths of stay. These authors imply that the decision to own a home is premeditated by a decision to stay or move out of a particular locale.

Age emerges as an important determinant of mobility expectations in a study of home ownership versus renting conducted by McHugh, Gober, and Reid (1990). This work examines short and long term mobility expectations for home owners and renters, and find that among owners, moving expectations decline systematically with age, but for renters long-term moving expectations remain high through middle age. Interestingly, these researchers find older renters to be more stable than young and middle aged homeowners, suggesting that "they tend to view their current residence as final" (McHugh et al. 1990:93).

Owning versus renting a property of primary residence has been analyzed as both an independent and a dependent variable in prior research on mobility. Studies show that

renters are more likely to move than owners, but those with expectations of moving are less likely to become home owners. Age is also seen to have an important effect on one's moving expectations in combination with their ability to become a home owner or renter.

### **Employment, Occupation, and Income**

As noted earlier in the chapter, Liu (1975) maintains that studies concerned with gross migration always agree that employment or income consideration dominates other factors in making locational decisions among migrants. According to Shaw (1975) unemployment acts as a push factor in which an individual is more likely to leave an area in search of employment elsewhere. Furthermore, migration rates for those who are unemployed tend to be higher than for those who are employed (Mincer 1978).

Occupational status has also demonstrated migrational differences; whereby individuals with more specialized skills are more likely to move greater distances for better jobs, and low skilled workers are less mobile due to their lack of marketable skills (Shaw 1975). Landinsky (1967) finds technical workers, and those with professional occupations, are more likely to move between states than people in other jobs. According to Kleiner (1982) this is most likely due to the fact that there are better jobs for higher skilled workers that may be found in other states. This phenomenon may also be explained by the increased information networks that are found in higher skilled occupations (Sjaastad 1962).

Income levels have been shown to affect migration; generally migration flows move from areas with lower to higher incomes. Schachter (2001) asserts that groups with

lower incomes are more likely to move than groups with higher incomes, and those with incomes below the poverty line are more likely to move than people with incomes above the poverty line. However, those within lower income categories move shorter distances than those in higher income categories.

Research shows that although occupational inequality has decreased, wage inequalities between black and white workers are still high (Grodsky and Pager 2001; Harrison and Bennett 1995). These differences exist even when accounting for declines in the differences in educational attainment for the two groups (Grodsky and Pager 2001; Mare 1995). According to Reimers (1984) and Wilson-Figueroa et al. (1991) Hispanics earn relatively low wages in the job force. These studies attribute this to the desire to live near other Hispanics in enclave situations. It may also be due to effects of discrimination, which may be present in areas with high concentrations of Hispanics (Reimers 1984; Tienda and Lii 1987).

Some literature suggests migration may help decrease the wage gap for blacks and whites. Krieg (1990) finds that non-white migrants have higher returns to earning compared with white migrants. Moreover, Korenman and Turner (1996) find that wage differences, at least for younger workers, are due to the types of contacts they have. This study shows that white youth are more likely than black to use contacts to get better jobs, and are more likely to earn higher wages.

Studies of migration must include measures of employment and income, as they are crucial (and in some cases, dominate) the migration decision making process. Prior research shows the unemployed are more likely to migrate than the employed; those with more specialized skills are more likely to migrate for better paying jobs than those who

do not have specialized skills, and those with lower incomes are more likely to migrate than those with higher incomes. Additionally, occupational status, income, and earning inequality both effect, and are affected by individual migration.

### **Summary**

Historical and contemporary theories of migration have been driving academic research for decades. Data and methods are improving, but there are several theories that continue to guide thinking and research in this area. Although the study of migration is complex, and the reasons individuals migrate are complicated and varying, there is consensus that one moves if he or she believes the benefits will outweigh the costs. Sociological and economic theories of push-pull, human capital, selectivity, and duration are central to many migrational models. Location specific capital, sound information, and the learning by doing hypothesis are more specific to the directionality of migration - that is whether one moves on to a new area, or returns to an area he or she previously lived.

The questions and hypotheses guiding this study are rooted in these above-mentioned principles. Past research shows strong relationships between individual characteristics and the propensity to migrate from one place to another. Those characteristics to be examined in this study are: (1) duration, or length of residence, (2) race/ethnicity, (3) place, be it rural or urban, (4) age, (5) education, (6) gender, (7) marital status, (8) children, (9) homeownership, (10) employment, and (11) income.

Race refers to ones socially defined physical make-up whereas ethnicity is a shared cultural heritage. Literature shows both differences and similarities in migrational



patterns based on race/ethnicity. This study will hope to further understanding in this area by questioning: (1) "Are patterns of return and onward migration the same for non-Hispanic blacks and whites, and Hispanics within categories of individual characteristics?" (2) "Are characteristics of onward and return migrants consistent across race/ethnicity?" and (3) "How are the characteristics of these migrants different across race/ethnicity?"

Whether an individual owns or rents their dwelling, and the type of place one resides in, be it rural or urban, are other important variables considered in migration research. To date, researchers have shown that different people have different preferences for different places. These findings support theories of push-pull, and show variation in the different types of places different racial/ethnic groups prefer. This study will also examine the migrational movement of blacks, Hispanics, and whites from rural to urban, and urban to rural areas.

Age is consistently related to migration, and is said to affect the distance, destination, length of stay, and direction of movement. One of the research questions driving this study is: "Are individuals between the ages of 21-25 the most likely to make repeat migrations regardless of race/ethnicity?" Review of the literature shows that migration declines with age at any educational level, and increases at any age with education. Some claim that the less educated are more likely to be return migrants; this is another finding this study will put to the test. Specifically this research questions: "Are onward migrants better educated within racial/ethnic groups?" and "Are the less educated in all three racial/ethnic groups more likely to return migrate?"

Previous research posits that migration is a cultural, and gendered process, that is different for men and women. Studies also show the influence of social and familial

networks on migration patterns. Other factors associated with migration, which are covered in this review of literature, and incorporated into this study are those relevant to employment, occupation and income.

CHAPTER III  
DATA AND METHODS

In this chapter, explanations of the data, sample, variables, analytical methods and limitations are presented. Data are drawn from the National Longitudinal Study of Youth 1979 (NLSY79). Blacks, Hispanics and whites are selected for this study, and cases that have valid information for all independent and dependent variables are included in the analysis. Operation of variables is also provided in this chapter, along with a brief description of, and justification, for using the analytical methods employed in this study.

**Data: The National Longitudinal Survey  
of Youth 1979**

The data for this study come from interviews first conducted in 1979 and continued through 2002 for the Bureau of Labor Statistics of the United States Department of Labor. The National Longitudinal Survey of Youth 1979 consists of individuals from various groupings of the nation's adolescent and adult population. This is a representative panel study of men and women who were between the ages of 14 and 22 at the time of the first interview, and were between the ages of 37 and 45 in 2002.

When the survey began in 1979, there were 12,686 total respondents. This figure consisted of a cross-sectional sample of 6,111 males and females who were not institutionalized, and not in the military. The NLSY79 also includes independent samples

of Hispanics, blacks and economically disadvantaged white Youth ages 14-22 in 1979. There are a total of 5,295 individuals in these special supplemental samples, 1,280 of which comprise the military sample.

For purposes of race and ethnic comparisons, the 1979 cross-sectional sample, supplemental sample and military sample included 3,174 blacks and 2,002 Hispanics. Some of these special supplemental samples have been dropped, largely due to funding issues. However, as of 2002 there were 7,724 respondents still being interviewed (NLSY79 User's Guide 2001).

The youth and young adults in the primary sample, and the blacks and Hispanics in the special samples participated in annual interviews until 1994. Since that date the interviews have occurred every two years. Respondents were initially screened to ensure that they were of the correct age and racial or ethnic background. After this screening, the 6,111 individuals who comprised the cross-sectional sample were interviewed using a stratification process for equalizing the distribution of Hispanics, blacks and economically disadvantaged whites.

### **Operationalizing the Data**

In order to effectively explore the longitudinal data, and the changes that occur over time, the data set is transformed from person-level to person-period. In a person-level data set each person has one record and multiple variables contain the data from each measurement occasion. In a person-period data set each person has multiple records, one for each measurement occasion (Singer and Willett 2003). The person-period data

format has four types of variables: (1) an identification variable, (2) an index variable, indicating time period, (3) a time varying, and invariant independent variable, and (4) a time varying dependent variable (Kim 2004).

By transforming the data into a person-period format, the intervals become the unit of analysis, but continue to permit individual characteristics during the interval to be used as explanatory variables. Within each of the person-periods are detailed characteristics containing life course events that can be examined to help explain repeat migration over time. The events that happen during a particular interval are analyzed to investigate their potential impact on repeat migration during the corresponding intervals. In order to most accurately assess repeat migration by only those at-risk of repeat migration, person-period data lacking information among independent and dependent variables during the eleven intervals, those in the military, those less than 18 years of age, and non-interviewees are excluded. Therefore this procedure yields an N of 44,308 for this study.

The descriptive and multivariate analyses will use a person-period strategy whereby each respondent can contribute up to 11 units of analysis, one for each of the two-year migration intervals. Since the data is organized to include eleven different time intervals over which migration is measured, the data computes eleven migration intervals per person. This approach allows for more efficient work with the longitudinal nature of the data, and as noted earlier, is utilized because it also allows for detailed analysis of what occurs during the intervals.

Migration related records in the NLSY79 include information on place of residence at several points in time (at birth, at age 14, and in each year of the survey).

The geo-code data include Federal Information Processing Standards (FIPS) codes to indicate where respondents are resident: (1) at the time of each interview, (2) at birth, and (3) at age 14. Migration is measured by comparing county of residence at specified points in time with the county of residence at a subsequent point time.

Since the direction of repeat migration is important in understanding racial/ethnic differences in repeat migration, the members of the NLSY79 to be included in the analyses are those with migration histories, or repeat migrants. Repeat migration is used in this study as defined by DaVanzo and Morrison (1981): the number of moves divided by the number of person-year observations during which these moves could have been made, but restricted to person-years preceded by at least one move, including a previous move.

The population at risk of repeat migration in the initial interval (1980-82) is determined by adding those respondents who reported a different residence in 1980 from that of their birth, and/or their residence at age 14, and/or their residence at the first interview in 1979. Primary migrations, which occur during this time (and all times), are excluded from the migrants analyzed, but become part of the at-risk group in later intervals. For example, in 1982-84 the at-risk population for making a repeat migration are those already mentioned for 1980-82 plus those respondents who made a primary migration between 1980-82. Therefore, the population at risk of making a repeat migration increases over time.

## Dependent Variables

For purposes of this research, a repeat migration will constitute a change of residence from one county to another following a primary move. Propensities for onward and return migration are computed for those making a repeat migration during a given measurement interval. The analyses of this study will assess two-year migration intervals beginning in 1980, due to the fact that during the last decade, interviews took place every other year. Long and Boertlein (1990) study the relative advantages of migration measures for different intervals and conclude one, two, and five-year intervals are the most appropriate to measure migration.

Definitions of onward and repeat moves in this study are the same DaVanzo (1983) uses in her analysis. An *onward move* is any non-return repeat move; a move whose destination apparently does not duplicate a previous area of residence. A *return move* is a move between 1980-2002 back to a place where the individual previously lived, either his or her origin, or a location inhabited between 1980-2000.

Migration status is defined by comparisons of the respondent's county of residence at the beginning of the measurement interval and at the end in 1980, 1982 and so on, until 2000 and 2002. According to Sandefur and Scott (1981) intra-county moves do not generally require disengagement from a given community, or lead to a change in jobs. Correspondingly this study does not regard an intra-county move as an instance of migration. If the counties are different between the beginning and the end of an interval, a migration is defined as having occurred.

### **Independent Variables**

Those variables representing the individual demographic characteristics of race/ethnicity, age, gender, duration of residence, age of children, home ownership, occupation, and level of income are operationalized as specified. However, some of the variables susceptible to a respondents change in status will be treated accordingly, specifically: education, marital status, number of children, metro/non-metro, and employment status.

Race/ethnicity is categorized into "black," "Hispanic," and "white"; these have been constructed from two variables. The first variable is racial/ethnic origin with which respondents identify most closely, the other is racial/ethnicity identified from screener. Based on the categorized groups from the first, this variable is employed to select white by excluding Asians (Chinese, Filipino, Koreans, Vietnamese, and Asian Indians), American Indians, Hawaiians, and Pacific Islanders. The categorizations provided from the second variable are non-black and non-Hispanic, non-Hispanic black, and Hispanic; this study refers to non-Hispanic black as black.

Length of residence refers to the number of years the respondent has occupied his or her current residence. The cut-off points for length of residency are: "less than 3 years," "3-5 years," "6-9 years," "10 or more years." Since individuals are followed for different lengths of time to experience migration, subsequent duration of residence show the timing of migration, as well as the change of residence. The base year for determining length of residence is 1979, at which time a question asked respondents if they were presently living in the same county they were born in; if the response was yes, then that respondent's length of residence was matched to his or her age. If the answer to that



question was no, the respondent was asked in what year he or she had moved to the county they were residing in; that year was then subtracted from 1979 and became the base length of residence for him or her in 1979.

Variables about geographic residence are included in the data. Throughout the literature the terms urban and rural have been used. However, The NLSY79 Urban-Rural Residence variables are not incorporated into this study due to numeric incongruity appearing in 1998. Variables measuring metropolitan versus non-metropolitan areas in the NLSY79 data also proved to be problematic. The Center for Human Resource Research, which codes the original data, has not yet been able to identify the problems that might account for the discrepancies, but these issues may be due to the fact that beginning with the 2000 release, the calculation of the central city variable was revised slightly.

Due to the importance of the “place” variables accuracy, the “metro,” “non-metro” variables in the NLSY79 were cross-checked against figures from the CPS. Those in the NLSY data set from 1979 through 1983 matched statistical figures from the census data, but the numbers from 1984 – 2002 did not. Therefore, this study uses two different Metropolitan Statistical Area variables for this measure, one from 1979 through 1983, another from 1984-2002; those utilized during these years are created using CPS data in 1983 and 2000.

The direction of an individual’s migration and change is also explored within the “metro,” “non-metro” variables, measuring whether a respondent’s migration is: a “metro to metro area,” “non-metro to non-metro area,” “metro to non-metro area,” or “non-metro to metro area.” Initial analysis of this change variable yielded similar statistics to the

static place variable, and proved problematic in its interpretation. Therefore, it is eliminated from further analyses due to the fact that it measures change in place rather than change in individual characteristics, and does not make a contribution to this study beyond that of the original/static variable measuring the metro/non-metro characteristics of a place.

Variables are included measuring the respondent's age for each year of the analysis. For purposes of this study, ages are classified as: "less than 21," "21-25 years," "26-30 years," "31-35 years," "36 years and older." Based on previous research, numbers should be highest in the age categories 21-25, and there should be consistencies in overall age patterns. Specific to return migration, numbers should be highest in the youngest age categories.

Educational attainment information is gathered pertaining to the highest year of school the respondent has completed at each interview. This variable is modified from its original format of single grades into the categories of: "less than 12 years," "12 years," "some college," "college graduate." To examine a change in educational enrollment, a classification of: "stayed enrolled," "stayed un-enrolled," "became enrolled in school," and "became un-enrolled in school" is constructed within each interval. However, due to the high number of missing cases in the original NLSY79 enrollment variables, and the correlation of this to the change in employment status variable, this change in educational enrollment variable is eliminated from the analysis.

A variable measuring the gender of the respondent in terms of "male" or "female" has been included in the analysis to control for differences, and for comparisons across race/ethnicities.

The marital status variable measures the respondent's marital status in terms of: "never married," "married" (which includes those who have remarried,) and "divorced/separated/widowed." To examine change in marital status, and its effect on migration direction, married and remarried were classified as "married," and never married as well as divorced/separated/widowed were collapsed into a category of "single." In order to focus the changes within each interval, a variable is constructed measuring the effects of: "staying married" or "staying single," and the changes from "married to single," and "single to married." Thus, the data is operationalized in a way that not only measures change as any change that produces a move, but also a particular type of change producing a particular type of move. It should be noted however, that these categorizations represent this study's smallest N size.

This study employs two variables relevant to the presence of children in the respondent's household. The first variable measures the age of the children, and is recoded into groups of: "less than one year," "one to six years of age," "seven years of age and older," and "no children." The second reports the number of children (biological, adopted or step) the respondent has ever had. Based on a distribution of these figures over the years, they are broken into categories of: "zero," "one," "two to three," and "four or more." Preliminary analyses of these variables show them to be too closely related, therefore the first variable is used in the descriptive and multivariate analyses. However, to examine a change in number of children, a dichotomized classification is constructed within each interval period. When the same number of children occurs in each interval it is classified as "no change," otherwise, it is classified as "change."

The variable indicating an individual's home ownership comes from the "Assets" section of the NLSY79 data set. This question asks whether the house or apartment the respondent is residing in is owned, or being bought, in their name, or in their spouse's name. In this study's data set it is dichotomized as "owns home" or "does not own home." According to the Center for Human Resource Research the "Assets" battery of questions were not included in survey years 1991 and 2002.

The categories of the employment variable are "employed" and "unemployed." For many years the survey included a category of "out of the labor force," which is included here in the unemployed category. Employment is taken as a reference category and is defined as working in a business or profession, having jobs in the past, and not currently working due to temporary reasons such as illness, weather and vacation, etc. The definition of being unemployed includes not being employed, taking effort to find a job during the four weeks before the week of the survey, and waiting for a new salaried job to begin. The out of the labor force categorization is included in unemployed, and covers keeping house, going to school, inability to work, and others. To examine changes in employment status, a classification of: "stay employed," "stay un-employed," "change from employed to unemployed," and "change from unemployed to employed" are constructed within each interval.

The NLSY79 contains variables that measure net family income. In this study, it is classified into four 25<sup>th</sup> percentiles based on the actual earnings of respondents in each time interval. For purposes of description the categorizations are classified "lowest ¼," "second lowest ¼," "second highest ¼," and "highest ¼."

One's occupation is something that can be hard to define, and in the NLSY data set there are nearly 1000 different categories for respondents to place themselves. An occupation variable is included in this study for purposes of measuring "more skilled" and "less skilled" occupations. In collecting the occupation information, respondents pick the category that most closely represents what they do for work. These categories have been coded according to the 1970 CPS classification, which puts different occupations into categories such as "professional, technical and kindred workers," "managers and administrators," "clerical and unskilled workers," and so on. For purposes of addressing whether return migrants are more, or less skilled, in their occupations this variable has been dichotomized into "less skilled" and "more skilled" based on these CPS classifications. However, initial analysis shows evidence of the occupation variable being too closely related to income and educational measures, therefore it is not included in the analyses.

Table 1 summarizes the variables used in this study; they are listed in order of importance to this research. Namely, those variables with direct relationship to hypotheses appear first, followed by other variables important to studies of migration, and lastly those variables relative to changes in personal status. The dependent variable is measured at the end of the time intervals, independent variables are measured at the beginning of the time intervals, and change variables are measured to determine if change occurs within categories from the beginning to the end of the time intervals.

TABLE 1 SUMMARY OF THE DEPENDENT AND INDEPENDENT VARIABLES

Dependent Variable <sup>a</sup>	
Repeat Migration	Onward or return migration
Independent Variables <sup>b</sup>	
<u>Individual Characteristics</u>	
Race/Ethnicity	Black, Hispanic and White
Age	Less than 21 yrs, 21-25 yrs, 26-30 yrs, 31-35 yrs, 36 yrs and older
Education	Less than high school, high school, some college, college
Duration of Residence	Less than 3 yrs, 3-6 yrs, 7-9 yrs, 10 or more yrs
Place	Metropolitan or non-metropolitan place of residence
Gender	Male and female
Marital Status	Never-married, married, divorced/widowed/ separated
Age of children	Less than one year, 1-6 years, 7 or more years, no children
Income <sup>c</sup>	Lowest quartile, second lowest, second highest, highest quartile
Employment	Employed or unemployed
Occupation	Less skilled or more skilled
Home Ownership	Owens home/ does not own home
<u>Change Characteristics</u>	
Marital Status	Stayed married, stayed single, married to single, single to married
Number of Children	Change or no change
Employment	Stayed employed, stayed unemployed, employed to unemployed, or unemployed to employed

<sup>a</sup> Measured at the end of migration intervals (Time  $t$ )

<sup>b</sup> Measured at the beginning of migration intervals (Time  $t-1$ )

<sup>c</sup> Banded each year

## Analysis

The primary goal of this research is to compare within racial/ethnic categories the repeat migration of blacks, Hispanics and whites, and to determine if there are differences in the overall rates of repeat migration for these groups. Secondly it analyzes across racial/ethnic categories to gauge differences in repeat migration once other factors are controlled. To address these objectives, a multivariate analysis of repeat migration and its two types (return and onward) are conducted for blacks, Hispanics, and whites. The analysis of the data will include descriptive and logistic regression techniques.

The descriptive analysis will address the first six hypotheses in describing the relationship between race/ethnicity and return and onward migration within their respective categorical groupings. It will include a comparison of the direction of repeat migration by race/ethnicity, and the other variables mentioned above (duration of residence, place of residence (metro/non-metro), age, education, gender, marital status, children, home ownership, employment status, and income). Finally, the descriptive section will include analysis of the change variables in relation to onward and return migration within the three racial/ethnic groups.

Both the descriptive and the multivariate analyses will be conducted for the eleven intervals that are collapsed into two-year time periods, and as noted previously, filters are used to exclude cases representative of individuals less than eighteen years of age, and those in the military. Cases relative to those individuals in the military are excluded due to the differences in their migration decision-making processes from those of individuals not affiliated with military forces. Those who are less than 18 years of age are excluded as their migration histories may be more relative to their parent's experiences than their own. Once more, these analyses will be conducted only for those at-risk of making a repeat migration.

Second, a logistic analysis will be conducted in order to focus on the last two hypotheses in determining the effects of race and ethnicity independent of other social and economic factors. This analysis will be completed separately for return and onward migration. Independent variables are measured at the beginning of the interval.

According to Singer and Willett (2003) it is desirable when using longitudinal data to measure predictor variables preceding outcome variables in a longitudinal data set to

determine the significance of any particular variables impact, while the dependent variable is measured at the end.

A logistic regression model technique is used for the analysis of individual factors affecting the propensity to repeat migrate, and the direction of repeat migration. A three-stage analysis will be conducted for both onward and return migrants; the first model only contains the race/ethnicity variable. The second model incorporates all of the static variables mentioned throughout this research, which guide the hypotheses of this study (duration, place, age and education, gender, marital status, children, home ownership, employment and income). The third model includes those variables constructed to represent changes in particular statuses, in place of the static variables measuring the same characteristics. For example, the marital status variable is replaced with the change in marital status variable (the two other change variables are related to children and employment).

Logistic regression is multiple regression but with an outcome variable that has a categorical dichotomy, whereby predictor variables can be continuous and categorical. This method is appropriate for this research because it can be used for the dichotomous dependent variable of moved back (return) or moved on (onward). This technique provides output that can predict which of two categories a person is likely to belong to given certain other information (Field 2000). In simple linear regression, the outcome variable  $Y$  is predicted from the equation of a straight line:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon_i$$

Where  $\beta_0$  is the  $Y$  intercept,  $\beta_1$  is the gradient of the straight line,  $X_1$  is the value of the



predictor variable and  $\epsilon$  is a residual term. In multiple regression, a similar equation is derived in which each predictor has its own coefficient. Per se,  $Y$  is predicted from combining each predictor variable multiplied by its respective regression coefficient.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon_i$$

Here  $\beta_n$  is the regression coefficient of the corresponding variable  $X_n$ . In logistic regression, instead of predicting the value of a variable  $Y$  from a predictor variable  $X_1$  or several predictor variables ( $X_s$ ), the probability of  $Y$  occurring is predicted given known values of  $X_1$  (or  $X_s$ ).

$$P(Y) = \frac{1}{1 + e^{-Z}}$$

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon_i$$

where  $P(Y)$  is the probability of  $Y$  occurring,  $e$  is the base of natural logarithms, and the other coefficients form a linear combination. This expresses the equation in terms of the probability of  $Y$  occurring, or the probability that a case belongs in a certain category. As such, the ensuing value from the equation is a probability value that varies between zero and one. A value close to zero means  $Y$  is very unlikely, and a value closer to 1 means that  $Y$  is very likely to have occurred.

The values of the parameters of this model are estimated using the maximum likelihood method which selects coefficients that make the observed values most likely to have occurred – the models fit the data in a way that allows estimation values of the outcome variables from known values of the predictor variables.

The logistic regression analysis is run using SPSS for Windows. The method of entering independent variables is that of forced entry, whereby all of the covariates are placed into the regression model in one block, and parameter estimates are calculated for each block. The interpretation of the logistic regression will be presented in table form in terms of odds ratios, which are derived from exponent  $\beta$  ( $\exp \beta$ ) figures. These are indicators of the change in odds resulting for a unit change in the predictor. The odds of an event occurring are defined as the probability of an event occurring divided by the probability of that event not occurring. We interpret the exponent in terms of the changes in odds. If the value is greater than one then it indicates that as the predictor increases, the odds of the outcome occurring increases. Conversely, a value less than one indicates that as the predictor increases, the odds of the outcome occurring decrease.

Although logistic regression allows the use of continuous predictor and categorical variables, there are some who make the argument that ordinary multivariate models, such as logistic regression, fail to take into account changes in predictor variables over time in longitudinal data (Allison 1984). Based upon this premise a Cox proportional hazard model method was executed and examined using the data set constructed for this study. The Cox proportional hazard model uses an approach known as partial likelihood to estimate the model parameters (Allison 1984).

Proportional hazard models are similar to ordinary regression models in terms of predicting a dependent variable as a function of a set of independent variables. An assumption the Cox model makes is the "proportional hazards assumption," which is similar to the assumption made with dummy variables in linear regression; we assume that the slopes are the same, only the intercepts differ. "As with the exponential model,

the Cox model assumes that the hazard ratios are constant over time" (Hoffman 2004:136). However, proponents of this method argue it more effectively handles censored observations (Yamaguchi 1991).

Censored cases are those in which the event does not occur during the specified study period. Although the term "censored" refers to any individuals' with unknown event times, there are four different types of censoring: (1) noninformative, (2) informative, (3) right, and (4) left.

A noninformative censoring mechanism operates independent of event occurrence and the risk of event occurrence . . . censoring occurs because data collection ends, not because of actions taken by study participants. If censoring occurs because individuals have experienced the event or are likely to do so in the future, the censoring mechanism is informative (Singer and Willet 2003:318).

When the events that occurred before the beginning of the study period are unknown, they are "left-censored," when the events that occurred after the end of the study period are unknown, they are "right-censored." The Cox proportional hazard model allows retention of right-censored cases by assigning estimated values for such cases.

When preliminary outputs for logistic regression and the Cox method are compared, the coefficients and odds ratios are statistically similar. However, the way in which the variables have been operationalized (that is set up into discrete time, and categorized) does not lend itself as appropriately to the Cox method as the logistic. This may indicate a theoretical issue rather than a methodological one, in that the categorizations of the independent variables could be constructed in a more appropriate manner for the Cox method. Specifically, due to the extreme sensitivity to time related variables (such as age and duration of residence) it is more appropriate to use continuous values with the Cox method, rather than categorized values.

Comparisons of the differing modeling techniques also illustrates that despite the fact that the data is longitudinal, and there are risks of right and left censoring, they are minimal in this study's data set. Based on the thorough residence history of respondents at first interview there is little concern of left censoring. Also, because migration slows with increasing age (especially post age 30) right censoring is not a significant issue as all respondents in the sample are older than 36 at the date of last interview.

### **Hypotheses**

Based on the literature presented in the review section, this study will present and test eight hypotheses about repeat migration, all of which presuppose the null hypothesis. That is, that there will not be differences in the migrational patterns within the racial/ethnic groups of blacks, Hispanics, and whites, and there will not be differences between these groups once key socio-demographic characteristics are controlled. The first six hypotheses will be the focal point of the descriptive analysis, whereby statistics are analyzed within groups to determine if patterns of repeat migration are consistent for blacks, Hispanics and whites.

*Hypothesis 1.* All race/ethnicities will exhibit lower percentages of both onward and return repeat migration, as length of residence (in years) increases.

*Hypothesis 2.* All race/ethnicities in the non-metro categories will have higher percentages of onward and return migration.

*Hypothesis 3.* All race/ethnicities between the ages of 21-25 will have the highest percentages of onward and return migration.

*Hypothesis 4.* All race/ethnicities at the highest levels of educational attainment will have the highest percentages of onward migration.

*Hypothesis 5.* All race/ethnicities at the lowest levels of educational attainment will have the highest percentages of return migration.

*Hypothesis 6.* All race/ethnicities in the "does not own home" categories will have the highest percentages of onward and return migration.

The last two hypotheses are addressed from analyzing outputs of the logistic regression models for differences in repeat migration patterns across the racial/ethnic groups of blacks, Hispanics and whites, (and therefore somewhat different terminology is appropriate).

*Hypothesis 7.* The likelihood of onward migration will be the same for all racial/ethnic groups when other variables are controlled.

*Hypothesis 8.* The likelihood of return migration will be the same for all racial/ethnic groups when other variables are controlled.

### **Limitations of the Data**

Unfortunately, this data does not provide a complete residence history to fully distinguish between return and onward migration subsequent to 1979. Despite the fact that the migration variables are measured at each interview, it is possible that some

moves between interviews were missed. Moreover, movement prior to the first interview is not fully measured which limits measuring return migration.

Another limitation of this study is that family networks at places of origin and destination are extremely important in migration decisions, perhaps even more so in relation to repeat migration. Although this data set allows us to examine affects of being married or having children, it does not provide information as to the whereabouts of other family members or kin. However, this data allows for great detail in understanding the migration propensities and patterns on a longitudinal basis of the young adult and middle life years of blacks, Hispanics, and whites.

Thirdly, it may be advantageous to make some comparisons about the places themselves that are the originations and destinations of these migrants, especially in relation to the percent of residing populations in the different racial/ethnic groups. However, the data available to make these comparisons is projected data, rather than hard data. For this reason, this study omits place characteristics at this level.

Race and ethnicity in this data are self-identified measures; one of the challenges of this is that these are middle-aged Hispanics, who have been in the U.S. since at least 1979. Therefore, the experiences of this group may not be indicative of the present day Hispanic immigrants moving to the U.S.

Lastly, issues of missing cases in longitudinal data are always a concern for researchers. As members of a sample continue or discontinue their participation in a study information may become biased toward those who remain active in the process.

## CHAPTER IV

### RESULTS

There has been little research comparing the repeat migratory patterns of non-Hispanic blacks and whites, and Hispanics. The goal of this research is to determine if there are differences within and between these groups in relation to the direction of a repeat migration, and what those differences are. The following section reports results based on descriptive and logistic analyses.

#### **Descriptive Statistics**

The very first stage of this analysis explores the data collected prior to its transformation from person-level to person-period data in an attempt to get a feel for patterns within it. Frequency analyses are performed for each of the time intervals<sup>4</sup> and variables operationalized in this study. The output provides tabulated frequency distributions of each variable by person years. Each frequency value is expressed as a percentage of the sample, and the cumulative percentage is given, which tells how many cases, as a percentage, fall below a certain score.

The relationship between two categorical variables is examined using cross tabulation, which tabulates the data and carries out statistical tests to determine whether the variables are associated. Cross tabulations are conducted for the dependent variable (repeat migration, including direction of migration) and each independent variable,

including all change variables for each year the data is available. (There are 19 time intervals examined as such, and information relative to this initial review is available upon request.)

Following the transformation of the data into person-period, which involves filtering out all cases not at-risk of repeat migration, frequency distributions and cross tabulations are analyzed again. The results of these descriptive analyses are below.

### **Repeat Migration Frequencies by Individual Characteristics**

Table 2 describes the entire sample (N = 44,308) at-risk of making repeat migrations in terms of person-period, and percentages, by categories of individual characteristics. Among the race/ethnicity groups, whites exhibit the highest frequencies (61.3%), followed by blacks (21.6%), then Hispanics (17.2%). These figures indicate that there are more whites at-risk of making repeat migrations than blacks or Hispanics. Previous research finds that, compared to other groups, whites migrate most (Knapp 2003; Tarver and McLeod 1976; Toney et al. 2004).

There is a strong inverse relationship between duration of residence and repeat migration, especially in the shortest time interval, less than three years, which explains the high frequency, or percentage, in this category (41.7%). The figures in the more than 10 years category displays a high digit (31.4%) because it captures all of those who did not make repeat migrations, despite the fact they are at-risk of doing so. Young adults (or people in their 20s) have been observed to have the highest percentages of migration



because of their relatively higher frequencies of life-course events (Lee 2002). This pattern is supported in the breakdown of the sample at-risk of repeat migration. Those in the 21-25 group display the highest figure (26.3%), although it is not much higher than those ages 26-30 (25.5%). These statistics support the appropriateness of the NLSY79 for investigating the effects of age on repeat migration, whereby those in the oldest and youngest age groups make up a smaller portion of the at-risk sample.

The highest frequencies within the level of education variable are found in the 12 years category, which displays that 39.7% have completed high school. These statistics also show that 21.2% have college educations. Nearly 80% of the at-risk sample reside in metro as opposed to non-metro areas. Rates within the gender category are quite evenly distributed with 45.8% being male, and 54.2% female.

The married individuals in the sample at-risk show that the highest frequencies fall within the married category (49.6%) followed by those never married (36.8%), and the sample has 13.6% in the divorced/widowed/separated category. Nearly 50% of those at-risk of repeat migration do not have children. Of those that do, those with children 1-6 years of age make up 28.6%, and those with children less than one year comprise 7.8%. Of the group at-risk of repeat migration 62.5% are not homeowners and 37.5% own homes.

Some 76.7% of the at-risk of repeat migrants are employed, and 23.3% are not. It may be important to note that these frequencies are calculated by accumulating figures representative of 22 years (1980-2002). Income is split into quartiles, to take into account the influences of both the aging of the sample, as well as inflation. The income levels of

those at-risk of repeat migration are quite evenly dispersed, with the highest percentage falling into the highest quartile (27%).

Those variables measuring change in status characteristics show that within the category of marital status, most of those included in the study stayed married. Those cases that change from married to single (4%) and single to married (8.6%) are also captured here. Change in the number of children variable shows the large majority of those at-risk of repeat migration do not experience a change in number of children, with 80.5% falling into the no change category. The majority of this sample also falls into the stayed employed category (62.5%), but those who changed from employed to unemployed (14.1%) and unemployed to employed (10.7%) are also represented.

#### **Direction of Repeat Migration by Individual Characteristics**

Table 3 demonstrates the direction of repeat migration (onward and return), and presents the sample in terms of person-period, and percentages, by categories of individual characteristics. These statistics no longer represent the population at-risk of repeat migration, but the actual figures associated with those who moved onward or returned. Here whites make up 11.5% of onward migrants and 7.9% of returns. Onward rates reflect that 7.6% are black, and 5.5% are Hispanic. In the direction of return migration, the rates are more evenly dispersed; blacks make up 7.8%, and Hispanics 6.2%.

Numbers of those residing in a place for less than three years are highest across categorizations for both onward (13.2%) and return (14.4%) migrants, and both columns show decreases in rates as the length of residence increases. Onward (11.6%) and return (8.8%) migration figures are also slightly higher in both the non-metro categories, which supports literature showing that people migrate more from rural or non-metro areas to urban or metro (Johnson 1999; Smith 2002;).

The age related figures show anticipated patterns, that is, percentages of both onward (14.2%) and return (10%) migration are highest for those in the 21-25 category. In both columns the second highest percentages of migration fall into the less than 21 group, which is somewhat unanticipated, but the figures do show the expected decline in migration, both return and onward, as the sample ages. Education figures show that percentages of onward migration are highest for those with the highest levels of education (12.8%), and decrease with each interval. Percentages of return migration, in terms of educational level, support the findings of DaVanzo and Morrison (1981; DaVanzo 1983); percentages of return are highest in the lowest levels of education and decrease within each categorization (8.1% - 6.8%). Both onward and return columns display that figures are slightly higher for males than females.

The percentages presented in Table 3 support previous research (Mincer 1978), in that those in the never married and divorced/widowed/separated categories confirm higher percentages of migration, in both onward and return directions, than those in the married categorization. Accordingly, those without children make the most onward and return migrations followed by those with children less than one year, then 1-6 years and 7 years or older.

TABLE 2. DESCRIPTIVE INDIVIDUAL CHARACTERISTICS OF NLSY79 (1980-2002) BY REPEAT MIGRATION STATUS

	Total	Person-Years	Valid Percent
Age	44,308		
Less than 21 yrs		3,735	8.4
21-25 yrs		11,668	26.3
26-30 yrs		11,304	25.5
31-35 yrs		9,801	22.1
36 yrs and older		7,800	17.6
Gender	44,308		
Male		20,283	45.8
Female		24,025	54.2
Race/Ethnicity	44,308		
Black		9,560	21.6
Hispanic		7,605	17.2
White		27,143	61.3
Marital Status	44,308		
Never-married		16,298	36.8
Married		21,998	49.6
Divorced, widowed, separated		6,012	13.6
Length of Residence	44,308		
Less than 3 yrs		18,484	41.7
3-5 yrs		5,075	11.5
6-9 yrs		6,824	15.4
10 yrs and over		13,925	31.4
Education	44,308		
Less than 12 yrs		6,997	15.8
12 yrs		17,586	39.7
Some college		10,315	23.3
College		9,410	21.2
Employment Status	44,308		
Employed		33,966	76.7
Not employed		10,342	23.3
Income	44,308		
Lowest Quartile		10,510	23.7
Second lowest		10,707	24.2
Second highest		11,146	25.2
Highest Quartile		11,945	27.0
Place	44,308		
Metro		34,975	78.9
Nonmetro		9,333	21.1
Age of Children	44,308		
Less than 1 yr		3,448	7.8
1-6 yrs		12,666	28.6
7 yrs or greater		6,498	14.7
No children		21,696	49.0
Own Home	44,308		
Does not own		27,708	62.5
Does own		16,600	37.5

TABLE 2. DESCRIPTIVE INDIVIDUAL CHARACTERISTICS OF NLSY79 (1980-2002) BY REPEAT MIGRATION STATUS (CONTINUED)

<i>Change in Status Characteristics</i>	Total	Person-Years	Valid Percent
Place	44,308		
Metro to metro		33,860	76.4
Nonmetro to nonmetro		7,879	17.8
Metro to nonmetro		1,115	2.5
Nonmetro to metro		1,454	3.3
Marital Status	44,308		
Stayed married		20,216	45.6
Stayed single		18,510	41.8
Married to single		1,782	4.0
Single to married		3,800	8.6
Number of children	44,308		
Change		8,620	19.5
No change		35,688	80.5
Employment	44,308		
Stayed employed		27,697	62.5
Stayed unemployed		5,603	12.6
Employed to unemployed		6,269	14.1
Unemployed to employed		4,739	10.7

The home ownership variable displays similarities across the direction of repeat migration; those who do not own homes have percentages more than double in both columns (return and onward) than those who own homes. These numbers also support the findings of previous researchers (Green and Hendershott 2001; McHugh et al. 1990; Speare 1970).

Figures of those in the not employed category are higher for both onward (10.7%) and return (9.2%) migration, than those in the employed category. According to Shaw (1975; Mincer 1978), unemployment pushes individuals to search for work in new areas. The income variable demonstrates that there are slight differences in the patterns of onward and return migration. Supporting the findings of Schachter (2001), those in the

return column show that likelihood of a migration declines at each income interval, from those in the lowest (9.7%) progressively to those in the highest quartile (5.9%). In the onward column those in the lowest quartile move the most (10.5%), followed by those in the 2<sup>nd</sup> lowest (9.8%), and then those in the highest (9.4%).

The change variables display rates of those who kept the same status within variables, as well as those whose circumstances altered. In the change in marital status variable both of the change categories yield the highest percentages of repeat migration, but in different directions. Those in the single to married category have the highest number of onward (18%), and those in the married to single category have the highest number of return (16.9%). The change in number of children variable shows slightly more in the change group (10%) onward migrated than those in the no change group (9.5%). This pattern is similar for return migrants with 8.4% experiencing change and 7.4% experiencing no change.

New circumstances in relation to repeat migration are also depicted in the change in employment status variables, where the highest figures of both onward (12.5%) and return (10.7%) are in the unemployed to employed categories. These percentages are higher than both onward and return figures in the static employment variable for both categories of employed and not employed. Further analysis of these figures may provide more detailed information in relation to studies of employment and migration. Specific to the direction of repeat migration, one might question whether the fact that the percentages are higher for onward migrants means individuals have to move to new places to gain employment, or are they making employment arrangements prior to migration?

TABLE 3. DESCRIPTIVE INDIVIDUAL CHARACTERISTICS OF NLSY79 (1980-2002) BY DIRECTION OF REPEAT MIGRATION

	Onward		Return			
	Total	Person-Years at time <i>t</i> -1	% migrated onward	Total	Person-Years at time <i>t</i> -1	% return migrated
Age	4,261			3,354		
Less than 21 yrs		495	13.3		331	8.9
21-25 yrs		1,656	14.2		1,167	10.0
26-30 yrs		1,131	10.0		878	7.8
31-35 yrs		634	6.5		620	6.3
36 yrs and older		345	4.4		358	4.6
Gender	4,261			3,354		
Male		1,974	9.7		1,646	8.1
Female		2,287	9.5		1,708	7.1
Race/Ethnicity	4,261			3,354		
Black		729	7.6		744	7.8
Hispanic		417	5.5		472	6.2
White		3,115	11.5		2,138	7.9
Marital Status	4,261			3,354		
Never-married		1,977	12.1		1,430	8.8
Married		1,760	8.0		1,393	6.3
Divorced, widowed, separated		524	8.7		531	8.8
Length of Residence	4,261			3,354		
Less than 3 yrs		2,432	13.2		2,662	14.4
3-5 yrs		494	9.7		350	6.9
6-9 yrs		532	7.8		194	2.8
10 yrs and over		803	5.8		148	1.1
Education	4,261			3,354		
Less than 12 yrs		547	7.8		567	8.1
12 yrs		1,383	7.9		1,349	7.7
Some college		1,126	10.9		796	7.7
College		1,205	12.8		642	6.8
Employment Status	4,261			3,354		
Employed		3,152	9.3		2,403	7.1
Not employed		1,109	10.7		951	9.2
Income	4,261			3,354		
Lowest Quartile		1,107	10.5		1,016	9.7
Second lowest		1,048	9.8		898	8.4
Second highest		986	8.8		741	6.6
Highest Quartile		1,120	9.4		699	5.9
Place	4,261			3,354		
Metro		3,178	9.1		2,534	7.2
Nonmetro		1,083	11.6		820	8.8
Age of Children	4,261			3,354		
Less than 1 yr		317	9.2		244	7.1
1-6 yrs		912	7.2		812	6.4
7 yrs or greater		327	5.0		315	4.8
No children		2,705	12.5		1,983	9.1
Own Home	4,261			3,354		
Does not own		3,323	12.0		2,642	9.5
Does own		938	5.7		712	4.3

TABLE 3. DESCRIPTIVE INDIVIDUAL CHARACTERISTICS OF NLSY79 (1980-2002) BY DIRECTION OF REPEAT MIGRATION (CONTINUED)

	Onward		Return			
	Total	Person- Years at time t-1	% migrated onward	Total	Person- Years at time t-1	% return migrated
<i>Change in Status Characteristics</i>						
Place	4,261			3,354		
Metro to metro		2,623	7.7		2,126	6.3
Nonmetro to nonmetro		427	5.4		341	4.3
Metro to nonmetro		555	49.8		408	36.6
Nonmetro to metro		656	45.1		479	32.9
Marital Status	4,261			3,354		
Stayed married		1,566	7.7		1,091	5.4
Stayed single		1,818	9.8		1,607	8.7
Married to single		194	10.9		302	16.9
Single to married		683	18.0		354	9.3
Number of children	4,261			3,354		
Change		866	10.0		722	8.4
No change		3,395	9.5		2,632	7.4
Employment	4,261			3,354		
Stayed employed		2,591	9.4		1,944	7.0
Stayed unemployed		516	9.2		443	7.9
Employed to unemployed		561	8.9		459	7.3
Unemployed to employed		593	12.5		508	10.7

### Direction of Repeat Migration Rates by Racial/Ethnic Group

Based on the review of literature associated with this study, six hypotheses and several questions have been proposed in relation to the descriptive examination of the data set. The following addresses these hypotheses and questions based on the descriptive statistics tabulated by race/ethnicity. Table 4 shows the percentages of migration for each racial/ethnic group by selected characteristics. This table makes comparisons within groups, in order to determine if these patterns are consistent for members of the three different race/ethnicities.



*Hypothesis 1.* All race/ethnicities will exhibit lower percentages of both onward and return repeat migration, as length of residence (in years) increases. This hypothesis is supported by the descriptive analysis. Percentages of onward and return migration decrease successively for blacks, Hispanics and whites as the duration, or length of residence, increases.

*Hypothesis 2.* All race/ethnicities in the non-metro categories will have higher percentages of onward and return migration. Whereby past studies have show that individuals are more likely to move from rural to urban (or non-metro to metro) areas, this study confirms these findings, and supports this hypothesis. Percentages of both onward and return migration are higher in the non-metro categories than metro for blacks, Hispanics, and whites.

*Hypothesis 3.* All race/ethnicities between the ages of 21-25 will have the highest percentages of onward and return migration. Numbers of onward and return migration are in fact highest in this age category for blacks, Hispanics, and whites, thereby confirming this hypothesis. It should be noted however, that differentials are extremely slight in some instances.

*Hypothesis 4.* All race/ethnicities at the highest levels of educational attainment will have the highest percentages of onward migration. This hypothesis is supported in the analysis. Those with college educations display the highest figures of onward migration in all three categories of black (10.5%), Hispanic (8.7%) and white (14.1%). Again, however the differential is extremely slight in the white group, where percentages of those with college educations only exceed those with some college by .1%.

*Hypothesis 5.* All race/ethnicities at the lowest levels of educational attainment will have the highest percentages of return migration. This hypothesis is not supported by this study, in that the patterns are not consistent within the different racial/ethnic groups. Where past studies have claimed those with the lowest levels of education are most likely to be return migrants, this analysis only finds evidence of this in the white categorization. However, as mentioned previously, DaVanzo and Morrison (1981; DaVanzo 1983) used only whites in their analysis. For blacks, return percentages are slightly higher in the 12 years (8.6%) categorization.

For Hispanics percentages of return are higher in both the 12 years (6.6%) and college (6.6%) categories, which may demonstrate that Hispanic individuals obtain educational credentials and then return to areas where they previously resided. For whites however, the numbers show the opposite effects of education, that is those within the categories of less than 12 years (9.4%) and some college (8.5%) show the highest figures of return.

*Hypothesis 6.* All race/ethnicities in the does not own home categories will have the highest percentages of onward and return migration. This analysis also confirms this hypothesis that speaks to past studies showing individuals are more likely to move if they do not own their own home(s). Figures for both onward and return migration are higher for blacks, Hispanics and whites in the does not own home category.

Additional information is provided regarding patterns found within the age groups. For onward migrants, the age groups with the second highest percentages, following 21-25, are less than 21, for blacks (11.5%), Hispanics (7.3%), and whites (16.7%). In terms of return migration, the age patterns are the same for blacks and whites

TABLE 4. REPEAT MIGRATION PERCENTAGES BY RACE/ETHNIC GROUP

Selected Characteristics	Black			Hispanic			White		
	N	% return	% onward	N	% return	% onward	N	% return	% onward
Length of Residence									
Less than 3 years	3,892	16.1	10.4	2,590	14.9	9.0	12,605	13.9	15.3
3-5 years	1,122	6.6	9.7	824	6.6	5.0	3,342	7.2	11.4
6-9 years	1,517	3.1	7.0	1,269	2.7	4.4	4,210	3.0	9.5
10 or more years	3,323	1.0	4.8	3,208	0.7	3.7	7,811	1.3	7.3
Place									
Metro	8,172	7.9	7.3	6,829	5.9	5.1	21,097	7.6	11.5
Non-metro	1,682	8.3	10.9	1,062	8.9	9.2	6,871	9.1	12.5
Age									
Less than 21 yrs	710	9.0	11.5	784	5.1	7.3	2,336	10.4	16.7
21-25 yrs	2,205	9.7	11.8	1,930	8.5	7.8	7,751	10.5	17.3
26-30 yrs	2,527	9.0	7.9	1,933	6.5	5.7	7,359	7.9	12.0
31-35 yrs	2,457	6.7	6.1	1,866	5.8	4.7	5,968	6.5	7.4
36 yrs and older	1,955	5.7	4.4	1,378	4.1	3.2	4,554	4.3	5.0
Education									
Less than 12 yrs	1,686	8.2	6.6	2,067	6.0	4.4	3,455	9.4	11.0
12 yrs	4,050	8.6	7.5	3,051	6.6	5.2	10,995	7.8	9.1
Some college	2,568	7.7	7.7	1,968	6.0	6.6	6,111	8.5	14.0
College	1,550	6.3	10.5	806	6.6	8.7	7,407	7.0	14.1
Gender									
Male	4,363	9.2	8.0	3,610	7.1	5.5	12,979	8.2	11.8
Female	5,491	7.0	7.8	4,281	5.6	5.9	14,989	7.7	11.6
Marital Status									
Never-married	4,942	8.3	8.7	2,671	7.4	7.2	9,052	9.6	16.0
Married	3,237	7.4	7.4	4,096	5.1	4.7	15,534	6.6	9.4
Divorced, widowed, separated	1,675	8.1	6.4	114	8.1	6.0	3,382	9.6	11.0
Age of Children									
Less than 1 yr	626	6.9	9.7	711	5.6	4.9	2,249	7.6	11.1
1-6 yrs	2,801	7.1	6.9	2,701	5.5	4.3	7,671	6.7	8.7
7 yrs or greater	1,763	5.1	5.0	1,335	4.0	4.3	3,604	5.2	5.4
No children	4,664	9.7	9.3	3,144	8.1	7.7	14,444	9.3	15.0

TABLE 4. REPEAT MIGRATION PERCENTAGES BY RACE/ETHNIC GROUP

Selected Characteristics	Black			Hispanic			White		
	N	% return	% onward	N	% return	% onward	N	% return	% onward
Own Home									
Does not own	7,614	9.0	9.0	5,278	7.8	6.7	15,621	10.5	15.8
Does own	2,240	4.3	4.1	2,613	3.1	3.6	12,347	4.6	6.6
Employment Status									
Employed	7,028	7.8	7.4	5,817	5.9	5.3	22,183	7.3	11.2
Not employed	2,826	8.4	9.1	2,074	7.3	3.6	5,785	10.4	13.6
Income									
Lowest									
Quartile	3,659	8.6	7.3	1,999	7.8	6.6	5,188	11.4	14.9
Second lowest	2,548	8.6	8.9	2,189	6.3	5.4	6,272	9.2	12.0
Second highest	1,906	8.1	7.8	1,902	5.6	5.6	7,665	6.7	10.2
Highest									
Quartile	1,741	5.6	7.8	1,801	5.4	5.1	8,843	6.0	10.9
<i>Change in Status Characteristics</i>									
Place									
Metro to metro	7,937	6.9	6.3	6,629	5.1	4.2	20,107	6.5	9.4
Non-metro to non-metro	1,406	3.9	4.3	847	2.7	3.7	5,760	4.7	6.0
Metro to non-metro	178	50.0	36.5	141	37.6	44.0	826	33.3	53.8
Non-metro to metro	264	31.1	44.7	202	34.2	31.2	1,041	33.0	47.3
Marital Status									
Stayed married	2,858	5.7	7.2	3,767	4.7	4.6	14,340	5.6	9.0
Stayed single	5,939	8.2	7.3	3,197	7.6	5.6	9,789	9.5	13.2
Married to single	379	19.5	8.2	329	9.7	5.5	1,192	17.9	13.9
Single to married	678	8.6	15.6	598	7.4	13.0	2,642	10.0	20.1
Number of children									
Change	1,803	9.5	9.7	1,684	7.1	6.1	5,249	8.5	12.0
No change	7,857	7.5	7.5	6,023	6.1	5.5	22,198	7.8	11.7
Employment									
Stayed employed	5,521	7.4	7.4	4,665	5.7	5.3	18,334	7.3	11.3
Stayed unemployed	1,651	8.7	7.3	1,208	5.8	5.3	2,944	8.6	12.5
Employed to unemployed	1,481	8.8	7.4	1,129	6.6	5.6	3,795	7.2	11.2
Unemployed to employed	1,170	8.0	11.5	859	9.3	8.8	2,830	12.4	14.7

in that the categories with the second highest figures occur in the less than 21 group (although in the black column the percentage is the same for the age category 26-30. This, and the Hispanic age pattern reflects what is anticipated, that those 26-30 have the second highest percentages of migration. Gender patterns of return migration are the same for all groups; males display higher numbers than females; blacks (9.2%), Hispanics (7.1%), and whites (8.2%). Onward migrants however, display higher figures for onward Hispanic females (8.0%), and the black and white female percentages are only .2% smaller than the males in these groups.

Patterns by marital status are the same for onward migrants; those in the never married categories show the highest percentages for all racial/ethnic groups. However, there are some differences in all three groups in the patterns of return. Numbers of return display a common pattern in the variables relative to children's ages; those in the no children category have the highest percentages for blacks (9.7%), Hispanics (8.1%), and whites (9.3%). But again, there is variation in the pattern for onward migrants within this variable as blacks have the highest numbers of onward migration in the less than one year category (9.7%).

Although the patterns of return migration are again consistent for the three racial/ethnic groups in terms of the employment variable, Hispanics display an interesting difference in terms of onward migration. As previously noted, past literature finds those not employed are more likely to migrate than the employed (Mincer 1978; Shaw 1975). However, when stratified by race/ethnicity these figures show that employed (5.3%) Hispanics have higher percentages of onward migration than those not employed (3.6%).

Patterns of repeat migration are similar for the three groups in terms of income levels, except for one category in which blacks highest number of onward migration fall in the second lowest earnings quartile (8.9%).

The variables relative to change in status characteristics display that blacks, Hispanics and whites share patterns of percentage distributions in the change in marital status and change in number of children variables. There are slight differences however, in the change in employment status variable. Figures follow a consistent pattern for all three groups in terms of onward migration, with those in the unemployed to employed displaying the highest numbers. But in terms of return migration blacks display the highest figures in the employed to unemployed (8.8%) categorization.

### **Summary of Descriptive Techniques**

Five of the six hypotheses relative to the descriptive analysis are supported. Based on previous research these hypotheses assert the null hypothesis, that there will be no differences found in the patterns of repeat migration analyzed within the racial/ethnic groups of blacks, Hispanics and whites. The hypotheses specific to (1) duration of residence, (2) movement from non-metro places, (3) age, (4) home ownership, and (5) education relevant to onward migration, are supported.

One hypothesis could not be supported (*Hypothesis 5: percentages of return migration will be higher for all race/ethnicities at the lowest levels of educational attainment*). Although it was anticipated that lower levels of education would result in higher percentages of return migration for blacks, Hispanics, and whites, this is only

supported within the white group. It is interesting to note that where Hispanics return at higher numbers in those educational categorizations which represent completion of high school and college level credentials, whites return more within those categories not representing completion of those credentials.

The figures presented in Table 4 are stratified by race/ethnicity to examine the overall patterns of onward and return migration for blacks, Hispanics, and whites. These patterns hold across the different race/ethnicities in 10 of the 14 variables<sup>5</sup> for both onward and return migrants. However, they are not consistent within variables. In terms of onward migration, percentages do not occur in similar patterns within the following variables: (1) gender (Hispanic differences), (2) age of children (black differences), (3) employment (Hispanic differences), and (4) income (black differences).

Examination of the return migration figures show percentages do not occur in similar patterns within the variables: (1) age groups other than 21-25 (Hispanic differences), (2) education (differences in all race/ethnicities), (3) marital status (differences in all race/ethnicities), and (4) change in employment status (differences for blacks).

### **Logistic Regression Models**

Logistic regression analyses are conducted to examine what factors predict an individual's propensity to make a repeat migration onward to a new place, or return to a place of prior residence. Table 5 presents the results of six logistic regressions for three models of repeat migration in terms of odds ratios. An odds ratio greater than one

indicates that the odds of migration (in either direction) increases while the independent variable increases.

In Model 1 the racial/ethnic variable is the only one regressed, and shows that both blacks and Hispanics are less likely than whites to make an onward migration, and these relationships are statistically significant, or stated another way, there is a large influence on the dependent variable. Model 1 for return migration shows that blacks are nearly as likely as whites to return (.987), but Hispanics are only as likely to make a return migration as whites at a ratio of .774. The Hispanic relationship of return migration shows statistical significance, whereas the black relationship does not.

The last two hypotheses of this study are addressed by analyzing outputs of the logistic regression models, for differences in repeat migration patterns across racial/ethnic groups, once other factors are controlled.

*Hypothesis 7.* The likelihood of onward migration will be the same for all racial/ethnic groups when other variables are controlled. This hypothesis is not supported in this multivariate logistic regression analysis. Both Models 2 and 3 control for all of the other variables included in this study. The structural differences between Models 2 and 3 come from replacing the static variables relative to marital status, number of children, and employment, with the change in status variables related to these characteristics. In relation to repeat migration, all three models show that blacks and Hispanics are less likely to be onward migrants than whites, at highly statistical significance levels. Moreover, the odds only slightly increase for both blacks and Hispanics when other variables are controlled (Models 2 and 3). This is a very important finding of this study,



TABLE 5. ODDS RATIOS FOR INDIVIDUAL LEVEL FACTORS OF THE PROBABILITY OF REPEAT MIGRATION

	Onward		Return		Onward		Return		Onward		Return	
	Model 1	(S.E.)	Model 1	(S.E.)	Model 2	(S.E.)	Model 2	(S.E.)	Model 3	(S.E.)	Model 3	(S.E.)
Constant	-2.043	0.019	-2.459	0.023	-1.772	0.077	-1.57	0.084	-1.963	0.077	-1.934	0.084
Race/Ethnicity												
Black	.637**	0.043	0.987	0.044	.670**	0.045	0.976	0.048	.675**	0.045	0.941	0.048
Hispanic (White)	.447**	0.054	.774**	0.053	.527**	0.056	0.915	0.056	.523**	0.056	0.914	0.056
Length of Residence												
(>3 years)												
3-5 years					.869**	0.053	.476**	0.06	.864**	0.053	.470**	0.06
6-9 years					.780**	0.052	.193**	0.077	.774**	0.052	0.19**	0.077
10 years <					.590**	0.045	.068**	0.086	.584**	0.045	0.067**	0.086
Place												
(Metro)												
Nonmetro					1.299**	0.039	1.114*	0.045	1.273**	0.04	1.112*	0.045
Age												
Less than 21 yrs (21-25 yrs)					1.091	0.059	0.967	0.07	1.103	0.04	0.959	0.07
26-30 yrs					.755**	0.044	0.945	0.05	.772**	0.043	0.978	0.049
31-35 yrs					.563**	0.055	0.987	0.059	.581**	0.053	1.036	0.056
36 yrs and older					.422**	0.071	0.939	0.073	.411**	0.068	0.932	0.07
Education												
(Less than 12 yrs)												
12 yrs					1.170**	0.055	1.016	0.056	1.179**	0.055	1.038	0.056
Some college					1.685**	0.059	0.914	0.063	1.725**	0.059	0.954	0.063
College					2.182**	0.064	.755**	0.071	2.252**	0.063	.819**	0.069
Gender												
(Male)												
Female					1.002	0.035	.915*	0.04	0.963	0.034	.892**	0.039

Variables in parentheses indicate reference categories

\*p&lt;=.05 \*\*p&lt;=.01

TABLE 5. ODDS RATIOS FOR INDIVIDUAL LEVEL FACTORS OF THE PROBABILITY OF REPEAT MIGRATION

	Onward		Return		Onward		Return		Onward		Return	
	Model 1	(S.E.)	Model 1	(S.E.)	Model 2	(S.E.)	Model 2	(S.E.)	Model 3	(S.E.)	Model 3	(S.E.)
<b>Marital Status</b>												
Never-married (Married)					.882**	0.048	0.956	0.054				
Divorced, widowed, separated					1.034	0.059	1.069	0.062				
<b>Own Home</b>												
(Does not own) Does own					0.534**	0.047	.614**	0.052	.525**	0.047	.635**	0.053
<b>Age of Children</b>												
Less than 1 yr					.853*	0.069	.818*	0.079				
1-6 yrs					.804**	0.049	.877*	0.054				
7 yrs or greater (No children)					.858*	0.072	0.875	0.075				
<b>Employment Status</b>												
(Employed) Not employed					1.184**	0.047	1.194**	0.045				
<b>Income</b>												
Lowest Quartile					1.069	0.053	1.135*	0.061	1.041	0.053	1.074	0.061
Second lowest					1.021	0.049	1.135*	0.057	1.003	0.049	1.093	0.057
Second highest (Highest Quartile)					0.967	0.047	1.022	0.057	0.957	0.048	0.998	0.057
<u>Change in Status</u>												
<b>Marital Status</b>												
(Stayed married) Stayed single									.912*	0.045	1.308**	0.05
Married to single									1.271**	0.083	3.096**	0.076
Single to married									1.578**	0.056	1.272**	0.07

Variables in parentheses indicate reference categories

\*p<=.05 \*\*p<=.01

TABLE 5. ODDS RATIOS FOR INDIVIDUAL LEVEL FACTORS OF THE PROBABILITY OF REPEAT MIGRATION

	<u>Onward</u>		<u>Return</u>		<u>Onward</u>		<u>Return</u>		<u>Onward</u>		<u>Return</u>	
	Model 1	(S.E.)	Model 1	(S.E.)	Model 2	(S.E.)	Model 2	(S.E.)	Model 3	(S.E.)	Model 3	(S.E.)
Number of children (Change)												
No change									1.031	0.043	1.112*	0.048
Employment (Stayed employed)												
Stayed unemployed									1.143*	0.056	1.081	0.061
Employed to unemployed									1.319**	0.052	1.285**	0.059
Unemployed to employed									1.358**	0.052	1.403**	0.057
Model ChiSquare	323.247		25.654		1840.17		2884.346		1972.939		3108.683	
-2 LogLikelihood	27730.82		23735.22		26213.89		20876.53		26081.12		20652.19	

Variables in parentheses indicate reference categories

\*p<=.05 \*\*p<=.01

as it may represent more opportunity for onward migration for whites than blacks or Hispanics.

*Hypothesis 8.* The likelihood of return migration will be the same for all racial/ethnic groups when other variables are controlled. Support for this hypothesis is found in the analysis of the return logistic regression Models 2 and 3 (which control for factors outside of race/ethnicity). As previously mentioned, model 1 shows Hispanics are only as likely to make return migrations at the level of whites at a ratio of .774 to one, which is statistically significant. However, when the other variables are controlled, not only does the statistical significance of the relationship disappear, but odds of return migration for both blacks and Hispanics draw proportionately closer to those of whites. Because blacks are .976 (Model 2) and .941 (Model 3) as likely to return migrate as whites, and because Hispanics are .915 (Model 2) and .914 (Model 3) as likely to return migrate as whites once other variables are controlled, this study confirms that the likelihood of return migration is the same for these three groups.

The findings for Hispanics are interesting because these are acclimated, or assimilated, Hispanics. Indeed this may be what present day immigrant trends may look like when they have been in the U.S. for a generation. Furthermore, the findings for Hispanics are only different from the whites until their results are controlled for other variables. Therefore, the other variables may well be the key to explaining Hispanic differences. Once the group is fully integrated into U.S. society, then they may not look terribly different than whites.

Beyond supporting, and failure to support, the above mentioned hypotheses, the models of logistic regression show interesting, and significant relationships for both

onward and return migrants. In Model 2 of the onward regression every category of every variable shows statistical significance except for the following: (1) age less than 21, (2) gender, (3) divorced/widowed/separated, and (4) all income categorizations. When Model 2 is regressed for return migration, that number of non-significant variables is increased to include: (1) race/ethnicity, (2) all age categories, (3) all education categories except college, (4) married, and (5) children over age 7, (as well as those already mentioned in relation to onward migration).

There are differences in statistically significant relationships in Model 2 across the onward and return regressions. Specifically, the return migration regression shows gender, and the two lowest income categorizations as being statistically significant, whereas in the onward regression (of Model 2) they are not. The statistic yielding the highest numeric relationship in Model 2 occurs in the onward regression; those with college educations are more than twice as likely than those with less than high school educations to be onward migrants. Further supporting the work of DaVanzo and Morrison (1981; DaVanzo 1983).

Where variables show statistically significant relationships in Model 2, the strength of these relationships persist in Model 3. However, Model 3 replaces three of the static measurements with change variables. In the change in marital status relationship to both onward and return migration, all of the categories display statistically significant figures, or relationships. In making comparisons across the direction of repeat migration (in Model 3) those who changed from single to married are one and a half (1.578) times as likely to be onward migrants than those who fall into the stayed married group. Conversely, those who change from married to single are three times as likely (3.096) to

make a return migration than those in the stayed married reference group. The change in number of children variable also shows a significant relationship in the return regression of Model 3, but not the onward.

The change in employment status variable yields statistically significant figures in different categories of different direction as well. Those in the stay employed category show a significant relationship to onward migration, whereas those in the change categories do so in relationship to return. Specifically those who change from employed to unemployed are more likely to return migrate at a ratio of 1.285 than those who stayed employed, and those in the unemployed to employed group are more likely to return migrate at a ratio of 1.403.

### **Summary of Multivariate Logistic Regression Techniques**

Analyses of the multivariate logistic regression methods for both onward and return migration yield interesting results that support one of the relevant hypotheses, but not the other. Specifically, the null hypothesis is rejected in terms of this study's Hypothesis number 7 (*the likelihood of onward migration will be the same for all racial/ethnic groups when other variables are controlled*), but the null hypothesis is supported in relation to hypothesis 8. The most important finding of these results show that blacks and Hispanics are less likely than whites to be onward migrants. This is represented in all three models of onward migration at statistically significant levels in

each model. This is not true of return migration, especially when other factors are controlled.

Both Models 2 and 3 of the analyses provide interesting and relevant results both within, and across categories of onward and return migration. Specifically Model 2 shows statistically significant differences in the likelihood of return migration for females, and those in the two lowest income categories. In relation to onward migration, those at the highest levels of education display the highest probability of onward migration. Model 3 introduces the variables operationalized to represent change of status within the categories of marital status, number of children and employment. As suspected, regression of the variables yields statistically significant, and interesting results. In particular those who change their status from single to married are likely to move onward, and those who change status from married to single are likely to return. The change in status employment variable also shows increased likelihood for return migration when changes occur within employment status.

## CHAPTER V

## SUMMARY AND CONCLUSIONS

This chapter summarizes the purpose of this study, methods applied, and major findings. Whereby methodological limitations of this study are presented in Chapter III, further theoretical limitations are presented in this chapter. Additionally, implications for future research are discussed within the context of the findings presented here.

The purpose of this study has been to examine the patterns of U.S. repeat migration for non-Hispanic blacks and whites, and Hispanics. Building on prior research by DaVanzo and Morrison (1981; DaVanzo 1983), particular to onward and return repeat migration, it investigated the relationships and patterns of these different racial/ethnic groups utilizing the National Longitudinal Survey of Youth 1979 (NLSY79). Repeat migration within and across categories of individual characteristics for blacks, Hispanics and whites, was compared in order to determine if there are differences in the overall rates of repeat migration for these groups, once other factors were controlled.

To do this several statistical procedures were utilized, and the results of selected descriptive and logistic analyses have been presented. The first included frequencies and cross tabulations of the selected variables for onward and return migration stratified by race/ethnicity. These analyses examined patterns within the racial/ethnic groups in order to address specific questions, and the first six hypotheses of this study. The descriptive analyses also uncovered important findings in relation to onward and return migration, and to relationships of independent variables, and the direction of repeat migration. The



second included logistic regression analyses for the sample as a whole, in order to examine the effects across racial/ethnic groups, and the direction of migration, in order to test the last two hypotheses of this study.

The eight hypotheses tested were:

*Hypothesis 1.* All race/ethnicities will exhibit lower percentages of both onward and return repeat migration, as length of residence (in years) increases.

*Hypothesis 2.* All race/ethnicities in the non-metro categories will have higher percentages of onward and return migration.

*Hypothesis 3.* All race/ethnicities between the ages of 21-25 will have the highest percentages of onward and return migration.

*Hypothesis 4.* All race/ethnicities at the highest levels of educational attainment will have the highest percentages of onward migration.

*Hypothesis 5.* All race/ethnicities at the lowest levels of educational attainment will have the highest percentages of return migration.

*Hypothesis 6.* All race/ethnicities in the does not own home categories will have the highest percentages of onward and return migration.

*Hypothesis 7.* The likelihood of onward migration will be the same for all racial/ethnic groups when other variables are controlled.

*Hypothesis 8.* The likelihood of return migration will be the same for all racial/ethnic groups when other variables are controlled.

The first six hypotheses were investigated using bivariate analysis, and logistic regression was employed to test hypotheses seven and eight. All but hypotheses 5 and 7 were supported.

### **Major Findings**

Where past research has not investigated the complexities of repeat migration in combination with race/ethnicity, there are several important findings from this study. This research analyzed the direction of repeat migration in terms of onward and return, and made comparisons within and across the racial/ethnic groups of blacks, Hispanics and whites. This study lends support to many preceding it. Past findings of the significance of (1) length of residence, (2) the character of a place in terms of metro or non-metro, and (3) homeownership continue to produce significant relationships, regardless of the direction of repeat migration. These variables also show consistent significance in terms of all three race/ethnicities for both onward and return migrants. However, while many of the results of this present work match those found in previous research, there are a number of differences, which add to the study of repeat migration.

### **Onward Migration Across Race/Ethnicity**

The most important finding of this study is significantly lower rates of onward migration for blacks and Hispanics than for whites. This difference persisted in three

models of a multivariate logistic regression showing that blacks and Hispanics are less likely to be onward migrants than whites, at highly statistical significance levels. Moreover, the odds only very slightly increase for both blacks and Hispanics when other variables are controlled. This is an important finding because it suggests blacks and Hispanics are migrating to a smaller number of destinations. As Sandefur and Jeon (1991) indicate, this implies that their labor market is smaller and may thereby limit their chances of socioeconomic advancement, or pursuit of the full array of opportunities offered in American communities.

As illustrated, comparisons of the rates at which blacks, Hispanics, and whites make repeat migrations, and the direction of these migrations, is important. The redistribution of these groups within the larger society is influenced by repeat migration, and for the individual the rates might be important for increasing understanding of whether migration is utilized differentially during the years when careers and families are being built. Theories of selective migration speak to certain similar characteristics among individuals that make them more likely to migrate; these characteristics seem to be missing in those who do not migrate. Because migration is selective, there is a difference, depending on age, sex, race, and education, in migration rates of various groups. This study reveals that whites are more likely to be selected as onward migrants than blacks or Hispanics, even when other variables are controlled.

These results lead to questions such as: does being more likely to make an onward move represent increased opportunity? Or, does being less likely to make an onward move represent 'negative selectivity?' "Those migrants who are pushed, and presumably

exercise comparatively little choice, are described as 'negatively' selected; those who are pulled, and presumably chose to move, are seen as 'positively' selected" (Falk et al. 2004:491). As stated earlier, the migration process provides means for individuals to escape less desirable local conditions and/or to seek opportunities in nearby or distant locations. As such, migration may be genuinely viewed as an adjustment of individuals to differential opportunity levels, with opportunities defined broadly to include the economic and social structure of places. If members of some groups are spatially separated from areas of greatest opportunities, or concentrated in areas with limited opportunities, their prospect for upward mobility is thereby limited.

Do these results mean that blacks and Hispanics are limited? Or, do they indicate that moving onward to new places is not as important, or desirable, to these minority groups as it is to whites? "The paths beaten by migrants run both ways, and many persons who traverse them in one direction may harbor a lasting predisposition to journey back" (DaVanzo and Morrison 1981:86). There has been much written about places of residence and sentiment, or what Smith (2002) refers to as "place attachment," a psychological process capturing the emotions that people develop about places. Von Reichert (2002) claims places do have a hold on people, and specific to the return migration of blacks to the South, Stack (1996) notes that there is the possibility that those moving South are reclaiming a new land of promise, and/or are returning home. However, because the relationships between these minority groups and return migration in this present study are not significant, these results seem to indicate the former, that there are more opportunities for whites to become onward migrants than blacks or Hispanics.

### Repeat Migration and Change in Marital Status

Another important finding of this study is the change in marital status relationship to both onward and return migration. Here all of the categories display statistically significant figures, or relationships. In making comparisons across the direction of repeat migration those who changed from single to married were one and a half times as likely to be onward migrants than those who fell into the stayed married group. Conversely, those who changed from married to single were more than three times as likely to make a return migration than those in the stayed married reference group.

Mincer (1978) finds married persons are less likely to move than singles, and the mobility of separated and divorced individuals are by far the highest. "The fact that the divorced/separated status is a particularly strong predictor of this component of the return migration phenomenon suggests a motivation to return to kin-defined places as a survival strategy" (Falk et al. 2004:506). To examine change in marital status a measurement of staying married or staying single, and the changes from married to single, and single to married was employed. Operationalizing the data in this way allowed for specific analysis, which goes beyond examining any change producing a move, to a particular type of change producing a particular type of move.

In the descriptive analysis of the present study, where relationships were stratified by race, the variables relative to change in status characteristics displayed that blacks, Hispanics and whites share patterns of percentage distributions in the change in marital status variable. This research attempts to add to the body of literature relevant to migration, not only in terms of supporting relationships that are already known to exist, but also by incorporating measures new to the study of migration at large. Creating and

analyzing variables relevant to change in individual status, compared to individual status at a single, or static point in time, is one of the ways this research attempts to build on prior work. In order to focus on these changes in relation to the direction of repeat migration, variables were constructed measuring the effects of change within each time interval.

Although past research has referenced change in marital status and migration (Falk et al. 2004; Mincer 1978), there are not studies focused on the type of change in marital status in conjunction with the direction of repeat migration. Therefore, finding these significant relationships in both logistic and descriptive analyses is important.

#### **Return Migration, Race/Ethnicity, and Education**

A further important finding of this study is that past research showing higher rates of return for the least educated whites does not apply to blacks and Hispanics. The lower rates of return migration for the least educated was noted as one of the most distinguishing features of return migration in DaVanzo and Morrison's (1981) classic study, and led them to conclude that return migration was highly selective. Again, analysis was limited to whites since the PSID did not include a sufficient number of blacks or Hispanics for race/ethnic comparisons. In the present study blacks return rates are slightly higher in the 12 years categorization. For Hispanics, rates of return are higher in both the 12 years and college categories.

This is an important finding, which demonstrates Hispanic individuals (and blacks at the high school level) are more likely to be return migrants in categories represented by educational credentials. However, for whites the rates show the opposite effects of education and return migration; those within the categories of less than 12 years and some college show the highest rates of return. These statistics again lead to questions about why these differences between racial and ethnic groups exist. There are a number of possibilities that we were not able to examine in this study. Do Hispanics (and blacks) see education as a means of human capital that will help them return to desired areas? Conversely, do whites only return to previous areas when educational credentials are not obtained? Or from a human capital perspective, is higher education more valuable to minorities in prior residences, whereas whites with high levels of human capital can use it to pursue opportunities in new locations. This, again, would limit the ability of blacks and Hispanics to fully benefit from their investments in human capital.

### **Onward Migration, Race/Ethnicity, and Employment Status**

The last important finding is that Hispanics who make repeat migrations onward do not fall into typical employment categorizations. According to Shaw (1975) unemployment acts as a push factor, in which an individual is more likely to leave an area in search of employment elsewhere. Furthermore, migration rates for those who are unemployed tend to be higher than for those who are employed (Mincer 1978). The descriptive analyses of the present study confirm findings like these in every area except

for Hispanics. The statistics examined support findings like this for all racial and ethnic groups in terms of return migration, and for blacks and whites in terms of onward migration. Yet, when stratified by race/ethnicity, these figures show that employed Hispanics have higher rates of onward migration than those not employed.

As previously noted, the absence of ethnic and racial comparisons of repeat migration is a most important breach in the body of research on repeat migration, particularly with panel data. Moreover, the deficiency of repeat migration research is particularly significant for Hispanics. A major reason for this gap is that the earliest panel data did not include enough Hispanics for meaningful comparisons. In analyzing the Hispanics of the NLSY79 researchers can better understand this growing minority.

Although the U.S. is experiencing growth in its Hispanic population due to present international immigration, those members of the sample who identify themselves as Hispanic, were already in the U.S. when the survey began in 1979, prior to the more recent increase in immigration that is capturing much attention. However, considerable research refers to long term Hispanic residents as pioneers, revealing that earlier Hispanic immigrants and Hispanic natives are paving migration, career, and other paths that many recent immigrants are following (Hernandez-Leon and Zuniga 2000; Zuniga and Hernandez-Leon 2002). Thus, exploring the migration patterns of this group could lead to better understanding of how recent immigrants are dispersing themselves across American society.



### **Limitations**

Beyond the limitations cited in Chapter III in terms of data, or methodological limitations, other, more theoretical limitations have emerged, and are noted here. Different definitions of migration in terms of geographic boundaries are often debated in research like this. Therefore, this study may be limited in that it uses pre-established definitions of return and onward migration, and the data examined only employs cross-county information. This study examines repeat migration patterns of persons of certain ages; a more comprehensive study might include data on individuals of all ages.

In terms of theoretical operationalization of variables incorporated into the statistical analyses, extra consideration should be taken in analyzing the results of the change in status variables. Whereby the static variables measure individual characteristics at a particular point in time (the beginning of the time interval), the change in status variables could capture changes that occur following the migration occurring within the time interval, rather than preceding it. Lastly, not pinpointing the time of migration in combination with the time in which educational credentials are obtained, makes it hard to determine if the outcomes are a result of return migrations occurring prior to, or following the completion of educational credentials.

### **Conclusions**

This study analyzes the direction of repeat migration in terms of onward and return, and makes comparisons within and across the racial/ethnic groups of blacks, Hispanics, and whites. Past research investigating repeat migration has been limited due

to data issues. Data issues have also been problematic in studies relative to racial/ethnic comparisons, where internal U.S. migration is concerned. While several of the results of this present work match those found in previous research, there are a number of differences, which lead to many implications for the study of repeat migration.

Specifically, this study finds that in terms of onward migration, whites are significantly more likely to move onward than are blacks or Hispanics. Past research notes the relationship between divorced and separated individuals likelihood to migrate (Mincer 1978), and there is some reference to the relationship of divorce and return migration (Falk et al. 2004). The fact that this research uses contemporaneous change variables is important and unique. This present study shows that a change in marital status is not only significantly related to migration, but also the direction of repeat migration. Moreover, there are differences in rates of return migration by level of education for racial/ethnic groups. In fact these differences are very interesting in that the highest rates of return occur in the opposite educational categorizations for Hispanics and whites. This research also finds that the relationship between onward migration and employment status is different for Hispanics than blacks and whites.

Further investigation is necessary in understanding what is happening in the different age groups. This study does confirm that those 21-25 display the highest percentages of return and onward migration for all racial/ethnic groups. However, variations in the pattern of percentages that occur for return migrants, especially whites, are surprising. Moreover, the fact that the second highest rates of onward migration for blacks, Hispanics and whites are occurring in the age group 18-21 should be examined more closely in future research. It should be noted however that in this study, when age is

controlled, many other things disappear. This displays that age is an important factor, but what is most interesting is that when age is controlled, there are still differences between racial and ethnic groups. Future studies should also continue to investigate the differences and importance of measuring variables in relationship to static time versus changes occurring contemporaneously within time intervals (Halaby 2004).

Many prior studies emphasize the importance of kin networks in migration research, and some suggest that relatives are more important in the migration of minorities than in the migration of whites. This suggests that the location of relatives plays a greater role in shaping the migration of Hispanics and blacks than it does for whites. This may help explain the higher rates of return migration for Hispanics and blacks than for whites, and the higher rates of onward migration for whites than for these groups. This could also be an indication that whites have more destination options in which to seek opportunities. Unfortunately, the NLSY79 does not include information on the location of relatives or other important social contacts. The location of relatives and friends is a promising avenue for future research that attempts to explain why Hispanics and blacks are more likely to return to prior places of residence.

## REFERENCES

- Adelman, R.M., C. Morett, and S.E. Tolnay. 2000. "Homeward Bound: The Return Migration of Southern-Born Black Women 1940 to 1990." *Sociological Spectrum* 20:433-463.
- Allison, P.D. 1984. *Event History Analysis: Regression for Longitudinal Event Data*. Beverly Hills, CA: Sage.
- Bailey, J.A. 1989. "A Longitudinal Analysis of the Migration of Young Adults in the United States," Doctoral dissertation, Department of Geography, Indiana University.
- Blaug, M. 1976. "The Empirical Status of Human Capital Theory: A Slightly Jaundiced Survey." *Journal of Economic Literature* 14:827-855.
- Borjas, G.J., Bronars, S.G., and Trejo, S.J. 1990. "Self-Selection and Internal Migration in the United States." Discussion Paper, National Longitudinal Surveys, U.S. Department of Labor Bureau of Labor Statistics. Report: NLS92-14.
- Bowman, M. and R.G. Myers. 1967. "Schooling, Experience and Gains and Losses in Human Capital Through Migration." *Journal of the American Statistical Association* 62:875-898.
- Bridges, W. 1980. "Transitions." Reading, Massachusetts: Perseus Books.
- Campbell, R.R., D.M. Johnson, and G. Strangler. 1974. "Return Migration of Black People to the South." *Rural Sociology* 39:514-528.
- Carrington, W.J., E. Detragiache, and T. Vishwanath. 1996. "Migration with Endogenous Moving Costs." *American Economic Review* 86:909-930.
- Cromartie, J. and C.B. Stack. 1989. "Reinterpretation of Black Return and Non-Return Migration to the South." *Rural Sociology* 39:514-528.
- Curran, S.R. and E. Rivero-Fuentes. 2003. "Engendering Migrant Networks: The Case of Mexican Migration." *Demography* 40:289-307.
- DaVanzo, J. 1983. "Repeat Migration in the United States: Who Moves Back and Who Moves On?" *The Review of Economics and Statistics* 65:552-559.
- and F.K. Goldscheider. 1990. "Coming Home Again: Returns to the Parental Home of Young Adults." *Population Studies* 44:241-255.

- and P.A. Morrison. 1981. "Return and Other Sequences of Migration in the United States." *Demography* 18: 85-101.
- Falk, W.W., L.L. Hunt, and M.O. Hunt. 2004. "Return Migrations of African-Americans to the South: Reclaiming a Land of Promise, Going Home, or Both?" *Rural Sociology* 69:490-509.
- Field, A. 2000. *Discovering Statistics Using SPSS for Windows*. London: Sage Publications.
- Freedman, R. and Hawley, A.H. 1950. "Education and Occupation of Migrants in the Depression." *American Journal of Sociology* 56:161-166.
- Garasky, S. and D.R. Haurin. 2001. "Locational Choice Upon First Exit from the Parental Household." Presented at the Population association of America's 2001 Annual Meeting in Washington DC: March 29-31.
- Gordon, I.R. and I. Molho. 1995. "Duration Dependence in Migration Behavior: Cumulative Inertia versus Stochastic Change." *Environment and Planning* 27:1961-1975.
- Grodsky, E. and D. Pager. 2001. "The Structure of Disadvantage: Individual and Occupational Determinants of the Black-White Wage Gap." *American Sociological Review* 66:542-567.
- Green, R.K. and P.H. Hendershott. 2001. "Homeownership and Unemployment in the U.S." *Urban Studies* 38:1509-1520.
- Halaby, C.N. 2004. "Panel Models in Sociological Research: Theory into Practice." *Annual Review of Sociology* 30:507-544.
- Harrison, R.J. and C.E. Bennett. 1995. "Racial and Ethnic Diversity." Pp. 141-210 in *State of the Union: America in the 1990's*, Vol. 2, *Social Trends*, edited by R. Farley. New York: Russell Sage.
- Hernandez-Leon, R. and V. Zuniga. 2000. "Making Carpet by the Mile: The Emergence of a Mexican Immigrant Community in an Industrial Region of the U.S. Historic South." *Social Science Quarterly* 81:49-66.
- Hoffman, J.P. 2004. *Generalized Linear Models; An Applied Approach*. Boston, Massachusetts: Pearson Education.
- Huff, J.O. and W.A.V. Clark. 1978. "Cumulative Stress and Cumulative Inertia: A Behavioral Model of the Decision to Move." *Environment and Planning A* 10: 1101-1119.

- Johnson, K.M. 1999. "The Rural Rebound." *Reports on America* 1(3). Population Bureau, Washington D.C.
- Kandel, W. and D.S. Massey. 2002. "The Culture of Mexican Migration: A Theoretical and Empirical Analysis." *Social Forces* 80:981-1004.
- Kim, Y.T. 2004. *A Longitudinal analysis of Socioeconomic Difference in Obesity and Weight Change During the Early Adult Years*" Dissertation, Department of Sociology, Utah State University.
- Kleiner, M.M. 1982. "Evidence on Occupational Migration." *Growth and Change* 13:43-48.
- Knapp, L.L. 2003. *Racial and Ethnic Differences in Rural and Urban Migration*, MS Thesis, Department of Sociology, Utah State University.
- Korenman, S. and S.C. Turner. 1996. "Employment Contacts and Minority White Wage Differences." *Industrial Relations* 35:106-122.
- Krieg, R.G. 1990. "Does Migration Function to Reduce Earnings Differentials by Race and Gender?" *Annals of Regional Science* 24:211-221.
- Krivo, L.J. and R. Kaufman. 2004. "Housing and Wealth Inequality: Racial-Ethnic Differences in Home Equity in the United States." *Demography* 41:585-605.
- Landinsky, J. 1967. "The Geographic Mobility of Professional and Technical Manpower." *Journal of Human Resources* 2:475-494.
- Lee, E. 1966. "A Theory of Migration." *Demography* 3:47-57.
- Lee, J.Y. 2002. *A Multilevel Analysis of Young Adult Migration, 1980-1998*. Dissertation, Department of Sociology, Utah State University.
- Lieberson, S. 1978. "A Reconsideration of the Income Differences Found Between Migrants and Northern-Born Blacks." *American Journal of Sociology* 83:940-966.
- Liu, B.C. 1975. "Differential Net Migration Rates and the Quality of Life." *The Review of Economics and Statistics* 57:329-337.
- Long, J.F. and C.G. Boertlein. 1990. "Comparing Migration Measures Having Different Intervals" Pp. 1-11 in *Perspectives in Migration Analysis*. Current Population Reports, Special Studies Series Pp. 23-166. Washington DC: U.S. Bureau of the Census.

- Long, L.H. 1973. "New Estimates of Migration Expectancy in the United States." *Journal of the American Statistical Association* 68:37-43.
- Long, L.H. and K.A. Hansen. 1977. "Selectivity of Black Return Migration to the South." *Rural Sociology* 42:317-331.
- Lowry, I.S. 1966. *Migration and Metropolitan Growth: Two Analytical Models*. San Francisco, CA: Chandler.
- Lutz, W., A. Goujon, and G. Doblhammer-Reiter. 1998. "Demographic Dimensions in Forecasting: Adding Education to Age and Sex." *Population and Development Review* 24:42-58.
- Mare, R.D. 1995. "Changes in Educational Enrollment and School Enrollment." Pp. 155-213 in *State of the Union: America in the 1990's*, vol. 1, *Economic Trends*, edited by R. Farley. New York: Russell Sage.
- McHugh, K.E. 1987. "Black Migration Reversal in the United States." *Geographical Review* 77(2): 171-182.
- , P. Gober, and N. Reid. 1990. "Determinants of Short- and Long-Term Mobility Expectations for Home Owners and Renters." *Demography* 27:81-95.
- Mincer, J. 1978. "Family Migration Decisions." *Journal of Political Economy* 86:749-773.
- Newbold, K.B. 1997. "Race and Primary, Return, and Onward Interstate Migration." *Professional Geographer* 49:1-14.
- NLS. 2002. *The National Longitudinal Surveys Handbook 2002*. U.S. Department of Labor Bureau of Labor Statistics. Washington, D.C.
- NLSY79 User's Guide, A Guide to the 1979-2002 National Longitudinal Survey of Youth Data. 2001. Prepared for the US Department of Labor by Center for Human Resources Research, Ohio State University, Columbus, OH.
- Preston, S.H., Heuveline, P., and Guillot, M. 2001. *Demography: Measuring and Modeling Population Processes*. Malden, MA: Blackwell.
- Ravenstein, E. 1889. "The Laws of Migration." *Journal of the Royal Statistical Society* 52.
- Rebhun, U. 1997. "Changing Patterns of Internal Migration 1970-1990: A Comparative Analysis of Jews and Whites in the United States." *Demography* 34:213-223.

- Reimers, C.W. 1984. "Sources of the Family Income Differentials Among Hispanics, Blacks and White Non-Hispanics." *American Journal of Sociology* 89:889-903.
- Rosenbloom, J.L. and W.A. Sundstrum. 2001. "Long-Run Patterns of Interstate Migration in the United States: Evidence from the IPUMS, 1850-1990." Paper presented at the Annual Meeting of the Allied Social Science Association, New Orleans, LA, January 5-7.
- Saenz, R. and A. Davila. 1992. "Chicano Return Migration to the Southwest: An Integrated Human Capital Approach." *International Migration Review* 26(4): 1248-1266.
- Sandefur, G.D. 1985. "Variations in Interstate Migration of Men Across the Early Stages of the Life Cycle." *Demography* 22:353-66.
- and J. Jeon. 1991. "Migration, Race and Ethnicity, 1960-1980." *International Migration Review* 25(2): 393-407.
- and W.J. Scott. 1981. "A Dynamic Analysis of Migration: An Assessment of the Effect of Age, Household and Career Variables." *Demography* 18: 355-368.
- Schachter, J. 2001. "Geographic Mobility." Current Population Reports: U.S. Census Bureau.
- Schwartz, A. 1976. "Migration, Age and Education." *Journal of Political Economy* 84:701-719.
- Shaw, R.P. 1975. *Migration Theory and Fact*. Philadelphia: Regional Science Research Institute.
- Shryock, H.S. and J.S. Siegel. 1976. "The Methods and Materials of Demography." New York: Academic Press, Inc.
- Shumway, J.M. and G. Hall. 1996. "Self-Selection, Earnings and Chicano Migration between Return and Onward Migrants." *International Migration Review* 30:979-994.
- Singer, J.D. and J.B. Willett. 2003. *Applied Longitudinal Data Analysis: Modeling Change and Event Occurrence*. New York: Oxford University Press.
- Sjaastad, L.A. 1962. "The Costs and Returns of Human Migration." *Journal of Political Economy* 70:80-93.



- Smith, J.S. 2002. "Rural Place Attachment in Hispano Urban Centers." *Geographical Review* 92:3.
- South, S.J. and K.D. Crowder. 1997. "Residential Mobility Between Cities and Suburbs: Race, Suburbanization, and Black-to-the-City Moves." *Demography* 34:525-39.
- Speare, A. 1970. "Home Ownership, Life Cycle Stage, and Residential Mobility." *Demography* 7:449-458.
- Stack, C. 1996. *Call to Home African Americans Reclaim the Rural South*. New York: BasicBooks.
- Taeuber, K.E. 1979. "Housing, Schools, and Incremental Segregative Effects." *The Annals of the American Academy of Political and Social Science* 441:157-167.
- Tarver, J.D. and R.D. McLeod. 1976. "Trends in Distance of Movement of Interstate Migrants." *Rural Sociology* 41:119-126.
- Therrien, M. and R.R. Ramirez. 2001. "The Hispanic Population in the United States." Current Population Reports: U.S. Census Bureau.
- Tienda, M. 2002. "Demography and the Social Contract." *Demography* 39:587-616.
- and D.T. Lii. 1987. "Minority Concentration and Earnings Inequality: Blacks, Hispanics and Asians Compared." *American Journal of Sociology* 93:141-165.
- and F.D. Wilson. 1992. "Migration and the Earnings of Hispanic Men." *American Sociological Review* 57:661-678.
- Tolnay, S.E., K.D. Crowder, and R.M. Adelman. 2000. "Narrow and Filthy Alleys of the City?: The Residential Settlement Patterns of Black Southern Migrants to the North." *Social Forces* 78:989-1015.
- Toney, M.B. 1976. "Length of Residence, Social and Economic Opportunities." *Demography* 13:297-308.
- , E.H. Berry, and J.B. Cromartie. 2004. "Primary and Repeat Migration: Comparisons of Hispanic, Black and non-Hispanic White Migration in the United States." A Paper presented at the Consortium of Utah Demographers, Salt Lake City, UT: February.
- U.S. Bureau of the Census. 1963. *Statistical Abstract of the United States 1963*. Washington DC: U.S. Government Printing Office.

- , 2001. Resident Population Estimates of the United States by Sex, Race, and Hispanic Origin: April 1, 1990, to July 1, 1999, with Short-term Projections to November 1, 2000. [Http://www.census.gov/populatin/estimates/nation/intfile3-1.txt](http://www.census.gov/populatin/estimates/nation/intfile3-1.txt).
- , 2004. Geographical Mobility: 2002 to 2003 Population Characteristics. [Http://www.census.gov/prod/2004pubs/p20-549.pdf](http://www.census.gov/prod/2004pubs/p20-549.pdf).
- Von Reichert, C. 2002. "Returning and New Montana Migrants: Socio-economic and Motivational Differences." *Growth and Change* 33:133-151.
- Weisbrod, B.A. 1962. "Education and Investment in Human Capital." *The Journal of Political Economy* 70:106-123.
- Wilson, T.D. 1993. "Theoretical Approaches to Mexican Wage Labor Migration." *Latin American Perspectives* 20(3): 98-129.
- Wilson-Figueroa, M., E.H. Berry, and M.B. Toney. 1991. Migration of Hispanic Youth and Poverty Status: A Logit Analysis." *Rural Sociology* 56(2): 189-203.
- Yamaguchi, K. 1991. *Event History Analysis*. Newbury, CA: Sage.
- Zuniga, V. and R. Hernandez-Leon. 2002. "A new Destination for an Old Migration: Origins, Trajectories, and Labor Market Incorporation of Latinos in Dalton, Georgia." Pp. 126-135 in *Latino Workers in the Contemporary South*. Edited by A.D. Murphy, C. Blanchard and J.A. Hill. The University of Georgia Press.

## END NOTES

<sup>1</sup> Demographers use the term migration to refer to longer distance moves, and the word move to refer to short distance residential changes, usually within a county or political unit. I will use the terms move and migration interchangeably, although for the purposes of this research, all *moves* refer to longer-distance migrations, not short distance residential changes.

<sup>2</sup> In this research the three racial/ethnic groups are listed in alphabetical order, and are referenced in terms of the descriptors used in a recent work appearing in *Demography* (Krivo and Kaufman 2004). However, at the first mention in each chapter of this study, the more descriptive terms of non-Hispanic blacks and whites, and Hispanics are used.

<sup>3</sup> The FIPS coded data is considered "private" documentation, and researchers must have special permission from the Department of Labor to use it. This permission has been granted and is effective until April 2005.

<sup>4</sup> The nineteen time intervals examined in the initial descriptive analysis are: 1979-1980; 1980-1981; 1981-1982; 1982-1983; 1983-1984; 1984-1985; 1985-1986; 1986-1987; 1987-1988; 1988-1989; 1989-1990; 1990-1991; 1991-1992; 1992-1993; 1993-1994; 1994-1996; 1996-1998; 1998-2000; 2000-2002.

<sup>5</sup> There are 13 variables employed in the analyses; reference to 14 is due to the age variable being examined in terms of two different measures – those cases within the "21-25" category, and those outside it.

## CURRICULUM VITAE

BETH A. WILSON  
 Logan, UT 84321  
 (435) 512-2814  
[bethawilson@juno.com](mailto:bethawilson@juno.com)

## EDUCATION

- PhD Utah State University. 2005. Sociology, with specialization areas of (1) Demography and (2) Health. Dissertation: Repeat Migration in the United States: A Comparison of Black, Hispanic and White Return and Onward Migrants
- MA Regis University. 2000. Social Science. Thesis: Today's Retired Individual: A Look at Social Meaning  
 • Certificate of Adult Learning, Training and Development
- BS Utah State University. 1990. Journalism and Political Science with Honor in Journalism

## TEACHING EXPERIENCE

<i>Courses Designed and Taught, USU:</i>	<i>Additional Courses Prepared to Teach:</i>
Research Methods	Introduction to Sociology
Population and Society	Race & Ethnicity
The Sociology of Aging	Health/Medical Sociology
Social Problems	Statistics

*Teaching Assistant Experience, USU:*

Honors 2000	Fall, 2002; Dr. Joyce Kinkead, Vice Provost: Undergraduate Studies and Research
Introduction to Sociology	Fall, 2001; Dr. Gary Kiger, Dean: College of Humanities, Arts and Social Sciences; Dr. Bradley Parlin, Emeritus Professor of Sociology

*Teaching and Web-Development Training, USU:*

Teaching Sociology Seminar	Fall, 2001; Dr. Gary Kiger, Dean: College of Humanities, Arts and Social Sciences
Teaching College Seminar	Fall, 2001; USU School for Graduate Studies
<i>WebCT</i> : Beginning-Advanced	2002-2004; Faculty Assistance Center Technology
<i>Dreamweaver</i>	2004; Faculty Assistance Center Technology
<i>PowerPoint</i>	2004; Faculty Assistance Center Technology

#### ACADEMIC / PROFESSIONAL PRESENTATIONS

Beth A. Wilson, Edna Helen Berry, Michael B. Toney and Jang-Young Lee. "Propensities for Return Migration for Race/Ethnic and Socioeconomic Groups Across Nonmetropolitan and Metropolitan Places." Presented at The 2005 Pacific Sociological Association Annual Meeting, Portland, Oregon.

Beth A. Wilson, Edna Helen Berry and Michael B. Toney. "Education and Repeat Migration: Patterns of Return and Onward Movements in the United States." Presented at The Consortium of Utah Demographers, Salt Lake City, Utah. Presented in poster form at The 2005 Population Association of America Annual Meeting in Philadelphia.

Beth A. Wilson and Joyce A. Kinhead. "Retaining First-Year High-Ability Students." Paper presented at the 2003 Noel-Levitz National Conference on Student Retention in San Diego.  
(See: <http://utahstatetoday.usu.edu/archives/august2003/08-15-03/feature-08-15-03.cfm>)

Beth A. Wilson. "The Utah State University Beehive Scholar Program; Providing 'High-Touch' to 'At-Risk' Honors-Level Students." Presented at The 2003 Annual Paper and Poster Symposium, Utah State University, Logan, Utah, 2003.

#### ADMINISTRATIVE POSITIONS

2002 - 2003 Program Coordinator /Academic Advisor / Recruiter / Community Relations; USU Continuing Education, North Central Region

#### RESEARCH EXPERIENCE

2002-2004 Research Assistant; Utah State University; Project: Individual and Place Determinants of Rural Migration for Young/Mid-Age Adults; US Department of Agriculture

2004 Workshop Participant; National Longitudinal Surveys Users  
The Ohio State University Center for Human Resource Research & The US Bureau of Labor Statistics

- 2004 Survey Data Collection Research Assistant; Rocky Mountain Social Science; Project: Syracuse Reconstruction; Utah Department of Transportation & Federal Highway Administration
- 2004 Survey Data Collection Research Assistant; Rocky Mountain Social Science; Project: Options for future transportation developments in southern Salt Lake County; Utah Department of Transportation & Federal Highway Administration

#### HONORS, LEADERSHIP AND AWARDS

- 2004-2005 Graduate Teaching Associate of the Year Award, Utah State University Department of Sociology, Social Work and Anthropology
- 2002-2003 Earl A. and Carmen D. Fredrickson Fellowship Award
- 2001-2002 Calvin R. Maurer Fellowship Award
- 2001-2002 Utah State University Honors Program Development Grant
- 1999-2000 American Association of University Women Career Development Grant
- 1989-1990 Glacus R. Merrill Scholarship Award for Outstanding Journalism
- 1986-1990 Utah State University President's Leadership Council
- 1989-1990 The Society of Professional Journalists, National Campus Representative
- 1988-1989 The USU Society of Professional Journalists, President

#### ACADEMIC AND PROFESSIONAL MEMBERSHIPS

Population Association of America  
 American Sociological Association  
 Pacific Sociological Association  
 American Association of University Women  
 Society of Professional Journalists

#### OTHER PROFESSIONAL EXPERIENCE

- 1994-1998 Mortgage Loan Consultant; Washington Mutual Bank, Denver Colorado
- 1991-1994 Mortgage Loan Consultant; Great Western Bank, Seattle Washington
- 1986-1991 Reporter / News Director; NPR Radio affiliates *KHNS* Haines Alaska; *KPBX* Spokane, Washington; *KUSU* Logan, Utah; *KVNU* Logan, Utah
- 1987-1989 Reporter / News Editor; *The Salt Lake Tribune*, *The Cache Citizen*