ABSTRACT

MUTAMBA, CHARLENE CHENGETHAI. The Influence of Human and Social Capital on Perceived Underemployment among Immigrants in the United States (Under the direction of Dr. James E. Bartlett II).

Compared to the problem of unemployment, inadequate employment has received much less attention from both scholars and policymakers (Maynard & Feldman, 2011). Underemployment is an inferior, lesser or lower-quality type of employment which is defined relative to the employment experiences of others with the same education or work history, or relative to the person’s own past education or work history (Feldman, 1996). The problem of underemployment is pervasive among immigrants who seek successful settlement in the destination country, which partly depends on how they integrate into the labor market (Pasura, 2010). However, several factors pose a challenge to their successful workforce integration, including a decline in human capital among immigrants relative to natives as well as a labor market in which job quality is increasingly split into high- and low-skilled work (Slack & Jensen, 2011). Immigrants’ success often depends on strong language and literacy skills in addition to the presence of social networks in the destination country that can help migrants in the post-migration phase, particularly as it relates to entering the workforce (Bloch, 2006). African migrants, in particular, are the least-studied group, yet they are among the fastest growing segment in the United States (Capps, McCabe, & Fix, 2012).

Specifically, the inflow of new legal permanent residents from Zimbabwe to the United States has increased steadily since 1999. The purpose of this study was to investigate the relationship between human capital, social capital and the employment outcomes of Zimbabwean immigrants working in the United States. In trying to understand how immigrants integrate into the United States labor market, this study investigates whether
immigrants perceive themselves as underemployed. This study uses a quantitative, non-experimental research design. This was accomplished by exploring the influence of Zimbabwean immigrants’ human and social capital in relation to their employment.

Findings from this study show that immigrants from Zimbabwe living and working in the United States have attained, on average, 16.9 years of education; nine years of career experience; a median household income of $75,000; work about 41 hours a week; and are proficient in English. Additionally, they belong to about five organizations and have about 11 members of their family in the United States. A significant model was created that provides evidence that 16.4% of the variance in underemployment can be explained by human capital, social capital and demographic variables. Overall, the results show that immigrants from Zimbabwe do not perceive they are underemployed.

African immigrants in general and Zimbabweans in particular tend to differ from other immigrant groups that have traditionally come to the US in human capital, social capital and demographics. This creates a need for researchers to concentrate on understanding the variations in this group of recent immigrants in order to implement policy that will effectively target them. Additionally, this study shows that obtaining higher education in the US reduces the likelihood of perceived underemployed. Therefore, this study can serve as a foundation in crafting immigration policy that considers national origin, gender and social networks as important factors in the successful integration of immigrants to the United States.
The Influence of Human and Social Capital on Perceived Underemployment among Immigrants in the United States

by
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A dissertation submitted to the Graduate Faculty of North Carolina State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

Educational Leadership, Policy and Human Development

Raleigh, North Carolina
2016

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DEDICATION

This dissertation is dedicated to God, my parents, Dr. Samuel and Mrs. Antonia Mutamba; my siblings, Olga, Pamela and Newsam; my grandparents, James Mutamba, Jofa and Selina Chifamba; and my husband, Thomas Zengeya, Ph.D., for their encouragement and support.
BIOGRAPHY

The author of this dissertation, Charlene Chengethai Mutamba, graduated from High Point University with a Bachelor of Science in Information Security and Privacy and a Master of Science in Management with a specialization in Human Resource Management from North Carolina Agricultural and Technical State University.

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ACKNOWLEDGMENTS

I would like to thank my dissertation chair, Dr. James Bartlett, II, who played the most instrumental role in facilitating this dissertation. I would like to thank him for his guidance, insight, support, availability and leadership. Without his support, insight and guidance, it would not have been possible.

I would like to thank my committee members, Dr. Diane Chapman, Dr. Alyssa Rockenbach and Dr. Tamara Young for agreeing to be on my committee and for taking their time to read my dissertation.

I would also like to thank the faculty and staff of the Adult, Workforce and Continuing Professional Education program: Dr. Tim Hatcher, Dr. Diane Chapman, Dr. Brad Mehlenbacher and Dr. Julia Storberg-Walker, who worked tirelessly to make us exemplary scholars. I would like to thank Shana Scott for being an invaluable resource to all graduate students. The encouragement and support from other graduate students including Tracy Pakornsawat, Jennifer Stanigar and Christina Irvine is greatly appreciated.

Finally, I would like to thank all the Zimbabwean immigrants who participated to make this research possible.
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CHAPTER I: INTRODUCTION

The United Nations Global Migration Database states that the number of international migrants increased from 75 million in 1960 to 214 million in 2010 (Docquier, 2014). Specifically, it is estimated that of the 200 million international migrants, 38 million live in the United States (Capps, McCabe, & Fix, 2011). The term immigrant applies to a person who comes to a country to take up permanent residence (Merriam-Webster, 2015). Of the immigrant population in the United States, Africans are among the fastest growing groups. Migration to the United States has increased dramatically since 1960; however, most of the significant voluntary migration from sub-Saharan Africa to the United States began in the 1980s and increased from 130,000 to 1.5 million in 2013 (Zong & Batalova, 2014).

Many immigrants who come to the United States are motivated to leave their countries because of poverty, lack of economic growth, discrimination, political repression and other conditions that make living in their home countries no longer desirable (Docquier, 2014). The International Organization on Migration (IOM, 2015) notes that when immigrants arrive in their destination countries, the human and social capital they possess do not always assist them in successfully integrating. The successful settlement of immigrants in the destination country partly depends on how they integrate into the labor market (Pasura, 2010). However, several factors pose a challenge to their successful integration, including a decline in human capital among immigrants relative to natives and a labor market in which job quality is increasingly split into high- and low-skilled work (Slack & Jensen, 2011). Immigrants’ success often depends on strong language and literacy skills in addition to the
presence of social networks in the destination country that can help migrants in the post-migration phase, particularly as it relates to entering the workforce (Bloch, 2006). Often, even when immigrants possess high levels of education and work experience, they find themselves with worse employment conditions in the new country than their country of origin (Matto, Neagu, & Ozden, 2008). The difficulties that immigrants experience in attempting to enter the workforce in the destination country often result in undesirable job search outcomes, lower earnings, and underemployment (Reitz, 1998). Employment is one critical component in an immigrant’s ability to overcome the cycle of poverty (Bernstein & Blazer, 2008; Hinjosa-Ojeda, 2012; Kasarda & Johnson, 2006; Lynch & Oakford, 2013). Therefore, in trying to understand how immigrants integrate into the United States labor market, this study sought to investigate the employment outcomes of immigrants from Zimbabwe. This was accomplished by exploring the significance of the human and social capital they possess in relation to their perceived employment condition.

**Statement of the Problem**

Immigrants continue to be an understudied group even though they are different from non-immigrants in various ways such as language and culture (Guerrero & Rothstein, 2012). African migrants, in particular, are the least-studied group, but Africans are among the fastest-growing segment of immigrants in the United States (Capps et al., 2012). In the year 2000, there were only 574,000 black migrants of African origin in the United States; that number almost doubled to 1.1 million by 2009. In addition, about 76% of migrants from sub-Saharan Africa are active in the labor force compared to 67% of other migrants and 63%
of native-born Americans (Zong & Batalova, 2014). However, 20% of migrants from sub-Saharan Africa are still more likely than other groups to be living in poverty. Scholars have tried to explain the employment outcomes of African migrants through analysis of variables such as educational attainment, English proficiency, high labor force participation and low wages, but there is still little research that conclusively explains the employment outcomes of this growing group of African immigrants.

In comparison with unemployment, the problem of inadequate employment has received much less attention from both scholars and policymakers (Maynard & Feldman, 2011). Current and previous research provides little information on underemployment among African migrants in the United States labor market. Research has focused on immigrant economic performance and occupational status; however, literature on the prevalence of underemployment is relatively scant despite the centrality of employment adequacy for overall economic well-being (Slack & Jensen, 2011). Research shows that underemployment creates more negative consequences for employees than it does for organizations, communities, or societies (Maynard, 2011). Underemployment is an important and costly phenomenon to the individual because of the adverse economic outcomes (Wilkins & Wooden, 2011). It has been linked to individual outcomes such as poorer job attitudes, less job satisfaction, lower levels of psychological well-being, high turnover, absenteeism, and lower job performance (Burris, 1993; Feldman, 1990, 1996; Johnson & Johnson, 1996, 2000a). In addition, underemployed workers have lower quality
marital relationships; their children may suffer low self-esteem and anxiety about their own abilities; and the workers are increasingly isolated from their social network.

Underemployment negatively affects the well-being of migrant workers and their families, representing unrealized returns to both themselves and to the nation as a whole (Wang & Lysenko, 2014). Research on underemployment is becoming an increasingly important but understudied component of overall employment (McKee-Ryan & Harvey, 2011). Therefore, through this study, a deeper understanding of underemployment among immigrants in the United States is sought.

Feldman’s (1996) conceptual model of underemployment identified five dimensions of underemployment: possessing more education than is required on the job; being in a job outside one’s area of formal training; possessing skills that are not utilized in the job; being involuntarily employed in a part-time, temporary or intermittent job; and earning 20% less than in one’s previous job or than one’s peers. However, research studies rarely include all five dimensions in a single study (McKee-Ryan & Harvey, 2011). The current study focuses on three dimensions. Additionally, the Bureau of Labor Statistics (BLS) fails to provide an array of measures of underemployment as they do for unemployment. Measuring underemployment is complex because of the multidimensional nature and the potential overlap between dimensions (McKee-Ryan & Harvey, 2011). Therefore, it is common for scholars to focus on only one aspect in a research study.

Thirty-seven percent of all immigrants to Organization for Economic Cooperation and Development (OECD) countries are in the United States (Ratha, Mohapatra, Ozden,
Plaza, Shaw & Shimeles, 2011). Part of the increase in immigrants in the United States is due to Zimbabweans. While a number of research studies have focused on the underemployment of migrants in the United States (Baum & Mitchell, 2008; De Jong & Madamba, 2001; Feldman, 1996; Jensen & Slack, 2003; Madamba & De Jong, 1997), they unsatisfactorily explore the subset of migrants from sub-Saharan Africa. Current studies provide little information on this group of immigrants, particularly on their human and social capital and their influence on immigrants’ level of employment.

McGregor (2008) points out that there are some immigrants who have secured professional employment or established their own businesses, but there are others trapped in unskilled jobs who struggle to meet their basic obligations. The participation rate for immigrants from Zimbabwe is 78% among workers between 18 and 64 but have median annual earnings of $30,000 compared with $33,000 for US-born workers who do not even possess the same amount of education (Capps et al., 2011). This discrepancy is sometimes inconclusively and unconvincingly explained by the lack of meaningful transfer of credentials from one labor market to another.

Research on Zimbabwean immigrants in the diaspora is still in its early stages (Pasura, 2009). Additionally, scholars studying the migration of Zimbabwe nationals to the United States have limited their studies to medical professionals and their reasons for migrating. Previous research studies on Zimbabwean migrants in the United States focused on physicians who migrated (Hagopian, Thompson, Fodyce, 2004; Oberoi, 2006) and the migration of nursing professionals (Chikanda, 2005, 2006). Other scholars like Chaumba
and Nackerud (2013) have attempted to explain the value of social capital in the integration of Zimbabwe migrants in the United States. Despite these efforts, this research on the integration of Zimbabwean immigrants including those in non-health professions into the United States labor market will be useful for understanding the significance of both human and social capital on underemployment, encouraging an expansion research in this area.

**Purpose of the Study**

The purpose of this study was to investigate the relationship between human capital, social capital and the employment outcomes of Zimbabwean immigrants working in the United States. The following questions were posed to assist in explaining the relationship.

*Research Question 1*

What is the human and social capital of Zimbabwean immigrants living in the United States?

*Research Question 2*

Is there a relationship between human capital and underemployment?

*Research Question 3*

Is there a relationship between social capital and underemployment?

*Research Question 4*

Do demographics, human, and social capital explain a significant proportion of the variance in employment?

**Zimbabwean Immigrants in the United States**

In the year 2000, there were only 574,000 black African immigrants living in the United States compared to the 1.1 million recorded in 2009 (Capps, McCabe & Fix, 2009).
Similarly, recent migration statistics show that 10% of the approximately one-million immigrants to the United States annually come from Africa. In addition, World Bank (2011) estimates also show that the United States was the destination for an estimated 4% of all Africans who decided to migrate.

An estimated three- to four-million Zimbabweans have migrated to South Africa, Botswana, Mozambique, Zambia, United Kingdom, United States, Australia, New Zealand and Canada (Pasura, 2008). The inflow of new legal permanent residents from Zimbabwe to the United States has increased steadily since 1999 as shown in Figure 1.1. The figure shows that most admissions of Zimbabweans are still in the non-immigrant category, but there is potential for more to convert to permanent status (United States Department of Homeland Security, 2014). The most growth occurred between 2003 and 2004 when there was a 43% increase in the number of Zimbabwe nationals granted permanent residency in the United States. Zimbabweans who migrated to the United States make up the second largest group of immigrants from southern Africa (Marrow, 2007). An estimated 19,000 Zimbabwean immigrants had entered the United States by 2013 (United States Department of Homeland Security, 2014). The increase in Zimbabwe nationals permanently migrating to the United States has occurred mostly in the last decade and presents a unique research opportunity in understanding how a new group of immigrants is integrating into the labor market.
Figure 1.1. Zimbabweans granted admission to the United States from 2004-2013 (USDHS, 2014).

Significance of the Study

The concept of underemployment is a complex, multifaceted and dynamic construct, and this study is an attempt to understand it by investigating current employment of Zimbabwean immigrants in the United States. The complexity of underemployment is compounded by the fact that it has been studied in four different fields: management, economics, sociology, and community psychology (McKee-Ryan & Harvey, 2011). Each area defines underemployment in a unique way. However, this study utilizes the framework developed by Feldman (1996) which takes a cross sectional view of underemployment by including both human and social capital indicators. Slack and Jensen (2011) note that while there has been a good deal of attention paid to immigrant economic performance in terms of earnings and occupational status (Borjas, 2000), research focusing on the prevalence of
underemployment is relatively scant. Therefore, this research study adds to the literature in four ways.

First, this study offers an empirical analysis to support and confirm the predictive power of human and social capital theories in employment of immigrants after the 2007-2009 global economic recession. Secondly, this study tests the Maynard, Joseph, and Maynard (2006) 9-item Scale of Perceived over Qualification (SPOQ) on Zimbabwean immigrants working in the United States. The SPOQ was developed by some of the leading scholars on underemployment. Third, this study examines three dimensions of underemployment as proposed by Feldman (1996): more education than required for the job; more skills or experience than required by the job; low pay, relative to others in a similar job or to others with similar educational backgrounds. Finally, one of the issues of great concern to both the general public and policymakers is the economic adaptation of immigrants (Potocky-Tripodi, 2004). Therefore, the findings will also inform policymakers on whether they should be concerned about underemployment as it relates to human resource development.

This study explores factors such as educational attainment, English language proficiency, career experience, age, gender, race/ethnicity, family and social networks that potentially reduce the earning potential of immigrants. Currently, there are no studies that offer a comparison of the employment-search experiences of immigrants and no official government statistics on underemployment of immigrants in the United States. This study is beneficial in understanding the relationship between underemployment and demographic,
human, and social capital variables influencing migration decisions and employment related
decisions of future immigrants from sub-Saharan Africa to the United States.

Underemployment is sometimes associated with job-related stress (Anderson &
Winefield, 2011); high turnover rates (Buzawa, 1984); and wastage of valuable skills (2011).
However, existing research is not conclusive on which factors affect immigrants’
employment; therefore, by using both human and social capital, this study assists in
clarifying the differences in the United States labor market.

**Overview of Research Design**

This study uses a quantitative, non-experimental research design. A non-
experimental design is one in which an experimental variable is not introduced by the
researcher but measures can be taken (Sproull, 1995). Accordingly, a web-based survey was
created for the purpose of generalizing from the sample to the population (Creswell, 2003).
A web-based survey was chosen to reach a larger percentage of the population and because it
was more financially feasible.

Specific variables, discussed in Chapter II, were included in the survey. In addition,
the survey gathered demographic variables (age, gender, race, marital status and citizenship)
of the respondents. The analysis of the survey results was conducted using correlation and
multiple regression analysis to best understand if there is a relationship between the variables
and current employment outcomes of the immigrants. Additional information on the
methodology, data collection and analysis is described in Chapter III.
Theoretical Framework

The theoretical frameworks for this study are human capital theory and social capital theory. Social and economic variables that determine a person’s network also influence their propensity to migrate and how they integrate in the new country (Palloni, Massey, & Cebalos, 2001). This section contains a brief description of how each theory applies to this research study.

Human Capital Theory

One of the economic theories used widely in Human Resource Development is the human capital theory (Swanson, 2001). Gary Becker began studying human capital in the 1950s by trying to determine the reasons for differences in income of college graduates in the United States. Becker (1964) proposes that schooling, training courses; medical care and even lectures on personal improvements are all capital because they improvements can raise an individual’s earnings. The fundamental principle underpinning human capital theory is the belief that people’s learning capacities are of comparable value to other resources involved in the production of goods and services (Lucas, 1988). In addition, the basic premise of the human capital approach is that variations in labor income in a free market are due in part to differences in labor quality based on to the amount of human capital each worker acquires (Cohn & Geske, 1990). Therefore, to reduce income inequality, one needs to reduce inequality in investments people make in human capital (e.g., health, education, on-the-job training, and other vocational training).
On an individual level, human capital comprises the traits one brings to the job: attitude, reliability, commitment and ability to learn, all of which increase productivity and efficiency (Fitz-Enz, 2000). A person’s collective knowledge, skills, abilities and other characteristics that combine to create a capability for competitive advantage can also be referred to as human capital (Lengnick-Hall & Lengnick-Hall, 2003). Each immigrant working in the United States possesses knowledge, skills and abilities (KSAs). Understanding how each individual’s KSAs are related to their underemployment will enable stakeholders to recommend and implement policies relevant to solving employment issues.

The investigation of the relationship between educational attainment and underemployment finds its roots in the theory of human capital because any mismatch between education and skills and job attainment creates underemployment (Bonnal, Lira & Addy, 2009). From a labor economics perspective, when an individual takes a job unrelated to their education resulting in underutilization of their human capital, then they are underemployed (Feldman & Turnley, 1995). The concept of underemployment represents an erosion or depreciation of human capital because outcomes (e.g., salaries) are not commensurate with the assets (capital) employees invest into their employment (Buchel, 2001). Human capital theory views underemployment from a supply and demand perspective, as workers’ qualifications are not commensurate with employers’ labor requests (Luksyte & Spitzmueler, 2011).

However, measurement of underemployment from a human capital theory perspective is less susceptible to the influence of individual differences relative to some other
perspectives (Luksyte & Spitzmueler, 2011). Human capital theory does not take into account the subjective indices of underemployment including the following phenomenon: although others (e.g., managers, coworkers) may view the level of the focal employee’s qualifications as commensurate with their job requirements, workers may still perceive a poor return on their investments in comparison with some personal standard, such as their previous work. As a result, employees may perceive their current work status as being underemployed even though others may view their work situation as adequate employment.

Research related to human capital theory in human resource development has not matured to a level where there are clearly defined methods of quantifying returns to investment in education and training. After human capital theory was proposed, there were disagreements among scholars about estimating the private rate of return on education from income differentials between persons differing in education (Becker, 1975). Most critics argue that the true rate of return on education is grossly overestimated because persons differing in education also differ in many other characteristics that cause their incomes to differ systematically. In addition, others argue against the presumption that there is a positive correlation between education and ability.

When studies are conducted on a national level, there is a tendency to assume that workers of a given age and education have the same human capital endowments in all countries. However, the problem is that possible differences that contribute to variance in measured skills are often not measured (Hendricks, 2002). The problem with this approach
is that it does not capture differences between people in human capital investment
(Psacharopoulos & Layard, 1979).

Psacharopoulos and Layard (1979) explain that the focus on the individual in most
human capital theory analysis fails to recognize that there are factors beyond the individual
that must be included in fully understanding the value of one’s education and training. An
individual’s pattern of personal development is depicted as the product of one’s own family’s
choices, limited only by one’s ability and by the available learning technologies in addition,
to a limited extent, by one’s family resources. However, from the history of education,
people find that the formal structure of education which most have completed was not a
choice they made but the result of a series of decisions developed by more elite members of
society, which is considered social capital. Therefore, in addition to human capital theory,
this study also draws on the social capital theory in order to fully explain any
underemployment among Zimbabwean immigrants in the United States.

Social Capital Theory

The concept of social capital was first introduced by Glen Loury (1977) to explain
intangible resources in families and communities that help to promote social development
(Palloni, Massey & Ceballos, 2001). Thereafter, Bourdieu (1986) expanded its relevance by
defining it as “the sum of the resources, actual or virtual that accrues to an individual or a
group by virtue of possessing a durable network of more or less institutionalized
relationships of mutual acquaintance and recognition” (p. 119). He focused on the benefits
accruing to an individual by virtue of participating in groups. There are two elements to
Bourdieu’s concept of social capital: the social relationship that allows individuals to claim access to resources possessed by their associates, and the amount and quality of the resources they can claim (Portes, 1998).

Social capital also refers to the institutions, relationships, and norms that shape the quality and quantity of a society’s social interactions (World Bank, 2011). Social capital can also be described as the goodwill available to individuals and groups, where goodwill refers to “a kind, helpful, or friendly feeling or attitude,” per Merriam-Webster Dictionary. Its effects lie in information, influence, and solidarity benefits that accrue to members of a collectivity (“bonding” social capital) and to actors, whether individual or collective, in their relations to other actors (“bridging” social capital). Its sources lie in the social relations among those actors, and these social relations can be differentiated (notionally) from relations of market exchange and of hierarchical authority (Kwon & Adler, 2014).

Additionally, social capital is not just the sum of the institutions which underpin a society; it is also the glue that holds them together (World Bank, 2011). The key characteristic of social capital is its convertibility into other forms of capital such as financial capital, and it can be gained through interpersonal networks and social institutions (Palloni et al., 2001).

In immigrant networks, social capital can be created through connections with former immigrants, current immigrants, kinship, and friendship and shared community origin. When an immigrant has ties to someone who has migrated, it yields social capital that they can access, which can explain why individuals who are related to immigrants will ceteris paribus be more likely to migrate themselves (Palloni, 2001). Several studies have been
conducted on the influence of social capital in the work environment; for example, social capital’s influence on career success (Burt, 1992; Gabbay & Zuckerman, 1998; Podolny & Baron, 1997) and the influence of social capital in finding jobs (Granovetter, 1973; Lin & Dumin, 1996).

Social capital permanently exists in the structure of relationships (Portes, 1998). This is inferred from the notion that in order to possess social capital, an individual must be related to others, and it is the others who are the source of the capital the individual enjoys. It differs from pure economic exchange in that there is no scheduled repayment of any obligation within the group. There are three basic functions of social capital: as a source of social control, as a source of family support, and as a source of benefits through extra-familial networks.

For immigrants, social capital is critical because it promotes economic and emotional well-being (Byoun, 2014). The economic and emotional well-being come from resources for information, support networks, friendships and a sense of belonging, all of which are important in assisting the immigrant in finding employment. Some researchers have found that social capital and ethnic networking are important in migrant labor market experiences, because information about employment in certain sectors is often disseminated through co-ethnic networks, causing a particular occupation to become an ethnic niche (Bohon, 2010; Nakhaie & Kazemipur, 2013).

Immigrants, like other individuals, need access to social networks to perform well which implies that individual investment in building these social networks is an economic
necessity. For the purpose of this study, social capital theory is a theoretical model explaining the influence of family and social networks on employment of immigrants from Zimbabwe.

**Conceptual Framework**

Feldman (1996) proposes that research on underemployment contain both objective and subjective components. Therefore, the conceptual framework for this study includes the following human and social capital related variables: underemployment, education, wages/income, career experience, English language proficiency, social network, and family network. It also includes the demographic variables unique to each immigrant who will be sampled such as age, gender, marital status, and citizenship. Figure 1 below is a visual representation of the relationship between human and social capital-related variables and demographic characteristics as well as their relationship to the employment outcomes of immigrants.

The human and social capital variables consisted of four human capital variables and four social capital variables. For the variable *education*, each respondent was asked how many years of education they had attained in number of years. For the variable *work experience*, respondents were asked to enter the number of years of career experience they have attained. For *income*, respondents were asked about their annual income. For *English proficiency*, respondents were asked to rate their English language proficiency in speaking, reading and writing by responding to three questions based on a Likert scale from 1 to 5,
where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

For social capital variables _family network_, _social network_, _organizations_ and _family_ the following were used: For _organizations_, respondents were asked how many different groups and organizations they belong to. Following that respondents were asked how many _family members_ they have in the United States. For _family network_ and _social network_, respondents were asked to rate how much their family network and social network assisted them in securing their employment using a Likert scale from 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

Demographic variables were useful in understanding the population but respondents were asked not to reveal their identity. Respondents were asked about their country of birth, the number of years they have been in the United States, gender, age and citizenship. In addition, respondents were also asked about their marital status, number of children and race or ethnicity. The combination of human capital, social capital and demographics of respondents is being used to explain any perceived underemployment.
The generalizability of this study was constrained by a focus on Zimbabweans living in the United States and may therefore not be universally applicable to other immigrant populations in the United States or other Zimbabwean immigrants living in other countries. External validity is also a limitation because a nonrandom purposive sample is used. All variables were measured using a self-report questionnaire completed by the immigrants at a single point in time where a longitudinal study might allow one to make causal statements about the relationships. The survey instrument was anonymous; thus, verification of
response data was impossible. In addition, due to the nature of an online survey, self-reporting is a limitation because it could have created what is known as self-reporting bias by respondents’ answering questions with their desired (or aspirational) answers rather than with answers that may reflect the levels others might perceive as more a more accurate reflection. In other words, for this survey, respondents may have over- or under-reported the required levels of competencies for a given job due to the subjective nature of the concept of underemployment. Furthermore, perceptual error could inflate people’s estimation of their qualifications, resulting in either under- or over-reported levels of their underemployment (Luksyte & Spitzmueller, 2011).

**Definition of Key Terms**

The following terms were frequently used in this study.

**Human Capital:** In relation to movement of people, human capital consists of people with education, skills, entrepreneurial spirit and a willingness to take risks that is attached to the immigrant as they move (Massey & Aysa, 2005).

**Human Capital Theory:** Refers to the notion that education or training raises the productivity of workers by imparting useful knowledge and skills, hence raising workers’ future income by increasing their lifetime earnings (Becker, 1964).

**Human Resource Development:** Is any process or activity that, either initially or over the long term, has the potential to develop adults’ work-based knowledge, expertise, productivity and satisfaction, whether for personal or group/team gain, or for the
benefit of an organization, community, nation or, ultimately, the whole of humanity (McLean & McLean (2001, p. 322).

**High Skilled Migrant:** A person who possesses a combination of education (usually at the tertiary level or beyond) and an occupation that has high added value in a high productivity sector which is essential to the country’s development (International Organization on Migration, 2011).

**Immigrant:** The term applies to persons, and family members, moving to another country or region to better their material or social conditions and improve the prospect for themselves or their family (International Organization on Migration, 2011).

**Social Capital:** This refers to the sum of the resources, actual or virtue that accrues to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition (Bourdieu, 1986 p. 119).

**Underemployment:** An inferior, lesser or lower quality type of employment which is defined relative to the employment experiences of others with the same education or work history, relative to the person’s own past education or work history (Feldman, 1996).

**Skill related underemployment:** Focuses on the underutilization of the worker’s skills rather than their time, and the consequences for the quality as well as the productivity of work, creating problems both at the individual level and at the level of the economy as a whole (Brown & Pintaldi, 2006).
Summary

This research study has five chapters that include an introduction (Chapter I), review of literature (Chapter II), methods (Chapter III), findings (Chapter IV), and conclusion, discussion, and recommendations (Chapter V). Chapter I describes the nature of the problem, the statement of the problem, the purpose of the study, research questions, and definitions of terms. In addition, this chapter briefly describes the conceptual and theoretical frameworks. The research design and methods are introduced with an explanation of the study’s variables. The conclusion of chapter one explains the significance of the study, limitations, and the overall organization of the study.

Chapter II contains an introduction describing the purpose and organization of the chapter and a history of labor migration to the United States with a brief focus on African migration to the United States. This is followed by a detailed synthesis of the concept of underemployment, and then, more specifically, skill-related underemployment as presented in scholarly literature. Lastly, this chapter provides a justification of the study’s theoretical framework as well as a discussion of the human capital and social capital factors related to employment outcomes of immigrants as discussed in scholarly literature.

Chapter III describes the planned research design, research objectives and associated research questions, the variables used in the study, the study’s methods in addition to the study’s sample and respondents. This chapter includes descriptions of how the instrument was created and assessed for validity and reliability. Finally, an overview is provided of the
planned data collection procedures and subsequent proposed analysis of each question is presented.

Chapter IV presents the analysis of the data collected to answer the four research questions. This chapter is organized into the following areas: demographics, findings by research question and summary of the findings. Specifically, the sections include a discussion on the demographic data, the analysis of data by research question, and a summary that includes a discussion of the overall findings for this study. In this fourth chapter, data were analyzed using statistical procedures found in Stata 13.

Chapter V is the final chapter which provides an overall summary of the study. It begins with a reassertion of the purpose and the four research questions of the study, an explanation of the respondents used for the data collection, and a description of the procedures used in the methods section. A summary of each of the five chapters is provided, including the theoretical and conceptual frameworks for the study. The research goals and findings for each research question follow. Finally, Chapter V concludes with a culmination of the study’s conclusions, limitations and recommendations for future research and practice.
CHAPTER II: LITERATURE REVIEW

The purpose of this study was to investigate the relationship between human capital, social capital and the employment outcomes of Zimbabwean immigrants working in the United States. The literature used to develop this study was related to migration and underemployment as they are related to the theories of human and social capital. The following research questions guided this study:

1) What is the human and social capital of Zimbabwean immigrants working in the United States?
2) Is there a relationship between human capital and underemployment?
3) Is there a relationship between social capital and underemployment?
4) Do demographics, human and social capital explain a significant proportion of the variance in employment outcomes?

This chapter offers a review of literature on the history of labor migration and employment in the United States with some reference to the recent migration of Zimbabweans in the past decade. This will be followed a description of the concept of underemployment with a particular focus on skills-based underemployment. Additionally, the literature associated with human capital theory and economic variables related to it are reviewed. Lastly, Chapter II includes a description of the literature related to social capital and social capital related factors in employment. Some important studies have been done that suggest that the most important factors in immigrant integration in the United States are human capital, citizenship, household composition, acculturation factors and gender.
However, the recent arrival of African immigrants suggests that there exist variations to these assumptions that need to be explored. Hence, this chapter explores recent research on this phenomenon.

**Historical Perspective of Labor Migration to the United States**

From about 1945, most countries in Western Europe began to attract a significant number of migrant workers (Greenwood & Hunt, 2003). By the late 1960s, most of the migrant workers were coming from countries in Africa, Asia, the Caribbean and the Middle East (Massey, Arango, Hugo, Kouaouci, Pellegrino, & Taylor, 1993). However, migration between developing countries still dominates the global migrant stock at 72.6 million people and constitutes about 45% of all international migration. Migration from developing to developed countries accounts for about 34% of all migrants (55 million) and migration between developed countries accounts for another 17% (28 million). Meanwhile, migration from developing to developed countries increased from 10 million to 55 million between 1960 and 2000 (Docquier, 2014). Additionally, the data shows that migration of high-skilled workers exceeds those of low-skilled workers in virtually all countries, thereby making this an important aspect of labor migration.

Slack and Jensen (2011) observe that the first great wave of migration to the United States (1820–1900) was comprised principally of those arriving from northern and western Europe. They integrated more easily into the emerging society in which the existing white population was of a similar ethnic stock, and they were largely economically successful. The second wave (1860–1930) overlapped with the first and was distinguished by a shift away
from northwestern European origins to southern and eastern Europe. However, these immigrants differed from the populace in appearance, religion, and origins, which made it more difficult for them to immediately assimilate. Despite the difficulties in assimilation, the second wave of migrants was also economically successful (Lieberson, 1980).

Between 1901 and 1910, migration to the United States totaled nearly 8.8 million persons and accounted for nearly 54% of population change (Slack & Jensen, 2011). Migration to the United States slowed during the 1920s to about 4.1 million persons and during the great depression it dropped to 500,000 persons (Greenwood & Hunt, 2003). In addition, the introduction of the National Origin Quota System greatly restricted immigrant flows from all regions of the globe except northwestern Europe.

Slack and Jensen (2011) further note that the third great wave of immigration began with 1965 legislation that replaced the quota system with a more equitable worldwide distribution of visas. This led to prioritization of family reunification as a criterion for entry. Immigration flows increased greatly as a result, with the country of origin composition shifting toward Latin America, Asia, and other developing regions. Figure 2.1 (below) shows the increase in the United States immigrant population since 1850 and their increase as a percentage of the population (United States Department of Homeland Security, 2012). Figure 2.1 also shows how the change in immigration law in the 1960s helped to explain the falling rates of migration in the 1940s and 1950s.

The United States Census Bureau (2009) American Community Survey results show that the immigrant population is about 38,517,234, or 12.5% of the total population. The
number of foreign-born individuals living in the United States increased by 1.5% (about 556,000 people) between 2008 and 2009 (Migration Policy Institute, 2014). The United States Census Bureau (2014) also reports that the foreign-born population from Africa has grown rapidly in the United States during the last 40 years, increasing from about 80,000 in 1970 to about 1.6 million in the period from 2008 to 2012. About 75% of the foreign-born population from Africa came to live in the United States after 1990, leaving open the question of how these immigrants are performing in labor market.

Figure 2.1. Number of Immigrants and Immigrants as a Percentage of the U.S. Population, 1850 to 2011 (USDHS, 2012).
Similarly, World Bank (2011) estimates show that the United States is the destination for an estimated 4% of all African immigrants. Thus, African immigrants in the United States are the fastest-growing immigrant population. Zimbabwean immigrants, in particular, are the second largest group of immigrants from southern Africa (Marrow, 2007). The increase is more evident considering that in 2009, 914 Zimbabweans were granted permanent residency in the U.S. compared with just 184 in 1999. In addition, 658 Zimbabwe nationals became U.S. citizens in 2013 versus 225 in 2004. However, it remains unclear how these recent immigrants have integrated into the labor when considering both the human and social capital they possess, which is somewhat different for Zimbabwean immigrants than for other previously-studied immigrant groups.

The Bureau of Labor Statistics (2014) defines foreign-born workers as legally admitted immigrants, refugees, temporary residents (such as students and temporary workers), and undocumented immigrants. In 2013, there were 25.3 million (16%) foreign-born persons in the U.S. labor force. Foreign-born workers were more likely than native-born workers to be employed in service occupations and less likely to be employed in management, professional, and related occupations or in sales and office occupations. When the Bureau of Labor collects data on foreign workers, it often treats them as a homogenous group. However, African immigrants tend to differ from other immigrant groups in human capital and culture, which creates a need for researchers to concentrate on understanding the variations in this group of recent immigrants in order to implement policy that will effectively target them.
African Labor Migration to the United States

Muchenje (2003) proposes that labor migration out of Africa actually began with the forced removal of Africa's strongest and brightest to America centuries ago through slave trade. The labor migration of black Africans to North America dates back to about 1519 when slaves were transported to Puerto Rico (Capps et al., 2012). Subsequently, by the end of the slave trade, an estimated 360,000 Africans were moved to the United States to work primarily in plantations. Records also show that in the early 1700s, there were small numbers of Africans going abroad (Easterly & Nyarko, 2008). Migration of Africans to the United States can also be traced back to the early part of the 20th century, when more than 150 black South Africans, some Maasai and Nigerians went to study in the United States (Global Black History, 2016).

Scholars estimate that between 1960 and 1987, sub-Saharan Africa lost one-third of its professional workers to other countries—mostly the United States, Europe, Australia, Canada and New Zealand. In addition, the United Nations Economic Commission for Africa estimates that 27,000 highly-educated and skilled Africans migrated to the West between 1960 and 1975 at the rate of about 1,800 a year (Oyelere, 2007). During that period, Ghana, Nigeria and Kenya were among the top five countries that lost professionals from sub-Saharan Africa to the United States.

Sub-Saharan Africa, like most developing regions, has been integrated into the global economy primarily as a source of cheap primary goods and cheap labor (Chimanikire, 2005). Initially, African labor was exploited within colonial boundaries, but after World War II,
African labor was often actively recruited by ex-colonial European powers with increased competition for more expensive European labor. For example, France gave its former African colonies favored nation status and formed agreements with such African states as Senegal, Mauritania, and Mali to promote labor migration. The favored-nation status made it easier for educated and skilled Africans to migrate to France; as a result, by 1960, about 20,000 sub-Saharan Africans were in France.

By 1990, 127,853 mostly educated and skilled immigrants left Africa for the United States. Of those who left Africa, 2,060 had primary or less education; 30,640 had secondary education; and 95,153 had some form of higher education (Carrington & Detragiache, 1998). The biggest migratory flows from Africa to the United States came from Egypt, Ghana, and South Africa. For these three countries, over 60% of the immigrants had a tertiary education, and migration of low-educated Africans was almost non-existent (Carrington & Detragiache). Between 1990 and 2000, the population of skilled immigrants in OECD countries increased by 64%. The increase was larger for immigrants from developing countries (up 93%), especially from Africa (up 113%) and Latin America and the Caribbean (up 97%) (Docquier et al., 2007).

In the early twentieth century, Zimbabweans migrated to South Africa in order to work in the mining industry (Zinyama, 1990). Between 1980 and 1984, 50,000 to 60,000 mostly white Zimbabweans migrated after the change to black majority political rule. Since 2000, there has been a dramatic increase in Zimbabweans leaving the country. Estimates
show that 11,620 people left the country with most (6,256) going to other African countries and (3,758) migrating to European countries (Zanamwe & Devillard, 2014).

**Underemployment**

Underemployment is a multidimensional and complex construct that has been studied in four primary fields: management, economics, sociology and community psychology (McKee-Ryan & Harvey, 2011). The topic of underemployment was first considered by the second International Conference of Labor Statisticians (ICLS) in 1925, and the first international statistical definition was adopted in 1957 (Brown & Pintaldi, 2006).

Glyde (1977) initially defined underemployment as an involuntary employment condition where workers are in jobs in which their skills are technically underutilized and therefore undervalued when compared to other individuals of similar ability who have made equivalent investments in their human capital, while Burris (1983) described it as the extent to which the worker feels overqualified or overeducated for the job. As more scholars explore the field, the concept of underemployment continues to evolve into many dimensions and fields of study.

Feldman (1996) proposed five dimensions to underemployment. First, a person possesses more formal education than the job requires. Secondly, a person may be involuntarily employed in a field outside their area of formal education. Third, a person may possess higher level work skills and more extensive work experience than the job requires. Fourth, a person may be involuntarily engaged in part time, temporary or intermittent employment. Finally, the last dimension of underemployment is when a person earns wages
20% or less than in their previous job or 20% less than their graduating peers for recent college graduates. The first and third dimensions are related to each other because individuals accrue significant amounts of human capital by virtue of years of service within an organization or occupation (Feldman, 1996).

Feldman (1996) also proposed that there are many factors that are correlated with underemployment such as: economic, job characteristics, career history, job search strategies and demographic characteristics. He suggests that levels of underemployment will often rise when there is a recession or when organizations are concerned about government regulation which leads to labor cost increases. Additionally, levels of underemployment can be higher in declining firms, in declining industries and in declining subunits within organizations. 

Feldman (1996) also proposed that levels of underemployment are more likely to be higher among managers than non-managers, among staff than line workers, and among certain kinds of professionals. Furthermore, he notes that individuals are more likely to be underemployed if they have been laid off, unemployed for long periods of time, their careers have plateaued, or they are recent graduates who did not start their job search early (Feldman, 1996). In addition, women, racial minorities, older workers and those with less education are more likely to be underemployed. Feldman, Leana and Bolino (2002) concluded that underemployment is simply a job that is lower in quality in some way.

The International Labor Organization (ILO) (1998) defines inadequate employment as any situation where workers desire to change their current work situation for reasons that limit their capabilities and well-being and were available to do so. They specifically focus on
three types of inadequate employment situations: skills-related underemployment, income-related underemployment, and excessive working hours. National statistical agencies typically do not measure skills-related underemployment, and often it is an invisible form of underemployment precisely because it was difficult to identify and hence hard to measure (Maynard & Feldman, 2011).

Lester and McCain (2001) suggest that underemployment occurs when a person is employed in a position less rewarding than that which his/her qualifications might support, and who might in other circumstances be technically and economically viable. In addition, it is important to note that a person will be treated as being underemployed only if their employment situation is median unfair in the circumstances—that is, if they would accept the terms of employment of more than half the people actively employed in their trade (Lester & McCain, 2001).

Underemployment is defined as the degree to which an individual’s education, skills, and abilities are underutilized by their current job (Bolino & Feldman, 2000). Bonnal, Lira and Addy (2009) suggest that workers in occupations that underuse their experience, training and skills are underemployed and may be receiving salaries below what they can earn or working fewer hours than they desire. Sometimes immigrants find themselves employed in professions that do not match the skills and education they possess. Hence the need to explore this concept further. Other scholars define underemployment as a situation in which workers are in occupations that underuse their experience, training and skills, and who might be receiving salaries below what they believe they can earn (Bonnal, et al., 2009). Therefore,
the underemployed comprise a significant pool of untapped labor which impacts the
individual, organizations, and the nation as we whole.

Currently, underemployment is related to underutilization of skilled human resources
in an economy. Skills-related underemployment exists when a worker’s skill set exceeds that
required by the job (Wilkins & Wooden, 2011). Maynard and Feldman (2011) also define
underemployment as when workers are employed in jobs which are substandard relative to
their goals and expectations. Additionally, McKee-Ryan and Harvey (2011) describe
underemployment as a multi-dimensional concept that includes the following: inadequate
employment, underutilization, underpay, over education, over skilling, over qualification or
having low skill utilization or reemployment quality.

Furthermore, Abel, Dietz and Su (2014) describe underemployment as a condition of
working in a job that typically does not require a bachelor’s degree. The recent rise in
underemployment represents a return to more typical conditions—the underemployment rate
appears to have reverted to levels that existed in the early 1990s. Based on recent data, the
share of underemployed college graduates in good non-college jobs has fallen sharply, while
the share working in low-wage jobs has risen, with most of these changes occurring since
2000. The share of recent college graduates in low-wage jobs rose from about 15% in 1990
to more than 20% by 2009, while the corresponding share of all college graduates increased
only modestly from 13% to 15%.
Antecedents of Underemployment

Underemployment can be preceded by a number of factors such as economic or industry specific decline, job type, demographic characteristics, job search strategies, employee experiences, and personal work preferences. Workers may become underemployed because of the state of the economy. Feldman (1996) believes underemployment increases during recessionary periods. In addition, there may be more underemployment when employers are concerned about government regulation, during period of a specific industry decline, in extractive industries (farming, fishing and logging), or when the city one faces general decline such as that recently experienced in Detroit, Michigan.

On an individual level, however, underemployment also varies by job type, demographic characteristics (age, gender, and race), job search strategies, employee experiences, and personal work preferences. Feldman (1996) argues that underemployment is higher among managers because they are more disproportionately affected by layoffs and downsizing than other types of employees in a firm. However, other studies have found otherwise—underemployment seems to occur in all professions including executives (Feldman et al., 2000), expatriates (Bolino & Feldman, 2000), and faculty (Feldman & Turnley, 2004).

Bonnal et al. (2009) argued that underemployment can due to personal reasons such as spousal employment and income, family constraints, spatial restrictions or other personal preferences. Underemployment may also occur because of productivity growth: workers
learn to do their jobs better and faster. Additionally, individuals may become underemployed because of a certain feature of the local labor market. Table 2.1 below shows the rate of underemployment by immigrant generation and year between 1999 and 2009 (Slack & Jensen, 2011). The table also shows a comparison of immigrants and citizens underemployment.

### Table 2.1

**Underemployment by Immigrant Generation and Year 1999-2009 (Slack & Jensen, 2011).**

<table>
<thead>
<tr>
<th>Year</th>
<th>Third generation or higher</th>
<th>Second generation</th>
<th>Total</th>
<th>Citizen</th>
<th>Non-citizen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>10.9</td>
<td>11.2</td>
<td>18.5</td>
<td>13.3</td>
<td>22.0</td>
</tr>
<tr>
<td>2000</td>
<td>10.4</td>
<td>10.8</td>
<td>16.6</td>
<td>11.7</td>
<td>20.1</td>
</tr>
<tr>
<td>2001</td>
<td>10.4</td>
<td>10.1</td>
<td>15.8</td>
<td>11.7</td>
<td>18.7</td>
</tr>
<tr>
<td>2002</td>
<td>11.9</td>
<td>12.0</td>
<td>18.3</td>
<td>12.8</td>
<td>21.9</td>
</tr>
<tr>
<td>2003</td>
<td>12.4</td>
<td>12.7</td>
<td>19.4</td>
<td>13.7</td>
<td>23.3</td>
</tr>
<tr>
<td>2004</td>
<td>13.1</td>
<td>12.8</td>
<td>19.2</td>
<td>13.5</td>
<td>23.2</td>
</tr>
<tr>
<td>2005</td>
<td>12.4</td>
<td>11.0</td>
<td>17.4</td>
<td>11.6</td>
<td>21.4</td>
</tr>
<tr>
<td>2006</td>
<td>11.6</td>
<td>11.6</td>
<td>16.0</td>
<td>10.9</td>
<td>19.5</td>
</tr>
<tr>
<td>2007</td>
<td>11.4</td>
<td>10.6</td>
<td>16.1</td>
<td>10.3</td>
<td>20.1</td>
</tr>
<tr>
<td>2008</td>
<td>12.0</td>
<td>11.2</td>
<td>18.7</td>
<td>12.4</td>
<td>23.1</td>
</tr>
<tr>
<td>2009</td>
<td>17.6</td>
<td>18.4</td>
<td>26.6</td>
<td>18.4</td>
<td>32.7</td>
</tr>
</tbody>
</table>

One type of often-understudied underemployment is skills-related. Skills-related underemployment is difficult to measure because the match of a worker to a job usually involves a variety of factors: training, education, experience, aptitudes, abilities, preferences (Brown & Pintaldi, 2006). This research study focuses on skills-based underemployment...
among African immigrants because a limited number of scholars have satisfactorily explored this concept.

**Skills-Based Underemployment**

Skills-based underemployment is one form of underemployment that this study seeks to explore. It has evolved from the first mention of the concept by Glyde (1977) into a dimension the International Labor Organization acknowledges in its analyses. There are primarily three types of underemployment in the literature: time-related, income-related and skills-related. For the purpose of this study, the focus will be on skills-related underemployment. Brown and Pintaldi (2006) suggest that skills-related underemployment focuses on the underutilization of the worker’s skills rather than their time, and there are consequences for the quality as well as the productivity of work, creating problems both at the individual level and at the level of the economy as a whole. Underemployment fits within different dimensions: employment opportunities, adequate earnings, productive work and decent hours, but within it are issues of inadequate employment situations that affect the capacities and well-being of workers (Brown & Pintaldi, 2006).

For many economists, underemployment is defined dichotomously using the criteria of income loss, intermittent employment, or over-education. The literature shows that researchers in economics and education are now concerned with measuring and understanding the consequences of skills-related underemployment (though it typically falls under the guise of over-education). In addition, skills-related underemployment is conceptually similar to the over-qualification construct studied in other disciplines, such as
industrial and organizational (I-O) psychology and organizational behavior. Table 2.2 below shows the evolution of skills based underemployment in scholarly literature beginning with Glyde (1977).
Table 2.2

*The Evolution of Skills Based Underemployment in Scholarly Literature.*

<table>
<thead>
<tr>
<th>Source/Author</th>
<th>Definition</th>
<th>Measurement dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glyde (1977)</td>
<td>Involuntary employment condition where workers are in jobs in which their skill, including formal and work experience are technically underutilized and thus undervalued relative to those of other individuals of similar ability who have made equivalent investments in skill development.</td>
<td>Skill Experience</td>
</tr>
<tr>
<td>Burris (1983)</td>
<td>The extent to which the worker feels overqualified or overeducated for the job.</td>
<td>Educational attainment</td>
</tr>
<tr>
<td>Amundson &amp; Harter (1988)</td>
<td>Employees who possessed 1 standard deviation more education than required for their jobs and who considered themselves underemployed.</td>
<td>Education</td>
</tr>
<tr>
<td>Khan &amp; Morrow (1991)</td>
<td>The degree to which individuals believe they are overqualified for their positions (perceived over qualification) and whether or not their jobs provide opportunities for professional growth (perceived no growth).</td>
<td>Education Skills</td>
</tr>
<tr>
<td>Johnson &amp; Johnson (1996)</td>
<td>The extent to which an employed individual perceives that she or he possesses surplus job qualifications or has limited opportunities to acquire and use new job related skills</td>
<td>Education Skills</td>
</tr>
<tr>
<td>Burke (1997)</td>
<td>Employed in jobs requiring less education, skills and experience than they possess.</td>
<td>Education Skills</td>
</tr>
<tr>
<td>Feldman, Leana, Bolino (2002)</td>
<td>A job that is lower in quality in some way.</td>
<td>Hierarchical level</td>
</tr>
<tr>
<td>Maynard, Joseph &amp; Maynard (2006)</td>
<td>The extent to which an employee feels that she or he has surplus education, experience and or KSAs relative to the requirements of his or her position.</td>
<td>Education Experience Knowledge, Skills, Abilities</td>
</tr>
</tbody>
</table>
**Human Capital and Underemployment**

Underemployment is closely associated with human capital because the concept represents an erosion or depreciation of human capital resulting in outcomes (e.g., salaries) that are not commensurate with the assets employees invest into their employment (Buchel, 2001). When the investments that people make in their education and training are not commensurate with their employment, they are considered underemployed. Immigrants are prone to underemployment when their human capital investments are not translated into the labor market, hence the need for understanding this relationship (ILO, 2013).

**Human Capital Theory**

One of the economic theories used in Human Resource Development is the human capital theory (Swanson & Holton, 2001). In attempting to understand human capital theory, this review will chronologically follow how the theory evolved. Gary Becker began studying human capital in the 1950s by trying to determine the differences in income of college graduates in the United States. He proposed that schooling; training courses, medical care and even lectures on personal improvements should all be considered capital because undertaking these improvements can raise an individual’s earnings.

Schultz (1961) defines human capital as the knowledge and skills that people acquire through education and training being a form of capital, and this capital is a deliberate investment that yields returns. The idea is that investment in people should produce returns. Education and training are viewed as the most important investments in human capital because education provides benefits to the economy including cultivation and discovery of
talent; increased capability of people to adjust to job opportunities; preparation of teachers; and provision of manpower for sustained economic growth (Schultz, 1963).

Mincer (1962) viewed the theory of human capital as education and schooling to prepare the workforce. While improved workforce was a major component, Denison (1962) also believed that the human capital theory attributes a proportion of economic growth not explained by increases in capital, labor and productive land to improvements from increased educational levels in the workforce. Similarly, Becker (1964) views the theory of human capital as a form of investment by individuals in education up to the point where the returns in extra income are equal to the costs of participating in education. He proposes that the returns to education are both private as additional income and public in the form of greater productivity. His work focuses on the private and social returns to investment in education. This led to the idea of the “knowledge economy” espoused by Gary Becker, Theodore Shultz, Peter Drucker and Robert Reich.

Investments such as expenditures on social services, health and education are also viewed as comparable to physical capital (Bowman, 1969), while, Blaug (1976) argues that individuals and governments incur direct and indirect costs by purchasing education and training for future economic returns. This creates a link between investments in education and individuals’ lifetime earnings.

Psacharopolous and Woodhall (1985) proposed that human capital should include investment in both formal and informal education and training to enhance individual productivity. This can be accomplished by providing knowledge, skills, attitudes and
motivation necessary for economic and social development. They view human capital as necessary for productivity in the workforce. Meanwhile, Romer (1987) views human capital as a continuation of the new growth theory where increasing returns to organizations are due to investments in human capital through specialization.

The fundamental principle underpinning human capital theory is the belief that people’s learning capacities are of comparable value to other resources involved in the production of goods and services (Lucas, 1988). Therefore, to reduce income inequality, inequality in investments people make in human capital must be reduced (e.g., health, education, on the job training, other vocational training).

Furthermore, Romer (1990) attributes the rate of economic growth to total stock of human capital that an organization, country or economy has, while, Becker (1990) uses the fertility model to argue that there is a correlation between family size and the decision to invest in human capital; therefore, societies with small families have invested in human capital and benefitted from more economic growth. Their focus is on increased productivity in the economy.

The basic premise of the human capital approach is that variations in labor income in a free market are due in part to differences in labor quality due to the amount of human capital each worker acquires (Cohn & Geske, 1990). The human capital approach also includes the investment in on-the-job training. Human capital is an investment in education and training that has both private and public returns which is achieved when schooling and training increase an individual’s productivity and chances in a free in a free market to obtain
higher wages and increase contribution to the overall economy (Cohn & Geske, 1990). Becker (1993) uses the theory of human capital to understand the similarity between business investments in equipment and the economic effects of investment in education on employment and earnings. Additionally, expenditures made by individuals and governments in purchasing education and training are seen as investments that are expected to yield economic and non-economic returns (Bontis, 1996). Schooling is supposed to supply future workers with skills that will enhance their productivity and, therefore, promote economic growth (Labaree, 1997). Schooling provides marketable skills and abilities relevant to job performance. This makes the more highly-schooled applicants more valuable to employers, thus raising their incomes and their opportunities for securing jobs.

In using human capital theory, it is assumed that an increase in education and training of the workforce will result in economic growth. The theory asserts that variations in labor income are due in part to differences in labor quality in terms of the amount of human capital acquired by the workers. This variation in labor income due to increases in education and training may be useful in understanding human resource development. Schooling provides marketable skills and abilities relevant to job performance. This makes the more highly-schooled applicants more valuable to employer’s thus raising their incomes and their opportunities for securing jobs. In theory, the human capital model asserts that workers who have invested more in education and training will produce more and therefore increase economic growth for the nation.
On an individual level, human capital consists of the traits one brings to the job such as attitude, reliability, commitment and ability to learn, all of which increase productivity and efficiency (Fitz-Enz, 2000). Paprock (2006) explains further:

Human capital focuses on the economic behavior of individuals, especially the way their accumulation of knowledge and skills enables them to increase their productivity and their earnings and in so doing, to increase the productivity and wealth of the societies they live in. (p. 17)

The collective knowledge, skills, abilities and other characteristics combined that create a capability for competitive advantage are referred to as human capital (Lengnick-Hall & Lengnick-Hall, 2003). Human capital is similar to but different from the traditional view of knowledge, skills, abilities and other characteristics (KSAOs) because human capital encompasses various talents, attributes, capabilities and insights a person brings to the workplace whether or not they are job-related. Education and schooling are seen as deliberate investments that prepare the labor force and increase productivity of individuals and organizations as well as encourage growth and development at the international level (Nafukho, Hairston & Brooks, 2004).

Nafukho, Hairston and Brooks (2004) propose that the link between Human Resource Development and human capital can be examined by exploring the definition of human capital theory chronologically. From the various definitions of human capital, they found that certain themes resonated with our understanding of Human Resource Development. The following variables emerged: investment in people, improved workforce, productivity in the
workforce, increasing the stock of knowledge, faster rate of economic growth, productivity and efficiency, and quality performance. These variables have been reflected in the definitions of Human Resource Development since 1964. The definitions of human capital theory show that from an investment in people, there is a change that is manifested at the individual level in the form of improved productivity and profitability or at a societal level in the form of returns that benefit the entire society.

Potocky-Tripodi (2004) defines human capital as the personal characteristics that enhance individual’s economic well-being such as education, skills and work experience in both the country of origin and the new country. Furthermore, most research shows that the greater the human capital one possesses, the greater their chances of economic well-being. This study will test these assumptions of the human capital theory in Zimbabwean immigrants.

From a human resources perspective, human capital is the knowledge, skills, and capabilities of individuals that have economic value to an organization (Bohlander, Snell and Sherman, 2011). It could also be defined as the collective value of an organization’s know-how and refers to the value usually not reflected in accounting systems, which results from the investment an organization must make to recreate knowledge in its employees (Cortada & Woods, 1999). Edvinsson and Mallone (1997) describe human capital as all individual capabilities—the knowledge, skill and experience of the company’s employees and managers.
This research study explores the employment outcomes of immigrants from Zimbabwe, and the research questions can be answered by also using the definition of human capital provided by Fitz-Enz (2000) in which,

Human capital are the traits one brings to the job: intelligence, fulfilling work energy, a generally positive attitude, reliability and commitment. One’s ability to learn: aptitude, imagination, creativity and what is often called ‘street smarts’ savvy (how to get things done). (p. 548)

The essence of human capital theory is that people invest in themselves according to their own self-interest for the sake of future gains in lifetime earnings, and the resulting human capital pays off in increased productivity which, when valued by the labor market, results in increased earnings (Dobbs, Sun & Roberts, 2008). Immigrants also invest in themselves according to the skills they believe will be useful in the labor market, but their returns may be different from the native population’s.

Swanson and Holton’s (2009) definition of Human Resource Development as “a process for developing and unleashing human expertise through organization development and personnel training and development for the purpose of improving performance” explains the contribution of individual productivity to Human Resource Development. This is important to Human Resource Development because performance is an important factor in human resource development initiatives. Swanson and Holton (2009) view training and development as a function to develop human expertise for the purpose of improving performance which could be individual performance.
The human capital approach is based on the notion that individuals make decisions about investing in their own human capital which they attain through education, training, and certifications with the expectation that these choices will lead them to more economic rewards (McKee-Ryan & Harvey, 2011). This approach explains the outcomes for individual employees, organizations and the broader labor market. It is understood that schooling provides marketable skills and abilities relevant to job performance. This makes the more highly-schooled applicants more valuable to employers thus raising their incomes and their opportunities for securing jobs.

The key elements of human capital theory are the presumed relationships between training, skills, knowledge, productivity and the labor market that are assumed to occur in perfect markets. In using the human capital theory, the assumption is made that job seekers have perfect information and are perfectly mobile in the labor market; the key assumption is that skill underutilization is based on value creation rather than value realization (Fernando, Fernando & Hannif, 2014).

**Human Capital Theory and Underemployment**

From a labor economics perspective, when an individual takes a job unrelated to their education which results in underutilization of their human capital, then they are underemployed (Feldman & Turnley, 1995). The concept of underemployment represents an erosion or depreciation of human capital because outcomes (e.g., salaries) are not commensurate with the assets employees invest into their employment (Buchel, 2001). Human capital theory views underemployment from a supply and demand perspective, as
workers’ qualifications are not commensurate with employers’ labor requests (Luksyte & Spitzmueler, 2011). However, measurement of underemployment from a human capital theory perspective is less susceptible to the influence of individual differences relative to some other perspectives. Yet, the human capital theory does not take into account the subjective indices of underemployment. Sometimes, others (e.g., managers, coworkers) may view the level of focal employees’ qualifications as commensurate with their job requirements, while workers may still perceive a poor return on their investments in comparison with some standard, such as their previous work. As a result, employees may perceive their current work status as underemployment even though others may view their work situation as adequate.

**Measurement.** Human capital theory-related research in Human Resource Development has not matured to a level where there are clearly defined methods of quantifying returns to investment in education and training. After the human capital theory was proposed, there were disagreements among scholars about estimating the private rate of return on education from income differentials between persons differing in education (Becker, 1975). Most critics argue that the true rate of return on education is grossly overestimated because persons differing in education also differ in many other characteristics that cause their incomes to differ systematically. In addition, others argued against the presumption that there is a positive correlation between education and ability.

Lengnick-Hall and Lengnick-Hall (2003) acknowledge that human capital is difficult but not impossible to measure. Models using human capital theory use observed earnings to
estimate rates of return for investment in education and training. However, Psacharopolous (1989) acknowledged that the traditionally-estimated returns on the basis of observed earnings may underestimate the true social profitability of education. The flatness of civil service pay scales depresses the size of earnings differentials on which early rate-of-return estimates were based.

When studies are conducted on a national level, there is a tendency to assume that workers of a given age and education have the same human capital endowments in all countries. However, the problem is that possible differences in measured skills are not taken into account (Hendricks, 2002). The problem with this approach is that it does not capture differences between people in human capital investment (Psacharopoulos & Layard, 1979).

In a study of cross-national data, Pritchett (2001) acknowledged that the human capital theory fails to accommodate some factors related to educational investment and accumulation of human capital. On average, education contributed much less to growth than would have been expected in the standard augmented Solow model. This is explained by the notion that schooling has created cognitive skills, and these skills have been in demand but to do the wrong thing. In other countries, the institutional environment has been so sufficiently bad that the bulk of newly-acquired skills have been devoted to privately-remunerative but socially-wasteful or counterproductive activities. Another explanation is that the rate of growth of demand for educated labor has varied widely across countries, so countries with the same initial individual returns and equal subsequent expansions in the supply of educated
labor could have seen the marginal returns to education fall dramatically, stay constant, or rise.

**Focus on individual.** Research using the human capital theory in research as a measurement, outcome variable, and a phenomenon of interest has traditionally focused on the role of the individual. It is important for research studies based on human capital theory to assist governments in establishing national policies. Bowles and Gintis (1975) argue that the human capital theory reflects a deeper relationship between the worker and the job: in their model, they treat the labor wage exchange as a pure market exchange which demeans the power of the capitalist over the worker. The prospective worker agrees to surrender power over his or her labor decision to the capitalist in return for a wage. Unlike other markets wherein product is sold purely at the agreement of the parties involved, labor markets vary. The cost of labor depends on the social and political structure of a given enterprise.

The focus on the individual in human capital theory analysis fails to recognize that there are factors beyond the individual that must be included in order to fully understand the value of a worker’s education and training. An individual’s pattern of personal development is depicted as the product of family’s choices, limited only by individual ability, by the available learning technologies, and, to a limited extent, by family resources. However, the history of education suggests that the formal structure of education which most people complete was not an explicit choice they made; rather, it was the result of a series of decisions developed by more elite members of society.
Bowles and Gintis (1975) argue that economic skills are not unidimensional and cannot be aggregated into a single measure that can be quantified and compared, describing and predicting which individuals will have more and which less. Families and schools teach different things to different people, and not simply more or less. Instead, investments in education may increase the labor power of the individual either through increasing skills and productive capacities or through supplying credentials which enhance supervisory authority. Education may be more valuable to the capitalist who uses it to segment workers by income and status, thereby inhibiting the formation of coalitions of workers capable of countering the power of capitalists.

Models using the human capital theory (Blinder & Weiss, 1976; Heckman, 1976) assume that human capital is homogeneous. This means all variation in wages can be attributed only to differences in amounts of human capital, and the models provide no link between the types of human capital an individual may acquire. However, Fuchs (1971) found that women showed variations in the kinds of human capital they acquired and its relation to earnings, a finding which could counter Psacharopoulos’ (1985) notion that the rate of return to women’s education is at least as attractive as the rate of return on investment for men.

**Neoclassical economic approach.** Neoclassical economists have treated labor as a commodity by integrating work into their analytical framework and assuming the labor wage exchange is identical to other exchanges (Bowles & Gintis, 1975). By restricting human capital analysis to the interaction between individual preferences, raw materials and
alternative production technologies, human capital theory formally excludes the relevance of class and class conflict in the labor market. Bowles and Gintis (1975) argue that schooling, occupation training, child rearing and health care perform dual economic functions of perpetuating the economic and social order.

Bowles and Gintis (1975) argue that the theory of human capital offers no theory of reproduction which fails to acknowledge the role of social relations. Additionally, they point out that the human capital theory fails to account for the shortcomings of the demand for human capital by firms, the supply of human capital, and the interpretation of the rate of return. Using the neo-classical view of the human capital theory alone fails to acknowledge that production is a social and technical process.

Human capital theory asserts that schooling provides marketable skills and abilities related to job performance and that this makes the more highly-schooled applicants more valuable to employers, thus raising their incomes and their opportunities for securing jobs (Bills, 2003). After many decades of research, there is no persuasive account for why the highly-schooled become the highly-placed in job hierarchies. Rosenblaum (1986) notes,

It is ironic that human capital theory views the assessment of ability as a trivial problem. It makes ability central to its explanation, but it does not attempt to define or operationalize it, conveniently assuming that managers can easily assess it. The personnel literature on the assessment of managerial and professional ability makes it plain that managers do not know how to measure it, and the statements of managers confirm their confusion on the matter. (p.164)
The neoclassical approach to human capital fails to recognize other factors such as race, sex, age, ethnicity, class, power and formal credentials, all of which are included in this study. Bowles and Gintis (1975) further argue against the use of the term “capital,” which denotes the claim on future income as well as the ownership and control over the means of production because it implies that workers are now capitalists.

Long (2007) notes that, regardless of method, there is a five to 12% return in income for each year of education in the United States. However, by focusing only on the monetary returns to education, researchers have ignored other returns that education may have—intangible benefits such as the increased ability to understand and appreciate the behavioral, historical and philosophical foundations of human existence. Therefore, for this research study, the social capital theory will also be used as a theoretical framework to explain those factors’ significance in explaining and predicting the employment outcomes of Zimbabwe immigrants in the United States labor market.

**Human Capital Factors**

Immigrant characteristic disadvantages such as location-specific capital, fewer social networks, fewer resources and market specific skills all affect their assimilation as they enter the labor market in their new country of residence (DeJong & Madamba, 2001). In analyzing factors related to human capital, we assume that on the supply side, workers bring skills, education, and other forms of human capital to the market, which, when they can find work, are exchanged for wages and other benefits (Slack & Jensen, 2011). On the other hand,
employers bring jobs that differ greatly in the skills they demand, the desirability of the work, the steadiness of the work, and so forth.

**Education.** Underutilization of education refers to the degree to which a worker is required to have his or her educational level in his or her job (McKee-Ryan & Harvey, 2011). Shultz (1963) argues that people invest in themselves through education to improve their job opportunities. Robert Reich (1963) claims that inequality between people and nations is a result of an aggregate of differences in knowledge and skills. As the average educational attainment of workers increases, there is a greater possibility for increases in the underemployment rate.

Education has received considerably less attention among scholars researching underemployment (McKee-Ryan & Harvey, 2011), though some scholars assume that highly-educated workers are more likely to experience underemployment. Nevertheless, recent studies on education and underemployment show mixed results. Holtom, Lee and Tidd (2002) found that education was positively related to underemployment, but Johnson and Johnson (2000a, 2000b) found there was no relationship between education and underemployment. Bonnal, Lira and Addy (2009) speculate that the higher the level of education, the wider the set of possible work choices and the lower the probability of being underemployed. Higher education achievement provides workers with a greater ability to find a job that suits their education, skills and training; this translates to their ability to hold on to that job once it has been obtained. Capps et al. (2012) found that black African immigrants are among the best educated because they are disproportionally admitted through
the diversity visa program which requires applicants to possess at least two years or more of training. However, their employment outcomes do not match their educational attainment. Humphris (2010) reports that Zimbabweans in the United Kingdom have the highest level of education among refugees surveyed by the Home Office. Most of them had previously worked as professionals, managers or in professional and technical occupations. In addition, their study showed that of 500 Zimbabweans surveyed, 97% had a formal qualification and above-average levels of education compared to the British population and other immigrant groups.

The Bureau of Labor Statistics (2014) report shows that in 2013, 24.3% of the foreign-born labor force aged 25 and over had not completed high school compared with 4.8% of the native-born labor force. The foreign-born were less likely than the native-born to have some college or an associate degree 17.1% versus 30.1%. The proportions for foreign-born and native-born persons that had a bachelor’s degree or higher were more similar, at 33.8% and 37.5%, respectively.

Furthermore, the earnings of both foreign-born and native-born workers increase with education (Bureau of Labor Statistics, 2014). In 2013, foreign-born workers aged 25 and over with less than a high school education earned $428 per week, while those with a bachelor’s degree and higher earned about 2.9 times as much ($1,235 per week). Among the native-born, those with a bachelor’s degree and higher earned about 2.3 times as much as those with less than a high school education ($1,187 versus $511 per week). Native-born workers earn more than the foreign-born at most educational attainment levels, yet the gap between the
earnings of foreign-born and native-born workers closes at higher levels of education. For example, among high school dropouts and graduates in 2013, full-time workers who were foreign-born earned 83.8% as much as their native-born counterparts. Among those with a bachelor’s degree and higher, the earnings of foreign-born workers were essentially the same as the earnings of native-born workers.

The United States Census Bureau (2014) report also shows that the foreign-born population from Africa had a higher level of educational attainment than the overall foreign-born population: 41% of African-born had a bachelor’s degree or higher compared with 28% overall. Within the foreign-born population from Africa, educational attainment varied by place of birth. For example, 40% of the Somali-born population had less than a high school education, while 64% of Egyptian-born individuals had a bachelor’s degree or higher.
Figure 2.2. Educational attainment of the foreign-born population from Africa (2008-2012).

Immigrants from sub-Saharan Africa are both skilled professionals and less-educated refugees (Zong & Batalova, 2014). Most Anglophone countries (Cameroon, Nigeria, Tanzania, Uganda and Zimbabwe) are more likely to have at least a four-year degree and be English proficient. Capps et al. (2011) found that 24% of immigrants from Zimbabwe living in the United States held a masters, doctorate or professional degree; 26% had at least a four-year college degree; 34% had a two year degree or some college; 12% had the equivalence of a high school diploma; and only 3% had less than a high school diploma.

Zimbabweans have traditionally travelled abroad for higher education. This is evident from the recent Inter-Censal Demographic Survey (ICDS) 2008 from the 2010/2011 academic year, where a total of 434 students were studying abroad on scholarships partly or fully funded by the government. The United States Embassy in Zimbabwe records 1,135 students studying in the United States. However, the effect of education on immigrant
employment may vary depending on whether the immigrant was educated in their country of origin or in the new host country as well as whether the immigrant pursues self-employment versus employment by others (Byoun, 2014). This study seeks to explore that variation through a sample of Zimbabwean immigrants.

**Career experience.** Skills- or experience-underemployment occurs when an individual possesses greater skills and or work experience than required in their current job. Some scholars have found that immigrants are expected to overcome their earnings gap with each year of residence (Carliner, 1996). Furthermore, Allen and van der Vellen (2001) show that experience acquired during one’s working life could be more important in explaining underemployment than what is achieved through formal education.

**English language proficiency.** Language fluency is the degree to which an individual is able to communicate verbally and in writing in the language of the receiving country which in the United States is primarily English (Guerrero & Rothstein, 2011). Therefore, English language proficiency is an integral part of the human capital an immigrant possesses. The United States Census Bureau (2014) reports that 44% of the foreign-born population aged five and older who arrived in the United States in 2000 or later reported high English-language speaking ability. Of the foreign-born population aged 25 and over, 73% that with a bachelor’s degree or higher had high English-speaking ability, speaking only English at home or speaking another language at home and speaking English very well. Among the nearly 41 million foreign-born who are five years and older residing in the United States, 15% spoke only English at home. More than one-third (35 %) spoke a
non-English language at home and also spoke English very well, resulting in about half of the foreign-born having high English-speaking ability.

Stolzenberg and Tienda (1997) show that in assessing the level of human capital a particular individual possesses, a lack of English proficiency can create a disadvantage for immigrants. Economic well-being also improves with improving English ability and increasing length of residency (Potocky-Tripodi, 2004). It takes on average 12 to 21 years for migrants to earn as much as natives. Guerrero and Rothstein (2011) conclude that immigrants who are more fluent are able to gather more information to gain a better understanding of the job market and the job opportunities that they want to pursue. Additionally, even among immigrants with adequate language fluency, greater fluency contributes to more effective job search behavior.

Overall, about 70% of black African immigrants speak English as their primary language or speak another language but are also fluent in English, which is a higher percentage than the 48% for all immigrants. Of the population of black Zimbabwean immigrants five years and older, about 19% speak English at home, 73% speak English very well, 7% speak it well, and only 1% do not speak English well (Capps et al., 2009). Therefore, this research study explores English language proficiency as a factor in the assessment of total human capital of Zimbabwean immigrants and its significance in their employment outcomes. It is universally acknowledged that human capital plays an important role in employment. However, education, career experience, wages and English language proficiency do not completely explain the employment outcomes of Zimbabwean
immigrants; therefore, this study also includes a focus on social capital, a construct which has rarely been measured as a contributing factor to overall employment status.

**Social Capital and Underemployment**

The underemployment that some immigrants experience may be partially attributed to their social capital. This section explores the social capital theory and two key factors related to underemployment: family and social networks.

**Social Capital Theory**

Bourdieu (1985) defined social capital as, “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition” (p. 248). He also described it as being ”made up of social obligations (connections) which is convertible in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility” (p. 243). Although Coleman (1988) did not acknowledge Bourdieu, he described social capital as a variety of entities with two elements in common: some aspect of social structure which facilitates certain action of actors within the structure. Social capital can similarly be defined as “a resource that actors derive from specific social structures and then use to pursue their interests; it is created by changes in the relationship among actors” (Baker, 1990 p.619). Boxman, De Graaf and Flap (1991) defined social capital as the number of people who can be expected to provide support and the resources those people have at their disposal, which, in the case of immigrants, are their family and professional networks. Others such as Burt (1992) linked social capital’s value to human capital by
assuming that it is an individual’s friends, colleagues and more general contacts through whom they receive opportunities where they can use their accrued financial and human capital. It can also be defined as the ability of actors to secure benefits by virtue of membership in social networks or other social structures (Portes, 1998).

Kwon and Adler (2014) argue that some specific features of social relations give rise to social capital: the opportunities provided by the network structure of those relations; the norms and values that constitute the content of those social network ties and undergird their motivational force; and the abilities at each of these nodes of this network to be mobilized by such goodwill. Unlike they are for their native-born counterparts, networks based on kinship are not necessarily the most important in shaping immigrants’ decisions; for immigrants, networks based on weaker ties of friendship or simple acquaintance may be equally or more important in determining the decisions a migrant makes than family ties (Palloni et al., 2001).

Other scholars have provided internal definitions of social capital. Brehm and Rahn (1997) propose that it is a web of cooperative relationships between citizens that facilitates the resolution of collective action problems such as the underemployment of immigrants in the United States labor market. Furthermore, Coleman (1990) notes that social capital should be defined by its function and not as a single entity. It is the ability of people to work together for common purposes in groups and organizations (Fukuyama, 1995). Similarly, Portes and Sensenbrenner (1993) define social capital as expectations for action within a collectivity that affect the economic goals and goal-seeking behavior of its members even when the expectations are not oriented towards the economic sphere. Portes (1993) found
that social capital is high in groups with distinct phenotypical or cultural characteristics. This high social capital can be positive when it gives group members access to privileged flexible resources and psychological support, or it may be negative when it places high demands on group members and limits individual expression and advancement. Additionally, social capital includes features of social organization such as networks, norms and social trust that “facilitate coordination and cooperation for mutual benefit” (Putnam, 1995, p.67). Thomas (1996) defines social capital as those voluntary means and processes developed within civil society which promote development for the collective whole.

Social capital can be both external and internal as defined by Loury (1992); it is the result of “naturally occurring relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace and can be as asset as significant as financial gifts” (p. 100). Likewise, social capital can be the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or a social unit. It therefore includes both the network and the assets that can be mobilized through that network (Nahapet & Ghosal, 1998).

Other scholars have defined social capital as the web of social relationships that influence individual behavior and affect economic growth (Pennar, 1997), while Schiff (1992) describes it as a set of elements of the social structure which are inputs or arguments of the production and or utility function and thus affect relations among people. Woolcock (1998) likewise believes social capital consists of the information, trust, and norms or reciprocity found in a person’s social networks. Social capital can also be defined as the
norms and networks facilitating collective action for mutual benefit. After reviewing how other scholars viewed social capital, Adler and Kwon (2002) defined it as the goodwill available to individuals or groups and they believed that it lies in the structure and content of the actor’s social relations. Its effects flow from the information, influence and solidarity it makes available to the actor. They viewed social capital as both internal and external which can be attributed to both the individual and collective actors.

However, Woolcock (1998) argues that social capital amounts to nothing unless someone has access to others to inform, correct, assist with and disseminate their work. Woolcock and Narayan (2000) simplified social capital to the norms and networks that enable people to act collectively. They proposed the four views of social capital: communitarian, networks, institutional and synergy views.

In trying to understand social capital and migration, Massey and Aysa (2005) define individual social capital as migration-enhancing resources that come from direct, personal and usually close ties to particular people with migratory experience in the United States. They also define general social capital as resources emanating from weaker ties to United States immigrants diffused through community relationships such as friends and acquaintances who have been to the United States. Each person who migrates to the United States raises the prevalence of migration in the community and generates social capital which induces more people to migrate and thus create more social capital for the community.

Social capital provides benefits of information, influence and control as well as social solidarity (Akder & Roberts, 2008). However, it also excludes outsiders, it lays claim group
members, and it restricts individual freedom and levels norms. The elements of information, influence, social credentials and reinforcement contribute to the quality and degree of social capital that individual members of a group establish and possess over time (Akdere & Roberts).

Social capital is believed to exist at three levels: macro, meso and micro. At the micro level, social capital may be created between and among individuals and has been found to relate to an individual’s employability. At the meso level, social capital accumulations can be achieved among members of a group such as through member affiliations with a common goal of team success. At the macro level, social capital exists in a societal setting.

Social capital is a set of resources made available to us because of or through our social relationships or networks (Storberg-Walker, 2009). However, the key problem with social capital is that it calls into question fundamental economic assumptions on which all mathematical theories are built when social determinants of economic behavior are of secondary concern to economists.

Characteristics of Social Capital

Like other forms of capital, social capital is a long-lived asset into which other resources can be invested with the expectation of a future return or benefit (Adler & Kwon, 2002). As a form of capital, it can also yield disutility for the actor and others in the network. It is appropriable and convertible as relationships developed in the network can be used for other purposes. It can be converted to other forms of capital through, for example, the use of a position for economic gain. Social capital can also be a substitute or complement to other resources in that an individual can compensate for a lack of financial or human resources by
using the “connections” in their social network. Additionally, it can complement other capital by improving the efficiency of other forms of capital. Furthermore, social capital needs maintenance just like physical and human capital, which can be achieved through renewal and reconfirmation of social bonds. However, social capital does not have a predictable rate of depreciation as it is also characterized by collective ownership. Unlike the benefits of physical, human or financial capital, those who benefit from social capital may not necessarily own it. This is further complicated by the notion that no one player has exclusive ownership rights to social capital. Investments in social capital are thus difficult to quantify; at most, the influence of benefits derived from it on other factors such as employment status that can be measured.

There are various benefits and risks associated with social capital. Social capital benefits members of a network when it facilitates access to broader sources of information and improves information quality, relevance and timeliness. In a study of ethnic entrepreneurs and ethnic firms, Portes and Sensenbrenner (1993) found that information provided by community ties is critical for the mobility opportunities of newly-arrived immigrants. Additionally, social capital can provide influence, control and power.

When investments in social capital are unbalanced, they can transform a potentially-productive asset into a constraint and liability (Adler & Kwon, 2002). Sometimes social capital may be beneficial to one actor in the network while it has negative consequences to other actors in that same network. Social capital differs from other types of capital in that it
is neither an individual asset (like human capital) nor a business asset (like financial capital) (Storberg-Walker, 2002). It is relational and a public good shared by a group.

Social capital involves highly distinctive structures of reciprocity and resource sharing, and the benefits of social capital are contingent on the material and symbolic resources available through the network as well as on the prevailing norms within the network (Balderrama & Molina, 2009). In addition, networks entail reciprocity and trust-building within a shared identity and set of obligations and behaviors by members which govern rules of inclusion and exclusion. The rules can be behavioral, ethnic, and racial or gender identities.

**Functions of Social Capital**

Portes (1998) posits that there are three functions of social capital established in the literature. First, it is a source of social control. Second it is a source of family support. Last, social capital can be viewed as a source of benefits through extra-familial networks. Social capital created through tight community networks can be useful to parents, teachers, and any authority that seeks to maintain discipline and promote compliance. It is also a source of parental and kin support where the primary beneficiary are children whose education and personality development are enriched.

**Social Capital Factors Related to Employment**

Hakak et al. (2010) found that social networks, language, culture and discrimination are barriers to employment; therefore, this section covers all social capital-related variables used in this study. This section focuses on the significance of family networks and social
networks (which includes professional networks) in influencing the employment outcomes of immigrants. Generally, immigrants are expected to overcome these barriers with cultural knowledge, language fluency and social support.

**Family network.** Immigrants’ networks are considered a kind of social capital because they provide a migrant with information about the labor market, earnings opportunities and procedures (e.g. how to obtain work permits) (Faist, 1997). For the new migrant, family and relatives play an important role of providing information related to employment more quickly and less expansively through social capital by reducing trial and error periods (Byoun, 2014). If both spouses are motivated by job opportunities, there could then be a tendency to migrate to countries with large, diversified labor markets that offer good employment perspectives for women (Mincer, 1978).

Family culture also plays an important role in social network formation for migrant workers (Salinas, 2013). The family provides social, emotional and financial support in addition to access to vital services. Reciprocity within the family network is important among the immediate family members, extended family and kin. The formation of social capital for migrant families takes time and is difficult to acquire in any one place. Furthermore, social capital influences transfers made by parents to children in behavioral outcomes such as educational attainment and labor force participation (Portes, 1998). Immigrant families compensate for the absence of outside networks with an emphasis on social capital in the form of familial support.
Social networks. Social networks are formed and reshaped as members interact and involve differing combinations of moral commitment, self-interest, resource-sharing and trust-building (Balderrama & Molina, 2009). Immigrant networks are sets of interpersonal ties that connect immigrants, former immigrants, and non-immigrants in origin and destination areas through ties of kinship, friendship and shared community origin (Massey et al., 1993).

Migration networks are considered a kind of social capital, defined as a form of capital that exists in the relations between people (Coleman, 1988). Social support refers to the actual benefits such as information, advice, job leads and emotional support (Guerrero & Rothstein, 2011). Researchers conclude that immigrants can increase their job search self-efficacy by having social support as these social networks have been shown to be an important factor in obtaining a job (Van Hoye, van Hooft & Lievens, 2009).

Social networks render migration practical because when they are well-developed, they put a destination job within easy reach to most community members (Palloni et al., 2001). Migration networks lower the cost of moving from one country to another because they provide the immigrants information about the potential host country and its labor market/earnings opportunities, increase the number of ethnic goods available in the region of destination, provide assistance during the settlement process, assist in times of financial trouble and are important as information asymmetries e.g. to obtain entry and work permits (Faist, 1997). This information may not have been easily accessible to the immigrant from their country but can be obtained through networks. This explains why 75% of PhD degree holders from
Zimbabwe now living in a different country decided to migrate because they found jobs through personal connections (Chetsanga et al., 1998).

In a study of networks among migrant workers in North Carolina, Balderamma and Molina (2009) found that networks prevent job seekers from being underemployed but also become cultural, physical and institutional mechanisms that affect their long-term access to the labor market. The networks minimize the short-term risks associated with migration and finding employment, but they become a controlling device in the migrant’s long-term desire to explore other opportunities in the labor market. Therefore, Guerrero and Rothstein (2011) recommend that immigrants expand their social circles to include individuals who are knowledgeable about their desired occupation and job market.

**Demographic Characteristics**

Studies on underemployment have found varying results when demographic characteristics such as age, gender, race and education are analyzed. Therefore, this research study incorporates these factors to understand how human and social capital influence employment outcomes.

**Age.** Gallup (2011) found that potential immigrants are most likely young, single, educated and financially well-off, yet they are most likely to be underemployed. People’s desire to move is linked to age with young people (15-24) most likely to express the desire to move to another country. Black African immigrants tend to be younger than the United States-born population and younger than immigrants overall (Capps et al., 2012).
However, research studies that link age to underemployment show mixed results. Tam (2010) found that underemployment was higher in the 18-24 age category but declined as workers get older. Sometimes underemployment has been found to increase among older workers when long-tenured employees face more layoffs and age discrimination in rehiring. Youth aged 16–23 years, having fewer personal resources (e.g., low education, less aptitude as measured by tests of individual ability and behavioral test scores) and coming from a disadvantaged background are more likely to be underemployed (Prause & Dooley, 2011).

Research also shows that youth may be more vulnerable to underemployment during recessionary times as employers are more likely to lay off or reduce the hours of workers with less experience or for whom they have the least invested. Empirical evidence suggests that the adverse impact of inadequate employment on health status is as large as the effect of unemployment (Sadava et al., 2000). The effects of youth unemployment can be long-lasting and extend beyond the immediate loss of wages; a period of unemployment among youth increases the probability of adult unemployment and carries a persistent wage penalty upon reemployment (Prause & Dooley, 2011).

Underemployment among older workers can arise in three different forms: re-employment after a job loss, re-employment after retirement in a bridge job, and within the course of regular employment (Virick, 2011). The Age Discrimination in Employment Act of 1967 (ADEA) defines older workers as any employees over the age of 40. The literature shows that older workers tend to be at a higher risk of losing their employment and therefore at a higher risk of being underemployed. Employers demonstrate ageism in their hiring
practices which is also manifested in decisions relating to hiring, promotions, training, terminations, and layoffs (Adler & Hilber, 2009). Older workers may be more vulnerable to skill obsolescence than younger workers. This is because they are less likely to use technology and more likely to have increased difficulty learning to use and operate current technologies; such discrepancies are attributed to lower self-efficacy in learning and skill development among older workers (Maurer, 2001) and may well contribute to underemployment. Sometimes underemployment among older workers occurs because companies are reluctant to spend training resources on older workers, and they are also reluctant to hire older workers because they are expensive (Virick, 2011).

**Gender.** Previous research shows that women consistently have lower economic well-being than men, even after controlling for human capital and other factors (Potocky-Tripoldi, 2004). This is concerning because labor force participation for women in the United States is currently at two-thirds of the population while women account for 40% of the workforce globally (Weststar, 2011). In OECD countries, 80% of women aged 25–34 years have attained upper secondary education compared to 63% of women aged 45–54 years. Seeing similar gains, the proportion of women aged 25–34 with tertiary-level qualifications has surpassed that of men (37% vs. 30%) (OECD, 2009). In addition, the Bureau of Labor Statistics (2014) report shows that the participation rate of foreign-born men was 78.8% in 2013, higher than the rate of 68% for native-born men. In contrast, 54.6% of foreign-born women were labor force respondents compared with 57.7% of native-born women.
Black African immigrants are more likely to be men (53%) than women, but labor force participation was higher for black African women (68%) relative to other immigrant women (Capps et al., 2012). Among black immigrants from Zimbabwe between the ages of 18 and 64, 80% of men and 77% of women were employed. These inconsistencies in relation to gender and underemployment need to be explored among more immigrant groups.

Weststar (2011) proposes that women face three types of underemployment: pay-based, time-based and skill-based. Based on the human capital theory, it can be inferred that the overall male–female earnings differential is due to differences in the educational attainment and labor market experiences of men and women. Therefore, the gap should be closing over time as women achieve higher levels of secondary and tertiary schooling (Krahn & Lowe, 2002) and experience fewer and shorter labor market interruptions.

Although strides have been made to eliminate intentional discrimination, and pay and employment equity programs have been created to address such systemic discrimination, women still experience pay-based underemployment (Weststar, 2011). Systemic discrimination, occupational and job segregation, wage inequality, the sexual division of unpaid labor, and more limited returns on education and experience all challenge a woman’s ability to achieve labor market equity with her male counterparts. This is because they prevent the full usage and recognition of her knowledge, skills, and abilities (KSAs), thus leading to underemployment. Underemployment is often expected to be higher among women than men because of their disproportionate likelihood of being laid off, experiencing career disruptions, demonstrating the tendency to settle for lower salaries, and selecting
positions to balance family demands (McKee-Ryan & Harvey, 2011). However, other studies have found no correlation or no significant relationship between gender and underemployment (Feldman et al., 2002; Holtom et al., 2002; Johnson & Johnson, 2000, Lee, 2005; Kraimer et al., 2009).

For skills-based underemployment, Weststar (2011) proposes that there are six gaps between the employee and work situation: talent use, general knowledge, credential, performance, relevance, and subjective gaps. The talent use gap refers to educational discrimination against youths from poorer economic class backgrounds as well as those with subordinated race, gender, or other characteristics, in terms of their chances to attain qualifications before entering the job market. A lack of women in educational programs related to specific industries and occupations will naturally preclude them from gaining employment in those areas, particularly in a labor market that increasingly values formal credentials. The general knowledge gap refers to the KSAs that workers acquire through their myriad job experiences, which often exceeds the requirements of any specific job, while the credential gap is the match between education attained and education required for entry into the job. The performance gap is the match between the education attained and that needed to perform the job, whereas the relevance gap refers to the degree to which the focus of one’s education is related to the content of the job. Finally, the subjective gap is an omnibus measure of individuals’ perceptions of the match between their qualifications and job requirements (Livingstone, 2009).
Brown and Pintaldi (2006) report that service sector workers are the most likely to be underemployed. Feldman (1996) hypothesized that women are more likely to face underemployment than men. Women are more at risk for credential and performance underemployment with the increase in educational attainment rates versus their ability to get commensurate jobs (Weststart, 2011).

Once women are working they are more at risk to experience forms of underemployment and the corresponding negative consequences on their mental and physical health, their future job prospects, and their ability to make a contribution (Weststar, 2011).

**Marital status.** Mincer (1978) explored the effects of family ties on migration decisions and found that family ties add complexity to migration decisions and reduce women’s employment and earnings while increasing employment and earnings of men. Women are at times underemployed because they have to reconcile caring and working activities and are less able to participate in the labor market (Becker, 1991). This is because of their greater domestic workload and household responsibilities as well as limited childcare options. The influence of marital status on employment is more dominant among female immigrants than male immigrants (Byoun, 2014).

Bonnal et al. (2009) suggest that married workers are less likely to be underemployed than non-married workers regardless of sex or gender because there is a higher degree of motivation to maximize income. This, in turn, pushes them to find a better match between married workers’ jobs and their skills, experience, training or education. This motivation could be driven by the number of dependents or size of the household.
**Ethnicity/ Race.** Social scientists in the United States have been concerned with the often stark inequalities that exist between race/ethnic groups. United States Census Bureau estimates that non-whites will represent the numeric majority in the United States starting sometime between 2040 and 2050. The Bureau of Labor Statistics (2014) report also shows that the 2013 labor force participation rates for foreign-born workers were as follows: whites (60%), blacks (71.8%), Asians (65.1%), and Hispanics (68.6%).

Using ethnicity or race in measuring underemployment can be difficult because discrimination is seldom measured and hard to quantify because discriminatory practices are illegal, and employer bias against hiring workers based on minority group status increases the odds of underemployment (DeJong & Madamba, 2001). Evidence of racial inequality in employment is mixed; Slack and Jensen (2002) found that for the period from 1968 to 1998, there was substantial and persistent black–white inequality in the prevalence of underemployment. In addition, there was a widening of Hispanic–white inequality in underemployment.

Previous research shows that there is significant underemployment among minorities when compared to white workers in the labor market (Madamba & DeJong, 1997; DeJong & Madamba, 2001; Slack & Jensen, 2002; Jensen & Slack, 2003). Some immigrants may face discrimination, particularly those who visibly identifiable as ethnic minorities, which could unfairly influence their prospects of success in the labor market (Chiswick & Miller, 2010; Pichler, 2011). Differences in underemployment between minorities may be attributed to
their choice of college major (Mau & Kopischke, 2001); in other cases, it may be a result of discrimination and employer bias (DeJong & Madamba, 2001).

Slack and Jensen (2011) note that data for the period 1995 through 2004 shows higher prevalence of underemployment among first-generation immigrants compared to the second or higher generations suggesting some evidence of an upward trajectory across immigrant generations. In addition, there are sharp inequalities between first-generation citizens and non-citizens, with the latter group suffering from very high underemployment.

Human capital theory proposes that the more education, skills and experience an individual brings to the job, the more likely they are to be underemployed in a perfect labor market. However, multivariate studies of underemployment show that even after controlling for education and many other covariates, blacks and Hispanics are more likely than whites to be underemployed (Slack & Jensen, 2002). Additional studies reveal that first generation immigrants are beset by lower levels of educational attainment (Slack & Jensen, 2007), and they tend to be challenged by lack of integration and acculturation into local labor markets.

Some research also shows that minorities are disproportionately plagued by problems of insufficient demand for labor in the labor markets in which they reside as more jobs have moved to the suburbs. While immigrants are more likely to move for employment, even to rural areas, the research show that immigrants living in rural areas have quite high rates of underemployment due to working poverty (Jensen & Yang, 2009), yet they are arguably better-off for having moved away from traditional “gateway” cities where immigrants have traditionally settled.
Working against minorities are prejudice and discrimination which are forces that run contrary to free labor markets. In addition, first-generation immigrants, in particular, are beset by lower levels of educational attainment (Slack & Jensen, 2007) which reduces their ability to be adequately employed. Table 2.4 below shows the varying rates of underemployment by race from 1999 to 2009.

Table 2.3

*Slack and Jensen (2011) Underemployment by Race/ Ethnicity (1999-2009)*

<table>
<thead>
<tr>
<th>Year</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Asian</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>9.6</td>
<td>18.3</td>
<td>20.3</td>
<td>12.7</td>
</tr>
<tr>
<td>2000</td>
<td>9.3</td>
<td>16.0</td>
<td>18.9</td>
<td>11.5</td>
</tr>
<tr>
<td>2001</td>
<td>9.1</td>
<td>17.1</td>
<td>18.3</td>
<td>10.2</td>
</tr>
<tr>
<td>2002</td>
<td>10.6</td>
<td>18.4</td>
<td>20.4</td>
<td>12.9</td>
</tr>
<tr>
<td>2003</td>
<td>11.2</td>
<td>19.1</td>
<td>20.4</td>
<td>14.4</td>
</tr>
<tr>
<td>2004</td>
<td>11.7</td>
<td>19.5</td>
<td>22.0</td>
<td>12.6</td>
</tr>
<tr>
<td>2005</td>
<td>10.9</td>
<td>20.3</td>
<td>19.1</td>
<td>11.7</td>
</tr>
<tr>
<td>2006</td>
<td>10.2</td>
<td>18.4</td>
<td>18.0</td>
<td>11.5</td>
</tr>
<tr>
<td>2007</td>
<td>10.1</td>
<td>17.2</td>
<td>18.0</td>
<td>10.8</td>
</tr>
<tr>
<td>2008</td>
<td>10.6</td>
<td>18.3</td>
<td>20.8</td>
<td>11.2</td>
</tr>
<tr>
<td>2009</td>
<td>16.2</td>
<td>24.6</td>
<td>29.7</td>
<td>16.4</td>
</tr>
</tbody>
</table>

Bonnal et al. (2009) conclude that underemployment is unevenly distributed among ethnic groups with African Americans and Hispanics more adversely affected by underemployment than white workers with similar characteristics. In their study, 32.2% of African Americans and Hispanics were underemployed versus 23.3% of white workers. They also argued that part of difference between races could be explained by educational attainment.
Citizenship. The Pew Center estimates that only 21% of African immigrants are unauthorized to live in the United States (Capps, McCabe & Fix, 2012). A lack of legal status is generally associated with more precarious employment, lower wages and lack of private health insurance coverage. Therefore, the lower percentage of African immigrants living in the United States without legal status should mean they are less likely to be underemployed. Immigrants who have become naturalized citizens have substantially better economic status than non-citizens (Potocky-Tipodi, 2004).

An analysis by the Migration Policy Institute based on United States Current Population Survey shows (2006-2008) shows that 26% of black African immigrants are naturalized citizens, which is below the 32% average for all immigrants; of those, about 26% are legal permanent residents. The citizenship rate among black African migrants is relatively low possibly because of the five-year requirement between permanent residency and citizenship (Capps et al., 2012). In 2009, 22% of black African immigrants arrived in 2005 or later, and 28% of those from Zimbabwe arrived in the US during that period. In 2009, 914 Zimbabwe nationals were granted permanent residency in 2009 compared with 184 in 1999 2013 (United States Department of Homeland Security, 2014). Also, 658 Zimbabwe nationals became United States citizens in 2013 versus 225 in 2004.
Wages. Economists have primarily defined underemployment in terms of wages, the indicator being that the individual earns significantly less than in their previous job or compared to their peers (Feldman, 1996). Other economists have defined underemployment in terms of erratic employment or employment mismatched with education and training. Underemployment for workers already in the workforce occurs when they become re-employed at wages at least 20% less than those in their previous job or when compared to their peers. Underpayment can also be measured by asking an employee to subjectively compare his or her salary to one of those standards on a Likert scale (Maynard et al., 2006). Pay or hierarchical underemployment represents workers who are underpaid or are at a lower hierarchical status compared with their former job status or similarly-skilled workers.
(McKee-Ryan & Harvey, 2011). These workers are not receiving the economic gains from their human capital investment.

Massey et al. (1993) suggests that employers may search to fill bottom-level jobs with workers who want to work solely as a means of earning money without need for status and prestige. Immigrants tend to satisfy this need because they are earning money for a specific goal such as sending remittances which carries considerable honor and prestige in their own country. In addition, native workers tend to be attracted to primary, capital-intensive sectors where wages are higher, jobs are more secure, and there is the possibility of occupational improvement therefore leaving the low wages, unstable conditions and lack of reasonable prospects in the secondary market for immigrants.

The international Labor Organization defines income-related underemployment as only occurring when a worker’s income is lower than it would otherwise be because of some feature of the employer or workplace, such as inadequate equipment, insufficient training, or poorly-organized working arrangements (Maynard & Feldman, 2011). However, there are still few attempts by researchers to measure this construct. Feldman (1996) defined wage-related underemployment as that in which an employee earns 20% less than other colleagues doing the same work.

Sometimes, new immigrants realize major earnings gains in the United States compared to when they were employed in their native country (Commander, Kangasniemi & Winters, 2004). Indeed, such gains are often one of the reasons they choose to leave their native country for the U.S. as cited earlier. On average, after migrating, men experience a
68% increase in earnings and women a 62% increase in earnings. Therefore, for some immigrants, wage-related underemployment is not an issue when they compare it to their status in their native country.

Massey et al. (1993) note that there are several assumptions in neoclassical macroeconomic theory that are worth considering when researching immigrant employment issues:

1) International migration of workers is caused by differences in wage rates between countries.

2) The elimination of wages differentials will end the movement of labor and migration will not occur in the absence of such differentials.

3) International flow of human capital responds to differences in the rate of return to human capital which may be different from the overall wage rate.

4) Labor markets are the primary mechanisms by which international flows of labor are induced; other kinds of markets do not have important effects on international migration.

5) The way for governments to control migration flows is to regulate or influence labor markets in sending and or receiving countries.

The Bureau of Labor Statistics (2014) report shows that the median usual weekly earnings of foreign-born, full-time wage and salaried workers were $643 in 2013, compared with $805 for their native-born counterparts. In addition, among men, median weekly earnings for the foreign-born men ($671) were 74.6% of the earnings of their native-born counterparts.
($899). It also shows that among women, median earnings for foreign-born women ($610) were 84.8% of the earnings of their native-born counterparts ($719). Differences in earnings reflect a variety of factors, including variations in the distributions of foreign-born and native-born workers by educational attainment, occupation, industry, and geographic region.

Table 2.3 below shows the differences in median annual earnings between foreign-born and native-born workers in the United States labor market (Bureau of Labor Statistics, 2014). Although foreign-born are treated as an identical group in the table, this study explores variations in the foreign-born group by focusing on a sample of Zimbabwean immigrants.

Table 2.4


<table>
<thead>
<tr>
<th>Age</th>
<th>Median Annual Earnings (Foreign born)</th>
<th>Median Annual Earnings (Native born)</th>
<th>Earnings of Foreign Born As A % Of Native Born</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 to 24 years</td>
<td>$20,956</td>
<td>$23,504</td>
<td>90.4%</td>
</tr>
<tr>
<td>25 to 34 years</td>
<td>$30,732</td>
<td>$37,908</td>
<td>81.2%</td>
</tr>
<tr>
<td>35 to 44 years</td>
<td>$35,984</td>
<td>$46,644</td>
<td>77.4%</td>
</tr>
<tr>
<td>45 to 54 years</td>
<td>$35,516</td>
<td>$47,476</td>
<td>76.3%</td>
</tr>
<tr>
<td>55 to 64 years</td>
<td>$34,604</td>
<td>$48,308</td>
<td>75.8%</td>
</tr>
<tr>
<td>65 years and over</td>
<td>$32,656</td>
<td>$40,456</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

Furthermore, the median annual earnings for black African immigrants in 2007 were $27,000, which is slightly above the average of $26,000 for all immigrants in the United States (Capps et al., 2012). Still, this average is 20% below the median for a U.S.-born
worker ($33,000) despite the higher educational attainment and English language proficiency of African immigrants compared to U.S.-born workers. Zimbabwean immigrants in the United States had annual median earnings of $30,000. This variation in earnings between black Africans and native-born workers is also explored in this study.

**Summary**

This purpose of this chapter was to explore literature related to migration and employment, underemployment, and the theories of human and social capital. This was accomplished through a review of literature on the history of migration and employment in the United States and labor migration out of Zimbabwe. This was followed by a review of literature on the concept of underemployment including a focus on skills based underemployment. Additionally, the literature associated with human and social capital variables used in this study was also explored. Lastly Chapter II includes a description of the literature related to the theories of human and social capital as the basis of the theoretical framework for this study.
CHAPTER III: RESEARCH DESIGN AND METHODS

The purpose of this study was to investigate the relationship between human capital, social capital and underemployment among Zimbabwean immigrants working in the United States. The following research questions guided this study:

1) What is the human and social capital of Zimbabwean immigrants working in the United States?
2) Is there a relationship between human capital and underemployment?
3) Is there a relationship between social capital and underemployment?
4) Do demographics, human and social capital explain a significant proportion of the variance in employment outcomes?

This purpose of this chapter is to present an overview of the methods that were used to conduct the research study. First, an introduction of the study is provided, followed by the research design; lastly, the chapter contains detailed sections explaining the sampling process, respondents, instrumentation, data collection and proposed data analysis. This fulfills the purpose of investigating the relationship between human capital, social capital and the employment outcomes of Zimbabwean immigrants living in the United States which is accomplished through a quantitative, non-experimental research design.

Research Design

The research design is the plan for conducting research and includes specifications of the elements to be examined (Sproull, 1995). This study uses a quantitative, non-experimental research design. A non-experimental design is one in which an experimental
variable is not introduced by the researcher but from which measures can be taken (Sproull, 1995). To measure the variables of interest, therefore, a web-based survey was created, having been chosen to reach a larger population and because it is more financially feasible than other data collection methods.

**Population and Sampling**

A population includes all members of a group of people defined by a category of elements (Sproull, 1995). The population for this study consists of Zimbabweans who are 18 years and older and are living and working in the United States. The Department of Homeland Security (2010) reports show that there are about 19,000 Zimbabwe nationals living in the United States. Of the Zimbabweans living in the United States, about 9,000 are between 18 and 64, the age at which most people are employed (Capps, McCabe & Fix, 2012). A sample of that population of immigrants between 18 and 64 who identify as Zimbabwe nationals and are now living in the US was used for this study. A sample is the portion of a larger category or a portion of a population (Sproull, 1995). It is essential that researchers take care when selecting the sample, as Bartlett, Kortlik, and Higgins (2001) explain: “Inappropriate, inadequate or excessive sample sizes can influence the quality and accuracy of research” (p.43). Therefore, Bartlett, Kortlik and Higgins (2009) suggest Cochran’s formula for sample size for a continuous variable as follows:

\[ N = \left( \frac{t}{d} \right)^2 \frac{s^2}{\delta^2} \]

where

- \( t \) = value for the selected alpha level of .025 in each tail = 1.96
- \( s \) = estimate of standard deviation in the population
For this study \((N=209)\), as Bartlett, Kortlik and Higgins (2001), propose that the appropriate sample size for this study would be 209 by using a margin of error of .05 \((p=.50\) and \(t=1.96\)). Comparisons between early and late survey responses were conducted to mitigate response and non-response bias (Agresti & Finlay, 2009).

This study utilized purposive sampling due to the feasibility of finding respondents. Sproull (1995) defines purposive sampling as a non-random sampling method in which the sample is arbitrarily selected because characteristics they possess are important to the researcher. A purposive sample was used because there is no official database that tracks immigrants in the United States from Zimbabwe. Additionally, the email addresses of respondents were collected through snowball sampling. Snowball sampling is the process of chain referral whereby members of a target population are located and asked to provide contact information of other members of the target population who are also contacted and so forth (Singleton & Straits, 1999).

**Instrumentation**

This study utilized a modified version of Maynard et al. (2006) 9-item Scale of Perceived Over Qualification (SPOQ). An instrument is defined as any type of written or physical device the researcher uses to measure variables (Sproull, 1995). The purpose of a survey is to generalize from the sample to the population so that inferences can be made about some characteristics, attitudes or behavior of the population (Babbie, 1990). A survey can provide detailed and precise information about a population and address a broader range
of research topics and can be an efficient data gathering technique (Singleton & Straits, 1999). Additionally, surveys conducted online lower the cost of obtaining data for analysis. Surveys that are completely electronic are the fastest-growing form of surveying occurring in the United States and as a stand-alone mode of data collection; the web is especially attractive because of speed, low cost, and economies of scale (Dillman, Smythe & Christian, 2014).

A subjective measure completed by the employees is the most efficient measure and most practical option for this type of research (Maynard et al., 2006). The SPOQ contains items tapping perceptions of surplus education, experience and knowledge, skills and abilities (KSAs). The survey included questions related to human capital-related variables (educational attainment, wages, and career experience), and social capital-related variables (family networks, professional networks), and demographic variables (age, sex and national origin, number of children or relatives, race). This survey was administered as an online survey and respondents were invited to participate through email. A full copy of the survey instrument can be found in the appendix.

**Dependent Variable**

This study utilized the Maynard, Joseph and Maynard (2006) 9-item Scale of Perceived over Qualification (SPOQ) to assess underemployment. Respondents were asked to rate the statements below about their current jobs using a 5-point Likert scale where 5 means they strongly agree and 1 means they strongly disagree.

1. My job requires less education than I have
2. The work experience that I have is not necessary to be successful on this job
3. I have job skills that are not required for this job
4. Someone with less education than myself could perform well on my job
5. My previous training is not being fully utilized on this job
6. I have a lot of knowledge that I do not need in order to do my job
7. My education level is above the education level required by my job
8. Someone with less work experience than myself could do my job just as well
9. I have more abilities than I need in order to do my job

**Independent Variables**

**Education.** The independent variable *education* was measured by asking respondents to disclose how many years of formal education they have obtained. Respondents were asked to record 12 if they have obtained a high school diploma or equivalent, 13 if they have some college, 14 if they have an Associate’s degree, 16 if they have a bachelor’s degree (B.A./BBA, BSc), 18 if they have a master’s degree (M.S./MBA, M.A) and 20 if they have a doctoral or professional degree. In addition, because the literature shows that the value of human capital among immigrants may depend on where they obtained their highest level of education, respondents were asked about the country in which they attained their highest level of education.

**Work experience.** Career or work *Experience* was measured by asking the respondents how many hours they work and how many years they have worked. Ordinarily career experience is expected to contribute to one’s human capital. In addition, they were asked about their current work title.
**Language proficiency.** English language proficiency is part of an immigrant’s human capital when they live in the United States. Therefore, respondents were asked to self-report their proficiency. This was accomplished by asking them how well they understand and speak English and rate it on a 5-point scale, where 5 = you understand and speak it well and 1 means you do not.

**Family network and social network.** Respondents were asked about their current employment, and are asked to rate statements about how they secured their current employment. They were asked to consider these statements based on the following definitions of a family network and a social network. A family network includes your spouse, children, siblings, parents and relatives. A social network includes your friends, associates, colleagues not related to your job. For family network and social network, respondents were asked to rate how much their family network and social network assisted them in securing their employment using a Likert scale from 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

**Demographic Variables**

Demographic variables are useful in segmenting groups when reporting the results and the implications; however, they ask respondents for sensitive information which, if they choose not to respond, can skew the data. Respondents were asked about their country of birth, the number of years they have been in the United States, gender, age and citizenship. In addition, respondents were also asked about their marital status, number of children and race or ethnicity.
Validity

Validity is a measure of accuracy designed to assess the degree to which an instrument measures what it is supposed to measure (Sproull, 1995). There are several types of validity estimates: content, criterion related, construct and internal validity. Content validity is used to assess the degree to which the items included in the questionnaire are representative sample of all possible items the variable being measured is supposed to include. Criterion validity is a measure of how well one variable or set of variables predicts an outcome based on information from other variables, while construct validity is the appropriateness of inferences made on the basis of observations or measurements (Pennington, 2003). Face validity was accomplished through showing the survey to a group of 10 respondents and receiving feedback; however, some do not consider this sufficient due to its casual nature. The content validity involved having my committee review the survey’s contents to ensure that it contained everything it should and did not include anything that it should not. To determine construct validity, an assessment was made of how meaningful the survey was when it was used.

To examine the construct validity of the SPOQ as a distinct dimension of underemployment, Maynard et al. (2006) conducted confirmatory factor analyses. A three-factor model was tested, with the nine SPOQ items comprising the over-qualification factor, and the remaining two items each constituting their own underemployment factor.
Reliability

Reliability is a measure of consistency designed to assess the degree to which an instrument measures the same way each time it is used under the same conditions and with the same respondents (Sproull, 1995). There are several types of reliability estimates: test-retest, equivalent forms, split-half, Kuder-Richardson, Coefficient Alpha and intrarater reliability. For this study, Cronbach’s Alpha was used to measure reliability. Cronbach’s Alpha is a measure of reliability that ranges from 0 to 1, with values of .60 to .70 considered the lower limit of acceptability (Hair et al., 2006). The Cronbach’s Alpha score for the underemployment construct was .96, and therefore deemed to have a reliable internal consistency.

Survey Pretest

Sproull (1995) recommends a survey pilot test to assess any flaws in the questionnaire and its administration. A pilot study or pretest can also be very useful for web surveys as they give the surveyor the opportunity to test the entire survey process from start to finish and to assess its success (Dillman et al., 2014). Therefore, before e-mailing out the final version of the survey, a pre-test was conducted with 10 respondents to establish the content validity of the instrument and to improve the questions, format and scale (Creswell, 2003). The pilot survey was sent out to respondents who mirrored the sample but were not be included in the final sample. The respondents in the survey pre-test recommended changes to flow of questions after the 9-item scale. Therefore, questions were ordered so that respondents were asked all human capital questions, followed by social capital questions and
concluding with demographic questions. These recommendations, questions and concerns were used to modify the final version of the survey sent out to respondents.

**Data Collection**

Data collection is the means by which the researcher collects information about variables (Sproull, 1995). Approval was sought from the Institutional Review Board (IRB) at North Carolina State University before any communication with the study respondents (see Appendix). There are four types of data collection methods: interviewing, instrument administration, observation and examination of documents. For this study, an instrument was used. Instrument administration is a data collection method where participants respond to questionnaires, tasks, scales, tests or other devices used to measure variables (Sproull, 1995).

Dillman, Smythe and Christian (2014) recommend researchers contact the respondents multiple times and vary the message in the contact each time. Therefore, respondents to this study received the following emails: an invitation email, a first reminder, a second reminder, a third reminder and a fourth which will be the final reminder. Each sample member was assigned a unique ID number in order to keep track of who had responded and to remove respondents’ contact information from follow-up databases so that they would not continue to receive email reminders.

The Pew Research Center (2014) estimates that about 87% of adults in the United States use the internet. Therefore, for this research study, a web based survey was administered using Qualtrics Survey Software. Dillman et al. (2014) recommends up to 5
emails be sent to the respondents. During the first week, an initial email was sent to all respondents with an explanation of the study, its practical application, instructions for completing the survey, and the researchers contact information. This was followed by four reminder emails over four weeks (see Appendix for emails). Each email was sent seven days after the last one. After the survey was completed a thank you email was sent to all respondents. The data was downloaded onto a secure, password-protected personal computer accessible to the researcher only.

Other guidelines as suggested by Dillman et al. (2014) were used in collecting the data: all communication was personalized to the respondent, each sample member was assigned a unique ID number, an incentive of a $25 Amazon gift card drawing was provided because they have been found to improve response rates, there were multiple, short emails sent to the respondents but with varied messages. In addition, respondents were contacted in small batches to limit the likelihood of the email being labelled as spam. A copy of the survey is provided in Appendix A. The data collection process has been outlined in the figure below.
Figure 3.1. The Data Collection Process.

Data Analysis

The analysis of data collected through survey responses was done using descriptive statistics and multiple regression analysis. Statistical analysis was conducted in Stata 13, a general-purpose statistical software package. Research questions one is descriptive in nature and was analyzed with means and standard deviations. Research questions two and three examine correlations, while research question four was analyzed through multiple regression analysis because the model had two or more independent variables. A detailed description of the data analysis procedures is below, and a summary of the data analysis for each question can be found in Table 3.1 below.
Research Question 1

What is the human and social capital of Zimbabwean immigrants living in the United States?

To answer this question, descriptive statistics were used. Descriptive statistics are measures used to describe and summarize data (Sproull, 1995). These include means and standard deviations.

Research Question 2

Is there a relationship between human capital and underemployment?

Correlation coefficients were calculated for each of the independent variables to determine the significance of the relationship to the dependent variable. The correlations were analyzed using Pearson’s correlation coefficient. Hair et al. (2006) define the correlation coefficient as the indicator of the strength of the association between any two metric variables. The higher the correlation, the better the prediction will be. Therefore, this analysis is important in answering research questions two and three.

Research Question 3

Is there a relationship between social capital and underemployment?

The relationship between social capital related variables and underemployment were analyzed through correlation. Research question three utilized the same approach as research question two.

Research Question 4

Does human and social capital explain a significant proportion of the variance in underemployment?
To answer research question five, multiple regression analysis was used. Multiple regression analysis is the appropriate method of analysis when the research problem involves a single metric dependent variable presumed to be related to two or more metric independent variables and when the objective is to predict the changes in the dependent variable in response to changes in the independent variables (Hair et al., 2006).

Hair et al (2006) propose that there are six stages to conducting a multiple regression analysis: stating the research objectives, describing the research design and stating statistical assumptions. Additionally, one must estimate the regression model and overall fit then interpret and validate the results.

**Stage 1.** Stage one of a multiple regression analysis involves a review of the objectives including determining whether a statistically significant difference exists between a set of variables for two or more previously defined groups. A determination was made of which of the independent variables most accounted for the differences between two or more groups. In this study, the objective was to confirm the relationship between human and social capital to employment outcomes of immigrants in the United States labor market.

**Stage 2.** In the second stage of a regression analysis, the researcher determines which variables are the independent measures and which ones are the dependent measures. There are 10 independent variables and an anticipated sample of 300. In line with the recommendations of a minimum ratio of observations to independent variables (5:1), this study meets the requirement (Hair et al., 2006). The dependent variable is UNDEREMPLOYED. The independent variables are EDUCATION which is to indicate
whether the highest level of formal education successfully completed by a respondent;

WORKEXPERIENCE is the number of years of professional work experience a respondent has which increases their human capital; AGE for the age of the respondent between (18 and 65); GENDER for whether the respondent is male or female; MARITALSTATUS for the marital status of the respondent; CHILDREN for the number of children the respondent has.
Table 3.1

*Description of Human Capital, Social Capital and Demographic Variables.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underemployed (dependent)</td>
<td>Whether a Zimbabwean immigrant is underemployed.</td>
</tr>
<tr>
<td>Human Capital Related Variables</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>The number of years of education a respondent has completed.</td>
</tr>
<tr>
<td>Work experience</td>
<td>The number of years of professional work experience a respondent possesses.</td>
</tr>
<tr>
<td>English</td>
<td>The respondent’s perception of proficiency in English.</td>
</tr>
<tr>
<td>Social Capital Related Variables</td>
<td></td>
</tr>
<tr>
<td>Family network</td>
<td>The amount of influence family had on helping respondent secure employment. Family network includes spouse, children, siblings and parents in the United States.</td>
</tr>
<tr>
<td>Family</td>
<td>Number of family members living in the US.</td>
</tr>
<tr>
<td>Organizations</td>
<td>The number of organizations a respondent belongs to.</td>
</tr>
<tr>
<td>Social network</td>
<td>The amount of influence the social network had on helping respondent secure employment. Social network includes friends, acquaintances, and associates not related to work.</td>
</tr>
<tr>
<td>Demographic Variables</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Age of the respondent</td>
</tr>
<tr>
<td>Gender (0/1)</td>
<td>Gender of the respondent (Male/ Female)</td>
</tr>
<tr>
<td>Marital status (0/1/2)</td>
<td>Current marital status of the respondent (Married, Single, Divorced).</td>
</tr>
<tr>
<td>Children</td>
<td>Number of children the respondent has.</td>
</tr>
<tr>
<td>Race</td>
<td>How the respondent classifies their racial/ethnic origin.</td>
</tr>
<tr>
<td>US Citizen (0/1)</td>
<td>Citizenship status in the United States</td>
</tr>
<tr>
<td>Employed (0/1)</td>
<td>Whether respondent is employed part-time or fulltime</td>
</tr>
<tr>
<td>Years in US</td>
<td>Years living in the US</td>
</tr>
<tr>
<td>Income</td>
<td>The respondent’s annual household income in the US.</td>
</tr>
</tbody>
</table>
Sample size. Most researchers suggest a ratio of 20 observations for each predictor variable and the minimum size recommended is five observations per independent variable. The goal of this study was to use a sample of at least 209 respondents.

Stage 3. This stage involved testing assumptions of the multiple regression. Three assumptions were addressed for each variable including: linearity, constant variance (homoscedasticity) and normality (Hair et al., 2006). Multiple regression is affected by multicollinearity among the independent variables; therefore, a VIF (variance inflation factor) test was conducted on all independent variables. Variables with a VIF below 5 will be kept in the model. Global $F$ test was conducted to test the significance of the independent variables as a group for predicting the response variable. Confidence intervals and $t$-tests were used to draw inferences about the parameters. The total sample variation of the response variable $y$ that is the variance explained by the model after adjusting for the sample size and the number of parameters. Both are indicators of how well the prediction equation fits the data. The measure Root MSE of $s$ is the estimated standard deviation of the random error. The interval is an approximation of the accuracy in predicting $y$ based on a specific set of independent variables. The Coefficient of variation (CV) is the ratio of the estimated standard deviation of to the sample mean of the response variable.

Stage 4. This involves estimating the regression model and assessing overall fit. In addition, more than one independent variable was used as is the case in this study. The independent variables can be both metric and binary.
UNDEREMPLOYED = \beta_0 + \beta_1 (WORKEXPERIENCE) + \beta_2 (EDUCATION) + \beta_3 (ENGLISH) + \beta_4 (ORGANIZATIONS) + \beta_5 (FAMILYSIZE) + \beta_6 (FAMILYNETWORK) + \beta_7 (SOCIALNETWORK) + \beta_8 (YEARSINUS) + \beta_9 (AGE) + \beta_{10} (CHILDREN) + \beta_{11} (YESUSCITIZEN) + \beta_{12} (MALE) + \beta_{13} (MARRIED) + \beta_{14} (DIVORCED) + \beta_{15} (FULLTIME).

The maximum likelihood procedure was used in an iterative manner to find the most likely estimates for the coefficients because it maximizes the likelihood that an event will occur (Hair et al., 2006).

**Stage 5.** This stage involves the interpretation of the results.

**Stage 6.** This involves the validation of the results and is accomplished through creation of analysis and holdout samples. By examining the hit ratio for the holdout sample, the researcher can assess the external validity of the multiple regression model (Hair et al., 2006).
Table 3.2

*Summary of Statistical Analysis for Each Research Question.*

<table>
<thead>
<tr>
<th>Question</th>
<th>Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the human and social capital of Zimbabwean immigrants working in the United States?</td>
<td>Descriptive (Mean, Standard Deviation)</td>
</tr>
<tr>
<td>2. Is there a relationship between human capital and underemployment?</td>
<td>Correlation</td>
</tr>
<tr>
<td>3. Is there a relationship between social capital and underemployment?</td>
<td>Correlation</td>
</tr>
<tr>
<td>4. Do demographics, human and social capital explain a significant proportion of the variance in employment outcomes?</td>
<td>Multiple Regression</td>
</tr>
</tbody>
</table>

**Summary**

This chapter provided a brief overview of the methods that were used to conduct this quantitative, non-experimental research study. This was accomplished through a description of the introduction of the study, followed by the research design, and, lastly, the chapter included detailed sections explaining the sampling process, respondents, instrumentation, data collection and proposed data analysis. Understanding the factors that influence employment among immigrants in the United States is one strategy towards identifying specific employment and human resource development policies and practices that may help immigrants become adequately employed and therefore less likely to live in poverty.
CHAPTER IV- ANALYSIS OF DATA

Chapter IV presents the analysis of the data collected to answer the four research questions. This chapter is organized into the following sections: demographics, findings by research question, and summary of the findings. Specifically, the sections include a discussion on the demographic data, the analysis of data by research question, and a summary that includes a discussion of the overall findings for this study. In this fourth chapter, data were analyzed using statistical procedures found in Stata 13.

The purpose of this study was to investigate the relationship between human capital, social capital and underemployment among Zimbabwean immigrants working in the United States. The following research questions guided this study:

1) What is the human and social capital of Zimbabwean immigrants working in the United States?

2) Is there a relationship between human capital and underemployment?

3) Is there a relationship between social capital and underemployment?

4) Do demographics, human and social capital explain a significant proportion of the variance in employment outcomes?

Data were collected utilizing a survey instrument that incorporated a published instrument, the 9 item Scale of Perceived Over qualification (SPOQ) and additional variables were added to the instrument that are unique to this population. The instrument contained 20 questions. Data were collected for all respondents who indicated they are employed both part-time and fulltime. Finally, missing data and outliers were addressed, and about
245 (49%) out of 500 who were invited to take the survey attempted it. Of the attempted surveys, 16 were not analyzed because of incomplete survey responses, particularly in the section on underemployment. An additional 11 were not analyzed because the respondents indicated they were unemployed.

**Demographics**

Demographics were collected to get a better understanding of respondents in relation to the general immigrant population in the United States. Each respondent received a link to the survey instrument through email. Of the 245 who attempted the survey, 218 (89%) completed it. Of the 218 people who completed the survey, 100% identified as citizens of Zimbabwe by birth and therefore were eligible to participate. All respondents (100%) identified as black. The respondents have lived in the United States for an average of 13 years (SD= 5.24) and work an average of 41 hours (SD= 8.5). Of the respondents, 63.8% (n=134) identified as US citizens, and 36.1% (n=76) as non-US citizens. The respondents identified as 48.8% (n=104) male and 51.2% (n=109) female. The average age of the respondents was 36 (SD=6.9), with the youngest being 22 and the oldest 57 years old. The respondents have an average of one child (SD= 1.2); 60% (n=126) of the respondents are married; 34% (n=72) are single; and 5.7% (n=12) are divorced. Median household income for respondents is $75,000.
Findings by Research Questions

This section presents the data analysis related to the research questions and the relevance to the study. The analysis of the data was concentrated on the following four research questions:

Research Question 1: Findings and Analysis

Research Question 1: What is the human and social capital of Zimbabwean immigrants living in the United States?

The data collected relating to human and social capital variables consisted of three human capital variables and four social capital variables. For the variable education, each respondent was asked how many years of education they had attained in number of years. For the variable work experience, respondents were asked to enter the number of years of career experience they have attained. For English proficiency, respondents were asked to rate their English language proficiency in speaking, reading and writing by responding to three questions based on a Likert scale from 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

For social capital variables family network, social network, organizations and family the following were used: For organizations, respondents were asked how many different groups and organizations they belong to. Following that respondents were asked how many family members they have in the United States. For family network and social network, respondents were asked to rate how much their family network and social network assisted them in securing their employment using a Likert scale from 1 to 5, where 1 = strongly
disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

Table 4.1 displays the summaries of the raw, total scores, and the average scores.

Zimbabweans living and working in the United States who participated in this study have completed an average of 16.9 (SD=2.1) years of education, 36.4% (n=78) reported having attained a bachelor’s degree, while 35.5% (n=76) have at least a master’s degree. 14% (n=30) of the respondents indicated they have 20 or more years of education which means they have a doctorate, M.D. or J.D. In addition, 9% (n=20) of the respondents have at least two years of postsecondary education while .93% (n=2) had no high school diploma. Most of the respondents (n= 200) indicated they obtained their highest level of education in the United States, 13 obtained it in Zimbabwe, four obtained their education in South Africa, and one in Canada.

The respondents have on average nine years (SD=5.4) of work experience in their current profession. The years of work experience range from one to 30 years, while 12% (n=26) of respondents have 10 years of career experience and 10% (n=22) have eight years career experience.

The human capital of Zimbabweans was also measured through English proficiency. Respondents were asked to rate their reading, writing and speaking ability on a 5 point Likert scale combined to measure proficiency. The Cronbach’s Alpha score for the English proficiency construct was .99, and therefore deemed to have a reliable internal consistency.

On average, respondents scored 4.4 (SD=.9) out of 5 on the combined English proficiency score. Of those who respondents who rated their English language proficiency,
60% (n=131) rated their proficiency in reading, writing and speaking a five while 33.4% (n=73) rated their proficiency a four. Respondents also indicated they work 41 hours (SD=8.5) a week on average with 57% (n= 125) working 40 hours; 9% (n= 20) reported working 36 hours; and 8% (n=19) reported working 50 hours a week.

The social capital of Zimbabwean immigrants in the United States was measured through four variables: organizations, for the number of organizations the respondent belongs to; social network, for the amount of influence their social network had in assisting them to find employment; family, for the number of family members in the United States; and family network, for the perceived amount of influence their family network had in assisting them to secure employment.

Respondents indicated they belonged to 4.7 (SD= 3.6) organizations on average: 21% (n= 45) belong to three organizations; 13.1% (n= 28) belong to two organizations; 12.6% (n= 27) belong to five organizations; 12.2% (n= 26) belong to at least one organization; and 11.2% (n= 24) belong to four organizations. Respondents were asked to use a 5-point Likert scale to rate how much their social network assisted them in finding employment. The average score was a three (SD= 1.5): 27.7% (n= 59) rated their social network’s influence a four; 24.8% (n= 53) rated it a one; and 23.9% (n=51) rated the influence a five.

Respondents indicated they had on average about 11 (SD= 10.5) members of their family in the United States. About 18% (n= 38) had five family members in the United States, while 10% (n= 22) had four family members. When asked to rate the influence of a family network in securing employment, respondents had an average score of two
(SD=1.39): 45.7% (n=97) rated the influence of their family network in assisting them to find employment as a one; 24% (n= 51) rated it a two. Only 10.8% (n=23) rated the family network’s influence as a five and 11.3% (n=24) rated the influence as a four, meaning their family networks were not as influential in assisting them in finding employment. Table 4.1 below shows the mean and standard deviation for all the human and social capital variables.

Table 4.1

Minimum, Maximum, Mean and Standard Deviation of Respondent’s Human and Social Capital

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>4</td>
<td>20</td>
<td>16.91</td>
<td>2.14</td>
</tr>
<tr>
<td>Work experience</td>
<td>1</td>
<td>30</td>
<td>9.14</td>
<td>5.41</td>
</tr>
<tr>
<td>English</td>
<td>1</td>
<td>5</td>
<td>4.49</td>
<td>5.91</td>
</tr>
<tr>
<td>Family network</td>
<td>1</td>
<td>5</td>
<td>2.17</td>
<td>1.39</td>
</tr>
<tr>
<td>Social network</td>
<td>1</td>
<td>5</td>
<td>3.09</td>
<td>1.55</td>
</tr>
<tr>
<td>Family members</td>
<td>0</td>
<td>50</td>
<td>10.88</td>
<td>10.55</td>
</tr>
<tr>
<td>Organizations</td>
<td>0</td>
<td>25</td>
<td>4.70</td>
<td>3.67</td>
</tr>
</tbody>
</table>

Table 4.2

Frequency and Percentage of Respondent’s Human and Social Capital

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>126</td>
<td>60.00</td>
</tr>
<tr>
<td>Divorced</td>
<td>12</td>
<td>5.71</td>
</tr>
<tr>
<td>Single</td>
<td>72</td>
<td>34.29</td>
</tr>
<tr>
<td>Male</td>
<td>104</td>
<td>48.83</td>
</tr>
<tr>
<td>Female</td>
<td>109</td>
<td>51.17</td>
</tr>
<tr>
<td>US citizen</td>
<td>134</td>
<td>63.81</td>
</tr>
<tr>
<td>Not a US citizen</td>
<td>76</td>
<td>36.19</td>
</tr>
<tr>
<td>Full-time</td>
<td>199</td>
<td>91.28</td>
</tr>
<tr>
<td>Part-time</td>
<td>19</td>
<td>8.72</td>
</tr>
</tbody>
</table>
Research Question 2: Findings and Analysis

Research Question 2: Is there a relationship between human capital and underemployment?

Table 4.3 shows the correlations between perceived underemployment and amount of work experience (.152); perceived underemployment and educational attainment (-.205) were statistically significant, which is consistent with most published literature. The correlations between underemployment and education (-.205), and between underemployment and work experience (-.152) have low association, according to Davis (1971) as cited in Kortlik, Williams and Jabor (2011). The correlation between underemployment and English proficiency (.08) has negligible association.

The correlation between perceived underemployment and education is a weak and negative relationship. However, the correlation between underemployment and work experience and underemployment and English proficiency is a weak but positive relationship.

Table 4.3

Correlations between Human Capital Variables and Underemployment

<table>
<thead>
<tr>
<th></th>
<th>Underemployed</th>
<th>Education</th>
<th>Work experience</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underemployed</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-.205*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work experience</td>
<td>.152*</td>
<td>.125</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>.080</td>
<td>-.075</td>
<td>.028</td>
<td>1</td>
</tr>
</tbody>
</table>

* p < .05
Research Question 3: Findings and Analysis

Research Question 3: Is there a relationship between social capital and underemployment?

Table 4.4 shows the correlations between perceived underemployment and family network (.161) as well as underemployment and number of organizations (.198) they belong to are statistically significant. The correlations between underemployment and family network as well as organizations and social network are positive but have weak relationships. The correlations between underemployment and family (-1.27), underemployment and family network (.161), underemployment and organizations (.198), have low association (Davis, 1971). Underemployment has a weak and negative relationship with family size (-.127).

Table 4.4

Correlations between Social Capital Variables and Underemployment

<table>
<thead>
<tr>
<th></th>
<th>Underemployed</th>
<th>Family size</th>
<th>Family network</th>
<th>Organizations</th>
<th>Social network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underemployed</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family size</td>
<td>-.127</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family network</td>
<td>.161*</td>
<td>.150*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizations</td>
<td>.198*</td>
<td>-.019</td>
<td>.009</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Social network</td>
<td>.047</td>
<td>.179*</td>
<td>.461*</td>
<td>.080</td>
<td>1</td>
</tr>
</tbody>
</table>

*p < .05

Research Question 4: Findings and Analysis

Research Question 4: Do demographics, human, and social capital explain a significant proportion of the variance in employment?
Responses related to the variable *underemployed* were based on nine questions, each with a Likert scale from 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. This study utilizes the Maynard, Joseph and Maynard (2006) 9-item Scale of Perceived over Qualification (SPOQ) to assess underemployment. The Cronbach’s Alpha score for the *underemployment* construct was .96, and therefore deemed to have a reliable internal consistency.

Table 4.5

*Means and Standard Deviations for the 9-item Scale of Perceived Over Qualification*

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My job requires less education than I have.</td>
<td>217</td>
<td>2.29</td>
<td>1.22</td>
</tr>
<tr>
<td>2. The work experience I have is not necessary to be successful on this job.</td>
<td>216</td>
<td>2.06</td>
<td>1.15</td>
</tr>
<tr>
<td>3. I have job skills that are not required for this job.</td>
<td>217</td>
<td>2.54</td>
<td>1.37</td>
</tr>
<tr>
<td>4. Someone with less education than myself could perform well on my job.</td>
<td>217</td>
<td>2.39</td>
<td>1.31</td>
</tr>
<tr>
<td>5. My previous training is not being fully utilized on this job.</td>
<td>217</td>
<td>2.41</td>
<td>1.36</td>
</tr>
<tr>
<td>6. I have a lot of knowledge that I do not need in order to do my job.</td>
<td>217</td>
<td>2.48</td>
<td>1.33</td>
</tr>
<tr>
<td>7. My education level is above the education level required by my job.</td>
<td>217</td>
<td>2.49</td>
<td>1.29</td>
</tr>
<tr>
<td>8. Someone with less work experience than myself could do my job just as well.</td>
<td>217</td>
<td>2.41</td>
<td>1.26</td>
</tr>
<tr>
<td>9. I have more abilities than I need in order to do my job.</td>
<td>214</td>
<td>2.67</td>
<td>1.33</td>
</tr>
</tbody>
</table>

*5-point scale: 1=Strongly disagree, 2=Disagree, 3=Neither Agree nor disagree, 4=Agree, 5=Strongly agree*
The results show that immigrants from Zimbabwe do not perceive they are underemployed. At least 67.89% had an average rating of less than three for the nine questions in the SPOQ. This means 67.89% strongly disagreed or disagreed with the perception of being underemployment. Only 26.15% agreed or strongly agreed that they were underemployed and 5.96% were neutral. The average score on the SPOQ was a 2.4 (SD=1.15). However, respondents agreed with perceptions of underemployment for items three and nine. Both items refer to KSAs (knowledge, skills and abilities).

A significant model was created that provides evidence that 16.4% of the variance in underemployment can be explained by human capital, social capital and demographic variables. The $R^2$ showed moderate amounts of variance in underemployment can be explained by human capital, social capital and demographics variables. In this model, gender and the number of organizations that participants belong to were statistically significant.

In the overall model, the human capital education, work experience and English proficiency have a negative relationship with underemployment. In addition, demographic variables age, male, married and fulltime also have negative relationships with underemployment.
Table 4.6

*Multiple Regression Analysis to Explain Perceptions of Employment*

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>42.18</td>
<td>15</td>
<td>2.81</td>
<td>2.34</td>
<td>.004</td>
</tr>
<tr>
<td>Residual</td>
<td>214.83</td>
<td>179</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>257.02</td>
<td>194</td>
<td>1.33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall R²</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>p &gt; t</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Constant     | 4.983 | 1.03 | 4.82 | 0.00 |
| Work experience | -.007 | .018 | -.38 | 0.71 |
| Education     | -.060 | .041 | -1.52| 0.13 |
| English       | -.025 | .119 | -0.21| 0.83 |
| Organizations | -.048 | .024 | -2.03| 0.04 |
| Family size   | -.016 | .008 | -1.97| 0.05 |
| Family network| .102  | .070 | 1.48 | 0.14 |
| Social network| .007  | .059 | 0.13 | 0.90 |
| YearsinUS     | .009  | .020 | 0.46 | 0.65 |
| Age           | -.005 | .016 | -.35 | 0.73 |
| US citizen    | .179  | .197 | 0.91 | 0.36 |
| Male          | -.385 | .168 | -2.29| 0.02 |
| Married       | -.016 | .194 | -0.08| 0.93 |
| Divorced      | .098  | .407 | 0.24 | 0.81 |
| Fulltime      | -.401 | .367 | -1.09| 0.28 |

* p < .05

The influence of human and social capital on employment can be depicted in the following equation:

\[
\text{UNDEREMPLOYED} = 4.98 - 0.017 \text{ (WORKHOURS)} - 0.007 \text{ (WORKEXPERIENCE)} - 0.060 \\
\text{(EDUCATION)} - 0.025 \text{ (ENGLISH)} - 0.048 \text{ (ORGANIZATIONS)} + 0.016 \text{ (FAMILYSIZE)} + \\
0.102 \text{ (FAMILYNETWORK)} - 0.007 \text{ (SOCIALNETWORK)} + 0.009 \text{ (YEARSINUS)} - 0.005
\]
The equation above, \( y = a + b(x_1) + b(x_2) + b(x_3) + b(x_4) + b(x_5) + b(x_6) + b(x_7) + b(x_8) + b(x_9) + b(x_{10}) + b(x_{11}) + b(x_{12}) + b(x_{13}) + b(x_{14}) + b(x_{15}) + b(x_{16}) \), can be interpreted as \( y \) = underemployment, \( a \) = the intercept, or \( \beta \), \( b \) = slope, and \( x \) = represents the various human capital, social capital and demographic variables. Further, this equation is stating that the number of organizations the participants belong to, family size and gender were statistically significant variables in the model. For every increase in number of organizations the participant belongs to, underemployment decreases by .05. This model also shows that male participants are .38 times less likely to be underemployed than female participants. In addition, for every increase in family size, underemployment decreases by .016.

Table 4.7 shows the variance inflation factors for the independent variables used in this model. The variance inflation factors show there is no multicollinearity between the variables. In addition, Appendix A, also shows the influence of each of the binary variables on the overall model.
Table 4.7

Variance Inflation Factors (VIF) and Tolerances for Independent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>2.08</td>
<td>0.48</td>
</tr>
<tr>
<td>Years in US</td>
<td>1.76</td>
<td>0.57</td>
</tr>
<tr>
<td>Work experience</td>
<td>1.54</td>
<td>0.65</td>
</tr>
<tr>
<td>Work hours</td>
<td>1.48</td>
<td>0.68</td>
</tr>
<tr>
<td>Family network</td>
<td>1.47</td>
<td>0.68</td>
</tr>
<tr>
<td>Fulltime</td>
<td>1.46</td>
<td>0.68</td>
</tr>
<tr>
<td>US Citizen</td>
<td>1.45</td>
<td>0.69</td>
</tr>
<tr>
<td>Married</td>
<td>1.45</td>
<td>0.69</td>
</tr>
<tr>
<td>Divorced</td>
<td>1.43</td>
<td>0.70</td>
</tr>
<tr>
<td>Social network</td>
<td>1.37</td>
<td>0.73</td>
</tr>
<tr>
<td>Organizations</td>
<td>1.22</td>
<td>0.81</td>
</tr>
<tr>
<td>Family size</td>
<td>1.22</td>
<td>0.82</td>
</tr>
<tr>
<td>Education</td>
<td>1.18</td>
<td>0.85</td>
</tr>
<tr>
<td>Male</td>
<td>1.15</td>
<td>0.87</td>
</tr>
<tr>
<td>English</td>
<td>1.09</td>
<td>0.92</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.42</td>
<td></td>
</tr>
</tbody>
</table>

Summary of Analyses

Chapter IV presented both the findings and the data analysis results for the study. Each of the four questions and the corresponding analyses were summarized as follows.

Research question one examined the human and social capital the respondents possess. These descriptive results were displayed using mean scores and standard deviation. Research question two identified the relationships between human capital variables and underemployment. The relationship between social capital variables and underemployment was identified in research three. And finally, research question four employed multiple
regression analysis to calculate the amount of variance between human capital, social capital and demographics explained by underemployment.

The findings from research question one established that immigrants from Zimbabwe living and working in the United States have attained on average 16.9 years of education, an average of 9 years of career experience in their current profession, and an average annual household income of $91,029; they work about 41 hours a week and are proficient in English. In addition, they belong to about 5 organizations, their social network assisted them with employment only some of the time, they have about 11 members of their family in the United States, and their family networks were not as influential in assisting them to find employment. These findings were illustrated through descriptive statistics.

For research question two, the correlations between perceived underemployment and amount of work experience (.152), perceived underemployment and educational attainment (-.205) were statistically significant which is consistent with most published literature. The correlations between perceived underemployment and education is a weak and negative relationship, while the correlation between underemployment and work experience is a weak but positive relationship. There is no relationship between underemployment and English proficiency.

For research question three, the correlations between perceived underemployment and family network (.161) and underemployment and number of organizations (.198) they belong to are statistically significant. The correlations between underemployment and family
network, organizations and social network are positive but have weak relationships.
Underemployment has a weak and negative relationship with family size (-.127).

Finally, research question four used multiple regression analysis to determine the amount of variance in employment that can be explained by human capital, social capital and demographics. A significant model was created that provides evidence 16.5% of the variance in underemployment can be explained by human capital, social capital and demographic variables. Overall, the results show that immigrants from Zimbabwe do not perceive they are underemployed. At least 67.89% had an average rating of less than three for the nine questions in the SPOQ. This means 67.89% strongly disagreed or disagreed with the perception of being underemployed. Only 26.15% agreed or strongly agreed that they were underemployed and 5.96% were neutral. The average score on the SPOQ was a 2.4 (SD= 1.15). In this model, gender and the number of organizations that participants belong to were statistically significant.
CHAPTER V - CONCLUSIONS AND RECOMMENDATIONS

This final chapter provides an overall summary of the study. It begins with a reassertion of the purpose and the four research questions of the study, an explanation of the respondents used for the data collection, and a description of the procedures used in the methods section. A summary of each of the five chapters is provided, including the theoretical and conceptual frameworks for the study. The research goals and findings for each research question follow. Finally, chapter five concludes with a culmination of the study’s conclusions, limitations and recommendations for future research and practice.

Discussion of Findings and Conclusions

The purpose of this study was to investigate the relationship between human capital, social capital and the employment outcomes of Zimbabwean immigrants working in the United States. The survey instrument targeted Zimbabwean nationals who are living and working in the United States. The study answered four research questions. The first reported the amount of human and social capital that Zimbabweans living in the United States possess. The second research question sought to determine the relationship between human capital and the type of employment immigrants possess. The third research question examined if there was a relationship between social capital and the type of employment members of this specific population of immigrants possess. The fourth research question explored if any of variance in the type of employment immigrants possess could be explained by human and social capital variables.
Summary of Respondent Demographics

The Zimbabwean immigrants living and working in the United States each received a link to the survey instrument through email. Demographics were collected to get a better understanding of respondents in relation to the general immigrant population in the United States. Of the 245 who attempted the survey, 89% (N= 218) completed it. Of the 218 people who completed the survey, 100% identified as citizens of Zimbabwe by birth and, therefore, were eligible to participate. All respondents (100%) identified as black. The respondents have lived in the United States for an average of 13 years (SD= 5.24) and work an average of 41 hours (SD= 8.5). Of the respondents, 63.8% (n= 134) identified as US citizens and 36.1% (n=76) as non-US citizens. The respondents identified as 48.8% (n=104) male and 51.2% (n=109) female.

The average age of the respondents was 36 (SD=6.9), with the youngest being 22 and the oldest 57 years old. This is consistent with Capps et al.’s (2012) assertion that black African immigrants tend to be younger than the US-born population. The respondents have an average of one child (SD= 1.2), 60% (n= 126) of the respondents are married, 34% (n=72) are single, and 5.7% (n=12) are divorced.

Data Collection

A survey link was emailed to more than 500 immigrants from Zimbabwe who live in the United States. Clear instructions, including the researcher’s contact information, were provided. Three follow up emails were delivered, and, finally, the last email extended the researcher’s gratitude for the responses. All data were downloaded onto a secure, password-
protected computer accessible only to the researcher. The respondents were asked to not to use any names or personally-identifying information. In any notes associated with this study, the documents did not contain any true names or information that could be linked to a particular respondent. Once the data were analyzed, all master lists were deleted and no records were kept that linked a respondent’s name to any responses or notes.

Summary of Chapters

Chapter I

Chapter I provided the background information on the multi-faceted and dynamic construct of underemployment by attempting to understanding it through investigating current employment of Zimbabwean immigrants in the United States. The complexity of underemployment is compounded by the fact that it has been studied in four different fields: management, economics, sociology, and community psychology (McKee-Ryan & Harvey, 2011). Each area defines underemployment in a unique way. However, this study utilizes the framework developed by Feldman (1996), which takes a cross-sectional view of underemployment by including both human and social capital indicators.

This study offered an empirical analysis to support and confirm the predictive power of human and social capital theories in employment of immigrants after the 2007-2009 global economic recession. Secondly, this study tested the Maynard, Joseph, and Maynard (2006) 9-item Scale of Perceived Over Qualification (SPOQ) on Zimbabwean immigrants working in the United States. The SPOQ was developed by some of the leading scholars on underemployment.
Thirdly, this study examined three dimensions of underemployment as proposed by Feldman (1996): more education than required for the job, more skills or experience than required by the job, and low pay relative to others in a similar job or to others with similar educational backgrounds. Finally, the study also explored one of the issues of greatest concern to the general public and policymakers: the economic adaptation of immigrants (Potocky-Tripodi, 2004).

This study was also used to identify factors such as educational attainment, English language proficiency, career experience, age, gender, race/ethnicity, family and social networks that potentially reduce the earning potential of immigrants. Underemployment is sometimes associated with job-related stress (Anderson & Winefield, 2011); high turnover rates (Buzawa, 1984); and wastage of valuable skills (2011). However, existing research was not conclusive on which factors affect immigrants’ employment; therefore, by using both human and social capital, this study will assist my audience in clarifying the differences in the United States labor market.

Additional sections presented in chapter one included the statement of the problem, the purpose of the study, and the significance of the study. Next were the conceptual framework, theoretical framework, limitations and definition of key terms. Finally, the general organization of the study was presented.

**Chapter II**

The second chapter included a review of the literature on the constructs of underemployment and the theoretical frameworks of human and social capital. This chapter
offered a review of literature on the history of labor migration and employment in the United States with some reference to the recent migration of Zimbabweans in the past decade. This was followed by a description of the concept of underemployment with a particular focus on skills-based underemployment. Additionally, the literature associated with human capital theory and economic variables related to it were reviewed. Lastly, Chapter II included a description of the literature related to social capital and social capital-related factors in employment. Some important studies have been done that suggest that the most important factors in immigrant integration in the United States are human capital, citizenship, household composition, acculturation factors and gender. However, the recent arrival of African immigrants suggests that there are variations to these assumptions that need to be explored. Hence, this chapter explored recent research on this phenomenon.

**Chapter III**

Chapter III presented a brief overview of the methods that were used to conduct this quantitative, non-experimental research study. This was accomplished through a description of the introduction of the study, followed by the research design, and lastly, detailed sections explaining the sampling process, respondents, instrumentation, data collection and proposed data analysis were included. Understanding the factors that influence employment among immigrants in the United States is one strategy towards identifying specific employment and human resource development policies and practices that may help immigrants become adequately employed and therefore less likely to live in poverty.
Chapter IV

Chapter IV presented the findings of analyzed data, and each of the four research questions was addressed from the data analysis. Each of the four questions and the corresponding analyses were summarized as follows. Research question one examined the human and social capital the respondents possess. These descriptive results were displayed using mean scores and standard deviation. Research question two identified the relationships between human capital variables and underemployment. The relationship between social capital variables and underemployment was identified in research three. And finally, research question four employed multiple regression analysis to calculate the amount of variance between human capital, social capital and demographics explained by underemployment. In addition, the descriptive statistics on the demographic data were also explored.

Chapter V

This final chapter contains the summary, conclusions, recommendations and limitations determined from the study. Summaries of the findings are offered for the four research questions, and conclusions are then presented for each research question. A synthesis of the findings and pertinent applicable ideas for research and practical application are provided. Recommendations for practitioners, HRD professionals, higher education researchers and policy makers are stated. Finally, limitations of the study are presented.

Discussion of Findings and Conclusions

The purpose of this study was to investigate the relationship between human capital, social capital and the employment outcomes of Zimbabwean immigrants working in the
United States. The literature used to develop this study was related to migration and underemployment as they are related to the theories of human and social capital. The following research questions guided this study: What is the human and social capital of Zimbabwean immigrants working in the United States? Is there a relationship between human capital and underemployment? Is there a relationship between social capital and underemployment? Do demographics, human and social capital explain a significant proportion of the variance in employment outcomes?

Demographic data was included in the collection and analysis of this study. More than 500 immigrants from Zimbabwe received a link to an electronic survey. The survey was attempted by 258 participants, 12 indicated they were unemployed and, therefore, were ineligible to continue, and 27 were discarded because of incomplete data. In all, 218 surveys were analyzed for this study.

**Findings and Conclusions by Research Question**

The study examined the relationship between the amount of human and social capital an immigrant possesses and the likelihood that they will be underemployed. Data were collected from Zimbabwean immigrants who live and work in the United States. Each immigrant was asked to participate in a web-based survey based on a modified version of Maynard et.al (2006)’s 9-Item Scale of Perceived Over qualification (SPOQ). Overall, 67.89% of the immigrants surveyed believed they were adequately employed.

In the first question, descriptive statistics were used to analyze the respondents’ human and social capital. The relationships between human capital and underemployment
and social capital and underemployment were explored through correlation testing in questions two and three. And, finally, multiple regression analysis was conducted to explore the independent, dependent and demographic variables.

**Research question one.** This question was designed to describe the human and social capital of Zimbabwean immigrants who live and work in the United States. Respondents were asked to answer questions about their human and social capital. Each respondent was asked how many years of education they had attained in number of years, the number of years of career experience they have attained, and their English language proficiency in speaking, reading and writing.

To determine their social capital, respondents were asked how many different groups and organizations they belong to, how many family members they have in the United States, and how much their family network and social network assisted them in securing their employment using a five-point Likert scale.

**Conclusion one.** The human and social capital of Zimbabwean immigrants varies with the human and social capital of other immigrant groups in the US. Immigrants from Zimbabwe possess more human capital than native-born workers and other immigrant groups and are amongst the best educated.

Zimbabweans living and working in the United States who participated in this study have completed an average of 16.9 (SD=2.1) years of education: 36.4% (n=78) reported having attained a bachelor’s degree, while 35.5% (n=76) have at least a master’s degree; 14% (n=30) of the respondents indicated they have 20 or more years of education, which means they have a doctorate, M.D. or J.D. These findings are similar to Humphris’s (2010) report on
Zimbabweans working in the United Kingdom, which found that 97% of Zimbabwean immigrants in that country had a formal education. This study shows that 98.6% of the Zimbabweans surveyed had some postsecondary education.

Byoun (2014) also concluded that the effect of education on immigrants’ employment may vary depending on whether the immigrant was educated in their country of origin or in the new host country. In this study, immigrants from Zimbabwe are less likely to be underemployed because 91.7% of them received their highest level of education in the United States. The Bureau of Labor Statistics (2014) report concluded that in 2013, only about 33.8% of the foreign-born had a bachelor’s degree or higher compared with 37.5% of native-born population. However, among immigrants surveyed from Zimbabwe, 86.9% have at least a bachelor’s degree or higher.

For English proficiency, respondents were asked to rate their English language proficiency in speaking, reading and writing by responding to three questions based on a Likert scale from 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. Results from this study show that, on average, respondents scored 3.8 out of 5 for English proficiency, and 90.8% of the immigrants surveyed rated their English proficiency a four out of five or higher, and only 5.5% rated their English proficiency a one out of five or less. This is consistent with Guerrero and Rothstein (2011), who concluded that immigrants who are more fluent are thus able to gather more information to gain a better understanding of the job market and the job opportunities they want to pursue.
One can also conclude that social networks are more valuable than family networks in assisting immigrants secure employment. The social capital of Zimbabwean immigrants showed that respondents belonged to 4.7 (SD= 3.6) organizations on average: 21% (n= 45) belong to three organizations; 13.1% (n= 28) belong to two organizations; 12.6% (n= 27) belong to five organizations; 12.2% (n= 26) belong to at least one organization; and 11.2% (n= 24) belong to four organizations. Respondents were asked to use a 5-point Likert scale to rate how much their social network assisted them in finding employment. The average score was a three (SD= 1.5): 27.7% (n= 59) rated their social network’s influence a four; 24.8% (n= 53) rated it a one; and 23.9% (n=51) rated the influence a five. The results from this study are consistent with Balderamma and Molina (2009) and Guerrero and Rothstein (2011), who concluded that social networks prevent immigrants from being underemployed and affect their long-term success in the labor market.

In addition, respondents indicated they had, on average, about 11 members of their family in the United States, but when asked to rate the influence of a family network in securing employment, respondents had an average score of two out of five, meaning their family networks were not as influential in assisting them to find employment. One can conclude that immigrants from Zimbabwe do not follow Byoun’s (2014) assertion that family and relatives play an important role in providing information related to employment by creating a social capital that reduces trial and error periods.

After data collection and analysis from this survey, one can also conclude that immigrants from Zimbabwe possess more human capital than native-born workers and other
groups of immigrants. The human and social capital of immigrants from Zimbabwe is consistently different from that of other immigrant groups of the United States and therefore warrants further exploration.

Research question two. The second question examined the correlations between human capital and underemployment. The goal of this question was to understand the relationship between the human capital variables (education, career experience, English proficiency) related to underemployment.

Conclusion two. More education decreases the chances of underemployment. Interestingly, however, work experience and English proficiency did not decrease the likelihood of being underemployed as the relationship was a positive. Although the correlation look this way, in the overall regression model, the relationship between underemployment and work experience and underemployment English proficiency is negative.

This conclusion is consistent with Capps et al. (2012), who found that black African immigrants are among the best educated because they are disproportionally admitted through the diversity visa program which requires applicants to possess at least two years or more of training. It is also consistent with the Bureau of Labor Statistics (2014) assertion that the earnings of both foreign-born and native-born workers increase with education and the notion that the foreign-born population from Africa had a higher level of educational attainment than the overall foreign-born population.
Immigrants from Zimbabwe rated their English proficiency as high, which is consistent with the notion that economic well-being also improves with improving English ability and increasing length of residency (Potocky-Tripodi, 2004). Guerrero and Rothstein (2011) concluded that immigrants who are more fluent are able to gather more information to gain a better understanding of the job market and the job opportunities that they want to pursue.

**Research question three.** The third research question examined the correlation between social capital and underemployment. The goal of this question is to understand the relationship between the social capital variables (organizations, social network, family members and family network) related to underemployment.

**Conclusion three.** Immigrants can increase their job search self-efficacy by having social support. In addition, although family size decreases the perception of underemployment, the value of family networks in employment is low. One can conclude that perhaps the more family members you have the higher your chances of finding employment, however, it may not be the kind of employment that matches your education, skills and abilities.

This conclusion mirrors Portes and Sensenbrenner’s (1993) assertion that information provided by community ties is critical for the mobility opportunities of newly-arrived immigrants. It is also consistent with Guerrero and Rothstein’s conclusion that immigrants can increase their job search self-efficacy by having social support. Van Hoye, van Hooft &
Lievens (2009) also concluded that social networks have been shown to be an important factor in obtaining a job.

In a study of networks among migrant workers in North Carolina, Balderamma and Molina (2009) found that networks prevent job seekers from being underemployed but also become cultural, physical and institutional mechanisms that affect their long-term access to the labor market. The networks minimized the short-term risks associated with migration and finding employment but became a controlling device in the migrant’s long-term desire to explore other opportunities in the labor market. This may explain why immigrants from Zimbabwe do not consider themselves underemployed.

The conclusion from the correlation between underemployment and the number of family members in the United States is not consistent with Byoun’s (2014) assertion that family and relatives play an important role of providing information related to employment quicker and less expansively through social capital by reducing trial and error periods.

**Research question four.** The final research question sought to determine what amount of variance in employment can be explained by an immigrant’s human and social capital and their demographic information. Research question four used multiple regression analysis to determine the amount of variance in human capital, social capital and demographics that can be explained by underemployment. A significant model was created that provides evidence of 16.4% of the variance in underemployment can be explained by human capital, social capital and demographic variables. The $R^2$ showed moderate amounts of variance in underemployment can be explained by human capital, social capital and
demographics variables. In this model, gender and the number of organizations that participants belong to were statistically significant.

**Conclusion four.** Women are more likely than men to be underemployed, and social support derived through organizations and family size have a bigger impact in determining whether an immigrant perceives they are underemployed. Gender, family size, and number of organizations the participants belong to were statistically significant variables in the model. The more organizations participants belong to, the less likely they are to be underemployed.

This finding is similar to conclusions drawn by Van Hoye, van Hooft and Lievens (2009), who found that job search self-efficacy developed through social networks has been shown to an important factor in obtaining a job. The organizations form a social network which involves differing combinations of moral commitment, self-interest, resource-sharing and trust-building (Balderamma & Molina, 2009) that decrease the likelihood of being underemployed. The social support derived through organizations refers to actual benefits such as information, advice, job leads and emotional support (Guerrero & Rothstein, 2011). Lastly, the networks found in these organizations minimize the short-term risks associated with migration and finding employment and allow the immigrant to pursue their long-term desire for other opportunities in the labor market (Balderamma & Molina).

This model also shows that male participants are .38 times less likely to be underemployed than female participants. This affirms previous research and Potocky-Tripodi’s (2004) conclusion that women consistently have lower economic well-being than men. This is also concerning because labor force participation is higher for black African
women (68%) relative to other immigrant women and is even higher for Zimbabwe women (77%) (Capps et al., 2012). These inconsistencies in labor force participation and underemployment need to be explored further to understand why gender is an important factor in underemployment among African immigrants in the United States.

**Summary of Conclusions**

The participants in this study were Zimbabwean immigrants working in the United States. The majority of the participants have some postsecondary education obtained in the United States, they have about nine years of work experience, and are married. The results show that Zimbabwean immigrants do not perceive they are underemployed. In this model, gender and the number of organizations that participants belong to were statistically significant and important factors that require further analysis in future studies.

**Limitations**

The study was limited by the self-reported perceptions and responses from approximately 218 Zimbabwean immigrants who live and work in the United States. The generalizability of this study is constrained by a focus on Zimbabweans living in the United States and may, therefore, not be universally-applicable to other immigrant populations in the United States nor to other Zimbabwean immigrants living in other countries. During the collection of data, it is possible that some of the respondents experienced changes in their employment and access to human and social capital. It is also possible that economic and social conditions might have changed since data was collected. Respondents were invited to participate in this survey through an online instrument. If any of the respondents lacked the
technological skills necessary for completing the online survey instrument or checking email accounts, data collection could have been impacted. Further, the fear of computer viruses and spam folders might have lowered the overall response rate.

External validity is also a limitation because a non-random purposive sample was used. All variables were measured using a self-report questionnaire completed by the immigrants at a single point in time where a longitudinal study might allow one to make causal statements about the relationships. The survey instrument was anonymous; thus, verification of response data was impossible. In addition, due to the nature of an online survey, self-reporting is a limitation because it could perhaps provide a bias of answering with a desired level rather than a perceived level. Respondents may over- or under-report the required levels of competencies for a given job due to the subjective nature of the concept of underemployment. Furthermore, perceptual error could inflate people’s estimation of their qualifications, resulting in either under- or over-reported levels of their underemployment (Luksyte & Spitzmueller, 2011).

**Recommendations for Future Research**

Given the current findings, future research should investigate how various immigrant groups are performing in the labor market by further segmenting based on country of origin. Future research utilizing samples of immigrants from different countries that can be compared would provide greater opportunities for testing the differences in employment outcomes. Research that compares employment outcomes in a particular industry for
immigrants would also be useful in helping us understand where immigrants are more likely to be underemployed.

Longitudinal studies that track an immigrant from the moment they enter the United States may allow us to draw stronger conclusions about the causal relationships between underemployment and the human and social capital that immigrants in the United States possess. They would also allow stakeholders to determine at what points an immigrant moves from being underemployed to being adequately employed while tracking their investments in human and social capital.

Future studies that measure underemployment by utilizing data from various sources such as personnel files, IRS data, and social security administration data would improve our ability to draw more accurate conclusions about the nature of the immigrant’s employment. This would allow us to track underemployment through both objective and subjective measures. Future research must also reconcile the measurement of underemployment using subjective and objective measures.

Future research that measures underemployment should explore the use of Maynard, Joseph, and Maynard’s (2006) 9-item Scale of Perceived Over Qualification (SPOQ) on other populations in the United States and globally. Feldman (1996) proposed five dimensions to underemployment. Perhaps, future research can also include a subjective and objective measure of underemployment that includes all five dimensions: possessing more education than is required on the job; being in a job outside one’s area of formal training; possessing skills that are not utilized in the job; being involuntarily employed in a part-time,
temporary or intermittent job; and earning 20% less than in one’s previous job or than one’s peers (Feldman, 1996).

Given the current findings on the influence of family and social networks, future research could also focus on the quality of the network. While respondents had large numbers of people in their family, for example, it did not necessarily reduce their likelihood of underemployment. Therefore, future research that examines not just quantity but quality of both social and family networks would be useful.

Implications for Policy, Research and Practice

African immigrants represent the fastest-growing group of immigrants in the US labor market, and one of the issues of greatest concern to the general public and policymakers is the economic adaptation of immigrants (Potocky-Tripodi, 2004). Therefore, it is important that the data collected and the conclusions drawn from this study be used to inform policy makers on whether they should be concerned about underemployment as it relates to human resource development. However, the role research plays in influencing policy deliberations or outcomes is not linear or scientific (Minor & Mutamba, 2016).

Current data on underemployment tends to be subjective while unemployment data is more carefully tracked by the Bureau of Labor Statistics. Congress should compel the Bureau of Labor Statistics to begin collecting additional objective data that can be used to analyze underemployment on a national scale. Other agencies like the Census Bureau and the Department of Homeland Security could also be leveraged in collecting more immigrant specific data about country of origin and current employment status. By default, large-scale quantitative studies are most often attributed with influencing public policy (Minor &
Mutamba, 2016). Objective data collected by government agencies would allow policymakers to create more data-driven policy around employment and possibly use predictive analytics to better understand the phenomenon of underemployment.

Most of the immigrants who responded to this survey indicated they are not underemployed, which can inform policymakers in crafting employment-related immigration policies. This study shows that immigrants who attain some higher education in the United States are more likely to not consider themselves underemployed; therefore, this can serve as a model for immigration policy and assisting new immigrants in obtaining a higher education credential once they arrive in the United States.

Policymakers must consider the underemployment of immigrants to be a separate issue requiring a different problem solving approach than unemployment. In general, many of the personal characteristics associated with unemployment, such as low education levels, belonging to an immigrant group, and being young, are found to be associated with underemployment (De Jong & Madamba, 2001; Doiron, 2003; Leppel & Clain, 1993; Stratton, 1996; Wilkins, 2006; Wooden, 1993). However, policymakers must also consider national origin, gender and education obtained.

Continued emphasis on employment policies that outlaw discrimination on the bases of race, ethnicity, nativity and gender will ensure immigrants get a fair chance at adequate employment opportunities. Gender differences in economic performance are often attributed to the time a mother must stay away from work to have and take care of her children (Becker, 1981). The results of this study show that more women than men perceived themselves as
being underemployed. Perhaps policymakers can provide resources that will assist immigrant women find adequate employment.

African immigrants in general tend to differ from other immigrant groups that have traditionally come to the US in human capital and culture. This creates a need for researchers to concentrate on understanding the variations in this group of recent immigrants in order to implement policies that will effectively target them.

Most research has focused on unemployment. However, the impact of underemployment is important for the nation, organization and the individual. This is a challenge to other HRD to explore the influence of human and social capital on immigrants’ perceived underemployment. It is important for researchers to explore the links between underemployment and HRD in an progressively global world where national labor markets are increasingly influenced by the global labor market. Understanding underemployment among immigrant populations could also expand HRD’s scope within the context of a knowledge economy. This is in line with the call to expand the definition of NHRD by McLean (2004) which necessitates that HRD researchers explore the interconnected global labor market and how underemployment in one country can eventually become a problem for the global labor market.

It is imperative that HRD professionals define more theory and conduct research on how underemployment in mature economies like the US can create HRD policy and strategy that allows them to compete economically. World Bank (2012) reports show that investments in human resources on a national scale are more and more important beginning with basic education, vocational education, higher education and skills training in order to compete and collaborate globally.
Literature on the underemployment of US immigrants remains limited, and most researchers conclude that immigrants are more likely to be underemployed. Findings from this study, however, show that immigrants from Zimbabwe do not perceive themselves as underemployed. However, the results of this study are generally consistent with the literature on the returns of education and skills training for workers and the benefits of social networks on decreasing the likelihood of being underemployed.
REFERENCES


APPENDICES
**APPENDIX A**

Table A.1

*Multiple Regression Analysis to Explain Employment Outcomes with binary variables excluded*

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>26.59</td>
<td>9</td>
<td>2.95</td>
<td>2.36</td>
<td>0.02</td>
</tr>
<tr>
<td>Residual</td>
<td>237.06</td>
<td>189</td>
<td>1.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>263.65</td>
<td>198</td>
<td>1.33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall $R^2$</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>p&gt;t</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                     |       |            |      |     |
| Constant           | 4.43  | 1.01       | 4.38 | 0.00|
| Work experience    | -.009 | .018       | -0.50| 0.620|
| Education          | -.064 | .039       | -1.64| 0.102|
| English            | -.062 | .119       | -0.52| 0.604|
| Organizations      | -.039 | .024       | -1.66| 0.098|
| Family size        | -.018 | .008       | -2.22| 0.028|
| Family network     | .125  | .070       | 1.80 | 0.073|
| Social network     | -.015 | .059       | -0.25| 0.801|
| YearsinUS          | .019  | .018       | 1.09 | 0.279|
| Age                | -.018 | .014       | -1.25| 0.211|
Table A.2

*Multiple Regression Analysis to Explain Employment Outcomes with binary variables excluded except US Citizen*

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
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<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
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<tr>
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<td>10</td>
<td>2.85</td>
<td>2.26</td>
<td>0.02</td>
</tr>
<tr>
<td>Residual</td>
<td>234.02</td>
<td>186</td>
<td>1.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>262.49</td>
<td>196</td>
<td>1.34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall $R^2$</th>
<th>B</th>
<th>Std. Error</th>
<th>$t$</th>
<th>$p&gt;t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.9%</td>
<td>4.57</td>
<td>1.02</td>
<td>4.49</td>
<td>0.00</td>
</tr>
<tr>
<td>Constant</td>
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<td>0.018</td>
<td>-0.53</td>
<td>0.596</td>
</tr>
<tr>
<td>Work experience</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
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<td>0.040</td>
<td>-1.83</td>
<td>0.069</td>
</tr>
<tr>
<td>English</td>
<td>-0.063</td>
<td>0.119</td>
<td>-0.53</td>
<td>0.598</td>
</tr>
<tr>
<td>Organizations</td>
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<td>0.024</td>
<td>-1.76</td>
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</tr>
<tr>
<td>Family size</td>
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</tr>
<tr>
<td>Family network</td>
<td>0.115</td>
<td>0.070</td>
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<td>0.103</td>
</tr>
<tr>
<td>Social network</td>
<td>-0.019</td>
<td>0.059</td>
<td>-0.32</td>
<td>0.747</td>
</tr>
<tr>
<td>Years in US</td>
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<td>0.020</td>
<td>0.30</td>
<td>0.762</td>
</tr>
<tr>
<td>Age</td>
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<td>0.015</td>
<td>-1.07</td>
<td>0.288</td>
</tr>
<tr>
<td>US Citizen</td>
<td>0.249</td>
<td>0.193</td>
<td>1.29</td>
<td>0.200</td>
</tr>
</tbody>
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Table A.3

*Multiple Regression Analysis to Explain Employment Outcomes with binary variables excluded except US Citizen and Male*

<table>
<thead>
<tr>
<th>Source of Variation</th>
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<th>MS</th>
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<tr>
<td>Regression</td>
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<td>3.31</td>
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<tr>
<td>Residual</td>
<td>226.04</td>
<td>185</td>
<td>1.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>262.49</td>
<td>196</td>
<td>1.34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Overall              | B     | Std. Error | t     | p>|t| |
|----------------------|-------|------------|-------|----|
| R^2                  | 13.9% |            |       |    |
| Constant             | 4.42  | 1.00       | 4.40  | 0.00|
| Work experience      | -0.09 | 0.017      | -0.50 | 0.617|
| Education            | -0.065| 0.039      | -1.63 | 0.106|
| English              | -0.063| 0.117      | -0.54 | 0.593|
| Organizations        | -0.049| 0.024      | -2.05 | 0.042|
| Family size          | -0.015| 0.008      | -1.85 | 0.067|
| Family network       | 0.112 | 0.069      | 1.62  | 0.106|
| Social network       | -0.019| 0.058      | -0.34 | 0.735|
| YearsinUS            | 0.004 | 0.019      | 0.18  | 0.856|
| Age                  | -0.008| 0.014      | -0.55 | 0.581|
| US Citizen           | 0.212 | 0.191      | 1.11  | 0.270|
| Male                 | -0.421| 0.164      | -2.56 | 0.011|
Table A.5

*Multiple Regression Analysis to Explain Employment Outcomes with binary variables excluded except US Citizen, Male and Married*

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
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<tbody>
<tr>
<td>Regression</td>
<td>34.88</td>
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<td>2.91</td>
<td>2.38</td>
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</tr>
<tr>
<td>Residual</td>
<td>222.14</td>
<td>182</td>
<td>1.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>257.02</td>
<td>194</td>
<td>1.32</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Overall R²</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>p&gt;t</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.6%</td>
<td>4.36</td>
<td>1.00</td>
<td>4.34</td>
<td>0.00</td>
</tr>
<tr>
<td>Constant</td>
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<td>0.018</td>
<td>-0.62</td>
<td>0.536</td>
</tr>
<tr>
<td>Work experience</td>
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<td>0.039</td>
<td>-1.51</td>
<td>0.133</td>
</tr>
<tr>
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<td>0.612</td>
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<td>0.048</td>
</tr>
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<td>Organizations</td>
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<td>0.100</td>
</tr>
<tr>
<td>Family size</td>
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<td>0.069</td>
<td>1.41</td>
<td>0.161</td>
</tr>
<tr>
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<td>0.059</td>
<td>-0.26</td>
<td>0.796</td>
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<td>Social network</td>
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<td>0.03</td>
<td>0.979</td>
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</tr>
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<td>Age</td>
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<td>0.195</td>
<td>1.16</td>
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<tr>
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<tr>
<td>Male</td>
<td>-0.036</td>
<td>0.181</td>
<td>-0.20</td>
<td>0.841</td>
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Table A.6

*Multiple Regression Analysis to Explain Employment Outcomes with binary variables excluded except US Citizen, Male, Married, and Divorced*

<table>
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<tr>
<th>Source of Variation</th>
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<td>2.69</td>
<td>2.19</td>
<td>0.01</td>
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<tr>
<td>Residual</td>
<td>222.07</td>
<td>181</td>
<td>1.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>257.02</td>
<td>194</td>
<td>1.32</td>
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</table>

<table>
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<tr>
<th>Overall R²</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>p&gt;t</th>
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<tr>
<td></td>
<td>13.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>4.39</td>
<td>1.01</td>
<td>4.32</td>
<td>0.00</td>
</tr>
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<td>.018</td>
<td>-0.59</td>
<td>0.556</td>
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<td>Education</td>
<td>-.060</td>
<td>.040</td>
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</tr>
<tr>
<td>English</td>
<td>-.062</td>
<td>.119</td>
<td>-0.52</td>
<td>0.602</td>
</tr>
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<td>Organizations</td>
<td>-.048</td>
<td>.023</td>
<td>-1.99</td>
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<tr>
<td>Family size</td>
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<td>.008</td>
<td>-1.65</td>
<td>0.101</td>
</tr>
<tr>
<td>Family network</td>
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<td>.069</td>
<td>1.38</td>
<td>0.169</td>
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<td>0.803</td>
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<td>.016</td>
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<td>1.14</td>
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<td>0.013</td>
</tr>
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<td>-.019</td>
<td>.195</td>
<td>-0.10</td>
<td>0.921</td>
</tr>
<tr>
<td>Divorced</td>
<td>.094</td>
<td>.410</td>
<td>0.23</td>
<td>0.820</td>
</tr>
</tbody>
</table>
Table A.7

*Multiple Regression Analysis to Explain Employment Outcomes with binary variables excluded except US Citizen, Male, Married, Divorced and Fulltime*

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>39.76</td>
<td>14</td>
<td>2.84</td>
<td>2.35</td>
<td>0.01</td>
</tr>
<tr>
<td>Residual</td>
<td>217.25</td>
<td>180</td>
<td>1.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>257.016</td>
<td>194</td>
<td>1.32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Overall R²          | B      | Std. Error | t   | p>|t|
|---------------------|--------|------------|-----|-----|
| 15.5%               |        |            |     |     |
| Constant            | 4.77   | 1.02       | 4.65| 0.00|
| Work experience     | -.064  | .018       | -.40| 0.690|
| Education           | -.064  | .039       | -1.63| 0.106|
| English             | -.046  | .118       | -0.39| 0.696|
| Organizations       | -.052  | .024       | -2.17| 0.032|
| Family size         | -.015  | .008       | -1.88| 0.062|
| Family network      | .092   | .069       | 1.33| 0.184|
| Social network      | .008   | .059       | 0.14| 0.891|
| YearsinUS           | .008   | .020       | 0.37| 0.708|
| Age                 | -.006  | .016       | -0.35| 0.725|
| US Citizen          | .225   | .194       | 1.16| 0.248|
| Male                | -.425  | .166       | -2.56| 0.011|
| Married             | -.039  | .194       | -0.21| 0.837|
| Divorced            | .053   | .407       | 0.13| 0.897|
| Fulltime            | -.648  | .324       | -2.00| 0.047|
Appendix B - Participation Request Invitation

Week 1 - Initial Invitation sent via E-Mail

Date: [INSERT DATE]
To: [INSERT NAME]
From: Charlene Mutamba
Re: Invitation to participate in a research study on employment of Zimbabwean immigrants in the United States

Dear [FIRST NAME],

You are invited to participate in a research study on the employment of Zimbabwean immigrants in the United States. The purpose of this study is to investigate the relationship between human capital, social capital and the employment outcomes of Zimbabwean immigrants working in the United States.

You are part of a sample of Zimbabweans that has been chosen to complete a brief questionnaire about your employment experiences while living and working in the United States.

The questionnaire is short, only 20 questions and should take about 10 minutes to complete. To begin the survey, simply click on this link:

http://ncsu.qualtrics.com/jfe/preview/SV_0jiaFhI873xcFFj

Your perspective will contribute unique insight into this topic and will be useful for understanding the issues that support or inhibit the employment of Zimbabwean immigrants and other populations like them.

The NC State University Institutional Review Board has approved this study. You do not have to answer any questions you do not want to answer and you may withdraw your participation at any time.

Thank you in advance!

Sincerely,

Charlene Mutamba
Week 2- Reminder sent via E-mail

Date: [INSERT DATE]
To: [INSERT NAME]
From: Charlene Mutamba
Re: Invitation to participate in a research study on employment of Zimbabwean immigrants in the United States

Dear [FIRST NAME],

Last week we sent an email to you asking for your participation in the research study on the employment of Zimbabwean immigrants in the United States. We hope that providing a link to the survey website makes it easier for you to respond. To complete the survey, simply click on this link:

http://ncsu.qualtrics.com/jfe/preview/SV_0jiaFhIf73xcFFj

Your perspective will contribute unique insight into this topic and will be useful for understanding the issues that support or inhibit the employment of Zimbabwean immigrants and other populations like them.

Your response is voluntary and we appreciate your considering our request.

Sincerely,

Charlene Mutamba
Week 3-Reminder email sent via E-mail

Date: [INSERT DATE]
To: [INSERT NAME]
From: Charlene Mutamba
Re: Invitation to participate in a research study on employment of Zimbabwean immigrants in the United States

Dear [FIRST NAME],

Recently we sent an email asking you to complete a survey about the employment of Zimbabwean immigrants in the United States. If you have already completed this survey, we would like to thank you very much. We truly appreciate your help. If you have not answered the questionnaire yet, we’d like to urge you to do so. It should only take about ten minutes to complete. Simply click on the link below to begin answering questions.

http://ncsu.qualtrics.com/jfe/preview/SV_0jiaFhIf73xcFFj

Your perspective will contribute unique insight into this topic and will be useful for understanding the issues that support or inhibit the employment of Zimbabwean immigrants and other populations like them.

Your response is voluntary and we appreciate your considering our request.

Sincerely,

Charlene Mutamba
Week 4- Reminder sent via E-mail

Date: [INSERT DATE]
To: [INSERT NAME]
From: Charlene Mutamba
Re: Invitation to participate in a research study on employment of Zimbabwean immigrants in the United States

Dear [FIRST NAME],

A few weeks ago we contacted you asking for your help with the research study on Zimbabwean immigrants in the United States. We are writing to you again because your perspective will contribute unique insight into this topic and will be useful for understanding the issues that support or inhibit the employment of Zimbabwean immigrants and for other populations like it.

We need your help to ensure the results are as precise as possible. To fill out the questionnaire, click on the web address link below.

http://ncsu.qualtrics.com/jfe/preview/SV_0jiaFhIf73xcFFj

Responses to the survey are confidential and will not be connected to your name in any reports of the data.

Thank you for considering our request.

Sincerely,

Charlene Mutamba
Week 5- Final Reminder E-mail

Date: [INSERT DATE]
To: [INSERT NAME]
From: Charlene Mutamba
Re: Invitation to participate in a research study on employment of Zimbabwean immigrants in the United States

Dear [FIRST NAME],

We are writing to follow up on the message we sent last week asking you to participate in the research study on Zimbabwean immigrants in the United States. Your perspective will contribute unique insight into this topic and will be useful for understanding the issues that support or inhibit the employment of Zimbabwean immigrants and for other populations like them.

The URL is included below to provide an easy link to the survey website.

http://ncsu.qualtrics.com/jfe/preview/SV_0jiaFhIf73xeFFj

Responses to the survey are confidential and will not be connected to your name in any reports of the data.

Thank you for considering our request.

Sincerely,

Charlene Mutamba
APPENDIX C- QUESTIONNAIRE

1. Are you currently employed?
   ☑ Yes, Full time (36 hours or more)
   ☑ Yes, Part time (35 hours or less)
   ☑ No

2. How many hours do you work per week?

3. What is your current occupation e.g. teacher, doctor, nurse, accountant, professor, nurse aid, and so forth?

4. How many years of working experience do you have?
5. Thinking about your current job, please use a scale from 1-5, to rate the following statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neither Agree nor Disagree (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My job requires less education than I have</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The work experience that I have is not necessary to be successful on this job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have job skills that are not required for this job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Someone with less education than myself could perform well on my job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My previous training is not being fully utilized on this job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a lot of knowledge that I do not need in order to do my job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My education level is above the education level required by my job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Someone with less work experience than myself could do my job just as well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have more abilities than I need in order to do my job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. How many years of schooling have you attained?
10 = Less than high school,
12 = High school graduate,
13 = Some college,
14 = Associates degree/ Polytechnic graduate,
16 = Bachelor’s degree (B.A./ BBA, BSc),
18 = Master’s degree (M.S./ MBA, M.A) and
20 = Doctoral degree (Ph.D./ Ed.D.)/ Professional degree (MD/JD)

7. Where did you obtain your highest level of education?

8. Thinking about the English language, please rate the following statements

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree (5)</th>
<th>Agree (4)</th>
<th>Neither Agree nor Disagree (3)</th>
<th>Disagree (2)</th>
<th>Strongly Disagree (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I speak English well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I read English well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I write English well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. I would like to start by asking you about the groups or organizations, networks, associations to which you belong. These could be formally organized groups of people who get together regularly to do an activity or talk about things. Of how many such groups are you a member?

10. How many people are in your family network in the United States? This includes your spouse, siblings, parents and relatives?

11. In thinking about your current employment, please rate the following statements about how you secured your current employment.

Family network includes your spouse, children, siblings, parents and relatives. 
Social network includes your friends, associates, colleagues.

<table>
<thead>
<tr>
<th>Strongly Agree (5)</th>
<th>Agree (4)</th>
<th>Neither Agree nor Disagree (3)</th>
<th>Disagree (2)</th>
<th>Strongly Disagree (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My family network assisted me in securing this job.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My social network assisted me in securing this job.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

12. Which country were you born in?

13. How many years have you been in the United States?

14. Are you a United States Citizen?
   ○ Yes
   ○ No

15. What is your gender?
   ○ Male
   ○ Female
16. How old are you?

15. What is your marital status?
☑ Single/ Never married
☑ Married
☑ Divorced/ Widowed

17. How many children do you have?

18. What is your annual household income?

19. How would you classify yourself?
☑ Asian
☑ Black/ African
☑ White
☑ Other

20. The following question will give you an opportunity to tell us more about your experience.

Underemployment is an inferior, lesser or lower quality employment which is defined relative to the employment experiences of others with the same education or work history relative to the person's own past education or work history.

If you consider yourself to be underemployed, please explain how this affects your physical and psychological wellbeing. Please answer openly and truthfully.

Thank you for taking the time to complete this survey. Your time and input is greatly appreciated.
APPENDIX D- IRB APPLICATION
NORTH CAROLINA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD FOR THE USE OF HUMAN SUBJECTS IN RESEARCH
SUBMISSION FOR NEW STUDIES

Protocol Number 5888

Project Title:
The Significance of Human and Social Capital in the Employment of Immigrants in the United States

IRB File Number:

Original Approval Date:
06/12/2015

Approval Period
06/12/2015 -

Source of funding [If externally funded, enter PINS or RADAR number of funding proposal via ‘Add New Sponsored Project Record’ button below]:

NCSU Faculty point of contact for this protocol [NIR only this person has authority to submit the protocol]

Bartlett, James: Leadership, Policy, and Adult and Higher Education

Does any investigator associated with this project have a significant financial interest in, or other conflict of interest involving, the sponsor of this project? (Answer No if this project is not sponsored)

No

Is this conflict managed with a written management plan, and is the management plan being properly followed?

No

Preliminary Review Determination:

Category:
Exempt b.2

Provide a brief synopsis of the study (limit text to 1500 characters)
The purpose of this study is to investigate the relationship between human capital, social capital and the employment outcomes of Zimbabwean immigrants working in the United States. This research explores whether human capital and social capital related variables as discussed in the literature are significant in the employment outcomes of Zimbabwean immigrants. The study will be conducted using a quantitative, non-experimental research design and participants will be asked to complete a web-based survey. The participants will be Zimbabwean immigrants 18 and older who are living and working in the United States.

Briefly describe in lay language the purpose of the proposed research and why it is important
The purpose of this study is to find out if human capital, social capital and employment are related when one studies Zimbabwean immigrants working in the United States. In addition, if the participants are found to be underemployed, this study seeks to understand what influences this. The purpose will be accomplished by finding out how much human capital the immigrants possess by asking questions about educational attainment, skills, years of work experience and so forth. The study also seeks to understand their social capital by asking about their family and social networks and how they help them find employment. Furthermore, through this study the concept of underemployment will be used to understand the challenges that newly arrived immigrants from Zimbabwe are facing in trying to integrate.

This study is important because immigrants continue to be an understudied group even though they are different from non-immigrants in various ways such as language and culture. In addition, the increasing prevalence of underemployment among immigrants impedes their successful settlement into society which is often determined by how they integrate into the labor market. Understanding what makes some successful will inform other immigrants about best ways to find adequate employment.

Is this research being conducted by a student?
Yes

Is this research for a thesis?
No

Is this research for a dissertation?
Yes

Is this independent research?
Yes

Is this research for a course?
No

Do you currently intend to use the data for any purpose beyond the fulfillment of the class assignment?
No
Please explain

If so, please explain

If you anticipate additional NCSU-affiliated investigators (other than those listed on the Title tab) may be involved in this research, list them here indicating their name and department.
N/A

Will the investigators be collaborating with researchers at any institutions or organizations outside of NCSU?
No

List collaborating institutions and describe the nature of the collaboration

What is NCSU’s role in this research?

Describe funding flow, if any (e.g., subcontractors)

Is this international research?
No

Identify the countries involved in this research

An IRB equivalent review for local and cultural context may be necessary for this study. Can you recommend consultants with cultural expertise who may be willing to provide this review?

Adults 18 - 64 in the general population?
Yes
NCSU students, faculty or staff?
No

Adults age 65 and older?
No

Minors (under age 18 - be sure to include provision for parental consent and/or child assent)?
No

List ages or age range:

Could any of the children be “Wards of the State” (a child whose welfare is the responsibility of the state or other agency, institution, or entity)?
No
Please explain:

Prisoners (any individual involuntarily confined or detained in a penal institution – can be detained pending arraignment, trial or sentencing)?
No

Pregnant women?
No

Are pregnant women the primary population or focus for this research?
No

Provide rationale for why they are the focus population and describe the risks associated with their involvement as participants

Infants?
No
Students?
No

Does the research involve normal educational practices?
No

Is the research being conducted in an accepted educational setting?
No

Are participants in a class taught by the principal investigator?
No

Are the research activities part of the required course requirements?
No

Will course credit be offered to participants?
No

Amount of credit?
No

If course credit will be given, list the amount and alternative ways to earn the same amount of credit. Note: the time it takes to earn the same amount of credit by the alternative means should be commensurate with the study task(s)

How will permission to conduct research be obtained from the school or district?

Will you utilize private academic records?
No

Explain the procedures and document permission for accessing those records.

Employees?
No

Describe where (in the workplace, out of the workplace) activities will be conducted.

From whom and how will permission to conduct research on the employees be obtained?

How will potential participants be approached and informed about the research so as to reduce any perceived coercion to participate?

Is the employer involved in the research activities in any way?
No

Please explain:

Will the employer receive any results from the research activities (i.e., reports, recommendations, etc.)?
No

Please explain. How will employee identities be protected in reports provided to employers?

Impaired decision making capacity/Legally incompetent?
No

How will competency be assessed and from whom will you obtain consent?

Mental/emotional/developmental/psychiatric challenges?
No

Identify the challenge and explain the unique risks for this population.

Describe any special provisions necessary for consent and other study activities (e.g., legal guardian for those unable to consent).

People with physical challenges?
No

Identify the challenge and explain the unique risks for this population.
Describe any special provisions necessary for working with this population (e.g., witnesses for the visually impaired).

<table>
<thead>
<tr>
<th>Economically or educationally disadvantaged?</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racial, ethnic, religious and/or other minorities?</td>
<td>No</td>
</tr>
<tr>
<td>Non-English speakers?</td>
<td>No</td>
</tr>
<tr>
<td>Describe the procedures used to overcome any language barrier.</td>
<td></td>
</tr>
</tbody>
</table>

Will a translator be used?  
No

Provide information about the translator (who they are, relation to the community, why you have selected them for use, confidentiality measures being utilized).

Explain the necessity for the use of the vulnerable populations listed.

State how, where, when, and by whom consent will be obtained from each participant group. Identify the type of consent (e.g., written, verbal, electronic, etc.). Label and submit all consent forms.

All participants will be provided with an informed consent form at the beginning of the survey and will be asked to read and approve. A copy of the informed consent is attached.

If any participants are minors, describe the process for obtaining parental consent and minor’s assent (minor’s agreement to participate).

No minors will be participating.

Are you applying for a waiver of the requirement for consent (no consent information of any kind provided to participants) for any participant group(s) in your study?  
No

Describe the procedures and/or participant group for which you are applying for a waiver, and justify why this waiver is needed and consent is not feasible.

Are you applying for an alteration (exclusion of one or more of the specific required elements) of consent for any participant group(s) in your study?  
No

Identify which required elements of consent you are altering, describe the participant group(s) for which this waiver will apply, and justify why this waiver is needed.

Are you applying for a waiver of signed consent (consent information is provided, but participant signatures are not collected)? A waiver of signed consent may be granted only if: The research involves no more than minimal risk; The research involves no procedures for which consent is normally required outside of the research context.

No

Would a signed consent document be the only document or record linking the participant to the research?  
No

Is there any deception of the human subjects involved in this study?  
No

Describe why deception is necessary and describe the debriefing procedures. Does the deception require a waiver or alteration of informed consent information? Describe debriefing and/or disclosure procedures and submit materials for review. Are participants given the option to destroy their data if they do not want to be a part the study after disclosure?

For each participant group, please indicate how many individuals from that group will be involved in the research. Estimates or ranges of the numbers of participants are acceptable. Please be aware that participant numbers may affect study risk. If your participation totals differ by 10% from what was originally approved, notify the IRB.

350-500 participants in total who are Zimbabweans 18 and older and live and work in the United States.

How will potential participants be found and selected for inclusion in the study?

The Participants' email addresses for this study will be collected through snowball sampling and recommendations of other participants.
For each participant group, how will potential participants be approached about the research and invited to participate?
The individuals will be contacted through e-mail requesting their participation in a research study about Zimbabwean immigrants. A final invitation to participate will be sent to those who express interest in the research study (see participant invitation e-mail).

Describe any inclusion and exclusion criteria for your participants and describe why those criteria are necessary (if your study concentrates on a particular population, you do not need to repeat your description of that population here.)
Participants must be:
- 18 years of age and older
- Live and work in the United States
- Zimbabwean national
- Migrated to the United States

Individuals who are not Zimbabwean immigrants living and working in the United States will not be considered for participation.

Is there any relationship between researcher and participants - such as teacher/student; employer/employee?
No

What is the justification for using this participant group instead of an unrelated participant group?

Describe any risks associated with conducting your research with a related participant group.

Describe how this relationship will be managed to reduce risk during the research.

How will risks to confidentiality be managed?

Address any concerns regarding data quality (e.g. non-candid responses) that could result from this relationship.

In the following questions describe in lay terms all study procedures that will be experienced by each group of participants in this study. For each group of participants in your study, provide a step-by-step description of what they will experience from beginning to end of the study activities.
The study will adhere to the following steps during the data collection and analysis phases. Participants will be asked to complete a web survey of 20 questions that takes about 10 minutes to complete.
1. The participants will receive an initial email describing the survey, a consent form and link to a Qualtrics survey.
2. The participants will receive their first reminder email a week after the initial email with a survey link included.
3. The participants will receive a second reminder email a week after the first reminder with survey link included.
4. The participants will receive a third reminder email a week after the second reminder with a survey link included.
5. Finally, the participants will receive the last reminder email a week after the third reminder with a survey link included.

Describe how, when, where, and by whom data will be collected.
The survey/questionnaire will be conducted online through Qualtrics and participants will receive the survey links via e-mail.

Social?
No

Psychological?
No

Financial/Employability?
No

Legal?
No

Physical?
No

Academic?
No

Employment?
No

Financial?
No
Medical?
No
Private Behavior?
No
Economic Status?
No
Sexual Issues?
No
Religious Issues/ Beliefs?
No
Describe the nature and degree of risk that this study poses for each item marked “Yes” above. Describe the steps taken to minimize these risks. You CANNOT say “none” or “no risks.”
Participants will not be asked to disclose any specific information that could identify them. All participants in the study will be identified using a ID number which will be held confidential so no one else in the study will know who is participating. Additionally, all participants will be notified that they do not need to provide specific (name, specific events and so forth) in their comments. Any emails collected for the $25 Amazon gift card draw will be collected in a separate survey link (email attached).
If you are accessing private records, describe how you are gaining access to these records, what information you need from the records, and how you will receive/ record data.
N/A
Are you asking participants to disclose information about other individuals (e.g., friends, family, co-workers, etc.)?
No
Describe the data you will collect and discuss how you will protect confidentiality and the privacy of these third-party individuals.
N/A
If you are collecting information that participants might consider personal or sensitive or that if revealed might cause embarrassment, harm to reputation or could reasonably place the subjects at risk of criminal or civil liability, what measures will you take to protect participants from those risks?
N/A
If any of the study procedures could be considered risky for and of themselves (e.g., study procedures involving upsetting questions, stressful situations, physical risks, etc.) what measures will you take to protect participants from those risks?
N/A
Describe the anticipated direct benefits to be gained by each group of participants in this study (compensation is not a direct benefit).
study participants can opt to receive a final report that summarizes the findings of the study.
If no direct benefit is expected for participants describe any indirect benefits that may be expected, such as to the scientific community or to society.
An indirect benefit of the study is that participants will inform policy decision making for future immigrants.
Will you be recovering already existing data without identifiers for this study?
No
Will you be recovering already existing data which includes identifiers for this study?
No
Describe how the benefits balance out the risks of this study.
The nature of this study is to aggregate responses rather than providing individual situations or comments, therefore, the sensitive elements of the questions and responses are minimized and the findings from this study are hoped to be used to understand the factors that influence employment of immigrants and how it can inform immigration policy.
Will data be collected anonymously (meaning that you do not ever collect data in a way that would allow you to link any identifying information to a participant)?
Yes
Will identifiers be recorded with the data?
No
Will you use a master list, crosswalk, or other means of linking a participant’s identity to the data?
No
Will it be possible to identify a participant indirectly from the data collected (i.e. indirect identification from demographic information)?
No
Audio recordings?
No

Video recordings?
No

Images?
No

Digital/electronic files?
No

Paper documents (including notes and journals)?
No

Physiological Responses?
No

Online survey?
Yes

Restricted Computer?
Yes

Password Protected files?
Yes

Firewall System?
No

Locked Private Office?
No

Locked Filing Cabinets?
Yes

Encrypted Files?
No

Describe all participant identifiers that will be collected (whether they will be retained or not) and explain why they are necessary.

Only the participants' email addresses will be used in order to contact them. The email addresses will not be connected back to the participant. They are collected on a separate survey not linked to data.

If any links between data and participants are to be retained, how will you protect the confidentiality of the data?

All participants will be identified using a participant number. The participant number will be kept on a separate password protected computer and password protected file.

If you are collecting data electronically, what (if any) identifiable information will be collected by the host site (such as email and/or IP address) and will this information be reported to you?

Only the email address of the participants will be used to communicate survey information and reminders to complete the questionnaire. Any connection to an email address or IP address will not be provided to me in the data collected.

Describe any ways that participants could be identified indirectly from the data collected and describe measures taken to protect identities.

Responses from participants will be used in aggregate so there is little potential of being identified by others in the study.

All files will be password protected to minimize risk throughout the study.

For all recordings of any type: Describe the type of recording(s) to be made Describe the safe storage of recordings. Who will have access to the recordings? Will recordings be used in publications or data reporting? Will images be altered to de-identify? Will recordings be transcribed and by whom?

Describe how data will be reported (aggregate, individual responses, use of direct quotes) and describe how identities will be protected in study reports.

Data will be reported in aggregate without additional context or descriptions. Any individual responses will not have any identifying information attached. Any use of direct quotes in the final dissertation will be made without any connection to specific participants.

Will anyone besides the PI or the research team have access to the data (including completed surveys) from the moment they are collected until they are destroyed?

No

Describe any compensation that participants will be eligible to receive, including what the compensation is, any eligibility requirements, and how it will be delivered.
There is no compensation provided for each participant. However, participants can opt to submit their email address for the possibility of winning a $25 Amazon gift card. Participants can opt to provide their email addresses on a separate link (attached) which will not connect the participant to their responses.

Explain compensation provisions if the participant withdraws prior to completion of the study.
APPENDIX E- CONSENT FORM

Title of Study: The Significance of Human and Social Capital in the Employment Outcomes of Immigrants in the United States

Principal Investigator: Charlene C Mutamba  Faculty Sponsor (if applicable): James Bartlett

What are some general things you should know about research studies?
You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. The purpose of research studies is to gain a better understanding of a certain topic or issue. You are not guaranteed any personal benefits from being in a study. Research studies also may pose risks to those that participate. In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above.

What is the purpose of this study?
The purpose of this study is to find out if human capital, social capital and employment are related when one studies Zimbabwean immigrants working in the United States. In addition, if the respondents are found to be underemployed, this study seeks to understand what influences this. The purpose will be accomplished by finding out how much human capital the immigrants possess by asking questions about educational attainment, skills, years of work experience and so forth. The study also seeks to understand their social capital by asking about their family and social networks and how they help them find employment. Furthermore, through this study the concept of underemployment will be used to understand the challenges that newly arrived immigrants from Zimbabwe are facing in trying to integrate.

This study is important because immigrants continue to be an understudied group even though they are different from non-immigrants in various ways such as language and culture. In addition, the increasing prevalence of underemployment among immigrants impedes their successful settlement into society which is often determined by how they integrate into the labor market. Understanding what makes some successful will inform other immigrants about best ways to find adequate employment.

What will happen if you take part in the study?
If you agree to participate in this study, you will be contacted through e-mail requesting your participation in a research study about the employment of Zimbabwean immigrants. You will be asked to complete a web survey of 20 questions that takes about 10 minutes to complete.
1. You will receive an initial email describing the survey, a consent form and link to a Qualtrics survey.
2. You will receive their first reminder email a week after the initial email with a survey link included.
3. You will receive a second reminder email a week after the first reminder with survey link included.
4. You will receive a third reminder email a week after the second reminder with a survey link included.
5. Finally, you will receive the last reminder email a week after the third reminder with a survey link included.

Risks
You will not be asked to disclose any specific information that could identify you personally. You will only be identified using an ID number which will be held confidential so no one else in the study will know you are participating. Additionally, you will not need to provide specifics (name, specific events and so forth) in your comments.
Benefits
You can opt to receive a final report that summarizes the findings of the study.

Confidentiality
The information in the study records will be kept confidential to the full extent allowed by law. Data will be stored securely in a password protected file. No reference will be made in oral or written reports which could link you to the study. You will NOT be asked to write your name on any study materials so that no one can match your identity to the answers that you provide.

Compensation
You will not receive anything for participating in this research study.

What if you have questions about this study?
If you have questions at any time about the study or the procedures, you may contact the researcher, Charlene Mutamba.

What if you have questions about your rights as a research respondent?
If you feel you have not been treated according to the descriptions in this form, or your rights as a respondent in research have been violated during the course of this project, you may contact Deb Paxton, Regulatory Compliance Administrator at dapaxton@ncsu.edu or by phone at 1-919-515-4514.

Consent To Participate
“I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.”

Subject's signature_______________________________________  Date ___________________
Investigator's signature_______________________________  Date ________________