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EDUCATIONAL EXPECTATIONS OF COLLEGE STUDENTS FROM MEXICAN AMERICAN MIGRANT FARMWORKER FAMILIES

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EDUCATIONAL EXPECTATIONS OF COLLEGE STUDENTS FROM MEXICAN AMERICAN MIGRANT FARMWORKER FAMILIES

By

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ABSTRACT

EDUCATIONAL EXPECTATIONS OF COLLEGE STUDENTS FROM MEXICAN AMERICAN MIGRANT FARMWORKER FAMILIES

By

Wilma Novalés Wibert

The goal of this study was to identify factors that promote and deter the academic achievement of students who come from Mexican American migrant farmworker families. Specifically, this study looked at the likelihood of theoretically based variables predicting academic success. Dependent variables included in the study were academic achievement and educational expectations. The independent variables were family income, familism, mobility, gender and parent's educational attainment. A convenience sample of 147 (n=147) college students from Mexican American migrant farmworker families were recruited to answer a 93 item survey questionnaire.

Results indicate that academic achievement is positively associated with familism ($r=.20$, $p\leq.01$), family income($r=.16$, $p\leq.03$), and educational expectations ($F=7.49$, $p\leq.001$). The traditional nature of this community is seen

in further analysis resulting in mother's educational attainment having a significant and positive association with their educational expectations for their daughters ($r=.25$, $p\leq.02$) but not their sons ($r=.08$, $p\leq.26$); and father's level of educational attainment being significantly and positively associated with their educational expectations for their sons ($r=.21$, $p\leq.04$) but not their daughters ($r=.01$, $p\leq.48$). Findings also revealed University academic achievement is significantly and negatively associated with prior educational mobility (during K-12) in migrant farmworker college student populations ($r=-.23$, $p\leq.002$).

Results were indicative of the resiliency of the migrant community. Factors found to promote academic achievement included familism, parent's educational attainment, parent's educational expectations and student's educational expectations. Factors found to deter academic achievement included annual mobility and family income. Essentially, migrant parents want more for their children and as a result have high educational expectations of them. The values, beliefs and norms established through their Latino culture and exemplified by their level of familism provide balance for other life challenges.

This dissertation is dedicated to my father, the late Pedro Emilio Novalés, the man who taught me integrity, honesty, and tenacity by example. The dignity with which you managed the last year of your life was an incredible gift to our family. Although you missed my graduation by four months, I know you are looking down on me and smiling. I could not have done this without you! *Papi*, I love you more!

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As important as my family was in keeping me going throughout my education, I would be remiss to not acknowledge my committee members who truly guided me through my journey this last year. First, I'd like to thank my chair, **Dr. Harriette Pipes McAdoo**, you have been a true mentor to me and I appreciate your time and encouragement, you never doubted my abilities; **Dr. Carl S. Taylor,** who convinced me to go to graduate school in the first place, thank you for seeing in me what I could not yet see; **Dr. David Imig,** I thank you for always challenging me to look beneath the surface. My work is better because of you; **Dr. LeAnn Silvey,** the ultimate editor! Thank you for your meticulous fine tuning of this dissertation; and finally, **Dr. Rueben Parra-Cordona**, you stepped in when Dr. Israel Cuellar was not able to stay on and offered me your unconditional support and encouragement. You were a big part of the reason why I returned to finish my work and I thank you. Abrazos!

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PREFACE

Although I have been in the doctoral program at Michigan State University for six years, this project has been in the making for many more years. The present dissertation topic grew out of my respect and admiration for the man who raised me, my step-father. As a Mexican American migrant farmworker he faced many hardships, including; language barriers, marginalization, poverty, racism, mobility, limited educational opportunities and meager housing options.

Providing for basic needs was his family's focus growing up, but honoring your parents and family was their motto. Family extended to include aunts, uncles, cousins, grandparents and great-grandparents. Every member of your family took pride in your accomplishments and was shamed by your misdeeds. The family motto my step-father brought to our family was the same; he made sure we were all raised to be "bien educado" or well educated. Education in this sense not only meant formal schooling, but more importantly, it meant the way in which you carried yourself in public; respectful, polite, showing pride in family and ethnicity, as well as faithful to our religious beliefs.

As a migrant farmworker growing up in a Texas border town in the 1930's, my step-father grew accustomed to unfair treatment. For example, growers would pay his family less than they earned, housing developments would not rent to Mexicans and schools completely overlooked migrant students. As a result, their options were not just limited by the language barrier and poverty but by the marginalization they experienced in their own community which discriminated against seasonal workers. Still, his family made a point of pushing their children to learn all they could wherever they could. Reading and writing were first introduced to him by his mono-lingual Spanish speaking father, who had no formal schooling but had also been taught by his father phonetically. Learning to read in English was the motive for sending him to a public school in Texas. As the oldest male in the family, the most important reason for learning to read and write in English was so he would not be taken advantage of by the growers he worked for in the fields and he could protect his family from the same.

In time he learned to read and write in English, becoming the family interpreter and translator. As he continued in school his parents could only offer him encouragement but they were not able to help him with his

homework. As a result, he learned to internalize the responsibility of his formal education while knowing that his family was proud of his accomplishments. Eventually, he settled out of migrant work for a factory job at General Motors and went on to a community college and earned an associates degree necessary to gain a promotion. Although my mother had finished high school and my step-father had earned an associates degree, they still viewed the University as a luxury. Consequently, when it was my turn to graduate from high school I had to rely on peers and guidance counselors for college preparation, selection, application and financial aid information.

Growing up, as the youngest of five and female, I was taught that an education is only as good as the job or husband it can help you obtain. The advice I received when I first left for college had less to do with formal education and more to do with their expectations of my unsupervised behavior; remembering who I was and where I came from. After earning a Masters degree in Family Studies, my parents asked me what I would be, meaning my job title. They really wanted to be able to tell their friends about their daughter the doctor, lawyer, teacher or anything with a title. My parents were proud of me and my academic achievements and although they encouraged me to be

successful at whatever I chose to do, they were not able to offer the practical support I needed to successfully maneuver through the higher education process.

Inadvertently, the foundation for the present research topic began to take shape in my formative years as I began to integrate my family history with my educational expectations. Ultimately, the path for my research became clear to me when I began working with Mexican American college students from migrant farmworker families as a graduate assistant. The work I did with students from the Michigan State University College Assistance Migrant Program included recruitment in addition to student services. Quite purposefully, we set out to provide them with the social capital they needed to be successful students by attempting to create a family environment that would bind the annual groups into a family and all the groups into a community. The process of helping them bond gave me an opportunity to reflect on my family history and how prevalent the values and norms still were in my daily life.

It was an honor to work with this group of students; as I write this introduction I can't help but feel a great sense of pride in the students I have had the privilege of working for. Their journey from the fields to graduation

was challenging and most set out on their voyage without a map. The courage and dedication with which they pursue their academic goals is inspiring. In the end, I hope this research will be an accurate reflection of the many assets this community brings with them to the University.

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CHAPTER 1

INTRODUCTION

The Latino population has been growing steadily for the past few decades. Based on indicators of population growth, this trend is going to continue. According to the Current Population Survey (2000) Latinos make up 12 percent of the population with 32.8 million Latinos living in the United States; making Latinos the largest minority group within the United States today. Mexican Americans make up 66 percent of the overall Latino population and 36 percent of Mexican Americans are under the age of 18 (Current Population Survey, 2000). The increase in the Latino population raises social and economic concerns for the United States because Latino school aged children are the fastest growing group in the United States (U.S. Census Bureau, 1999).

Recently, it has been reported that more than a quarter (27.3 percent) of Latinos over age 25 hold less than a ninth grade education (Yzaguirre, 2001). In 1992, the estimated drop out rate for Mexican Americans was 35.3

percent versus 8.9 percent for non-Latino Whites (U.S. Census Bureau, 1999). Consequently, Latinos in general are underrepresented in postsecondary institutions today (Carter & Wilson, 1996). Some scholars have argued that the school failure of Latino students stemmed from their family and community's lack of educational values (Bernal, Saenz & Knight, 1991). Others have suggested that a cultural mismatch between student and school may result in alienation or drop out from school (Trusty, 1996).

Although the current educational picture of this community is bleak, the opportunity to attend and the number of Latino students enrolled at four year universities in the United States are slowly increasing (Gilroy, 2005). Unfortunately, Latino students are still at a greater risk for drop out than their non-Latino peers and the number of Latinos actually earning a bachelor's degree is still very low (Fry, 2002). According to the U.S. Census Bureau, only 11 percent of Latino adults have earned a bachelor's degree compared to 30 percent of European Americans, and the number of Mexican origin Latinos with a bachelor's degree is about seven percent (2004). Latino students in postsecondary education face many challenges that diminish their chances of completing their educational goals. As an indicator of socioeconomic

status, education is one of the best challenges to address when looking at ways to change the economic future of any community.

Mexican American migrant farmworker families are a unique segment of the Latino and more specifically the Mexican American population. They face all the same struggles that Mexican Americans face; population growth, low educational attainment, and poverty with the additional stresses of educational disruption and community marginalization due to the nature of their work. According to recent publications there are 1.6 million migrant and seasonal farmworkers (Lacar, 2001) with anywhere from 400,000 (Mehta, Gabbard, Barrat, Lewis, Carroll, & Mines, 2000) to 819,000 (Gibson, 2003) children currently working in the United States. According to the Michigan Family Independence Agency, Michigan is the forth largest user of migrant labor with approximately 40,000 workers returning annually (Gold, 2004).

Based on findings from the National Agricultural Workers Survey of 1997-1998 (NAWS), Mehta et al. (2000) found the majority of U.S. farmworkers (56 percent) had to travel in order to secure employment. It has been reported that seventy percent of Michigan migrant farmworkers originate from Texas, twenty-five percent from Florida and

the rest from other states (Gold, 2004). The majority (95%) of Michigan migrants today are of Mexican origin (Gold, 2004). This population follows a particular migrant stream as they travel to Michigan (i.e., the receiving state) from Texas (i.e., the sending state) annually. The laborers travel from one state to another following the work until they reach Michigan via "Louisiana, Arkansas, Missouri, Illinois, and Indiana" (Roeder & Millard, 2000, p. 2), arriving before the end of the school year and leaving after the beginning of the school year. Regrettably, mobility has also been found to have a negative effect on school performance (Boisloly, Duncan, and Hofferth, 1995; Haveman, Wolfe, & Spaulding, 1991). In Michigan, it has been reported that adult migrant farmworkers have on average, a sixth grade education and their children average a ninth grade education (Gold, 2004).

In order to fully understand the Mexican American migrant farmworker population being studied, it was important that a working definition be established. To that end, Migrants as defined by U.S. Department of Education (1994) guidelines are "…migratory workers or the children of migratory workers who move for the purposes of obtaining seasonal or temporary work in agriculture…." Mehta et al. (2000), defined shuttle migrants as

farmworkers, "...moving between two or more jobs clustered at a location far from their home base" (p. 21). The United States Department of Agriculture (1988) defines migrant workers as anyone earning more than 50 percent of their annual income performing agricultural work, that takes them away from their home (or cross a county line) in order to participate in agricultural employment. Although accurate, these definitions did not touch upon the true uniqueness of this group. Looking for specific cultural characteristics within the migrant community, Hinz (1987) found that,

> "...Migrant workers have a strong sense of family loyalty; respect for elderly persons; politeness.... They have pride for who they are and their heritage; maintain faith with the family and their religion...they feel that diplomacy and tactfulness are very important in communicating with others" (p. 13).

Sensitive to the cultural characterization by Hinz (1987), this study defined migrant farmworkers by their work status; as migratory workers (and their children) who moved between job sites causing them to live part of the year away from their home base, fully intending on adding to this definition upon completion of this research.

Statement of the Problem

The academic achievement of Latino students has been a topic of interest to researchers for decades. Although the number of students entering college from Latino families has increased, the number of students earning degrees continues to fall behind other minority groups in America. Literature on Mexican American migrant farmworkers was more limited but showed that students from this population had added disadvantages when it came to education as they continued to struggle with high rates of school drop out, high rates of poverty and low rates of university enrollment. Currently, 85 percent of migrant farmworker adults have not completed high school (Mehta et al., 2000). In fact, the drop out rate for children from Mexican American migrant farmworker families is higher than any other ethnic group, at twice the national average (Mehta et al., 2000). Current public policy is attempting to address the postsecondary educational recruitment of students from migrant farmworker families. Yet, their persistence and completion has not adequately been addressed at the public policy level.

Purpose of the Study

The purpose of this study was to identify factors that promote and deter the academic achievement of students at Michigan State University who come from Mexican American migrant farmworker families. Specifically, this study looked at the likelihood of theoretically based variables predicting academic success.

By examining the issues of academic achievement and educational expectations of migrant farmworker college students, the present study was intended to generate discussion toward plausible solutions. Besides making a basic contribution to the existing literature on Mexican American migrant farmworker families, the researcher hoped to impact future public policy on the need to foster postsecondary educational persistence among students who are the most economically and academically at risk.

Research Questions

To that end, there were six main research questions that guided the current study;

1. What impact does social capital have on postsecondary academic achievement?
2. What impact does human capital have on postsecondary academic achievement?
3. What impact does frequency of moves or mobility have on postsecondary academic achievement?
4. What affect does a student's educational expectation have on their academic achievement?
5. Are student's educational expectations influenced by their perception of their parent's educational expectations of them?
6. Does gender have an impact on educational expectations?

Research Hypotheses

Theoretical testing began with selection of variables followed with development of hypotheses for testing. As a result the following hypotheses were posited;

H1: Social capital, which includes family income and familism is positively associated with academic achievement.

H2: Human capital, which includes parents educational

attainment is positively associated with academic achievement.

H3: Mobility is negatively associated with academic achievement.

H4: Respondent's educational expectations are positively associated with academic achievement.

H5: Parent's educational expectations are positively associated with respondent's educational expectation.

H6: Gender is differentially associated with academic achievement.

Through a theoretically informed lens, this study set out to look at the factors related to the educational achievement of Mexican American migrant farmworker students admitted to a Midwestern university. Chapter two provides the theoretical underpinnings of this study; chapter three will review hypotheses testing; chapter four will provide results of theory and hypotheses tests; concluding with chapter five's discussion of results.

CHAPTER II

REVIEW OF THE LITERATURE

The majority of migrant farmworkers in the United States today are from Mexican families (Mehta et al., 2000). Nationally, 77 percent of migrant farmworkers in America are first generation Americans originating from Mexico (Mehta et al., 2000). In fact, 95 percent of all migrant farmworkers currently working the fields of Michigan are of Mexican descent (Gold, 2004), most following the Texas to Michigan migrant stream (Roeder & Millard, 2000). As a result, the first language of 75 percent of children from migrant farmworker families is not English but Spanish (Leon, 1996).

The drop out rate for children from Mexican American migrant farmworker families has been reported to be higher than any other ethnic group at twice the national average (Commission on Security and Cooperation in Europe; CSCE, 1993) and well over 85 percent of migrant farmworkers in America have not completed high school (Mehta et al, 2000). According to Mehta et al. (2000), an overwhelming number of migrant farmworkers in the United States today, 38 percent,

are functionally illiterate. Historically, migrant farmworkers in America have been described as the poorest of the poor (Guerra, 1979).

Today, current research has found that this population is still experiencing poverty at alarming rates. In fact, according to a report by the United States Department of Labor, 75 percent of all migrant farmworkers are earning less than $10,000 annually (Mehta et al., 2000), and some report it closer to $7,500 for a family of four (Gold, 2004). "Although wage rates for farmworkers have gone up over the last decade, when adjusted for inflation we find that farmworkers' real wages have decreased five percent in that time" (National Center for Farmworker Health, Inc., 2006). As a result, an estimated 60 percent of migrant farmworkers are living below the poverty line (Lacar, 2001) and 73 percent of their children 14 years and younger are living in poverty (Gabbard, Mines, & Boccalandro, 1994).

Ironically, according to Gold (2004), Michigan's cash receipts from farm production totaled approximately $3.4 billion in 2002. Furthermore, in the past researchers have estimated the average amount of food one farmworker produces at approximately 107,000 pounds annually (Rochin, Santiago, and Dickey, 1989). This same farmworker is estimated to create more than five non-farm jobs to the

people who process, move, and sell the crops as well as manufacture items needed by growers (U.S. Department of Agriculture, 1988). Yet this same farmworker and their family are living below the poverty line barely able to feed their own children.

With few exceptions, socioeconomic status has been positively associated with academic achievement in the literature. While level of educational attainment of parents has been linked to high educational expectations for and by their children; and high academic expectations has been positively associated with academic achievement. Unfortunately, this is not the cycle in which the migrant community participates; rather, the migrant community has been trapped in a cycle of poverty for over a century perpetuated by low educational attainment. The current study addressed issues related to this cycle through an ecologically informed process.

The current chapter provides research findings that related to the likelihood of a family's capital and educational expectations predicting academic achievement. Due to the dearth of literature concerning the migrant community, studies on other populations as well as older studies have been employed. The lack of literature in this area is the void this study will fill.

Theoretical Framework

Family Systems Theory

Previous studies have looked at the phenomenon of educational expectations through a purely sociological perspective (Cheng and Starks, 2002; Kao and Tienda, 1998). Although studies on immigrant students and their educational expectations and academic achievement were available, there was no research study found specifically targeting the Mexican American migrant farmworker college student's educational expectations. The current study set out to fill that void by looking at this topic with an ethnically and culturally informed ecological perspective. Therefore, this research was conducted and analyzed within the Family Systems Theory while incorporating the theory of Social Capital in an effort to respect the cultural diversity of the Mexican American migrant farmworker population.

Family Systems Theory originated from the General Systems Theory, due to the fact that families essentially had the same basic needs as other systems. For example, families need to thrive in order to continue, they need to

work interdependently, they must establish clear boundaries for decision-making, they require feedback for change, and they can adapt as a result of that feedback. When change occurs within any level of the system it impacts the other parts of the system.

Bronfenbrenner (1979; 1989) created a Family Systems Model that described the structure of the ecological environment where human development happens. There are five levels of the life span or developmental environments as defined by Bronfenbrenner. The *microsystem, mesosystem, exosystem,* and *macrosystem,* were conceptualized as concentric rings, each fitting into the next serving as a filter for the individual to experience the world over time (*chronosystem*) often compared to a set of Russian dolls (Bronfenbrenner, 1979).

At the very innermost level, the *microsystem,* where development takes place you find the individual college student. The *mesosystem* is where interaction within the system occurs; for example, interaction between parents and schools which is highly dependent on parent's own level of education. The next level is called the *exosystem,* and is where interaction between systems takes place that have an impact on the individual; for example, a parent's work site and subsequent level of family income. The fourth level

Bronfenbrenner called the *macrosystem;* this is the outer most level and includes the larger society, which impacts the entire system; for example, the cultural norm of familism where the student's entire life is deeply rooted. The final level is the *chronosystem*, which allows for the gauging of change and continuity within and between systems over time; for example, over the four years of college.

As one looks at Mexican American migrant farmworker families through the lens of the Family Systems Framework you are able to see patterns of interactions within the family as well as the patterns of interactions between systems in which the family is embedded. The Mexican American migrant farmworker family is interdependent; meaning each member of the family is dependent on the other for the family's allocation of resources. Their strong and cohesive work ethic, which is passed down through generations, is essential to the success and subsequent survival of the overall family system.

The Mexican American migrant farmworker family, like other families, needs to thrive in order to continue, which may lead parents to encourage higher education or promote their student's plans to go into the work force immediately after high school. According to McAdoo, "Whenever a family member moves beyond the family into another setting, a

linkage is formed. Parents are members of the larger society and subgroups that have parenting values that they would like to pass down through the generations…" (1993, p. 298).

The family network has its boundaries in that ties among family members do not extend to outsiders, the family demand for traditional values may stifle individual actions, and the likelihood exists for negative pressure to be placed on a member (Portes, 1998; Portes & Landolt, 1996). The family network or system is the foundation for learning. The family environment is critical to this learning process and is "…made up of rituals, beliefs, and values of the family" (McAdoo, 1993, p. 299). Mexican American parents, like other parents, want what is best for their children. This includes the belief that maintaining family rituals, beliefs, values, and cultural norms is essential to their children's well being.

The strengths related with utilizing this theoretical framework were numerous and included; the family as the unit of analysis allowing patterns of interaction *within* systems and not just at the individual level to be illuminated; the ability to look at interactions *between* systems; and finally, the Family Systems Theory allowed for internal cultural value to be maintained. Based on the

Family Systems theory, the researcher would expect the independent variables (i.e. family income, familism, parent educational attainment, mobility, parent educational expectations, and gender) to influence the dependent variables (i.e. academic achievement and respondent's educational expectation) at different levels based on the system they represent. For example, variables resulting in the exosystem (e.g. family income) will be filtered through the mesosystem (e.g. parent's educational attainment) before impacting the individual development.

The foundation for identifying the variables for study was based on the Family Systems Theory and the existing literature on migrant farmworkers. In order to systematically select and study specific variables related to this topic the theory of social capital was incorporated into this research.

Theory of Social Capital

The Family Systems Theory provided the lens with which to view the migrant farmworker family. The theory of Social Capital provided this study with an organized way to look at the systems Bronfenbrenner established in his model and select variables from the literature employing a logical approach. Social capital was not a new concept, but it has come into distinction in the last few decades due to the works of Jane Jacobs (1961), Pierre Bourdieu (1983), James C. Coleman (1988) and Robert D. Putnam (2000).

According to sociologist James Coleman, social capital refers to the value and strength of relationships between members within a family system or community. Coleman (1988) noted, "The social capital of the family is the relation between children and parents (and, when families include other members, relationships with them as well)" (p. 384). The child's well being is the emphasis of social capital and the ability of the family to put forth effort toward that objective is essential. Providing a positive environment for children to develop and achieve through a

strong sense of community, shared values and trust is the goal.

Coleman (1988) described the relationship aspect as expectations and obligations (e.g. macrosystem; mobility and familism) between people within a unit; the social set of connections accommodates the transfer between people in a community (e.g. exosystem; family income); and the norms piece incorporates the enforcement of a certain set of activities within those relationships (e.g. mesosystem; educational attainment).

Social capital has been utilized in studies associated with school aged children and their families in the past. Coleman (1988) and Pribesh and Downey (1999) looked at the number of residential and school moves a child experiences and its association with school expectations and performance utilizing the theory of social capital and came up with similar results. Data from the National Educational Longitudinal Study (NELS) of 1988 and its 1992 follow up were used by Pribesh and Downey (1999) and the national High School and Beyond (HSB) survey data was used by Coleman (1988). The NELS data were collected by the National Center for Education Statistics and "included information from students, parents, teachers and principals from over 24,000 eighth graders" (Pribesh et al., 1999 p.

5). Pribesh and Downey's study focused on the impact of social capital on residential moves and educational performance and found that students who move experience a drop in social capital and in school performance.

There are different forms of capital that impact an individual. Social capital is the result of the buildup of social debts and the belief they will be repaid (i.e., exosystem/family income), it stems from feelings of unity that grow among people living in comparable situations (i.e., macrosystem; familism and mobility), with comparable experiences (i.e., mesosystem/educational attainment), and it comes from their aspirations to be integrated into larger groups (i.e., microsystem/educational expectations and achievement) (Portes, 1998).

Human capital referred to the individual's credentials, training, educational achievement and certifications. According to Becker and Tomes' (1986) human capital model, parents were seen as investing in their children, constrained by family resources including parents' education and time. The current study used the variable of parent's educational attainment to represent human capital (mesosystem).

The resources embedded in a social structure are significant because they serve as a social reference for

members of a network, strengthen group characteristics, influence decision making, and assist in the diffusion of information (Lin, 2001). Because of the low levels of social and human capital that the migrant community has experienced, social capital, human capital and the resulting network ties are of greater importance. In an effort to compensate for low levels of social and human capital, the migrant community becomes enmeshed in a complex social network. The spatial concentration of migrants within camps and outside mainstream communities leads to an increased reliance on people of similar origin. The reciprocity implied in the exchange of social capital and the reliance on family and community members for survival allows migrant networks to support its members (Coleman, 1988; Portes, 1995; Rogers & Henning, 1999).

According to Coleman (1988) if parent's human capital (i.e. mesosystem/parents education and time), was not balanced by social capital embodied in family associations (i.e. macrosystem/familism and exosystem/family income), the amount of human capital (i.e., parent education) those parents possessed would be immaterial to their child's educational development (i.e., microsystem/educational expectations and achievement). In utilizing this view in the current study, Mexican American migrant farmworker

parents' educational attainment was expected to be lower than the average population. Yet the level of familism, or sense of family obligation and interdependence was expected to be higher ultimately creating the balance Coleman mentioned.

Essentially, social capital consists of the interaction within a family and between families in a community paying particular attention to the shared values, trust, and the mutual understanding that connect people to each other and a common goal (Pribesh & Downey, 1999). Social capital, like family systems, allowed for closer study of those connections both *between* and *within* systems but social capital offers the ability to look at the resulting trustworthiness and standard of reciprocity established by those connections. The ideas established by Coleman (1988) on social capital fit well with Bronfenbrenner's (1979) theory of family systems and were why these two theories, in conjunction, provided the lens by which this study was scrutinized.

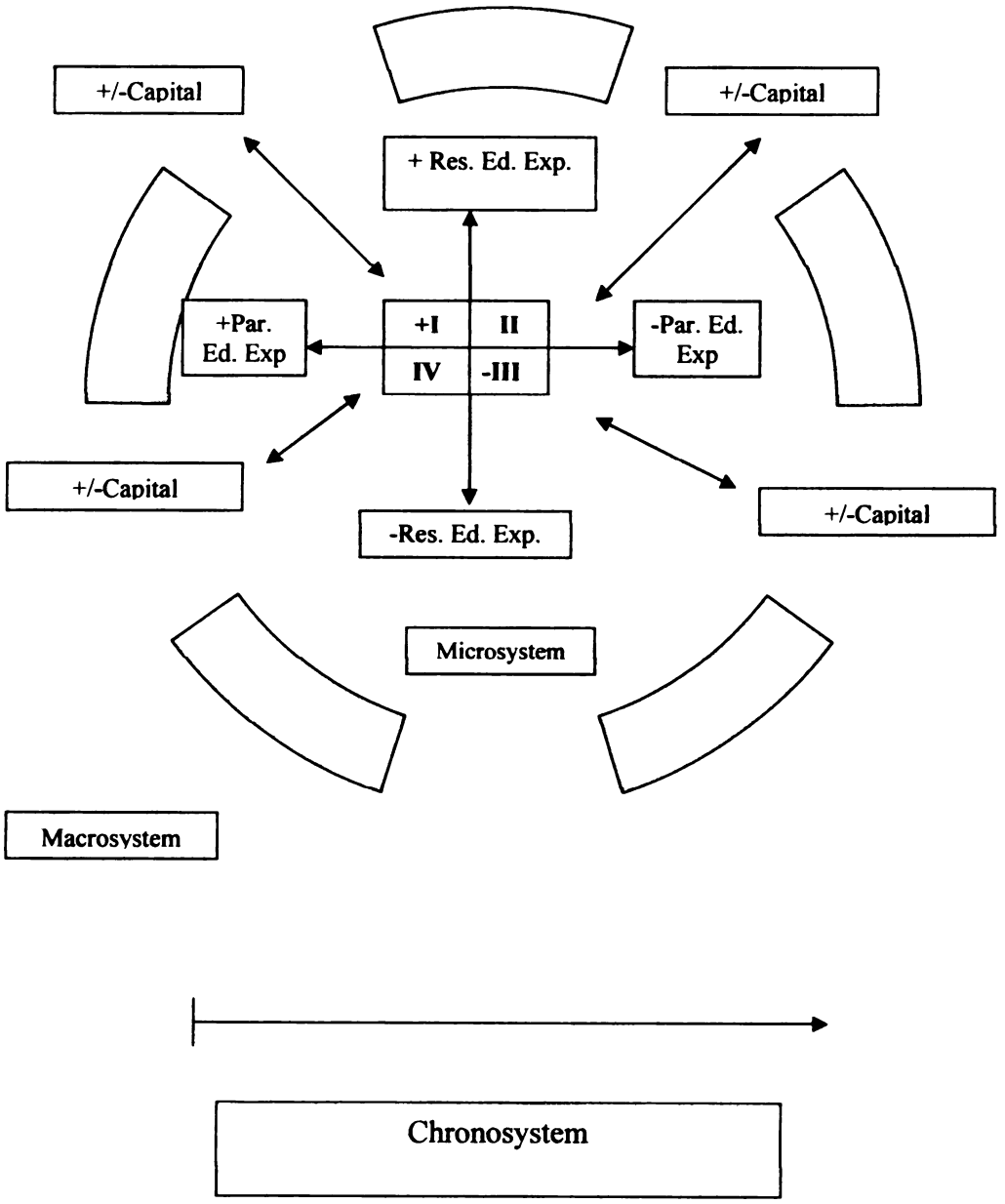
The literature reflects a positive relationship between family income and academic achievement; and respondents' educational expectation and academic achievement. The literature also reflects a negative relationship between mobility and academic achievement;

between parents' educational attainment and academic achievement; and between familism and academic achievement.

As Figure 1 shows, the relationship between student's or respondents educational expectations (Res. Ed. Exp) and their perception of their parent's educational expectations for them (Par. Ed. Exp.) form four quadrants. 'Quadrant I' is where there is a positive relationship between expectations, meaning as the parents educational expectations increase so do their student's expectations and subsequently their student's academic achievement is expected to increase. 'Quadrant II' and 'Quadrant IV' are where there is a negative relationship between parent and student expectations, meaning as the parents educational expectations decrease or increase their student's expectations will increase or decrease, respectively. These quadrant areas are where student's academic achievement is expected to be medium. 'Quadrant III' is where there is a positive relationship between expectations, meaning as the parents educational expectations decrease so do their student's expectations and subsequently their student's academic achievement is expected to be low. The high, medium and low academic achievement designation will result from natural breaks in the data analysis.

These four quadrants depict the impact on GPA caused by mediating variables (i.e., Capital) which impact expectations. The control variable (e.g. gender); the social capital variables (e.g. family income and familism); and the human capital variable (e.g. parent's educational attainment) all impact the microsystem from outside. The mesosystem (i.e., parent's educational attainment), exosystem (i.e., family income), and macrosystem (i.e., familism and mobility) are concentric rings which will serve as a filter to protect the individual during development (see Figure 1).

Figure 1: Theoretical Model



Quadrants (Dependent Variable):
I: High GPA
II & IV: Medium GPA
III: Low GPA

Parents Educational Attainment

A well documented limitation to higher education was parent's educational background. Parent's educational history was found to be a significant predictor to educational persistence and graduation in the literature time and again (Spady, 1970; Featherman & Hauser, 1978; Haveman, Wolfe & Spaulding, 1991; Terenzini, Springer, Yaeger, Pascarella & Nora, 1996; Cheng & Starks, 2002). According to Haveman, Wolfe and Spaulding (1991) a student whose father has at least some college education has a 14 percent greater probability of graduating from high school and a student whose mother has a college degree is virtually certain to graduate from high school. Thus, the idea that parents with more education provide a home environment conducive to the educational success of their children has been strengthened by the literature.

According to Buchmann and Dalton (2002), higher human (i.e., parent education and time) and physical capital (i.e., family income) can increase a student's educational expectations. With overall low parental educational attainment, the migrant population is in a unique position to add differing perspectives to the topic at hand.

Velazquez (1993) studied migrant farmworker adults and found that they described a common perception of negative schooling experiences. The constant moving and the pressures to conform and to meet expectations proved to be a heavy burden to them. The schools, according to the parents in Velazquez's study, made no efforts to help them adjust. Many had to repeat grades and were left behind by peers. For the most part, the main theme these migrant parents reported remembering in this study was the pain, rejection, and isolation of school (Velasquez, 1993).

Apicella (1985) studied perceptions of why migrant students drop out and what can be done to encourage their graduation and found that even though migrant students who drop out consistently expressed a belief in the value of learning, they distrusted schools as a means of improving employability and quality of life. The distrust of schools and its value was learned through negative experiences in the migrant farmworker family and community. In order for migrant farmworker children to aspire and pursue higher educational goals, the migrant farmworker community must see tangible change in the current potential of education on their children's future employability. Educational reform must not exclude migrants in its plan for a new educational foundation.

Research by Duron (1995) found that the most important factors contributing to migrant student's decisions to participate in postsecondary education were: 1) access to quality high school and college counseling that offers an array of options; 2) personal factors, including the individual's incentive and beliefs about self efficacy; 3) financial factors including access to scholarships, loans, and work or work-study programs; and 4) ongoing support from family and educational personnel (Duron, 1995). The Duron (1995) study was important in trying to pinpoint the reasons why migrant students decide not to pursue postsecondary educations.

As first generation college students whose parents have not participated in postsecondary education, migrant students face all the same struggles that traditional students face as they enter a new phase in their educational lives with the additional stress of navigating through territory previously uncharted by their family. York-Anderson and Bowman (1991) studied the college knowledge of first and second generation college students and found that first-generation students were at a disadvantage when compared to traditional students in their basic knowledge of college, their personal dedication to higher education, the level of family support they receive,

and at a greater risk in respect to persistence and degree attainment.

Black, Paz and DeBlassie's (1991) study on Latino adolescents found Latino adolescents were more apt than Anglo adolescents to adopt their parent's commitment to occupational preference and standard of living. Buchmann and Dalton (2002), found higher parental education and socioeconomic status can increase student's educational expectations. First-generation college students coming from migrant farmworker families face all the same struggles as their non-migrant counterparts with the added disadvantages of cultural and social barriers experienced.

Migrant farmworker families are different in many respects to other families. Suffering poverty, mobility, language barriers and discrimination issues, the norm for parents in this community has been low educational attainment. Reportedly, an overwhelming majority of adult migrant farmworkers have low educational accomplishments, with well over 85 percent not finishing high school (Mehta et al., 2000). Although income was a contributing factor to low educational attainment, the literature also points to other factors that may impact educational expectations and limit or enhance the educational outcomes of college students, including mobility, familism and gender.

Family Income

The socioeconomic status of the Mexican American migrant farmworker community today presents one of the major educational limitations faced by students coming from this population. According to Mehta et al. (2000), "More than three-fifths of migrant farmworkers are poor, and this number is increasing each year. Seventy-five percent of all migrant farmworkers earn less than $10,000 annually… with ten percent of farmworkers earning below minimum wage" (p.7). These numbers fall short of the poverty level for an individual in the U.S. in 2002, which was $18,100 and is shamefully lower than the median income of households in the United States, $40,800 (U.S. Bureau of the Census, 1999).

Thompson and Wiggins (2002) reported that migrant farmworkers have the lowest annual family incomes of any United States wage and salary workers with a majority living in poverty. Five percent of farmworkers interviewed for the National Agricultural Workers Survey 1997-1998 were being provided health insurance from their agricultural employers and only 21 percent were receiving free housing (Mehta et al., 2000). Yet despite all their economic anguish, few migrant farmworkers used social

services available to them. According to Mehta et al. (2000), only one percent of farmworker families received Aid to Families with Dependent Children, public housing, or general assistance with only ten percent receiving food stamps or food vouchers through the Women, Infant, and Children program. The very idea that migrant farmworker families migrate to a new community, becoming parasites, rather than contributing members is unfounded (Thompson & Wiggins, 2002).

The State of Michigan employs an estimated 40,000-45,000 migrant farmworkers annually (Rochin, Santiago, & Dickey, 1989). There are an estimated 819,000 migrant children nationwide (Gibson, 2003). The economic status of this population will continue to degrade as inflation rises and their wages remain stagnant. "In Florida, for example, orange pickers are paid $.55 per box, and this piece rate has remained unchanged for the past 25 years" (Davis, 1997, p. 2). Due to the impact migrant labor has on the state of Michigan's economy, with cash receipts from farm production totaling $3.4 billion in 2002 (Gold, 2004), this state should be doing more to change the current economic condition of this population.

With few exceptions, family income has been positively associated with academic achievement, once again making

migrant farmworker students an at risk group for negative educational outcomes. According to Buchmann and Dalton (2002), higher socioeconomic status (SES) can increase student's educational expectations. Studies have found that children from homes of high SES tend to be raised to value self-direction and independence (Gandura, 1995) which is conducive to the learning environment in the United States public school system. Mexican origin parents tend to value cooperation and respect rather than independence and competition (Gandara, 1995), contrary to the learning environment in the United States public school system.

A characteristic of Latino culture is a strong identification with and attachment of individuals to their families, which have been described as cohesive and supportive (Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987). Today, economic pressures compel families to remove older children from school in order for them to work in the field full time. This practice enables the family to earn more money than a traditional minimum wage job with only one or two household members working. At the same time, having the children with them decreases the need for childcare expenses and allows families to stay together throughout the day. Latino school aged children are the fastest growing group in the United States (U.S. Census

Bureau, 1999). According to Rochin et al. (1989), children eight years or older can work in the fields, significantly increasing family income if everyone in the family unit works together. In fact, in the state of Michigan, the family structure of migrant farmworkers tends to be young families with extended family members included to increase their earning potential (Rochin et al., 1989).

Overall, family income has been found to have a direct relationship with educational persistence in the literature when different economic groups are compared and Latino parent's annual incomes have been found to be significantly lower than non-Latino parents of school aged children (Martinez, DeGarmo, & Eddy, 2004). Financial limitations have been reported as a reason why Mexican American college students drop out (Castillo & Hill, 2004). Castillo and Hill (2004) also establish that one of the contributing factors to higher levels of stress among Latino college students is financial need and the demands of balancing part time or full time jobs with their school responsibilities. The transition to university life can be derailed when a student is spending too many hours working outside of academia. Trying to juggle work, school, personal finances, concern over family finances, social and

personal lives can be overwhelming and detrimental to a students educational goals and overall well being.

Familism

An additional characteristic linked to educational expectations and attainment in the literature was family generational status in the United States (Buriel & Cardoza, 1988; Kao & Tienda, 1995). In their study of immigrant families, Kao et al. (1995), found that although Latino children whose parents were foreign born did not have higher grades, they did have higher college expectations. Contrary to Kao et al. (1995), Hao and Bonstead-Bruns (1998) found that students whose mother tongue was English had higher educational expectations. Hao et al. (1998), also reported that the higher the English proficiency of a student whose first language is not English, the higher his or her educational expectations.

Migrant farmworker families in America are 90 percent foreign born with 95 percent of all foreign born migrants originating in Mexico and spending on average ten years in the United States (Mehta et al., 2000). Few significant differences have been found between first generation and

third generation minorities in school outcomes (Matute-Bianchi, 1991). This may be attributed to the fact that the majority of minority children are no longer fluent in their immigrant language by the third generation (Buriel & Cardoza, 1988). Unlike other immigrants today, the first language of 75 percent of Mexican American migrant farmworker children is not English but Spanish (Leon, 1996). According to Schrauf (1999), the only factors significantly associated with retention of the immigrant language into the third generation were settlement in geographically bounded ethnic communities and the practice of native religious forms. Mexican American migrant farmworker communities are just that, cohesive networks of family and friends who migrate together in a social support system. The migrant farmworker community maintains its cultural values of family, language and religion for generations.

According to Gordon (1994), acculturation refers to the process whereby immigrants come to adopt the values and behaviors of the host country. The acculturation process has often been described as a long-term, fluid process whereby an individual simultaneously moves along two cultural dimensions. Individuals are constantly modifying their old culture by integrating certain aspects of the new

culture in order to develop a sense of belonging. Gauvain and Rogoff (1989) found that acculturated Latino students were more likely to attend college and have parents who have experienced higher levels of educational attainment.

Higher levels of acculturation in students have been found to promote academic success at school. Kao and Tienda (1995) found that limited English proficiency and recent immigration can decrease the educational outcomes of students to the point of dropping out. According to Rueschenberg and Buriel (1989), as families of Mexican descent acculturate, they become more involved with social systems outside the family (i.e., social capital; e.g. family income) while the fundamental family system remains the same. If we look within the Mexican American migrant farmworker family we find that a defining characteristic of the Latino culture is a strong identification with and attachment of individuals to their families, which have been described as cohesive and supportive (Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987; Phinney, Ong, & Madden, 2000). The cohesiveness and connectedness within this family culture is referred to as Familism (i.e., social capital).

Cuéllar, Arnold, and Maldonado (1995) believe that generational status is linked with Mexican American's level

of acculturation. Although acculturation has been focused on an assimilation agenda in the past, acculturation is not one-dimensional. Specifically, Cuéllar et al. (1995) argues that in order to adapt to the new culture one does not need to turn their back on their original culture. In fact, Cuéllar et al. (1995) spoke directly to the notion that acculturation is not a cultural exchange; rather, it is a multicultural construct without assimilation agendas.

While there is not similar research in the literature on Mexican migrants, other literature informs this study including research with high school students from Asian, Latin American and European backgrounds. Several of these studies have shown that the value of family obligation (familism) is positively associated with students' educational aspirations (Fuligni, Tseng, & Lam, 1999; Tseng, 2004). Another study of an ethnically diverse student population found an association between academic persistence after high school and a strong sense of family obligations (familism) for students with low to moderate grades in high school (Fuligni & Pedersen, 2002). Building on the Fuligni et al. studies, this research looked at the association between academic achievement after high school, educational expectations and familism in a Mexican American migrant student population.

The idea of family interconnectedness has been referred to as familism in the literature (Velenzula & Dornbusch, 1994). Familism has been defined as containing three dimensions that are operating consecutively in a family system; structural, behavioral, and attitudinal (Valenzuela & Dornbusch, 1994). The structural dimension "marks the spatial and social boundaries within which behaviors occur and attitudes acquire meaning" (Valenzuela & Dornbusch, 1994, p. 18). The behavioral dimension refers to the emotional connection to the family (Sabogal, Marin, Otero-Sabogal, & Marin, 1987). The attitudinal dimension refers to the tendency to put the family good ahead of your own (Luna, deArdon, Lim, Cromwell, Phillips, & Russell, 1996).

The "attitudinal dimension has been defined as a cultural value that involves an individual's strong identification with and attachment to his or her nuclear and extended families and strong feelings of loyalty, reciprocity, and solidarity among members of the same family" (Steidel & Contreras, 2003, pp.313-314) and it is the level of familism chosen for this study. According to Steidel et al. (2003) one of the most referred to definitions of attitudinal familism comes from Burgess, Locke, and Thomes (1963) and reads as follows;

"1) the feeling on the part of all members that they belong pre-eminently to the family group and that all other persons are outsiders; 2) complete integration of individual activities for the achievement of family objectives; 3) the assumption that land, money and other material goods are family property, involving the obligation to support individual members and give them assistance when they are in need; 4) willingness of all members to rally to the support of a member if attacked by outsiders, and 5) concern for the perpetuation of the family..." (pp.35-36).

According to familism, every member in a migrant farmworker family is essential to the wellbeing of the family unit, emotionally, economically and socially. As a result, children grow up feeling a positive sense of responsibility for their family's welfare. Therefore when it comes time to leave the family unit to attend college, these students must first weigh the impact their absence will have on their family against the potential of economic success in the future resulting from higher education. At the same time, these students and their parents must also consider the community atmosphere to which the student is moving. Educational expectations from parents pushing

college attendance may be more important for Latino students who maintain and support their cultural values of meeting the family demands and expectations (Markus & Kitayama, 1991). A history of discrimination and marginalization has made this community weary of sending their most precious members, their children, out into a predominantly white university culture alone.

Mobility

For purposes of this study, mobility refers to frequency of moves. As stated earlier, Michigan migrant farmworkers tend to be Mexican Americans (95%) who consider their home state to be Texas (70%) during the winter and migrate North via "Louisiana, Arkansas, Missouri, Illinois, and Indiana" (Roeder & Millard, 2000, p. 2) during planting and harvesting seasons (Gold, 2004). Educational disrupt caused by mobility has been found to have a long lasting impact on children. According to Haveman, Wolfe, and Spaulding (1991) frequency of moves made at ages four to seven, as well as at ages 12 to 15 had a significant and negative impact on educational achievement at ages 19-24. Building on Haveman, Wolfe, and Spaulding's (1991)

research, this study looked at the association and possible residual impact of frequency of mobility during childhood and academic achievement at the university level.

The migrant farmworker population has been at a disadvantage educationally due in part to the economic hardship they face. Work schedules of parents interfere with the educational calendar of most states, as some children work and do not begin the school year until October or November and leave before the year is over (Commission on Security and Cooperation in Europe, 1993). The literature on mobility indicates that students with high frequency of moves defined as six to eight moves from K-12th grade experience academic achievement challenges (Wood, Halfon, Scarlata, Newacheck, & Nessim, 1993; Filippelli & Jason, 1992). According to Leon (1996);

> "Migrant farmworkers move on an average six (6) times per year in order to complete the different variety of farm harvesting. This movement from one state to another or from one city from another within a state creates a tremendous educational hazard for their children. Migrant children will arrive to a new school, (be) tested on all subjects, and placed in a room with new students in the middle of the school year. In addition, many migrant students are placed

in a lower grade level because the school standards and absenteeism policies are different from the school they just came from. Many times curriculum incompatibility and staff shortage creates a compounding negative effect. Migrant students are often placed in a room with a teacher aide or simply left alone in the school hallways. Interrupted schooling and lack of continuity in curriculum from that interruption of studies are additional conditions that raise the dropout rate for migrant students. These conditions often hinder and decrease the accumulation of credits they need to pass from one grade to another" (Leon, 1996, p.6).

In addition, Parra-Cardona, Bulock, Imig, Villarruel, and Gold (2006) found that "challenges associated with Michigan's schools (included) shortage of bilingual staff and teachers, children being assigned to 'special education' classes, or being placed in a lower level grade than in the previous state" (p. 370). Unfortunately, the current school system in most states does not accommodate the migrant farmworker calendar and in most instances the receiving schools do not accept the grades from the departing school, causing student's education to be delayed and disrupted.

The association between mobility and social capital has been well documented. Coleman (1988) used educational mobility as a close indicator of social capital. Pribesh et al., (1999) stated, "From a social capital perspective, moving interrupts social relations with persons in the school, the neighborhood, the community, and, perhaps, the family…Simply put, moving negatively affects school performance because within-family ties are stressed and within-community ties with teachers, administrators, and other community members are often lost" (p. 2). Boisloly, Duncan, and Hofferth (1995) also noted the association of less social capital with geographic mobility.

One of the defining characteristics of migrant farm laborers is their willingness to travel for purposes of work during the harvest season. Mobility between two or more communities is an annual common practice. Students tend to stay in their southern home state schools till spring harvest when they will travel north with their families to a Midwestern state to participate in the agricultural industry. As they harvest one crop after another, it is not uncommon for families to move several times within a season until they leave again in late fall. By late fall, students have begun classes in a northern

school, and have to transfer to a southern school mid semester when their employment ends.

Mobility has been linked to the high rate of drop out in this community, due to the fact that each school in the U.S. has a different curriculum with different requirements for graduation. As a result many times migrant student's credits do not transfer from one state to the other or the students are forced to retake courses previously taken due to moving before the end of the semester and not being able to finish the course in their new school. Frustration can quickly build within a community after years of being overlooked and un-accommodated by the educational system.

Student's Educational Expectations

Educational expectations held by students and their parents have been found in the literature to impact academic success. In the past, the literature concerning student educational aspirations has used educational expectations or college plans as the dependent variable of interest (Sewell and Shah, 1967; Woefel and Haller, 1971; Cheng & Starks, 2002). Some studies have attempted to separate *idealistic* aspirations and *realistic* expectations,

but concluded that they are highly correlated and therefore provide similar results (Marini, 1978; Spencer, 1976).

For decade's research on educational expectations found expectations to be relevant in predicting student's educational outcomes. Tinto (1975) indicated that being committed to finishing a college degree was the most important determinant of persistence in college after taking a student's high school academic history into account. Arbona and Novy (1990) found that Mexican American students who held greater educational expectations achieved higher first-year college grades. Overall, studies on children's educational expectations have concluded that Latinos in the United States have the lowest educational expectations of all racial groups studied and Asian American groups have the highest educational expectations (Coleman, Hobson, McPartland, Mood, Weidfeld, & York, 1966; Mickelson, 1990; Goyette & Xie, 1999; Cheng and Starks, 2002).

Parent's Educational Expectations

Recently, parent's educational support has been found to have an impact on their student's educational outcomes

(Gandara, 1995; Gloria & Rodriguez, 2000; Cheng & Starks, 2002). Hao and Bonstead-Bruns (1998) looked at parent and child differences in educational expectations and academic achievement of immigrant and native students and found that higher shared educational expectations boost achievement and greater differences lower achievement. A good deal of the literature on educational outcomes and parental expectations and involvement revolve around pre-college populations. Current research on parent's educational expectations for their children has begun to address the differences among racial ethnic groups.

Within that existing research, educational expectations of students held by their parents and significant others have been found to differ by parental education and race with less educated Latino parents coming in last (Farkas, Grobe, Sheehan, & Shaun, 1990; Horchschild, 1995; Kao, 1995; Cheng & Starks, 2002). A qualitative study on educational and occupational aspirations of Latino students and their parents found that parent's aspirations tended to transfer to their children (Behnke, Piercy & Diversi, 2004). Although no studies were found specifically addressing the educational expectations for and by Mexican American migrant farmworker students, a study of successful migrant students indicated that migrant

parents had encouraged their children to stay in school so the children could have a better life (Salerno & Fink, 1992).

Parra-Cardona et al. (2006) found that the migrant farmworkers they interviewed had a different perception of what 'moving up in life' meant from mainstream society. Parents in their study reported that an indicator of prevailing over the challenges associated with the migrant lifestyle was the ability farm work afforded them to achieve specific goals, like an education, while still being able to provide for their families basic needs (Parra-Cardona et al., 2006).

Cheng and Starks (2002) studied racial differences in the effects of significant others on students' educational expectations and found that parents of color (Asian-American, African American, and Latino) held higher aspirations for their children than White parents while the relative influence of White parents was greater than their non-White counterparts. Building on Cheng and Starks' (2002) findings, this study extended the assessment of ethnic differences in the level of educational expectations that parents have for their students to include the unique community of Mexican American migrant farmworker families.

Gender Differences

Another factor that was found to have an impact on educational expectations and persistence was gender. Buchmann and Dalton's (2002) study of the interpersonal influences and educational expectations in twelve countries, found gender impacted outcomes in a surprising way. Contrary to studies in the 1970's (Alexander and Eckland, 1974; Marini, 1978), Buchmann and Dalton (2002) found that females reported significantly higher educational expectations than males in eight out of twelve countries. Although Mexico was not one of the countries studied they reported that in countries, like Mexico, that continue to promote cultural traditions and distinct gender roles, there was the opposite results with low labor force participation among females and lower rates of educational expectations (Buchmann & Dalton, 2002). The Mexican American migrant farmworker community continues to promote cultural traditions and distinct gender roles in the home today, even when all family members work side by side in the fields. Adding to Buchmann and Dalton's study, this research looked at the impact gender had on the educational expectations of college students from Mexican American migrant farmworker families.

Predominantly White University Culture

Although not one of the variables currently under scrutiny, the predominantly white university culture has been found to have an impact on the educational attainment of minority populations and as a result bares consideration. Currently, Michigan State University (MSU) has a total of 45,166 students; 35,678 undergraduate and 9,488 graduate and professional students enrolled with 54 percent females and 46 percent males. The ethnic breakdown of students at MSU is 83 percent Caucasian American, 7.9 percent African American, 5.3 percent Asian/Pacific Islander, 3.0 percent Chicano/Other Hispanic, and 0.8 percent Native American (Michigan State University, 2006).

Nationally, full time faculty positions as well as administrative positions in 1999, at the college level, were lacking in Latino representation with only 2.9 percent of faculty and three percent of administrators coming from the Latino community (Castellanos & Jones, 2003). Michigan State University (MSU) reports their Latino tenure faculty at 2.9 percent; their Latino fixed term faculty at 3.2 percent; their continuing academic staff at 2.5 percent; and their Latino fixed term academic staff at 3.2 percent for an overall Latino presence of 2.9 percent in

2006 (Michigan State University Academic Human Resosurces, 2006). Consequently, Latino students at MSU are more likely to see Latino representation in the lower levels of academia rather than in tenure system faculty positions.

From day one, the predominantly White university model accommodates individuals who academically meet standards established as determinants for success in White student populations, such as high grade point averages and standardized test scores (Sedlacek, 1999). The Scholastic Aptitude Test (SAT) and the American College Testing Program (ACT) have been used to predict postsecondary grade point average (GPA) but not as strongly as High School Grade Point Average (HSGPA) (Duran, 1983). Latino students who decide to attend a predominantly White university are faced with an academic culture tailor-made for the White, middle class male and often experience situations contrary to their cultural values and beliefs (Jones, Castellanos, & Cole, 2002).

Transition into the university culture is essential to the student's educational outcomes. Hurtado and Carter (1997) looked at the effects of college transition on Latino college students' sense of belonging to the university community and found that early transition experiences were important predictors of future sense of

belonging to the university community. Many Latino students develop bicultural coping mechanisms to maintain their psychological equilibrium during transition (Suarez, Fowers, Garwood, & Szapocznik, 1997) and students who were not able to do so had an increased likelihood of academic non-persistence (Gloria & Rodriguez, 2000).

A student's perception of the university environment has been found to have an impact on both their academic and social lives (Hurtado, Milem, Clayton-Pederson, & Allen, 1998; Cabrera & Padilla, 2004) and will directly affect their sense of belonging. The predominantly White university culture has an enormous impact on non-White students today but can be especially burdensome to students from migrant farmworker families. The idea that an individual needs to feel a part of their community in order to readily participate in it is important to this study. Keep in mind, the majority of students from Mexican American migrant farmworker families are leaving a cohesive, supportive and interconnected family community, to which they have strong ties.

Enhancing a student's sense of belonging to the university community is essential to academic motivation, participation, and achievement (Gonzalez & Padilla, 1997; Goodenow & Grady, 1993; Osterman, 2000). Bollen and Hoyle

(1990), stated that a "…sense of belonging is fundamental to a member's identification with a group and has numerous consequences for behavior" (p. 484). According to a report by Gibson (2003), "a sense of belonging may be especially important for migrant students due to the status differences that exist between them and members of the dominant society, their high rate of absenteeism, and the disconnect that they experience between home and school culture" (p. 2).

Cabrera and Padilla's (2004) qualitative research on succeeding in the culture of college found that "Juan" a student at Stanford, from a Mexican American migrant farmworker family was able to transition into university life via his living arrangements during his freshmen year; the Chicano theme house provided him a place where he could feel comfortable with other students who shared his culture and who he could share his experiences with. Ultimately, the theme house helped "Juan" ease into the transition process.

Building on existing literature, this study looked at students at a predominantly white university who participated in a program specifically designed to provide migrant students with a sense of belonging to the university community. The Michigan State University

College Assistance Migrant Program (MSU CAMP) was established to not only recruit high school graduates to the university but also to increase educational persistence through group programming.

Summary

Founded on the ecological and contextual theories of human development this study explored the factors associated with the academic achievement of Mexican American migrant farmworker college students. The research concepts, questions and hypotheses to be tested, are all grounded in this theoretical framework. Variable selection followed theoretically prescribed boundaries. Specifically, variables were selected by first looking at Bronfenbrenner's model of development and finding specific constructs related to the study population. Then, the theory of social capital was utilized to generate relationships between the variables chosen. Once that was completed the research process continued in an effort to explain the relationships presented.

Specifically, this study set out to shed light on the relationship between parent's educational expectations and

student's educational expectation and the subsequent impact on student's academic achievement. The underlying logic for conducting this study was if college students from Mexican American migrant farmworker families believe that they will attain high levels of education and that their parent's have high educational expectations of them, then they will attain higher levels of academic achievement reflected by their GPA.

The purpose of this literature review was to provide context for and identify important previous work done on this topic. The following chapters will provide an overview of the methodological procedures undertaken for hypotheses testing as well as subsequent results of analyses, followed by conclusions and recommendations for future research.

CHAPTER III

Methods

Conceptual and Operational Definitions

The main variable of study was academic achievement and was conceptualized as the academic status of respondents. This interval level data was operationalized as the respondent's actual grade point average (GPA) accessed via university records ranging from 0.0 to 4.0.

Social capital was conceptualized as the basic components required in order to provide an encouraging environment for children to grow and accomplish through a strong sense of community and common values. Operationally, social capital was measured as the variables family income and familism. Family income was measured using the survey question; *"what was your annual family income last year?"* This ordinal level data, family income, ranged from 1 to 5 (1= 'less than $10,000' and 5= '$40,000 or more').

Familism was conceptualized as a strong sense of family obligation and commitment. Operationally, this ordinal level data was measured by Steidel and Contrera's (2003) 18-item Attitudinal Familism composite scale. The

Attitudinal Familism composite scale was chosen because it was intended for less acculturated Latinos and had been found reliable (Cronbach's alpha $p \leq .83$) and validated with a Latino population. The scale will be tested for reliability and validity with the current population prior to analysis.

Familism consisted of the following 18 Likert-type questions;

- *A person should live near his or her parents and spend time with them on a regular basis.*
- *Aging parents should live with their relatives.*
- *A person should help his or her elderly parents in times of need, for example help financially or share a house.*
- *Children should always help their parents with the support of younger brothers and sisters, for example, help them with homework, help the parents take care of the children, and so forth.*
- *A person should rely on his or her family if the need arises.*
- *A person should always support members of the extended family, for example aunts, uncles, and in-*

laws, if they are in need even if it is a big sacrifice.

- *Parents and grandparents should be treated with great respect regardless of their differences in views.*
- *A person should often do activities with his or her immediate and extended families, for example, eat meals, play games, go somewhere together, or work on things together.*
- *The family should control the behavior of children younger than 18.*
- *A person should cherish time spent with his or her relatives.*
- *Children should help out around the house without expecting an allowance.*
- *Children younger than 18 should give almost all their earnings to their parents.*
- *A person should feel ashamed if something he or she does dishonors the family name.*
- *Children should live with their parents until they get married.*
- *A person should always be expected to defend his or her family's honor no matter what the cost.*

- *A person should respect his or her older brothers and sisters regardless of their differences in views.*
- *A person should be a good person for the sake of his or her family.*
- *Children should obey their parents without question even if they believe they are wrong.*

The ordinal level data, Familism, ranged from 1 to 10 (1=strongly disagree to 10=strongly agree). Although ordinal level variables, Likert-type scales are very commonly used with interval procedures, provided the scale item has at least five or more categories. Most tests require the assumption of normal distribution and the fewer the number of points, the more likely the departure from this assumption. As a ten point Likert-type scale, familism will be treated as an interval level variable for analysis.

Human capital was conceptualized as actions that bring about changes in a person's skill levels and capabilities allowing them to act in new ways. Operationally, human capital was measured as the variable parent's educational attainment. The ordinal level data, parent's educational attainment ranged from 1 to 12 (1= he/she had no formal education to 12= he/she had a professional degree) and was

measured using the following survey questions; *"what is the highest level of education your mother completed?"* And, *"what is the highest level of education your father completed?"*

Mobility was conceptualized as the respondent's frequency of moves. Operationally, this ordinal level data ranged from 1 to 7 (1 = once a year and 7= more than six times a year) and was measured using the following survey question; *"as well as you remember, about how many times did you move annually growing up?"*

Respondent's educational expectation was conceptualized as how far a person believed they would go in terms of educational degrees. Operationally, this ordinal level data ranged from 1 to 6 (1= GED/High school diploma to 6= Professional degree) and was measured using the following survey question; *"as things stand now, how far in school do you think you will get?"*

Prior to analysis, this ordinal level data will be recoded to low, medium, and high (low= GED/high school diploma, trade school, some college/no degree; medium= bachelor's degree; high= master's degree or professional degree) based on natural breaks in the data. The question will then become did the respondents expect to drop out of college (i.e., low), to finish the degree program they were

currently in (i.e., medium), or do they expect to finish the current degree program they are in and go on to graduate school (i.e., high).

Parent's educational expectations were conceptualized as how far a respondent's mother and father expected them to go in terms of educational degrees, based on respondent's perception. Operationally, the ordinal level data ranged from 1 to 6 (1= GED/High school diploma to 6= Professional degree) and was measured using the following survey questions; *"as things stand now, how far in school does your mother think you will get?"* And, *"as things stand now, how far in school does your father think you will get?"*

Respondent's educational expectation and parent's educational expectations survey questions were based on the items used by the National Educational Longitudinal Study (NELS). Previous studies have calculated expectations as years of education anticipated (Hao and Bonstead-Bruns, 1998; Morgan, 1996). The current study followed Cheng and Starks' (2002) lead and treated educational expectations as the level of credentials expected.

The last variable of study was gender and was conceptualized as the respondent's sex and operationally the nominal level data was measured as the following survey

question; *"what is your gender?"* (dummy coded 0= male and 1= female).

Research Design

In order to carry out the objectives of this explanatory research most effectively, a non-experimental cross sectional study was conducted. Recruitment of participants from the Michigan State University College Assistance Migrant Program (MSU CAMP) consisted of electronic contact, via email, with a sampling frame of 240. A response from potential participants was followed by electronic or hard copy survey going to eligible participants, based on their preference. Those found eligible to participate met three main criteria for inclusion:

1. Participants must be college students from migrant farmworker families.
2. Participants must be current or past members of MSU CAMP, as both could contribute valuable information to this research study.
3. Participants must be of Mexican origin, due to the fact that 95% of farmworkers that migrate to the

state of Michigan are of Mexican origin (Gold, 2004).

4. Participants must be willing to answer a 93 item survey questionnaire, which should take approximately 20 minutes.

Support for using a survey method was based on the purpose of this study which was to generalize from a sample to a population in order to make inferences about the behavior of the population. The advantages of conducting a cross-sectional survey study included those identified by Babbie (2001); the low cost of conducting a survey study, the rapid turn around time in data collection, and finally the ability to identify attributes of the migrant population at MSU from the small group of participants from MSU CAMP.

Description of MSU CAMP

The Michigan State University College Assistance Migrant Program (MSU CAMP) was established at Michigan State University in the fall semester of 2000. Annually, approximately 45 migrant farmworker students are recruited by Michigan State University. The majority of these

students are bilingual, first generation Mexican-Americans who spent part of every year growing up in Michigan; yet they consider their home state Texas, where they lived the rest of the year in towns near the Mexican border. The MSU CAMP participants represent a unique segment of the university population meritorious of investigation.

As unique as the students of MSU CAMP are, the program itself is also unique based on the services it provides its participants. The goal of MSU CAMP is to assist students from migrant farmworker family backgrounds transition into the University community. CAMP provides student support and retention services as well as supplemental financial assistance during the first year of study at Michigan State University. Among other services, CAMP provides assistance with completing all necessary admissions application requirements (e.g. financial aid forms, ACT testing…), assistance securing on-campus housing as a group, assistance securing tutors, and monthly academic and personal monitoring to ensure ease of transition into the university community (MSU CAMP, 2001).

In order to participate in CAMP, qualified students must have spent seventy-five days during the previous twenty-four months (prior to admissions) in migrant and/or seasonal farm work, or must have participated (or were

eligible to participate) in migrant programs or Employment Training Administration, Department of Labor-Migrant and Seasonal Farmworker Programs (MSU CAMP, 2001). As a result of spending part of the year in Michigan as agricultural laborers, migrant students are eligible for in state tuition regardless of the state in which they graduated high school.

The CAMP was established at Michigan State University to recruit migrant farmworker students and assist them as they transition through their first year at the University. To that end, MSU CAMP has made it their mission to: provide their student members a social network that resembles the group they left behind at home. The rationale was that migrant students would feel emotionally invested in MSU and would cultivate a strong sense of belonging to the University community. The motivation for creating such an atmosphere was to foster a positive image with being a member of Michigan State University and the CAMP.

Culturally relevant activities are planned and supported by the MSU CAMP which promotes cultural diversity within the university and pride within the program. An alternative spring break experience, for academic credit, as a group in Mexico is offered annually to current and past participants. MSU CAMP also provides mentoring for

current program participants by previous program participants and university faculty to encourage persistence. Mentoring is also provided by the current graduate assistants who are all previous MSU CAMP participants and Michigan State University graduates, currently enrolled in graduate programs. In addition, academic enhancement programs specifically targeted to migrant students are offered by the university to support academic achievement.

The purpose of this program is to recreate an accepting environment that offers University contextual supports and diminishes University contextual stressors so that students can thrive. The first semester is full of one on one care and mentoring; the second semester is meant to ready the students for independent student life. With that being said, this convenience sample of MSU migrant students may have introduced sampling biases; however, important information still informs this study.

Recruitment

The single stage sampling procedure was best suited for this study. Access to email addresses was available via the MSU CAMP office listserv, allowing for the quick and direct access via an electronic survey of the population of interest. Aside from accessible via email listserv, an electronic survey provided access to the entire migrant student population on and off campus, including previous program participants that may have left the university.

The recruitment email was sent at two week intervals until the deadline for collection ended with a total of three recruitment cycles. Compensation for participants' time was set at $10 per survey, again intended to increase study participation.

The survey responses were entered into a statistical program for analyses. Selection of individuals included all eligible students who responded to the email. The email went out to all current and previous CAMP participants at the same time; everyone had the opportunity to participate. The option to personally fill out the survey was given and those students were directed where to go; this method

allowed students to receive their $10 compensation immediately rather than via mail. The MSU CAMP students also participated in recruitment via word of mouth to their peers as $10 was adequate motivation for a college student population.

The majority of the 147 respondents chose to participate via hard copy as they wanted to receive their cash compensation as soon as possible. All research data was collected between May and December in 2005.

Sample

A convenience sample of Michigan State University Mexican American migrant farmworker students were drawn for this study. Participants were recruited from Michigan State University's College Assistance Migrant Program (MSU CAMP). Sample participants included current MSU CAMP students as well as all previous MSU CAMP students with a sampling frame of 240 respondents, netting a sample of 147 (n=147).

Data Sources

Two data sources were utilized for this study. First, all information, including socio-demographic information, was elicited by a structured 93 closed item survey questionnaire. In constructing the survey instrument, careful attention was paid to the specific variables under study. Selection of items was determined based on ability to capture the information required for appropriate analysis of this topic. As a result, items were selected based on their logical fit or face validity, ability to test one dimension of the concept or unidimensionality, specificity to study population, and level of measurement.

Second, student records were released by participants to include their actual Michigan State University accumulative grade point averages. These records and survey data had identifiers that allowed the two to be linked for analysis purposes.

Sample Descriptives

In order to test the six hypotheses in question, a sample of Mexican American migrant farmworker college students was recruited. The sample consisted of Mexican American respondents (n=147); with 73 males and 74 females. The age of respondents ranged from 18 to 21. The respondents were on average second year students at the university, with a grade point average mean of 2.25 on a 0.0 to 4.0 scale, and all were current or previous MSU CAMP participants. Participants' family income averaged from $10,000 to $25,000 and their family size ranged from a total of two children to 14 with an average of 4.9 children per family. Annual mobility ranged from once a year or less to more than five times a year, averaging 1.8 moves annually (see Table 1).

Table 1: Sample Characteristics

Variables	*Min/Max*	*Mean*	*Frequency*
Female	-	50%	74
Male	-	50%	73
Age	18/24yrs.	18-21yrs.	-
Grade Level	-	Year Two	-
GPA	0.0/3.86	2.25	-
Family Income	$10,000-$40,000	$10,000-$25,000	-
Family Size	2/14	4.9	-
Annual Mobility	≤1/>5	1.8	-

Note. n=147

The median educational attainment of fathers was seventh grade or less and for mothers it was eighth grade or less. Only 22 fathers (15 percent) and 32 mothers (21.8 percent) reportedly earned their high school diploma or GED. Father's were more likely than mothers to not have any formal education. Mother's were more likely to have a college education than fathers. Overall, mothers had higher levels of educational attainment than fathers (See Table 2).

Table 2: Parent's Educational Attainment

Level of Education	*Mother* (%)	*Frequency*	*Father* (%)	*Frequency*
No Formal Education	(10.2%)	15	(21.1%)	31
Kindergarten-3rd	(10.2%)	15	(16.3%)	24
4th-6th grade	(21.8%)	32	(18.4%)	27
7th-8th grade	(21.8%)	32	(23.8%)	35
General Equivalency Diploma (GED)/ High School Graduate	(14.3%)	21	(10.9%)	16
	(7.5%)	11	(4.1%)	6
Some College	(4.8%)	7	(3.4%)	5
Associates Degree	(3.4%)	5	0	
Bachelors Degree	(4.8%)	7	(1.4%)	2
Masters Degree	(1.4%)	2	(.7%)	1
n=147	(100%)	147	(100%)	

Reliability and Validity of Scale

For this study, all 18 items of the familism scale were tested (See Table 3). The reliability test generated a Cronbach's alpha of .85. In fact, this scale netted a higher alpha for this population than Steidel's (2003) original study (Cronbach's alpha $p \leq .83$), confirming that this scale was reliable for use with the current population. In the social sciences an alpha greater than .70 is an acceptable threshold for scaling (Miller, 1991).

In addition to generating an overall alpha level of .85, separate alphas were run for each scale item to determine if deleting that item would increase the alpha score. There was no significant benefit to the scale by deleting any single item. Furthermore, as is evident in Table 3, the overall alpha decreased when any single item was deleted. Therefore, this study relied on the complete familism scale which included all 18 responses (see Table 3).

Table 3: Inclusion of Familism Items

Familism Items	*Cronbach's Alpha if Item Deleted*
Familism 1	.849
Familism 2	.851
Familism 3	.850
Familism 4	.841
Familism 5	.849
Familism 6	.841
Familism 7	.845
Familism 8	.841
Familism 9	.849
Familism 10	.847
Familism 11	.840
Familism 12	.843
Familism 13	.845
Familism 14	.850
Familism 15	.847
Familism 16	.838
Familism 17	.841
Familism 18	.838

Note: Familism items order (1-18) corresponds to order of scale questions.

Although Steidel and Contreras' (2003) original study specifically targeted Latino families, the majority of Steidel's sample came from Latino's of Puerto Rican descent (86.7%) while the current study sampled college students of Mexican origin (n=147). Furthermore, Steidel and Contreras addressed families rather than college students. As a result of sampling differences, it is important to test the validity of using this test with the current population.

The scale's validity was also tested by correlating all familism scores with a generational status variable. As expected, correlational analysis netted a negative relationship between variables ($r=-.07$) although not significantly ($p \leq .40$), perhaps due to the small sample size.

As explained in the literature review, parent's educational attainment, family income, and familism are variables used to represent capital in this study. Given the possibility of multi-collinearity between educational attainment and family income, tests of collinearity were conducted. All four variables netted a variance inflation factor (VIF) less than two so all four variables were actually retained in the model (See Table 4).

Table 4: Test for Multi-Collinearity

Variable	VIF
Family Income	1.15
Familism	1.04
Father's Educational Attainment	1.22
Mother's Educational Attainment	1.24

Note: Variance Inflation Factor (VIF).

Statistical Techniques

In regard to all statistical analyses in this study, a significance level of $p \leq .05$ will be used to accept or not accept hypotheses.

Prior to testing hypothesis one: *social capital, which includes family income and familism, is positively associated with academic achievement;* preliminary statistical work must be completed. First, the Familism Attitudinal scale will be tested for reliability and validity. In this manner, we will be sure the Attitudinal Familism scale is appropriate for use with this population. Once the scale is deemed acceptable for use with the

current population, data will be screened for outliers to avoid misleading results followed by calculating correlation coefficients. Pearson's correlation will be used to measure how the variables are related and the strength of that relationship.

In testing hypothesis two: *parent's educational attainment is positively associated with academic achievement;* data will be screened as in hypothesis one for outliers before conducting correlational analysis (i.e., Pearson's correlation) to measure how the variables are related and the strength of that relationship.

In testing hypothesis three*: mobility is negatively associated with academic achievement;* as in hypotheses one and two, data will be screened for outliers followed by Pearson's r correlation to measure the relationship between variables.

In testing hypothesis four: respondent's e*ducational expectation is positively associated with academic achievement;* first the measure for variable respondent's educational expectation will be tested for reliability for use with the current study population. Then, a frequency table will be calculated so the variable, respondent's educational expectation can be recoded based on natural breaks in the data to low, medium and high. Finally,

analysis will consist of post hoc tests comparing the mean scores utilizing a one way analysis of variance (One-way ANOVA).

In testing hypothesis five: p*arent's educational expectations are positively associated with respondent's educational expectation;* non-parametric measures of association for ordinal variables will be used (i.e., Kendall's tau-b and Spearman Rho). Spearman Rho will allow ranking of the data from smallest to largest with the correlation coefficient being computed on the ranks rather than the actual values. Kendall's tau-b will also be used to "normalize the number of concordant pairs minus the number of discordant pairs for all distinct pairs of observations by considering ties on each variable in a pair separately but not ties on both variables in a pair" (p. 216) (Norusis, 2004).

In testing hypothesis six: *gender is differentially associated with respondent's educational expectations; nominal and ordinal* level variables respectively, the Chi-square test of independence will be utilized to detect a significant association. Chi-square is based on the null hypothesis; therefore the expectation is that no relationship exists between the variables in question. A comparison is made between expected distribution and actual

distribution of cases found to determine the independence of variables followed by measures of association based on results of Chi-square.

CHAPTER 4

Results

The current study examines educational expectations of students, their correlates, and subsequent impact on academic achievement. Migrant academic achievement is being explored through an ecological and human development lens. The following chapter provides the results netted from the researcher's interpretation of statistical analyses.

Hypothesis One

Hypothesis One: Social capital, which includes family income and familism, is positively associated with academic achievement.

Based on the measure of association test, Pearson's r correlation, academic achievement (GPA) was found to be significantly and positively related to family income ($r=.16$, $p\leq.03$) and familism ($r=.20$, $p\leq.01$). Controlling for family income, every one unit increase in familism

resulted in a .01 increase to student's grade point average ($p \leq .02$). Controlling for familism, every one unit increase in family income, resulted in a .16 increase to the students GPA ($p \leq .03$). Therefore, both familism and family income were positively correlated with students GPA. Thus, there is sufficient support to accept hypothesis one.

Hypothesis Two

Hypothesis two: Human capital, which is represented by parent's educational attainment, is positively associated with academic achievement.

In the analysis of hypothesis two, initial correlations revealed father's educational attainment ($r=.01$, $p \leq .44$) was not significantly related to academic achievement. Mother's educational attainment was also found to not be significantly related to respondent's academic achievement ($r=-11$. $p \leq .10$). As these results were contrary to the literature review, further analyses were conducted to verify results. Correlations controlling for gender supported earlier results in parent's level of educational attainment not having an impact on respondent's academic achievement (males and fathers $r=.14$, $p \leq .12$ and

mothers r=-.04, p≤.39; females and father's r=-.12, p≤.16 and mothers r=-.11, p≤.17). Finally, correlations were conducted controlling for gender between parent's educational expectations and parent's level of educational attainment. Pearson's r correlations supported the literature indicating that parent's educational background impacted parents educational expectations, but in a surprising way. Analysis resulted in mother's educational attainment being associated with their educational expectations for their daughters (r=.25, p≤.02) but not for their sons (r=.08, p≤.26). Father's level of educational attainment was found to be significantly and positively associated with their educational expectations of their sons (r=.21, p≤.04) but not their daughters (r=.01, p≤.48). As indicated in the results of hypotheses four and five, parent's educational expectations are significantly and positively associated with respondent's educational expectations, and respondent's educational expectations are positively and significantly associated with their academic achievement. Therefore, based on the overall analyses conducted, there is sufficient support to accept hypothesis two (See Table 5) that parent's educational attainment is positively associated with respondent's academic achievement.

Table 5: Correlations for H2

	Mother's Ed. Attainment	*Father's Ed. Attainment*	*Mother's Ed. Expectations*	*Father's Ed. Expectations*
Males				
GPA	-.035	.14	.25*	.34**
Mother Ed. Att.	-	.39**	.08	-.03
Father Ed. Att.	.39**	-	.14	.21*
Females				
GPA	-.11	-.11	.05	.15
Mother Ed. Att.	-	.30**	.25*	.14
Father Ed. Att.	.30**	-	-.04	.01

*$p \leq .05$. **$p \leq .01$.

Hypothesis three: Mobility is negatively associated with academic achievement.

Analysis of hypothesis three began with a test for association between the variables to determine relationship. Testing mobility and academic achievement rendered an expected result. Based on the test chosen, Pearson's r correlation, sufficient support was found to accept the hypothesis that seasonal migration impacts student's academic achievement after the migrating ends ($r=-.23$, $p\leq .002$). This relationship did not change when controlling for gender. Further correlational analyses netted a significant and negative association between mobility and respondent's educational expectations ($r=-.18$, $p\leq.02$). Therefore, as mobility increases, respondent's educational expectations and academic achievement decrease. Consequently, based on the overall analyses conducted, there is sufficient support to accept hypothesis three that mobility is significantly and negatively associated with academic achievement.

Hypothesis four: Respondent's educational expectations are positively associated with academic achievement.

In the analysis of hypothesis four, first the measure for the variable respondent's educational expectation was tested for reliability for use with the current study population, netting a Cronbach's alpha of .81. This tells us that the National Educational Longitudinal Study (NELS) item used to measure respondent's educational expectation was an appropriate measure with this population. Then, a frequency table was calculated so the variable, respondent's educational expectation could be recoded based on natural breaks in the data to low, medium and high. Finally, a one-way ANOVA test comparing the mean scores was calculated and based on the F value ($F=7.488$, $p<.001$) we find that the difference *between* the three groups is greater than the difference *within* the three groups and their academic achievement. In fact, the higher one's educational expectations, the higher ones GPA (see table 6).

Respondents with high educational expectations also had higher grade point averages (GPA) than respondents with low educational expectations (2.5, 1.4 respectively).

Therefore, there is sufficient support to accept hypothesis four that there is a relationship between educational expectations and academic achievement.

Table 6: Means (Expectations and GPA)

Educational Expectations	*Frequency (%)*	*Mean GPA*
Low	(4.1%) 6	1.4
Medium	(45.6%) 67	2.1
High	(50.3%) 74	2.5
n	(100%) 147	

Hypothesis five: Parent's educational expectations are positively associated with respondent's educational expectation.

To test hypothesis five, measures of association appropriate for ordinal level data were used (i.e., Kendall's tau-b and Spearman's Rho). Spearman Rho allowed ranking of the data from smallest to largest with the correlation coefficient being computed on the ranks rather than the actual values. Kendall's tau-b allowed ranking of the values of each variable from smallest to largest with the correlation coefficient being calculated on the ranks. The results led to the conclusion that mother's have higher educational expectations for their children than father's with average expectations at just over a bachelors degree (4.32) versus a bachelors degree (4.10), respectively. Mother's and Father's educational expectations were highly correlated at .85, while the correlation between students and their mother's and father's educational expectations were much less correlated at .33 and .35, respectively (See Table 7).

Table 7: Educational Expectations

	Student Ed. Exp	*Mother's Ed. Exp*	*Father's Ed. Exp*	*Average*
Student Ed. Exp	1.00	.33**	.35**	4.67
Mother's Ed. Exp	.33**	1.00	.85	4.32
Father's Ed. Exp	.35**	.85	1.00	4.10

**$p \leq .01$

Sufficient support was found to accept the fifth hypothesis that parents' educational expectations are positively associated with respondent's educational expectations. Kendall's tau-b (K=.33 for mothers and fathers separately, $p \leq .00$) and Spearman Rho (S=.35 for mothers and fathers separately, $p \leq .00$) each produced significant positive relationships between respondent and mother's and respondents and father's educational expectations.

Hypothesis six: Gender is differentially associated with academic achievement.

In order to test the final hypothesis, the Chi-square test of independence was used to detect a significant association. Based on the expectation that no relationship exists between the variables in question, a comparison was made between expected distribution and actual distribution of cases found to determine the independence of variables followed by measures of association based on results of Chi-square. Analysis resulted in gender impacting respondent's educational expectations significantly differently (X^2=57.10, $p \leq .00$), with males having higher educational expectations than females. The median for males' educational expectations was *bachelor's degree* whereas it was only *some college, no degree* for females. Therefore, there is sufficient evidence to accept hypothesis six that there is a differential association between gender and educational expectations.

Summary

First, support was found to accept hypothesis one. As found in previous studies, the current study was able to render support for family income being positively related to academic achievement. The level of family connectedness and sense of family obligation, measured by the familism scale, was also found to be positively associated with academic achievement. Thus, hypothesis one was accepted.

Results support the acceptance of hypothesis two. Supporting existing literature parent's educational attainment was found to impact academic achievement in the current study population. Therefore, hypothesis two was accepted. Sufficient support was found to accept hypothesis three, as mobility during K-12 years did have a significant and negative impact on respondent's academic achievement. Thus, hypothesis three was also accepted.

In addition, support was found to accept hypothesis four as respondent's educational expectation was found to be positively associated with academic achievement. Furthermore, support was found to accept hypothesis five as parent's educational expectations were found to be positively related to respondent's educational

expectations. Therefore, hypothesis five was also accepted.

Moreover, support was found to accept the final hypothesis as gender was found to have an impact on respondent's educational expectations with males having higher educational expectations than females. Consequently, all six hypotheses were supported in the current study.

CHAPTER 5

Discussion

The literature on Mexican American migrant farmworker college students is rather limited today and was the void this study intended to fill. It is important to look at the outcomes of the research through the theoretical lens provided. As such, the current findings can inform future public policy and practice on migrant education.

There was a dearth of literature on academic achievement of college age samples in relation to migrant students. The opportunity to study such a population is limited, based on the number of migrants that actually graduate from high school and go on to college. Nationally, the Department of Education is addressing the lack of migrant students in postsecondary education through their High School Equivalency Program (HEP) and their College Assistance Migrant Program (CAMP). Public policy has yet to adequately address the persistence and completion of this segment of the college population.

The Family Systems Theory provided the lens with which to view the migrant farmworker family. The filtering of

life through systems established to protect the individual under development by Bronfenbrenner's model was appropriate and extremely helpful to use in studying the migrant community. The strengths related with utilizing this theoretical framework were numerous and included; the ability to view patterns of interaction *within* and *between* systems and not just at the individual level and the ability to maintain internal cultural value.

It was important to recognize the weaknesses of using Bronfenbrenner's model as well in order to gain the greatest understanding of research findings. Fundamentally, the greatest limitation in utilizing the Family Systems theoretical framework was the boundaries inherent in family networks. The family network has its restrictions in that ties among family members do not extend to outsiders, the family demand for traditional values may stifle individual actions, and the likelihood exists for negative pressure to be placed on a member (Portes, 1998; Portes & Landolt, 1996). As a result of these limitations a second theoretical framework was also included to strengthen the overall theoretical structure of this research.

The theory of Social Capital compensated for the afore mentioned limitations of Family Systems Theory by providing the necessary lens to view external social networks that

influence the internal development of the individual more closely. Because of the low levels of capital that the migrant community has experienced, social capital, human capital, and the resulting network ties are of greater importance. In an effort to compensate for low levels of social and human capital, the migrant college community has created a complex social network. The spatial concentration of migrant students at MSU allows them to continue their tradition of reliance on people of similar origin. The reciprocity implied in the exchange of social capital and the reliance on family and community members for survival allows the MSU CAMP network to support its members (Coleman, 1988; Portes, 1995; Rogers & Henning, 1999).

According to Coleman (1988) if parent's human capital (i.e., mesosystem/parents education and time), was not balanced by social capital embodied in family associations (i.e., macrosystem/familism and exosystem/family income), the amount of human capital (i.e., mesosystem or parent educational attainment) those parents possessed would be immaterial to their child's educational development (i.e., microsystem or educational expectations and achievement). In utilizing this view in the current study, Mexican American migrant farmworker parent's educational attainment

was accurately expected to be lower than the average American population. The level of familism or sense of family obligation and interdependence was correctly expected to be high ultimately creating the balance Coleman mentioned.

Although the overall theoretical foundation of this study was adequate in explaining the findings, social capital was a bit problematic to use with families. It was difficult to fit family issues into a conventional community based theory, yet the idea of social exchange and reciprocity implicit in social capital was important to the depiction of migrant farmworker families. The mobile lifestyle of this community makes its' within family members unique in that they must depend on each other more so than the average family. Within the larger migrant community a shared sense of values and norms keeps members reliant on each other for survival, not to mention the threat and fear of discrimination.

Yet, there seems to be a need to enhance the current theoretical framework to better represent the family unit more as a family than a community. Imig (2006) proposes replacing family social capital with *family capital;* conceptualized "as a family-unit level attribute that emerges as a function of collective activity around

household production" (unpublished). Thus, allowing for human capital to be developed within an assortment of family interactions rather than just a distinct disconnected undertaking of a specific place and time. The idea of family capital would change the 'compartmentalized' view of social capital and hold firm the non-interchangeability of specific family components (Imig, unpublished).

Based on the chosen theories, the researcher's expectations were confirmed. The independent variables (i.e. family income, familism, parent educational attainment, mobility, parent educational expectations, and gender) were found to influence the dependent variables (i.e. academic achievement and respondent's educational expectation) at different levels based on the system they represent within and between internal systems as well as external networks.

Support was found for existing research on the positive relationship between family income and academic achievement (Thompson et al., 2002; Mehta et al., 2000; Buchmann et al., 2002; Castillo et al., 2004). Castillo and Hill (2004) established that one of the contributing factors to higher levels of stress among Latino college students is financial need and the demands of balancing

part time or full time jobs with their school responsibilities. Essentially, basic needs (i.e., capital) must be met first, in order for the individual to freely interact with systems outside of the microsystem.

The median annual family income reported by the study sample was between $10,000 and $25,000 per family, which is substantially less than the $40,800 median income for a family of four in the U.S. today and less than the poverty level which is based on a single individual (i.e., $18,100) not a family of four or more (Census, 2000). As migrant farmworkers continue to live below the poverty line, it is essential to find ways of countering the effects of family income on academic achievement. Financial limitations continue to be reported as a reason why Mexican American college students drop out (Castillo, and Hill, 2004).

As previously mentioned, social capital is the result of the buildup of social debts and the belief they will be repaid. College students from migrant homes come from a tradition of reciprocity and recognize the interaction between family members and the community as part of the transaction. The current findings are meaningful and add to the body of literature as they show the positive relationship between family income and academic achievement

continue to hold up *within* the poverty stricken migrant community.

Family structure or size of family has also been linked to educational outcomes in the literature. The average number of offspring per family for the study sample was 4.9 children compared to the 2.1 children per family norm in the U.S. today (U.S. Census Bureau, 1999) and 3.5 average size of Michigan migrant farmworker family's (Gold, 2004). Family size can not be ignored, but rather must be a consideration when we look at the financial well being of this community.

Support was found for the positive association between familism and academic achievement. Research on Latino families in the past focused on level of acculturation to mainstream society and/or generational status as the dependent variable of interest concluding that the longer a person is exposed to mainstream society the less traditional they are. Traditional acculturation research focused on the exchange of cultures toward mainstream the longer one is exposed to that way of life. Familism research allows for cultural stability to be maintained within the individual, while the individual interacts with new systems outside of their family boundaries.

Unlike acculturation and generational status, familism reports on the level of family connectedness and sense of obligation a respondent feels towards their family. Thus, higher levels of familism will yield stronger traditional values and sense of family obligation. As an intra-subsystem within group measure, familism embodies social capital. It stems from feelings of unity that grow among people living in comparable situations. The current study supports the findings of Fuligni & Pedersen (2002) who found a positive association between academic persistence after high school and a strong sense of family obligations (familism) for students with low to moderate grades in high school.

In the past, researchers have argued about the role a Mexican American family plays in promoting higher education for their children. In 1966, Heller reported that the Mexican American family encouraged overdependence on the family unit at the expense of the individual's satisfactory integration into U.S society. The idea that familism can hinder an individual's academic success has not been supported by the current study. In fact, these findings conclude that familism is a precursor of academic achievement for students from migrant farmworker families, not a hindrance.

Previous studies have supported the predictability of the level of parent's educational attainment on the academic achievement, respondent's educational expectations, and subsequent graduation of their children (Spady, 1970; Featherman & Hauser, 1978; Haveman, Wolfe & Spaulding, 1991; Terenzini, Springer, Yaeger, Pascarella & Nora, 1996; Cheng & Starks, 2002). Although the current population is unique to the U.S. it is not unique to other migrant communities. Similar to the majority of migrant farmworker parents today, a majority of the parents in this sample had not graduated from high school (Mehta et al., 2000). As predicted by the literature review, there was satisfactory support found for the association between parent's educational attainment and their child's academic achievement.

The fact that this study found an association between parent's level of educational attainment and their children's academic achievement is extremely meaningful to the migrant community. Mexican American migrant farmworkers are the least educated ethnic minority in America today. In order to realistically move forward in breaking the cycle of poverty for this community public policy needs to simultaneously address the lack of

appropriate educational opportunities for both the children of migrant farmworkers as well as for adult farmworkers.

Adequate support was also found for Haveman, Wolfe, and Spaulding (1991) who reported that frequency of moves made within K-12 had a significant and negative impact on educational achievement at ages 19-24. The current findings support the idea that students who move experience a drop in social capital and in school performance. This may be due to the fact that mobility is an educationally negative experience. Migrants experience difficulties adjusting to the different curriculums throughout the country, finding themselves falling behind their non-migrant peers as a direct result of mobility.

As previously mentioned, Pribesh et al., (1999) stated, "From a social capital perspective, moving interrupts social relations with persons in the school, the neighborhood, the community, and, perhaps, the family. …Simply put, moving negatively affects school performance because within-family ties are stressed and within-community ties with teachers, administrators, and other community members are often lost" (p. 2). The reality is that mobility has been linked to the high rate of drop out in the migrant community.

Rather than blame the drop out rate on mobility, why not look at the educational system in which the migrant students find themselves. Each school district in the U.S. has a different curriculum with different requirements for graduation. As a result many times migrant student's credits do not transfer from one state to the other or the students are forced to retake courses previously taken due to moving before the end of the semester and not being able to finish the course in their new school. Or worst yet, students are required to take 'special education' courses because other coursers are full or because their English language skills aren't up to standards and no bilingual education is offered. Isn't it likely that frustration has built up within the migrant community after years of being overlooked and un-accommodated by the educational system? It would make more sense for policy makers to look closely at creating a national curriculum ensuring all of America's children have access to the same level of education.

Support was found for Arbona and Novy (1990) who found that Mexican American students who held greater educational expectations achieved higher first year college grades. The current findings indicate that the higher a student's educational expectation, the higher their academic achievement. Thus, educational practices should be geared

toward the educational process of improving expectations to positively impact educational outcomes.

Ample support was found for higher shared educational expectations increasing academic achievement. The current findings establish that migrant parents with high expectations also had students with higher expectations. Previous studies on Latino students found that parent's educational expectations tended to transfer to their children (Blanke, Piercy & Diversi, 2004). Along with the findings on the lack of influence migrant parent's level of educational attainment has on academic achievement, it is important to inform migrant parents that regardless of their educational history they can hold high educational expectations for their child and offer encouragement to increase their child's level of educational expectations and, therefore, impact their child's academic achievement.

Buchmann and Dalton (2002) studied the impact of gender on educational expectations in twelve countries and found that females reported significantly lower educational expectations than males in countries that continue to promote cultural tradition and distinct gender roles. The current findings support Buchmann and Dalton (2002), as females were found to have lower educational expectations than males. Current findings have already established that

higher educational expectations lead to higher academic achievement in the study population, it is problematic that females are reporting significantly lower educational expectations than their male counterparts.

The ultimate goal of this dissertation was to identify factors that could predict the academic success of students from Mexican American migrant farmworker families at MSU. To that end, a theoretical model was created depicting the impact of mediating factors on student and parent's educational expectations and the subsequent impact on student's GPA based on their designated expectations quadrant (i.e., quadrant I= high positively associated parent and student expectations and subsequent high GPA; quadrants II and IV= negatively associated parent and student expectations and medium GPA; quadrant III= low positively associated parent and student expectations and low GPA. According to results students and parents expectations were positively associated with each other and with students subsequent GPA (see figure 1). Students who fell into quadrant I subsequently had GPA's that averaged 2.5; students who fell into quadrants II and IV had GPA's that averaged 2.1; and students who fell into quadrant III had GPA's that averaged 1.4.

Limitations

Several limitations exist in the current study. First, the sample was not random but rather a convenience sample. Secondly, the use of cross sectional data only provides a picture of academic achievement of this community at one point in time rather than a long term view. This type of cross-sectional design excludes the ability to draw conclusions about cause and effect relationships between these characteristics. Third, the current study used a self report survey which, depending on the subject areas being questioned, may be prone to some inaccuracy as a result of lack of information, less than accurate recall, or possible discomfort with self-disclosure. Furthermore, rather than asking respondents for their perception of their parent's educational expectations for them, actually asking parents might have rendered different findings.

Sampling Biases

Students who completed the survey may have similar responses in that they have been exposed to university life

via the MSU CAMP filter and come from the same area of the country as migrants to the state of Michigan. The MSU CAMP provides students with a unique university community experience that may have influenced the findings. Migrant students from other universities or from other locales might report different experiences and expectations in regards to their educational achievement.

Students who did not complete the survey may have significantly different responses than those that did. The motivation to return the survey was $10. Students less likely to be motivated by $10 may include those that dropped out and have full time jobs and $10 did not pique their interest; students who left MSU and no longer check their student email accounts; students who left MSU feeling bad about themselves and may have identified the survey with the university; and students who did not want to take the time necessary to fill out the survey. These biases may impact results even though the investigator took measures to prevent as many as possible.

Also, researcher bias may have played a role in interpretation of data analyses. As a cultural insider, the researcher may have inadvertently overlooked plausible explanations for results, although the researcher attempted not to do so.

Recommendations for Future Research

In order to continue filling the void in the literature that continues to exist for this population future research could focus on: longitudinal study; students from other universities; students from home states other than Texas; and students that migrate to states other than Michigan. Also, future studies should look at the impact gender may play in parent's educational expectations for their children as well as the direct impact family income plays on educational expectations of students and their parents.

Conclusions

The academic achievement of Latino students has been a topic of interest to researchers for decades. Although the number of students entering college from Latino families has increased, the number of students earning degrees continues to fall behind other minority groups in America. Previous literature on Mexican American migrant farmworkers showed that students from this population had added disadvantages when it came to education as they

continued to struggle with high rates of school dropout, high rates of poverty, and low rates of university enrollment. Current public policy has more adequately addressed the postsecondary educational recruitment of students from migrant farmworker families but, their persistence and completion has not effectively been tackled at the public policy level.

The purpose of this study was to identify factors that promoted and deterred the academic achievement of students at Michigan State University who came from Mexican American migrant farmworker families. Specifically, this study looked at the likelihood of theoretically based variables predicting academic success. Currently, 85 percent of migrant farmworker adults have not completed high school (Mehta et al., 2000). In fact, the drop out rate for children from Mexican American migrant farmworker families is higher than any other ethnic group, at twice the national average (Mehta et al., 2000). By examining the issues of educational expectations and academic achievement of migrant farmworker college students, the present study has provided a discourse towards plausible solutions.

The underlying logic for conducting this study was if college students from Mexican American migrant farmworker families believe that they will attain high levels of

education and that their parent's have high educational expectations of them, then they will attain higher levels of academic achievement reflected by their GPA. The current findings made a contribution to the existing literature on Mexican American migrant farmworker families by filling an existing void. These findings need to be built upon by future researchers in an effort to impact future public policy on the need to foster postsecondary educational persistence among students who are the most economically and academically at risk.

Overall, the current study shows that enhancing social capital (e.g. family income and familism) will add to the success of Mexican American college students from migrant farmworker families. In addition, as mobility was found to have a long term impact on the academic achievement of migrant college students, it is time that educational reform be discussed by policy makers who must not exclude migrant children from their plan for a better American educational system that will truly be equal regardless of where you live.

In conclusion, the definitions currently available of the Migrant community are either specific to their work status or tend to be old fashioned and leaning toward racists. Updating the definitions by adding

characteristics established by this study will help people working with the migrant population to better understand and respect this unique community. To that end, Migrant workers have a strong appreciation for family and community; they have a strong sense of family connectedness and feel a positive sense of obligation and respect toward their family members; they are very proud of where they come from and extremely proud of their abilities to work hard to meet their family's needs; although they face many challenges stemming from their occupation they see their work as a way to spend time with family, to work hard together, and to provide their children with more opportunities than they themselves had.

APPENDICES

APPENDIX A

UCRIHS APPROVAL

MICHIGAN STATE
UNIVERSITY

April 29, 2005

To: Harriette Mcadoo
115 Human Ecology

Re: **IRB#05-193** Category: EXEMPT 1-2
Approval Date: April 28, 2005 April 27,
Expiration Date: 2006

Title: EDUCATIONAL EXPECTATIONS OF COLLEGE STUDENTS FROM MEXICAN AMERICAN MIGRANT FARMWORKER FAMILIES

The University Committee on Research Involving Human Subjects (UCRIHS) has completed their review of your project. I am pleased to advise you that **your project has been approved.**

The committee has found that your research project is appropriate in design, protects the rights and welfare of human subjects, and meets the requirements of MSU's Federal Wide Assurance and the Federal Guidelines (45 CFR 46 and 21 CFR Part 50). The protection of human subjects in research is a partnership between the IRB and the investigators. We look forward to working with you as we both fulfill our responsibilities.

Renewals: UCRIHS approval is valid until the expiration date listed above. If you are continuing your project, you must submit an **Application for Renewal** application at least one month before expiration. If the project is completed, please submit an **Application for Permanent Closure.**

Revisions: UCRIHS must review any changes in the project, prior to initiation of the change. Please submit an **Application for Revision** to have your changes reviewed. If changes are made at the time of renewal, please include an **Application for Revision** with the renewal application.

Problems: If issues should arise during the conduct of the research, such as unanticipated problems, adverse events, or any problem that may increase the risk to the human subjects, notify UCRIHS promptly. Forms are available to report these issues.

Please use the IRB number listed above on any forms submitted which relate to this project, or on any correspondence with UCRIHS.

Good luck in your research. If we can be of further assistance, please contact us at 517-355-2180 or via email at UCRIHS@msu.edu. Thank you for your cooperation.

Sincerely,

Peter Vasilenko, Ph.D.
UCRIHS Chair

OFFICE OF
RESEARCH ETHICS AND STANDARDS
University Committee on Research Involving Human Subjects
Michigan State University
202 Olds Hall
East Lansing, MI
48824
517/355-2180
FAX: 517/432-4503
Web: www.humanresearch.msu.edu E-Mail: ucrihs@msu.edu

c: Wilma Novales
616WildwoodDr
East Lansing, MI 48823

APPENDIX B

CONSENT FORMS

Subject Consent to participate in a study of
The Educational Expectations of College Students from
Mexican American
Migant Farmworker Families

You are being asked to participate in a research study conducted by me, Wilma Novales, a graduate student in the Family and Child Ecology department at Michigan State University (MSU). You were selected as a possible participant in this study because you are or were an M.S.U College Assistance Migrant Program student. The purpose of this study is to gain a broader understanding of the migrant student's educational expectations and factors related to educational success. If you volunteer to participate in this research study, I would ask you to agree to fill out the following survey, lasting approximately 20 minutes. The survey will include questions about your education and family life. I am also requesting your consent to review your records at MSU CAMP specifically looking at your MSU GPA, your family income and your personal statements. This information will be cross referenced with your survey answers to ensure accuracy and the personal statements will add your voice to this research.

Please understand that there are no physical, emotional, social, legal, or other risks expected from participating in this research study. The survey and the review of your CAMP records are not expected to directly or indirectly cause physical or emotional harm. Your decision to take part in the study is VOLUNTARY, and you are under no obligation to answer any question that makes you feel uncomfortable. You are free to choose not to take part in this study or to interrupt/terminate participation at any time. Your decision whether or not to participate will in no way affect your relationship to the M.S.U. CAMP program.

Any and all information that is obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Everything learned about you in this study will be confidential. Once the data has all been collected it will be kept under lock and key separate from the consent forms to ensure your anonymity. If any portions of this study are published, you will not be identified in any way. All data will be stored in a

secure data base on campus only accessible to the researchers for three years and then destroyed.

If you have any questions or concerns about the research, please feel free to contact me, Wilma Novales at (517) 337-5690 or at novalesw@msu.edu you may also contact Dr. Harriette McAdoo at 517/ 432-3321.

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims or rights because of your participation in this research study. If you have any questions regarding your rights as a research subject, contact Peter Vasilenko, Ph.D., Chair of the University Committee on Research Involving Human Subjects (UCRIHS), Michigan State University, at (517) 355-2180, ucrihs@msu.edu, or write him at UCRIHS, 202 Olds Hall, MSU, East Lansing, MI 48824.

Please sign electronically below to indicate you understand all your rights as a research participant and agree to participate in this study.

Please mark the box that says "I agree" if you agree to participate in this study. Check "I do NOT agree" if you do not agree to participate in this study. Please write your name in the space provided whether you agree or do not agree to participate. If you agree, you will automatically be taken to the survey once this and release form step is completed.

Thank you for your time!

Educational Expectations of College Students from Mexican American Migrant Farmworker

Thank you for agreeing to participate in my dissertation research study. The purpose of this study is to gain a broader understanding of the migrant student's educational expectations and factors related to their educational success. The study will include a 93 item survey consisting of questions the researcher finds important to the understanding of this topic. In addition to the survey, the researcher is requesting your permission to access the following information from your MSU CAMP records:

(1.) Your overall GPA;

(2.) Your family's annual income last year; and

(3.) Your application personal statement.

All the data collected from your CAMP records will only be seen by the researcher; it will be coded and entered into a secure database with all identifying information removed. The database will be housed at the Julian Samora Research Institute and only the researcher will have access to the information. The data will be destroyed after three years. Your electronic signature below will authorize MSU CAMP to release the above mentioned information to me; this release will only be good for three months (from your signature date) which is ample time to collect all the required information.

Please mark the box that says "I agree" if you agree to allow CAMP to release the requested information. Check "I do NOT agree" if you do not agree to release the requested CAMP information. You may proceed with the survey.

APPENDIX C

SURVEY INSTRUMENT

Please click one, and only one of the answers provided, Thank you.

1. What is your gender?

    - Male
    - Female

2. How old are you?

    - 17 or younger
    - 18-19
    - 20-21
    - 22-23
    - 24 or older

3. Which best describes you?

    - I am currently a MSU (CAMP) student
    - I was a HEP student and now am a CAMP student
    - I was a CAMP student at MSU but I transferred to another University
    - I was a CAMP student at MSU but I left without finishing my degree
    - I was a CAMP student at MSU and I graduated

4. What year is this for you at MSU?

    - First year
    - Second year
    - Third year
    - Fourth year
    - Fifth year
    - I Graduated from MSU
    - I left MSU without a degree
    - I transferred to another University

5. If you graduated from MSU, how many years did it take you?

    - Three years
    - Four years
    - Five years

- Six years
- Seven years
- I have not graduated yet

6. If you left MSU, when did you leave?

- first year
- second year
- third year
- fourth year
- After I Graduated from MSU
- I am currently at MSU

7. If you are still attending a University, as things stand now, how many years do you believe it will take you to complete your undergraduate degree?

- Three years
- Four years
- Five years
- Six years
- Seven or more years
- I plan to transfer to another institution
- I don't expect to earn an undergraduate degree
- I don't know

8. What is your marital status?

- Single (never married)
- Married
- Separated
- Divorced
- Widowed

9. How many children do you have?
- None
- One
- Two
- Three
- More than three

10. What is your racial/ethnic group?

- African American
- Asian American
- Caucasian
- Mexican American
- Non-Mexican Hispanic
- Caribbean (non-Hispanic)
- Other

11. How many older brothers and sisters do you have?

- One
- Two
- Three
- Four
- Five
- Six
- More than six

12. How many younger brothers and sisters do you have?

- One
- Two
- Three
- Four
- Five
- Six
- More than six

13. How many of your brothers and sisters have graduated from high school? (Do not include G.E.D.)

- None
- One
- Two
- Three
- Four or more

14. How many of your brothers and sisters have earned their G.E.D?

- None
- One

- Two
- Three
- Four or more

15. What is the highest level of education your father completed?

- He had no formal education
- Elementary school (K-3rd grade)
- Middle School (4th -6th grade)
- Junior High School (7th-8th grade)
- High School (graduation)
- G.E.D.
- Some college (no degree completed)
- Associates Degree (two year college degree program)
- Trade School
- College Graduate (undergraduate degree-4 years)
- Graduate Degree (Masters Level; MA, MS.)
- Professional Degree (PhD., M.D…)

16. What is the highest level of education your mother completed?

- She had no formal education
- Elementary school (K-3rd grade)
- Middle School (4th -6th grade)
- Junior High School (7th-8th grade)
- High School (graduation)
- G.E.D.
- Some college (no degree completed)
- Associates Degree (two year college degree program)
- Trade School
- College Graduate (undergraduate degree-4 years)
- Graduate Degree (Masters Level; MA, MS.)
- Professional Degree (PhD., M.D…)

17. Check the generation that best applies to you.

- 1st generation = you were not born in the U.S.
- 2nd generation = You were born in the US; either one of your parents was born in another country

- 3rd generation = you were born in the US, both your parents were born in the US and your grand parents were born in another country.
- 4th generation = you and your parents were born in the US and one grandparent was born in another country with the remainder of your grandparents born in the US.
- 5th generation = you and your parents and all your grandparents were born in the US.

18. Have you spent any of your **pre-college** education in school outside the United States?

- Yes
- No

19. What would you say best fits your family situation growing up?

- I lived in a single female headed household
- I lived in a single male headed household
- I lived with both mom and dad
- I lived with relatives (neither parent)
- I lived with at least one step-parent
- None of the above

20. As well as you remember, how many schools did you attend for elementary school (K-3rd grades)?

- One
- Two
- Three
- Four
- Five or more

21. As well as you remember, how many schools did you attend for middle/junior high school (4th -8th grades)?

- One
- Two
- Three
- Four
- Five or more

22. As well as you remember, how many schools did you attend for high school (9^{th}-12^{th} grades)?

- One
- Two
- Three
- Four
- Five or more

23. As well as you remember, about how many times did you move annually growing up?

- Once a year
- Twice a year
- Three times a year
- Four times a year
- Five times a year
- More than five times a year

24. What was your family annual income last year?

- Less than $10,000
- Between $10,000 and $20,000
- Between $20,000 - $30,000
- Between $30,000 and $40,000
- $40,000 or more

25. How many family members contributed to your family's annual income last year?

- One
- Two
- Three
- Four
- Five or more

26. Were you one of the family members that contributed to your family's annual income last year?

- Yes
- No

27. What was your overall grade point average in high school?

- A
- B
- C
- D
- E

28. What was your last overall grade point average (GPA) at Michigan State University? (Based on a 4.0 scale)?

    - *****/accessed through actual student records at University**

29. As things stand now, how far in school do YOU think you will get?

    - GED/High school diploma
    - Trade School
    - Some college, no degree
    - A bachelor's degree (4 years of college)
    - A master's degree (M.S., M.A…)
    - A professional degree (Ph.D., M.D., J.D.…)

30. As things stand now, how far in school did/does your MOTHER think you will get?

    - GED/High School diploma
    - Trade School
    - Some college, no degree
    - A bachelor's degree (4 years of college)
    - A master's degree (M.S., M.A…)
    - A professional degree (Ph.D., M.D., J.D.…)

31. As things stand now, how far in school did/does your FATHER think you will get?

    - GED/High School diploma
    - Trade School
    - Some college, no degree
    - A bachelor's degree (4 years of college)
    - A master's degree (M.S., M.A…)
    - A professional degree (Ph.D., M.D., J.D.…)

32. As things stand now, how far in school do your FRIENDS think you will get?

- GED/High School diploma
- Trade School
- Some college, no degree
- A bachelor's degree (4 years of college)
- A master's degree (M.S., M.A...)
- A professional degree (Ph.D., M.D., J.D....)

Please indicate the extent to which you agree or disagree with the following:

33. My mother thinks it is important for me to do well at school.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

34. My father thinks it is important for me to do well at school.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

35. A person should live near his or her parents and spend time with them on a regular basis.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

36. Aging parents should live with their relatives.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

37. A person should help his or her elderly parents in times of need, for example help financially or share a house.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

38. Children should always help their parents with the support of younger brothers and sisters, for example, help them with homework, help the parents take care of the children, and so forth.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

39. A person should rely on his or her family if the need arises.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

40. A person should always support members of the extended family, for example aunts, uncles, and in-laws, if they are in need even if it is a big sacrifice.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

41. Parents and grandparents should be treated with great respect regardless of their differences in views.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

42. A person should often do activities with his or her immediate and extended families, for example, eat meals, play games, go somewhere together, or work on things together.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

43. The family should control the behavior of children younger than 18.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

44. A person should cherish time spent with his or her relatives.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

45. Children should help out around the house without expecting an allowance.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

46. Children younger than 18 should give almost all their earnings to their parents.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

47. A person should feel ashamed if something he or she does dishonors the family name.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

48. Children should live with their parents until they get married.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

49. A person should always be expected to defend his or her family's honor no matter what the cost.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

50. A person should respect his or her older brothers and sisters regardless of their differences in views.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

51. A person should be a good person for the sake of his or her family.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

52. Children should obey their parents without question even if they believe they are wrong.

1	2	3	4	5	6	7	8	9	10
strongly disagree		disagree		somewhat disagree	somewhat agree		agree		strongly agree

53. I speak Spanish

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

54. I speak English

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

55. I enjoy speaking Spanish

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

56. I associate with Anglos

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

57. I enjoy Spanish language music

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

58. I enjoy listening to English language music

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

59. I enjoy Spanish language TV

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

60. I enjoy English language TV

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

61. I enjoy Spanish language movies

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

62. I enjoy English language movies

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

63. I enjoy reading books in Spanish

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

64. I enjoy reading books in English

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

65. I write letters in Spanish

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

66. I write letters in English

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

67. My thinking is done in the English language

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

68. My thinking is done in the Spanish language

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

69. My contact with Mexico has been

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

70. My contact with the US has been

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

71. My father identifies or identified himself a "Mexicano"

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

72. My mother identifies or identified herself as "Mexicana"

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

73. My friends while I was growing up were of Mexican origin Almost always

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

74. My friends while I was growing up were of Anglo origin

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

75. My family cooks Mexican foods

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

76. My friends now are of Anglo origin

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

77. My friends now are of Mexican origin

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

78. I like to identify myself as an Anglo American

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

79. I like to identify myself as Mexican American

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

80. I like to identify myself as Mexican

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

81. I like to identify myself as American

1	2	3	4	5
Not at all	Very little	Moderately	Very often	Almost always

82. My family really tries to help me.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

83. I get emotional help and support from my family.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

84. I can talk about my problems with my family.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

85. My family is willing to help me make educational decisions.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

86. My family supports my educational goals.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

87. My mom supports my educational goals.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

88. My dad supports my educational goals.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

89. My friends support my educational goals.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

90. I've experienced difficulties due to owing money.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

91. I've experienced difficulty paying for food.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

92. I've experienced difficulty paying for recreation and entertainment.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

93. I've experienced difficulty due to my family experiencing money problems.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

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