Correlations between parents' academic achievements, emerging adult children's perception of their parents' socio-economic status and the educational attainment of the emerging adult children

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Correlations between parents’ academic achievements, emerging adult children’s perception of their parents’ socio-economic status and the educational attainment of the emerging adult children

by

Iris Michelle Young-Clark

A dissertation submitted to the graduate faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Family and Consumer Sciences Education and Studies

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2014
This dissertation is dedicated to my loving husband and wonderful daughter:

George Aldridge Clark, III and Alexandria Grace Clark

In beloved memory of:

My surrogate grandmother, Carry Washington (July 4, 1898 - January 6, 1996)

My nephew, James Bryant, Jr. (July 28, 1987 - January 16, 2010)
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ABSTRACT

It has been well-documented by researchers that having a higher socio-economic status (SES) enables one to have greater access to an array of materials, goods, and services to promote or support academic achievement (Sirin, 2005). Education is stressed as the most consistent and reliable means to achievement. The investment in one’s higher education benefits not only the individual but also broader society and the fundamental well-being of our nation. Given that vital educational decisions are made during the span of years characterized by adolescent becoming emerging adults, research is needed to explore the basis or association of these decisions, measured by the potential connection between parental SES and emerging adults’ educational attainment. The present study, using Forward Selection Step-wise Linear Regression and Chi-square analysis, examined the correlations between parents’ academic achievement, emerging adult children’s perception of their parents’ socio-economic status, and the educational attainment of the emerging adult children. The Family Investment Model (FIM), which outlines the positive correlation between SES and parental investments in children, served as the conceptual framework for this study due to the later prediction of educational attainment of emerging adults by the SES-dependent parental investment.

The data for this study were gathered using preexisting data from a national, longitudinal data set, Panel Study of Income Dynamic Study (PSID) 2011 Main Family. The sample consisted of emerging adult respondents (N =1,134) who were between 25 and 29 years old. The emerging adult respondents completed questionnaires through detailed interviews in person or by telephone. Findings of the study indicated that there was a
positive correlation observed between emerging adult educational attainment and the following variables: fathers’ academic achievement, mothers’ academic achievement, emerging adults’ perception of their parents’ SES, age, and gender. Thus, it is recommended that the results of this study potentially provide a new starting point for community organizations, public school systems, colleges and universities, youth and family-serving state agencies, and federal and policy research organizations to reassess the influence that proxy parenting has on educational attainment.
CHAPTER 1. INTRODUCTION

Overview

Socio-economic status (SES) is one of the most widely studied constructs in the social sciences. It is well-documented by researchers that having a higher SES enables one to have greater access to an array of materials, goods, and services to promote or support academic achievement (Sirin, 2005). The United States traditionally has defined the American Dream as the promise that anyone in society can prosper with hard work and persistence. Education is stressed as the most consistent and reliable means to achievement. The investment in one’s higher education benefits not only the individual but also broader society and the fundamental well-being of our nation. However, as a result of growing inequality in many families’ SES and educational attainment, the American dream has not been easily accessible to all members of our society (Bowles & Gintis, 2011). This is especially prevalent when looking at the transmission of SES across generations. Consequently, it is important to look at the transmission of these characteristics across generations (Hill & Duncan, 1987).

Emerging adulthood is a stage of life between late teens through the twenties (18-29), when this generation is undergoing continuous development and exploration (Arnett, 2001; 2004). Vital life decisions about higher education are made during this time period by emerging adults (Arnett, 2001). The foundation of emerging adults’ income and occupational achievements is obtained through these decisions and influences the level of educational attainment by these adults for the remainder of their adult work lives (Arnett, 2000a). Prior to and during emerging adulthood, there are many parental factors, such as SES and academic achievement, that have a long-term impact on the lives of a family’s emerging adult children.
The literature has indicated that there may be an association between SES of a household and a child’s educational attainment. SES can be measured using a combination of indicators such as income, wealth, education, and occupation (Sirin, 2005). The advantages and disadvantages associated with differences in SES can be seen early in the life course. Low SES is deemed to affect an individual’s academic achievement adversely as a result of limited access to resources (Fergusson, Boden, & Horwood, 2006). Furthermore, economic hardships that a family experiences are often transferred to one’s children unintentionally and can attribute to their overall low academic achievement. SES tends to be consistent throughout generations (Shea, 2000). Disruption in parenting, increased amount of family conflict, and the increased likelihood of depression in parents are often caused by low SES and attributed to economic hardships (Eamon, 2005). Therefore, when measuring SES, it is important to consider parental income as a major component of SES.

Income has been used more widely as the predominant measure of SES in a majority of research studies. Parental SES is a powerful predictor of children’s academic attainment (Domhoff, 1998). For example, low family income has been linked to lower academic achievement and slower rates of academic progress as compared with high-income families (Aronson, 2008; Halle, Kurtz-Costes, & Mahoney, 1997; Snibbe & Markus, 2005). When comparing adults who did not grow up poor to those who grew up in poor families, there is a higher likelihood for adults who grew up poor to earn less income and they are also three times more likely to become poor as adults (Aronson, 2008; Halle et al., 1997). Likewise, when one takes into consideration the influence of their parents’ higher income and their academic achievement combined, it may create an optimal condition for their children’s educational attainment.
According to Pettit, Davis-Kean, and Magnuson (2009), “… family background characteristics, including parents’ own educational attainment, consistently have been found to predict children’s subsequent school performance and educational attainment” (p. 218). The educational background of the parents influences how they structure their home environment and their interactions with their children in promoting academic achievement (Davis-Kean, 2005). Parents who have merely a high school diploma or its equivalent are less likely to have a child who aspires to obtain a bachelor’s degree (Horn, Nuñez, & Bobbitt, 2000). With a higher level of education, parents are more able to function as teachers in the home and provide a balance of emotional stability as well as a stimulating environment (Davis-Kean, 2005). Although previous literature has focused extensively on SES and educational achievement of parents and the impact on young children’s education, by comparison, there is a more limited amount of research on the educational attainment of emerging adults. The aforementioned impact of parental SES has indirect significance in another conceptual framework, the Family Investment Model (FIM), which outlines the positive correlation between SES and parental investments in children. It is this SES-dependent parental investment that may predict later educational attainment of emerging adults. Thus, the FIM could be used when identifying critical dynamics in practical approaches to preserve intergenerational continuity and educational attainment.

Historically, economists have viewed the process of children’s attainment as an aspect of the Theory of Family Behavior (Haveman & Wolfe, 1995). The family is seen as a production unit that uses real inputs to create value for its members (Haveman & Wolfe, 1995). Parents are the principal figures of the production unit and make the foremost decisions in the generation and utilization of resources. The Family Investment Model proposes that the magnitude of investment in children, the nature of resources invested, and the point at which resources are
distributed influence the attainment of children in a family (Haveman & Wolfe, 1995). Subsequently, Haveman and Wolfe (1995) argued that the FIM promotes children’s development through income and education status provided by the financial ability of the family to purchase goods, materials, and services. The FIM has since served as the fundamental foundation for several research studies such as Conger and Donnellan (2007), and Melby, Conger, Fang, Wickrama, and Conger (2008).

**Statement of the Problem**

While current literature has revealed an expanse of focus on the impact of parental SES on young children’s education, limited research exists on the educational attainment of emerging adults. Given that vital educational decisions are made during the span of years characterized by adolescent becoming emerging adults, research is needed to explore the basis or association of these decisions, measured by the potential connection between parental SES and emerging adults’ educational attainment. Although there is a lack of research concerning this topic, the FIM has shown promise as a useful concept for the assessment of the association between parental SES and emerging adult children educational attainment.

Conger and Donnellan (2007) conducted an extensive literature review on the relationship between SES, family processes, and human development. A subset of their review focused on how this relationship fits into the FIM. Traditional investment models were limited to the impact of economics on families and children. However, the FIM provides an extension of traditional models to include the influence of parents’ educational achievements on investments in children. The FIM was also tested by Melby et al. (2008). According to Melby et al. (2008), “…the family investment model deems family SES in the form of parental income, education, and occupational status to be positively related to parental investments in children” (p. 2). Melby
et al. investigated this model using structural equation modeling within the context of a 14-year longitudinal study of over 400 two-biological-parent intact families in North Central Iowa to identify the association between family origin SES characteristics and later educational attainment of the young adults at age 26. The study demonstrated a statistically significant strong correlation of parents’ educational level and family income with the subsequent educational attainment of the young adults. Utilizing constructs similar to those of Melby et al. (2008), the FIM served as the conceptual framework to guide the current study.

**Purpose and Research Question**

The purpose of this study was to determine the correlations between parents’ academic achievement, emerging adult children’s perception of their parents’ socio-economic status, and the educational attainment of the emerging adult children. The following principal research question guided this study:

What is the correlation between parents’ academic achievement, emerging adult children’s perceptions of their parents’ SES and the educational attainment of the emerging adult children?

**Limitations**

Emerging adulthood is the stage of life between the ages of 18–29 (Arnett, 2004). However, this study was limited to emerging adults between the ages of 25–29 given that age 25 is the minimum age used to calculate the percentage of individuals in the United States who have attained at least a bachelor’s degree according to the United States Census (2010). Second, emerging adult respondents in this study provided insight regarding their parents’ SES through self-reported data. Nevertheless, the emerging adult children’s perception of parents’ SES may be naively inaccurate.
For the research and data analysis of this study, the publicly accessible Panel Study of Income Dynamic Study (PSID) 2011 Main Family data set was used. The PSID is a comprehensive national longitudinal study that began in 1968 and was administered by the University of Michigan, Survey Research Center and Institute for Social Research. It was established to assess President Lyndon Johnson’s War on Poverty and focused on the dynamics of income and poverty. While PSID is one of the longest-established household databases, it lacks various socialization data such as parental time investment in education.

**Definition of Terms**

The following terms were defined for use in this study:

*Academic achievement:*

- High academic achievement/High educational attainment: Bachelor degree recipient.
- Average academic achievement/Average educational attainment: High school diploma/GED recipient.
- Low academic achievement/Low educational attainment: No High school diploma.

*Emerging adults:* Persons between ages of 18–29 (Arnett, 2004).

*Socio-economic status (SES):*

- High perceived socio-economic status: Respondents indicated parent(s) pretty well off.
- Average perceived socio-economic status: Respondents indicated parent(s) average.
- Poor perceived socio-economic status: Respondents indicated parent(s) poor.
CHAPTER 2. LITERATURE REVIEW

The purpose of this study was to determine the correlations between parents’ academic achievement, emerging adult children’s perception of their parents’ socio-economic status and the educational attainment of the emerging adult children. This chapter provides a review of relevant literature related to emerging adults, socio-economic status, parent academic achievement, and the Family Investment Model (FIM).

Emerging Adults

Theory of emerging adulthood

Arnett (2000a) introduced a new concept of development, in which many people experience frequent changes that alter the nature of their development. According to Arnett (2000a, 2004), emerging adulthood is a culturally constructed time in life during the late teens through twenties (18-29) that allows for exploration of an assortment of possible life directions including personal relationships and career paths. Emerging adults experience a vast realm of relative individuality during this time of identity exploration (Arnett, 2000a). Although Arnett was the first to coin the term emerging adults, other previous studies have also discussed the period in life development where exploration is occurring. Arnett provided theoretical background, information including research findings on human development by Erik Erikson that discussed a period beyond adolescence, but not quite reaching adulthood. Erikson did not actually name this period in the life course but provided a detailed discussion of a period in which adults’ customary obligations and duties are postponed and identity experimentation continues to intensify (Arnett, 2000a).

Daniel Levinson developed a theory of human development that considered emerging adulthood to be a time in which individuals undergo a series of tumultuous changes and
instability while still trying to figure out their life choices (Arnett, 2000a). Kenneth Keniston may have been the first to inappropriately label individuals as “youths” in this period after writing the bestknown theory of youth development. According to Arnett (2000a), using the term youth to describe such individuals is challenging because not only is it vague but it is also confusing. When some hear the word youth, little children and adolescents automatically come to mind. Times have changed since the theoretical foundation was positioned by Erickson, Levinson, and Keniston (Arnett, 2000a). Transitioning into adulthood in recent years has been postponed, while more emerging adults are obtaining a higher level of education and exploring different possibilities and opportunities. According to Arnett (2000a), emerging adulthood is a period in life in which transformations and discovery are common; such heterogeneity warrants consideration when discussing these individuals.

**Perspectives of Transitioning Emerging Adults**

Arnett’s (2006) additional empirical research has more recently altered our understanding of some peculiar qualities and viewpoints that characterize emerging adults developmentally and disclosed essential variations according to socioeconomic status, ethnic/cultural group, and other characteristics. Thus, it has been established by Arnett (2008) that “… developmentally emerging adulthood can be characterized as the age of identity explorations, the age of instability, the self-focused age, the age of feeling between, and the age of possibilities” (p. 208). During the identity exploration phase emerging adults are cogitating various possibilities for their lives as being centered on love and work. During this time period, they are clarifying their identity by determining who they are and what they want out of life. Many have left home and are more independent of their parents but they have not taken on standard adult commitments such as jobs/careers, marriage, and parenthood. Identity issues are very perplexing for emerging
adults since this means they are trying to determine who they are and how their world views may be similar or different from those held by their parents. Moreover, emerging adults experience a great deal of instability due to the exploratory nature of their lives. The many possibilities of emerging adulthood are linked to love, work, and education, as all of which cause frequent changes of direction as well as residential relocations. The first residential change may occur when moving out of the parents’ home to attend college or purely to establish some independence. The next residential changes might be from a dormitory to an apartment or to attend graduate school. The elevated rate of residential changes replicates the profound amount of change that generally takes place in emerging adults’ lives.

Although emerging adulthood is a self-focused period of development, most emerging adults are not self-centered (Arnett, 2006). When comparing adolescents to emerging adults one may observe that emerging adults tend to be less selfish than adolescents. This element is sometimes amplified in emerging adults’ relationship with their parents. It is during this stage of life when emerging adults come to recognize their parents as persons and not just parents. Emerging adults are better able to empathize with their parents after experiencing some of the hardships of reaching adulthood such as moving into a new apartment or finding a job (Arnett, 2004).

Even though being self-focused is one of the key aspects of being an emerging adult and one of the freest times in life, the ultimate goal is to attain self-sufficiency. The value emerging adults place on self-sufficiency relies heavily on their ability to overcome the feeling of being in-between. The feeling of being in-between gives emerging adults a questionable sense of whether they consider themselves an adult. Nearly a third (30%) of Americans who have reached their late 20s and early 30s feel they have reached adulthood (Arnett, 2006). The criteria set in many
regions of the United States, other countries, and a variety of ethnic groups is contingent upon accepting responsibility for yourself, making your own decisions, and being financially independent (Arnett, 2006). Emerging adults see all three criteria as gradual occurrences rather than transition events.

Lastly, emerging adults feel a great deal of optimistic bliss, given that they have not had a chance to test reality. Arnett (2000b) found that low-SES emerging adults are even more likely than high-SES emerging adults to believe that their lives will be better than their parents’. This age of endless possibilities is certainly seen as a chance for young people to alter their lives, to free themselves from an unwholesome family situation, and to set their lives in a new and sound direction. Even those emerging adults who come from healthy home environments are presented with the same transforming possibilities. Yet, emerging adults do bring their family influences with them when they leave home which could limit the extent to which they can evolve. Nevertheless, emerging adults are granted endless potential greater than any time before by means of the exploration characteristics of this stage of life.

Arnett has guided the way toward a more fully-developed understanding of this stage of the life course by utilizing research to understand emerging adults’ perspectives and their future. Arnett (2000b) conducted interviews and surveys with 140 emerging adults between the ages of 21 and 28. The sample was divided evenly in terms of both gender and marital status, with 52% indicating having had some college. The purpose of the study was to explore emerging adults’ views of their future in relation to finances, professional development, relationships, and quality of life (Arnett, 2000b). The qualitative interview questions from the study were related to the emerging adults’ quality of life perceptions in comparison to their parents’ lives. Furthermore, the quantitative surveys were nearly identical to the interview questions and focused on
respondents’ views of their personal future. When reporting the results, Arnett chose to report similarities in the themes from both types of response data. Overall, the results showed that emerging adults believed their lives would be as good as or better than their parents’ in relation to their quality of life, finances, and relationships.

Themes from several of the interviews revealed how emerging adults typically responded with high enthusiasm when comparing themselves to their parents because they viewed their parents’ lives as being exceptionally good. A second theme brings to light emerging adults’ perception of their finances in comparison to their parents. Emerging adults with high-SES parents believed that financial stability was not as important to their future. On the other hand, those that had parents with low SES placed more worth on the fulfillment of financial stability and were more likely to view their future to be better than their parents, both financially and occupationally. This study illustrated many emerging adults’ perceptions of themselves, their parents, and their future wherein education could play a vital role in their aspirations to a better life.

**Educational Attainment of Emerging Adults**

The broadening of education has proved to be one of the most vital characteristics of emerging adulthood (Arnett, 2010). While emerging adulthood is characterized as a time for individuals to explore, attending college not only provides a basis for improvement in occupational endeavors but also allows the opportunity to delve into countless possibilities of life choices (Arnett, 2010). With more people entering college in their late 20s or beyond, only 60% of high school graduates actually go on to attain higher education (Arnett, 2010). The time cost of attaining higher education is also greater than in previous observations. It currently takes undergraduates longer to complete an undergraduate degree as compared to 30 years ago (Arnett,
2010). According to Arnett (2010), this more extensive time to completion can be attributed to financial difficulties such as increases in tuition, a higher proportion of loans compared to grants, and job obligations. This can create low retention rates, highlighted by the fact that approximately 50% of undergraduates drop out of school before obtaining their degree (Arnett, 2010). According to Arnett (2010), factors such as family SES, prior academic achievements, and ethnic backgrounds all play a major role in the retention rates of emerging adults.

When emerging adults obtain higher levels of education they create a buffer against unemployment, gain access to a wide-range of career opportunities, have an increased likelihood of being healthy, and have a decreased likelihood of being imprisoned (Child Trends, 2013). The number of emerging adults obtaining a high educational attainment has increased steadily over the past few years, especially those earning a bachelor's degree or higher (Child Trends, 2013). However, there are some differences in the trends for level of education completed by emerging adults, specifically in terms of race and gender. For example, White emerging adults have a higher probability of greater educational attainment than African American and Hispanic emerging adults (Child Trends, 2013). The largest disparity lies between Hispanics and Whites.

In 2012, 95% of Whites had completed high school compared to 75% of Hispanics and 89% of African Americans (Child Trends, 2013). The gaps are even more pronounced with emerging adults and higher educational attainment; 40% of Whites had attained at least a bachelor's degree, followed by 23% of African Americans and 15% of Hispanics (Child Trends, 2013). Also, in recent years, women are more likely than men to have attained a bachelor's degree or higher and exceed men in each level of education (Child Trends, 2013). With respect to completion of high school by emerging adults, in 2012, 91% of women had completed compared to 88% of men (Child Trends, 2013). Completion of some college by emerging adults
was accomplished by 68% of women and 58% of men with only 37% of women and 30% of men attaining a bachelor's degree (Child Trends, 2013).

Due to the decreasing amount of success for college students despite many federal policies and reforms to open up higher education to others, one researcher sought to measure the effectiveness of different interventions to address this problem and aid vulnerable students overcome obstacles (Brock, 2010). Brock evaluated programs and interventions that have been put in place to increase graduation rates by community colleges. He also examined why some do not succeed and the benefit that emerging adults will accrue once completion of a college degree has been achieved. Much emphasis has been placed on the importance of education due to the vital role it plays in the development of both intellectual and personal growth (Brock, 2010). In terms of school enrollment, there has been an increase in the number of minorities enrolled, more women are enrolled than men, and more young adults over the age of 25 are enrolling into colleges and universities (Brock, 2010). Although there has been an increase in enrollments for these groups, they remain underrepresented in many two-year colleges and universities, specifically women, African Americans, and Hispanics (Brock, 2010). The widening gap of enrollment between racial and ethnic groups is challenging; this becomes apparent with 44% of White emerging adults enrolled in college, 32% of African Americans, and 25% of Hispanics in 2006 (Brock, 2010). Settersen and Ray (2010) also examined the period in time that emerging adults experience before entering adulthood and the associated challenges for young adults, families, and society. According to Settersen and Ray, the process of transitioning to adulthood is more gradual and is diverse in terms of gender, race, SES, and ethnicity. Emerging adults of this generation are taking longer to accomplish financial stability and psychological self-sufficiency
Due to the desire for financial stability, the demand for education and preparation is steadily rising (Settersten & Ray, 2010). Education is now being seen as a necessity to emerging adults, and 95% of Americans believe that it is one of the most vital indicators of entering adulthood, alongside a career and establishing an independent household (Settersten & Ray, 2010).

Although the number of educated young adults is higher now than in the past few decades, many are still struggling with the completion of a high school diploma. Although in this society education is seen as a valuable asset for access to good jobs, only 25% of emerging adults between 25-34 have a bachelor's degree and only 5% have a graduate degree (Settersen & Ray, 2010). The phrase “The Point of No Return” was coined to describe emerging adults that enter four-year institutions but do not earn a degree within six years (Settersen & Ray, 2010). Only 40% of the emerging adults graduate within the first six years with a degree (Settersen & Ray, 2010). Moreover, those emerging adults with college-educated parents are more adept, better prepared, and have additional resources for the rigor of college completion. However, only one in ten students with non-degree holding parents completes a college degree in four years. The dynamics of degree holders have also shifted. Young women are graduating from college and increasing their educational attainment at a higher rate than young men. In 2005, Asian American emerging adults were more likely to obtain a bachelor’s degree and higher, followed by Whites (27%), then Blacks (15%), and lastly Hispanics (9%).

Socio-economic Status (SES)

Societal perspective

According to the American Psychological Association [APA] (2014), SES is commonly conceived as the social standing or class of an individual or group. When SES is viewed through
a social class window, opportunity, supremacy, and influence are highlighted (APA, 2014). Furthermore, an examination of SES as a continuous variable often reveals inequities in access and the distribution of resources (APA, 2014). The relevance of SES can be observed in all facets of behavioral and social science, including research, practice, education, and advocacy (APA, 2014).

**Impact of income on education**

In 2006, the Brookings Institution launched the Hamilton Project, which seeks to advance America’s promise of opportunity, prosperity, and growth. One of the nation’s Founding Fathers that laid the foundation for the modern American economy was Alexander Hamilton. As the first Treasury Secretary, the Hamilton Project was named in his honor (“The Hamilton,” 2013). Based on the Hamilton Project (2013) policy memo, it was reported that children from both low- and high-income families are born with similar abilities but different opportunities. Consequently, the gap is widening between the investments that low- and high-income families are able to make in their children. As a result, the expanding gap can clearly be seen when comparing low- and high-income families’ children’s K-12 test scores, college attendance, and completion rates. Research has found that the divide has grown by approximately 40% over the past thirty years when comparing test results of children from families at the 90th income percentile to those of children from families at the 10th percentile, (Reardon, 2011). America’s selective colleges’ enrollments are being dominated by high income families’ children. Carnevale, Smith, and Strohl (2010) found that the wealthiest students out-populate the poorest students by a margin of fourteen to one at institutions ranked as “most competitive” and have more selective admissions requirements. According to Bailey and Dynarski (2011), most of the increases in graduation rates over the past few decades have been achieved by high-income Americans families’ children.
Aside from low college enrollment, other consequences for children from lower-income families should be further examined.

Sobolewski and Amato (2005) suggested that past research has consistently indicated that poverty and economic hardship have negative consequences for children. However, their current research assessed whether economic resources in the family of origin have a long-term effect on psychological well-being of children after they have reached adulthood and left their parents’ home. Two causal pathways were hypothesized that included the effects of economic stress on the quality of the family relationship and the effects of economic resources on offspring’s socio-economic attainment. A total of 17 years of longitudinal data were used from the Study of Marital Instability Over the Life Course, including two generations with 589 participants. Evidence was found that concluded economic hardship in the family of origin predicts later adult well-being through the parents’ marital relationship, the parent-teen relationship, children’s educational attainment, and children’s earned income.

Willingham (2012) argued that some factors linked to SES are straightforward consequences of the amount of money available to the family. Willingham (2012) insisted that “low-income families cannot as readily afford books, computers, access to tutors and other sources of academic support” (p. 34). These intellectual stimulations are associated with better academic achievement. On the other hand, high-SES parents have more capital and can invest more into lifelong learning opportunities for their children (Willingham, 2012). These opportunities often start before children go to school and can include utilizing higher-quality daycares, seeking housing in what the parents believe to be superior school districts, and intentionally cultivating reading, writing, science, and mathematics skills (Willingham, 2012).
Such differences among children from higher- and lower-income families are being further assessed by other researchers.

Walpole (2003) investigated the experiences of low- and high-SES students utilizing a Cooperative Institutional Research Program longitudinal database. The sample size included approximately 2,400 students from each subsample of low- and high-SES families from four-year institutions across the United States. When comparing low- and high-SES students to each other, it was determined that low-SES students tended to have been involved in fewer extracurricular activities, worked more, studied less, and reported lower GPAs than their high-SES peers (Walpole, 2003). The results also showed that low-SES students had lower incomes, educational attainment, and graduate school attendance than high-SES students nine years after entering college (Walpole, 2003). These differences seem to be tied to differentiations in ethnicity, cultural capital, and experiences of everyday life.

Growing up in an economically disadvantaged family, single-parent household, disrupted family structure, or a racial/ethnic minority group can lead to negative outcomes regarding child development and socio-economic potential (Wickrama, Simmons, & Baltimore, 2012). Wickrama et al. (2012) conducted a longitudinal study to answer three different study questions that investigated whether or not community disadvantages, family factors, race/ethnicity, and youths’ educational attainment influence a young adult’s socio-economic status and attainment. This study included a random sample of both parents and adolescents (n=13,450) for a period of 13 years from middle and high school. While parental income predicted a young adult’s status attainment, the emerging adults of this sample had lower annual income in comparison to their parents. In addition, young adults have obtained higher levels of education on average. According to Wickrama et al. (2012), underprivileged communities, family factors such as
poverty and low SES, and race/ethnicity each play a role and have a major impact on an emerging adults’ socio-economic status. Such influences result in lower quality employment experiences and lower income in adulthood. Research has shown that attaining a higher educational level is not only important in youths’ status attainment, but also helps protect them from harmful influences that affect their socio-economic status (Wickrama et al., 2012).

Mello (2009) conducted a research study using National Educational Longitudinal Study (NELS) data that crossed a 12-year span of ages, from 14–26. Mello (2009) worked with observational data on individuals (n=10,282) from adolescence to adulthood across racial/ethnic and SES groups to determine educational and occupational expectations. Data were observed in four specific waves based on the individuals’ ages; Wave 1 was at age 14, Wave 2 at age 16, Wave 3 at age 20, and the final Wave was completed at age 26. The sample consisted of 53% female participants, 71% European American, 12% Hispanic, 9% African American, 7% Asian American/Pacific Islander, and 1% American Indian/Alaska Native. Mello (2009) found a positive correlation between SES and average levels of educational expectations. The same correlation was found between SES and average levels of expecting a professional occupation from age 14-26. After controlling for academic achievement variables, African Americans were observed to have the highest educational expectations, followed by Asian Americans, in comparison to European Americans (Mello, 2009). When controlling for SES as well as academic achievements, occupational expectations were highest among African Americans compared to their counterparts, including Hispanics, Asian Americans/Pacific Islanders, American Indians/Alaskan Natives, and European Americans (Mello, 2009). According to this study, when controlling for SES and parental academic achievement, African Americans are more likely to complete college in contrast to European Americans (Mello, 2009; Jencks &
Phillips, 1998). A second research study utilizing NELS also evaluated the impact of parent’s SES on children’s educational outcomes.

Easton-Brooks and Davis (2007) conducted a study on whether African American and European Americans academic achievement differed in response to the socio-economic status of their parents, including their parents’ education, income/wealth, and occupation. The study consisted of African American students ($n=1,302$) and European American students ($n=6,362$) in the 10th and 12th grade, who attended public schools during 1990-1992 (Easton-Brooks & Davis, 2007). The sample was generated from the NELS 1988 public-use data files. They used income-generated assets versus non income generated assets, and liquid assets versus illiquid assets, as factors for analysis in the determination of differential academic achievements between African Americans and European Americans. Easton-Brooks and Davis (2007) found income-generated asset and liquid assets to be very important predictors of achievement for African Americans in comparison to European American students due to parents’ ability to fund their children’s education. European Americans are more likely to pass wealth down across generations and are more likely to receive financial support from family members in regards to wealth and education (Easton-Brooks & Davis, 2007).

When comparing young people from the twenty-first century to those from a half-century ago in the United States, transition to adulthood is now occurring at a later age and requires various forms of prolonged parental support (Arnett, 2004). A collaborative study during 2002-2003, conducted by Research Network on Transition to Adulthood, involved over 462 in-depth interviews with young adults age eighteen to thirty-four (Swartz, 2008). These young adults were from diverse social classes and racial/ethnic backgrounds in New York City, San Diego, St. Paul, Detroit, and rural Iowa. The results showed parents on average spend over 367 hours a year
assisting their young adult children through a variety of activities. Parents with a low-SES background are more likely to experience more stressful situations and therefore limit parental expressions. Parents from upper- and upper-middle class are able to provide their children with beneficial social networks and access to good schools, tutors, and other developmentally favorable factors. When parents are able to support young adult children during difficult times they provide safety nets for their children to help achieve attainment. This parental support, along with any financial contribution from parents to their child, can be referred to as private support. However, only some parents who are of higher SES are able to provide such private support. It is this circumstance that can induce social disparities between families that differ in status (Swartz, 2008).

**Benefit of educational attainment**

According to Baum, Ma, and Payea (2013), there are far too many emerging adults struggling to find their place in our society. The benefits of an education beyond a high school diploma are thought to be a prerequisite for a secure lifestyle and an improved probability of employment as well as a stable career with positive earning trajectory (Baum et al., 2013). Higher educational attainment increases opportunities not only for the individual but also for society as a whole. Individuals with a higher level of education are more likely to pay more in taxes, have a lower probability of being unemployed, have employer-provided health insurance or pension plans, are less likely to have health risks, and are more likely to register, vote, and participate in presidential elections (“The Benefits,” 2006).

In 2011, differences in earnings was apparent for individuals with a master’s degree, who earned twice as much before taxes as high school graduates and took home more than 90% more after-tax earnings while working full-time, compared to 60% greater after-tax earnings for full-
time workers with a bachelor’s degree in relation to high school graduates (Baum et al., 2013). Those with a professional degree paid over three and a half times more in total tax payments compared to high school graduates. Some of the health benefits that college graduates reap include lower smoking incidences, increased physical activity, and lower obesity rates for both the parents and their children (Baum et al., 2013). Numerous individuals with a postsecondary education enjoy better working conditions and increase their skills and knowledge (Baum et al., 2013). Many of the benefits of a higher education are not only afforded to the individual and to society more broadly, but also to their families. Not only do an individual’s earnings increase with higher educational attainment, but they are seven times more likely to spend on education and enrichment activities for their children (Duncan & Murnane, 2011). A higher level of education provides tools to live a healthier and more satisfied life to participate in civil society and to create opportunities for their future offspring.

**Parent academic achievement**

**Influence of parents’ academic achievement**

The importance of education passed on from one generation to the next is a concept that is vital for positive adult outcomes. Hauser-Cram (2009) examined multiple studies to define the underlying mechanism of mediation between a child’s education attainment and their parents’ educational attainment. The relationship between parent education and children's education mechanisms varies at different life stages and among ethnic groups (Hauser-Cram, 2009). Critical promoters of academic outcomes are the parents’ belief systems and their parenting practices, both of which are greatly influenced by parents’ education (Hauser-Cram, 2009). Parental beliefs and practices help to shape parents’ expectations about their children’s academic achievement, and it helps them convey those expectations to their children (Hauser-Cram, 2009).
However, during adolescence most children develop their own set of expectations about their present and subsequent academic success after experiences with school. Some patterns of mechanism for mediation that emerged from Hauser-Cram’s (2009) examination have found that children’s learning skills and their school readiness are attributed to the cognitive stimulation that is associated with the maternal level of educational attainment in the domestic environment (Hauser-Cram, 2009). A successful rise in a mother's level of education and educational attainment created a positive and improved environment for children and the children’s communication skills (Hauser-Cram, 2009).

According to Hauser-Cram (2009), another crucial mediator between maternal education and a child’s educational attainment in emerging adulthood is the child’s initial school adjustment and parents’ participation in their education during early adolescence. Systems that are put in place to assist parents with low education levels and to increase their own educational attainment provide many positive benefits for the family (Hauser-Cram, 2009). One of the many benefits includes positive changes in the welfare and positive educational outcomes for their children (Hauser-Cram, 2009). This places a great value on examining the long-term diverse impact of parent’s academic achievement or lack thereof on their children’s educational attainment.

Hahs-Vaugh (2004) conducted a research study to expand awareness of college students that were the first in their immediate families to enroll in college. These college students are considered to be first-generation students. The sample was derived from the Beginning Postsecondary Students Longitudinal Study (BPS) from1990 (base year), 1992 (first follow-up), and 1994 (second follow-up). The researcher utilized two comparison groups that were divided into subsets, first-generation students \( (n=474) \) and non-first-generation students \( (n=1,155) \). In
general, the results showed that first-generation students have different college experiences than non-first-generation students. These differences were more likely to be found on entrance exam scores, academic preparation and academic readiness, college performance, and parental support. According to Hahs-Vaughn (2004), it is equally important to look at the impact that parents’ education level has on students prior to attending college, during college, and after college completion. The impact of parents’ education can even be felt prior to students going to college.

Due to the lack of parental education, many students are likely to suffer with low self-regard, low self-worth, receive less reassurance from parents to attend college, and have little to no aspirations to attend postsecondary institutions (Hahs-Vaughn, 2004; Hearn, 1992; Hellman, 1996; McGregor, Mayleben, Buzzanga, Davis, & Becker, 1991; Stage & Hossler, 1989; Terenzini et al., 1996). Once first-generation students enter college, they experience additional obstacles and setbacks due to their parents’ lower level of academic achievement. During college enrollment, first-generation students have a tendency to be less self-assured in their college academic achievements and less likely to intermingle with their fellow classmates, and are less likely to communicate with their professors (Hahs-Vaughn, 2004; Riehl, 1994; Terenzini et al., 1996).

Hahs-Vaughn’s (2004) research has recognized that student educational achievement can be predicted by parents’ educational attainment (Hodgkinson, 1993). First-generation students and non-first-generation students upon completion of college are both likely to enter into a master’s program (Hahs-Vaughn, 2004; U.S. Department of Education, 2001). On the other hand, first-generation students are unlikely to apply to a doctoral or professional degree program compared to non-first-generation students (Hahs-Vaughn, 2004; U.S. Department of Education, 2001). Although there are many advantages and disadvantages associated with a parent’s
education level, researchers are focusing on the conceptual influence of parents’ education on academically at-risk students to help with fulfillment of their educational attainment goals.

Choy, Horn, Nunez, and Chen (2000) integrated findings of several studies to assess the different characteristics that influence college enrollment in at-risk students and students whose parents did not attend college. The data for this sample were gathered from the NELS 1988 longitudinal study with eighth graders in 1988, and follow-up surveys in 1990, 1992, and 1994. The sample consisted of two groups: students who run the risk of not completing high school due to their family environment and their early education, and students whose parents had not attended any college. The information gathered used the individuals in the sample that had enrolled into four-year colleges and universities. According to Choy et al. (2000), students with certain at-risk characteristics had an overall lower enrollment rate than their peers with little to no at-risk characteristics. At-risk students of this study consisted of students at moderate to high risk of not completing high school, which included certain family background characteristics such as SES, having a sibling drop out of high school, and parental education. Specific variables and experiences were studied to assess their influence on college attendance by at-risk students. These variables included student engagement with school, parent engagement with student learning, peer engagement with learning, and participation in college preparation activities.

Choy et al. (2000) posited that participation in a rigorous mathematics curriculum significantly increases the likelihood of college attendance. Parents’ education is a strong contributor to participation in rigorous mathematics courses. Furthermore, students who completed advance mathematics in high school had a higher likelihood of attending college. This likelihood increased with the difficulty of their mathematics course load. The observation is valid for students whose parents had no college experience. Students whose parents are college
graduates are 70% likely to receive parental encouragement to take algebra, compared to such advice for 52% whose parents are not college graduates. Along with parental education, there are other contributing factors that significantly influence college attendance, such as family support and encouragement. In conclusion, Choy et al. (2000) indicated a significant remedy to support students whose parents did not attend college, which included teachers and counselors serving as proxy parents to guide the way through the higher educational attainment maze.

**Family Investment Model (FIM)**

**Conceptual framework**

The current study drew from the FIM as a conceptual framework in an attempt to understand the correlation between parents’ academic achievement and emerging adult children’s perceptions of their parents’ SES and their educational attainment. The socio-economic context of human development was discussed by Conger and Donnellan (2007) in an analysis of several research findings. A segment of this analysis addresses the relationship between SES and human development or, more specifically, child development in terms of family investments in children. The principles of the FIM are outlined along with an extension of the model to include the relevance of parental educational achievements and occupational positions. The FIM branches from the concept that parents with higher-SES compared to lower-SES have greater access to financial, social, and human capital. Access to these three forms of capital is more specifically described as income, occupational status, and education, respectively. According to the FIM, families with higher income are capable of investing more in child development. These investments include provision of learning materials and a stimulating environment. The FIM proposes that parents with higher education place a priority on activities and experiences that foster their children's academic success. Conger and Donnellan (2007)
stated that parents with more education are more knowledgeable and possess a greater understanding of ways to encourage the academic success of their children. In terms of occupational status, the FIM proposes that there is a positive correlation between work role prestige and provision of access to career-related activities for their child. Taken collectively, the FIM proposes that parents invest their economic, educational, and occupational capital in ways that aid the well-being of their children into adulthood. This investment of resources, as outlined in the FIM, was also reported by Conger, Conger, and Martin (2010).

Conger et al. (2010) also reported a detailed overview of the FIM and research that has been conducted to assess its validity. The report provides findings of several studies that support the preliminary model of family investment, which considered only the influence of economic well-being. These studies outline the two most basic principles of the influence of income: (1) family income positively influences educational, financial, and occupational success during adulthood, and (2) family income influences investment of resources that foster the well-being of their children. Conger et al. (2010) stated the importance of extending the FIM to consider the influence of education and occupational status in addition to the influence of economic well-being. Studies that have assessed this extended view of the FIM are outlined in the report by Conger et al. (2010). These studies support the proposal that parents with economic, educational, and occupational success are able to make greater investments in the development of their children through stimulation of learning, provision of stimulating materials, and access to experiences that foster later success. Given that the quantity of these studies is limited, Conger et al. (2010) suggested further research to examine the role of education and occupational statuses in the FIM. Furthermore, it was suggested that education be the foremost item of interest in future FIM research. A strong focus is proposed for education because it was noted to be the primary
determinant of income and occupational status. Furthermore, this report stated that education is the primary resource that provides security during times of economic turmoil, which directly affects occupation. Conger et al. (2010) concluded their report by suggesting that the FIM be assessed in an older age group. Such an assessment will provide vital information of any differential influence of the FIM in terms of age. Given the need for inclusion on education and occupational status in the FIM, studies have assessed the significance of the FIM with the addition of these two SES factors.

The relevance of the FIM was investigated in a study by Melby et al. (2008) to determine its involvement in the association between socio-economic characteristics and later educational attainment of 451 young adults from two-parent families. The study, which was conducted from 1989 to 2002, involved three components of socio-economic status: parents’ educational level, occupational prestige, and family income. These three components, measured in 1989, were analyzed for any significant relationship with youths’ educational attainment in 2002. Educational attainment data were obtained through youth's self-report in 2002, when the youth averaged 26 years of age. The results of this study showed statistically significant direct associations between all three SES components and youths’ educational attainment. The strongest correlation was found between parents' education and youths' educational attainment. Parent educational level and family income also had indirect effects on youths' educational attainment through supportive parenting.

Melby et al. (2008) also found that the number of years of formal education completed by parents was directly related to adolescent academic engagement. Furthermore, academic engagement was found to be related to educational attainment by emerging adults. Given that additional researchers have examined family income influences on emerging adults, it is
noteworthy to include and explore FIM and young children’s development in terms of income in this study.

Yeung, Linver, and Brooks-Gunn (2002) examined how family income affects young children's development. Specifically, Yeung et al. (2002) studied mediating factors for the effect of income on child development. These mediating factors were explored as a part of two general perspectives, one of which, the investment perspective, is relevant to this review. Family investment was measured in two ways: the power of income, which allows the provision of cognitively stimulating materials, and time spent with the child in stimulating experiences. The study, which included 753 children between ages 3 and 5 years, analyzed child development through Woodcock-Johnson Achievement Test-Revised (W-J) scores (problem score and letter-word score). The results showed that, excluding investment mediators, there is a significant correlation between family income and child well-being. However, the effect of income on achievement became non-significant or reduced when investment mediators were added. Given this observation, it is important to discuss which of the two investment mediators (income power or time investment) affect achievement scores. Both investment mediators had significant direct effects of the same magnitude on child's W-J letter-word score. Furthermore, educational activities and materials were the most important mediators of the association between income and W-J letter-word scores. These investment mediators were shown to have a similar effect on W-J problem scores. It can be concluded from this study that the association between income and child development is not simple, but involves multiple factors. While income or money can buy cognitively stimulating materials, parental time investment was shown to be a contributing factor to the child's cognitive achievement.
CHAPTER 3. METHODOLOGY

**Introduction**

The purpose of this study was to determine the correlations between parents’ academic achievement, emerging adult children’s perception of their parents’ socio-economic status, and the educational attainment of the emerging adult children. This chapter explains the methods and procedures that were used in this study. Questionnaire procedures, population and sample selection, instrumentation, quantitative data analysis, and analytical procedures are discussed. Questionnaire procedures, sample selection, and instrumentation are all derived from a preexisting national longitudinal data set.

One principal research question guided the study:

What is the correlation between parents’ academic achievement, emerging adult children’s perceptions of their parents’ SES, and the educational attainment of the emerging adult children?

The principal research question was delineated into several sub-questions to provide structural basis for the study:

1. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have high educational attainment?

2. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have average educational attainment?

3. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have low educational attainment?

4. Do emerging adults of parents with average academic achievement and average perceived socio-economic status have high educational attainment?

5. Do the emerging adults of parents with average academic achievement and average perceived socio-economic status average educational attainment?
6. Do the emerging adults of parents with average academic achievement and average perceived socio-economic status have low educational attainment?

7. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have high educational attainment?

8. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have average educational attainment?

9. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have low educational attainment?

**Population and Sample**

For the purpose of this study, the sample consisted of the Panel Study of Income Dynamic Study (PSID) 2011 Main Family data set of emerging adult respondents who were between 25 and 29 years old. The sample size was 1,134. The mean age of the participants was 26.98 years ($SD = 1.400$). A majority of the respondents had never been married (62.1%) and were male (65.8%). The mean number of children of emerging adult respondents was .92 ($SD = 1.32$). Most of the individuals self-reported their race as White (53.3%), followed by Black, African American, or Negro (41.2%), American Indian or Alaska Native (0.8%), and other (3.7%). A plurality of the emerging adults grew up in the following regions in the United States: South (40%), followed by North Central (28%), West (17%), Northeast (12.3%), Alaska and Hawaii (0.4%), and foreign country (2.3%). Emerging adults currently reside in the following regions: South (41.9%), followed by North Central (25.7%), West (19.8%), Northeast (11.6%), Alaska and Hawaii (0.1%), and foreign country (0.9%).

**Research Protocol**

The following research protocol was utilized to conduct this study:
Iowa State University Institutional Review Board (IRB) approved and declared this research exempt from the requirements of human subjects protections regulations on December 12, 2013. The formal IRB approval is provided in Appendix A.

For the research and data analysis of this study, the publicly accessible Panel Study of Income Dynamic Study (PSID) 2011 Main Family dataset was used. The data used from this national, longitudinal study represented United State men, women, children, and the family units in which they reside. Data collected from 1968 to present-day have emphasized economics and demographics in addition to behavioral, sociological, and psychological measures. PSID developed and utilizes elaborate questionnaires using language based on original study concepts regarding specific information being gathered often retrospectively. Questionnaires are administered through detailed interviews in person or by telephone. PSID has followed individuals from the original sample households as they have grown older, as well as their children, and the children’s offspring as they have transitioned to adulthood on an annual basis. In 1997, PSID moved from annually collecting data to a biannual data collection timeline. Currently, there are over 18,000 individuals living in approximately 5,000 households that are represented in the sample.

The PSID 2011 is the most current main family data available. The PSID 2011 Main Family questionnaire sample and URL are provided in Appendix B.

The following independent and dependent variables were measured in the data set and used in statistical analysis:

**Independent variables**

- Demographics: age, gender, race, marital status, number of children, region grew up and current region.
All independent variables were categorical in nature with the exception of age and number of children. The first independent variable, “age,” was continuous in nature. Numerical responses for this variable indicated the actual age of the respondent. The second independent variable, “gender,” was a dichotomous variable coded 1= male and 2= female. The third independent variable, “race,” was categorical in nature. The response categories were coded as follows: 1= White, 2= Black, African American or Negro, 3= American Indian or Alaska Native, 4= Asian, 5= Native Hawaiian or Pacific Islander, and 7= Other. The fourth independent variable, “Marital status,” was categorical in nature. The response categories were coded as follows: 1= Married, 2= Never Married, 3= Widowed, 4= Divorced, annulled, and 5= Separated. The fifth independent variable, “number of children,” was continuous in nature. Numerical responses for this variable indicated the respondent’s number of children. The sixth independent variable, “region grew up,” was categorical in nature. The response categories were coded as follows: 1= Northeast, 2= North Central, 3= South, 4= West, 5= Alaska, Hawaii, and 6= Foreign Country. The seventh independent variable, “current region,” was categorical in nature. The response categories were coded as follows: 1= Northeast, 2= North Central, 3= South, 4= West, 5= Alaska, Hawaii, and 6= Foreign Country.

- Parents’ Academic Achievement

Respondents were asked, “How much education did your father complete (in the United States)?” Response categories included, (0-5 grades), (6-8 grades) “grade school”, (9-11 grades) “some high school”, (12 grades) “completed high school”, (12 grades) “plus nonacademic training”, (Some College, no degree), “Associate degree”, (BA, no advance degree) “College”, and (College, advanced or professional degree).
Respondents were asked, “How much education did your mother complete (in the United States)?” Response categories included, (0-5 grades), (6-8 grades) “grade school”, (9-11 grades) “some high school”, (12 grades) “completed high school”, (12 grades) “plus nonacademic training”, (Some College, no degree), “Associate degree”, (BA, no advance degree) “College”, and (College, advanced or professional degree).

For the current study, responses to each academic achievement variable were combined to generate a single scale score. To combine these variables, each of the variables was recoded based on the highest level of academic achievement. Higher scores for these measures represented higher levels of educational attainment. Recoded response categories included: No high school graduate, High school graduate, Some college, Associate’s degree, Bachelor’s degree, Master’s degree and Advanced degree. Restructured response categories were coded as follows: 1= No high school graduate, 2= high school graduate, 3= Some college, Associate’s degree, 5= Bachelor’s degree, 6= Master’s Degree, and 7= Advanced degree. These response categories were further categorized as High, Average and Low. High represents respondents with a bachelor’s degree or higher, Average represents respondents with a high school diploma/GED, and Low represents respondents with no high school diploma. The categories were coded in the following way: 1= Low, 2= Average, and 3= High.

- Emerging Adults’ Perception of Parents’ SES:

  Respondents were asked, “Were your parents poor when you were growing up, pretty well off, or what?” Response categories included, “Poor”, “Average”, and “Pretty well off.”
Categories were coded as follows: 1= Poor, 3= Average, and 5= Pretty well off. This measure of perceived financial status has been found to be valid and has been used in multiple studies (MacLean, 2011; Meer, Miller, & Rosen, 2003).

**Dependent variables**

- Emerging Adults’ Educational Attainment:

  Respondents were asked, “Did you graduate from high school, get a GED, or neither?” Response categories included the following items: (Graduated from High School), (Got a GED) or (Neither). Respondents were also asked, “Have you ever attended college?” Response categories were: (Yes) or (No). Additionally, respondents were asked, “Are you currently attending college?” Response categories were: (Yes) or (No). Next respondents were asked, “Did you receive a degree?” “What was it?” Response categories included the following items: (Did not receive degree), (Associate Degree), (Bachelor’s Degree), (Master’s Degree), (Doctoral degree), (Medical Doctorate), (Law Degree/JD) or (Other). Finally, respondents were asked, “Did you receive any other degree or a certificate through a vocational school, a training school, or an apprenticeship program?” Response categories were: (Yes) or (No).

  For the current study, educational attainment response variables were also combined to generate a single scale score. To combine these variables, each of the variables was recoded based on the highest level of academic achievement. Higher scores for these measures represented higher levels of educational attainment. Recoded response categories included: No high school graduate, High school graduate, Some college, Associate’s degree, Bachelor’s degree, Master’s degree and Advanced degree. Restructured response categories were coded as follows: 1= No high school graduate, 2= high school graduate, 3= Some college, 4= Associate’s
degree, 5= Bachelor’s degree, 6= Master’s Degree, and 7= Advanced degree. These response categories were further categorized as High, Average, and Low. High represents respondents with a bachelor’s degree or higher, Average represents respondents with a high school diploma/GED, and Low represents respondents with no high school diploma. The categories were coded in the following way: 1= Low, 2= Average, and 3= High.

The PSID custom and amended codebooks are provided in Appendix C.

**Data Analysis Plan**

The PSID 2011 Main Family questionnaire data set was used to determine the correlation between parents’ academic achievement, emerging adult children’s perceptions of their parents’ SES, and their educational attainment. Data were analyzed using IBM SPSS Statistics Version 21.0 using descriptive and inferential statistics. The following emerging adult demographic variables were analyzed using a descriptive analysis: age, gender, race, marital status, number of children, region grew up, and current region. For each variable this analysis was used to determine the mean, standard deviation, median, range, frequency, and percentage. This information provides an overview of the emerging adult respondents that make up the study sample.

Thereafter, forward selection stepwise linear regression procedures were conducted to answer the principal research question that guided this study, in addition to the nine sub-questions. All variables of interest were entered into the analysis. In addition, demographic variables were controlled for in the analysis. The regression program automatically selected the variables that significantly predict educational attainment of emerging adults. This selection process tested the addition of each variable to determine its potential improvement of the model. The program only retained variables that improved the model. This particular regression procedure was most appropriate for the study in that it allowed the observation of model growth
with the addition of new predictors. Further analysis using Pearson’s chi-square was conducted to analyze the relationship between the specific variables outlined in the principal research question: parents’ academic achievement, emerging adult children’s perceptions of their parents’ SES, and emerging adult children’s educational attainment. The relationships between previously mentioned variables were analyzed separately (i.e., the relationship between emerging adult children’s educational attainment and their parents’ academic achievement; and the relationship between emerging adult children’s educational attainment and their perceptions of their parents’ SES). Given the categorical nature of the sub-questions, chi-square analysis was chosen for its ability to analyze the association between categorical variables.

The research design has led to some instances of missing data and inconsistency. Data gathered from the respondents was self-reported and retrospective. Consequently, data derived from such reports can be compromised by the problem of missing data and/or inconsistency. Missing data was custom-coded in IBM SPSS Version 21.0 and excluded from analysis. This explains the discrepancy between the original sample size and frequencies of the major study variables.
CHAPTER 4. ANALYSIS AND FINDINGS

The purpose of the current study was to determine the correlations between parents’ academic achievement, emerging adult children’s perception of their parents’ SES, and the educational attainment of the emerging adult children. This chapter is organized in three sections. The first section includes characteristics of the emerging adult sample. The second and third sections present the results of the principal research question and nine sub-questions.

Emerging Adult Sample Characteristics

A brief summary of related characteristics of the sample of emerging adult children is included in Table 1. Information is provided in terms of age, gender, race, marital status, number of children, region grew up, and current region. The frequency, mean, standard deviation ($SD$), and percentages of characteristics are provided for the respondents.

The sample included 1,134 participants. The mean age of the participants was 26.98 years ($SD = 1.400$ years). A majority of the respondents had never been married (62.1%). In terms of gender, 65.8% of the sample were male compared to 34.2% female. The mean number of children in the emerging adult household was .92 ($SD = 1.32$ children). Most of the individuals self-reported their race as White (53.3%), followed by Black, African American, or Negro (41.2%), American Indian or Alaska Native (0.8%), and other (3.7%). The lack of various ethnic groups reflects the general population at the time the sample was drawn. The sample is not inclusive of ethnic groups that arrived in the United States after 1968. PSID unsuccessfully attempted to rectify this crucial shortcoming by adding immigrant refresher samples to the study in 1990. Due to lack of sufficient funding, a majority of the refresher sample members were eliminated. A plurality of the emerging adults grew up in the following regions in the United
States: South (40%), followed by North Central (28%), West (17%), Northeast (12.3%), Alaska and Hawaii (0.4%), and foreign country (2.3%). Emerging adults currently reside in the following regions: South (41.9%), followed by North Central (25.7%), West (19.8%), Northeast (11.6%), Alaska and Hawaii (0.1%), and foreign country (0.9%).

Table 1. Selected demographic characteristics among emerging adults.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Mean (SD)</td>
<td>1134</td>
<td>26.98 (1.400)</td>
</tr>
<tr>
<td>Number of Children Mean (SD)</td>
<td>1134</td>
<td>0.92 (1.232)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>746</td>
<td>65.8</td>
</tr>
<tr>
<td>Female</td>
<td>388</td>
<td>34.2</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>598</td>
<td>53.3</td>
</tr>
<tr>
<td>Black, African-American or Negro</td>
<td>462</td>
<td>41.2</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>10</td>
<td>0.9</td>
</tr>
<tr>
<td>Asian</td>
<td>9</td>
<td>0.8</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Other</td>
<td>42</td>
<td>3.7</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>338</td>
<td>29.8</td>
</tr>
<tr>
<td>Never Married</td>
<td>704</td>
<td>62.1</td>
</tr>
<tr>
<td>Widowed</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>Divorced, annulled</td>
<td>53</td>
<td>4.7</td>
</tr>
<tr>
<td>Separated</td>
<td>36</td>
<td>3.2</td>
</tr>
<tr>
<td>Region Grew Up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>137</td>
<td>12.3</td>
</tr>
<tr>
<td>North Central</td>
<td>312</td>
<td>28.0</td>
</tr>
<tr>
<td>South</td>
<td>446</td>
<td>40.0</td>
</tr>
<tr>
<td>West</td>
<td>190</td>
<td>17.0</td>
</tr>
<tr>
<td>Alaska, Hawaii</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Foreign Country</td>
<td>26</td>
<td>2.3</td>
</tr>
<tr>
<td>Current Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>132</td>
<td>11.6</td>
</tr>
<tr>
<td>North Central</td>
<td>292</td>
<td>25.7</td>
</tr>
<tr>
<td>South</td>
<td>475</td>
<td>41.9</td>
</tr>
<tr>
<td>West</td>
<td>224</td>
<td>19.8</td>
</tr>
<tr>
<td>Alaska, Hawaii</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>Foreign Country</td>
<td>10</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Source: 2011 PSID data.
Descriptive statistical summaries of emerging adult characteristics are presented in Table 2. Emerging adult respondents who graduated from high school account for 78.9% of the sample, followed by 10.2% getting their GED, and 10.9% who reported having obtained neither. The majority of emerging adults had attended college (64.4%), with 57.8% receiving a degree. The college degree received most frequently by emerging adults was a bachelor’s degree (66.4); followed by Associate of Arts (19.9%), law degree (1.6%), various medical degrees (1.6%), doctorate (1.1%), master’s degree (0.3%), and other (1.6%). There were 19.1% of respondents who received other certificates or training. Approximately 22% of emerging adults perceived their parents’ SES as being poor, 39.1% reported their parents’ SES as average, and 38.8% reported their parents’ SES as pretty well off.
Table 2. Descriptive statistical summary of selected emerging adult characteristics.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Graduated High School</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduated from High School</td>
<td>879</td>
<td>78.9</td>
</tr>
<tr>
<td>GED</td>
<td>114</td>
<td>10.2</td>
</tr>
<tr>
<td>Neither</td>
<td>121</td>
<td>10.9</td>
</tr>
<tr>
<td><strong>Attended College</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>717</td>
<td>64.4</td>
</tr>
<tr>
<td>No</td>
<td>397</td>
<td>35.6</td>
</tr>
<tr>
<td><strong>College Degree Received</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>373</td>
<td>57.8</td>
</tr>
<tr>
<td>No</td>
<td>272</td>
<td>42.2</td>
</tr>
<tr>
<td><strong>Highest College Degree Received</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AA; Associate of Arts</td>
<td>74</td>
<td>19.9</td>
</tr>
<tr>
<td>Bachelor of Arts/Science/Letters; BA; BS</td>
<td>247</td>
<td>66.4</td>
</tr>
<tr>
<td>Masters of Arts/Sciences; MA; MS; MBA</td>
<td>34</td>
<td>9.1</td>
</tr>
<tr>
<td>Doctorate; Ph.D.</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>LLB; JD (Law degree)</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td>MD; DDS; DVM; DO (Medical degrees)</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Other Certificate or Training Received</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>216</td>
<td>19.1</td>
</tr>
<tr>
<td>No</td>
<td>912</td>
<td>80.9</td>
</tr>
<tr>
<td><strong>Perception of their Parents’ SES</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>244</td>
<td>22.0</td>
</tr>
<tr>
<td>Average</td>
<td>433</td>
<td>39.1</td>
</tr>
<tr>
<td>Pretty well off</td>
<td>430</td>
<td>38.8</td>
</tr>
</tbody>
</table>

Source: 2011 PSID data.

*Missing data/inconsistency: Attended College (N=20), College Degree Received (N=72), Highest College Degree Received (N=7), Other Certificate or Training Received (N=6), and Perception of their Parents’ SES (N=27)*

Descriptive statistical summaries of parents’ academic achievement are presented in Table 3. The highest level of education completed by the fathers of the emerging adults was high school (38.7%), followed by some college; associate degree (16.3%), college BA and no advanced degree (15.8%), college, advanced, or professional degree (9.9%), 9-11 grades (9.7%), 12 grades, plus nonacademic training (5.2%), 6-8 grades (4.1%), and finally 0-5 grades (0.3%). The mothers of the emerging adults highest level of educational attainment was 12 grades; high school completion (36.5%), followed by college BA and no advanced degree (20.3%), some
college; associate degree (19%), college, advanced, or professional degree (8.6%), 9-11 grades (7.8%), 12 grades; plus nonacademic training (4.3%), 6-8 grades (3.3%), and 0-5 grades (0.3%).

Table 3. Descriptive statistical summary of parents’ academic achievement.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Father</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 – 5 grades</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>6 – 8 grades</td>
<td>39</td>
<td>4.1</td>
</tr>
<tr>
<td>9 – 11 grades</td>
<td>91</td>
<td>9.7</td>
</tr>
<tr>
<td>12 grades; completed high school</td>
<td>365</td>
<td>38.7</td>
</tr>
<tr>
<td>12 grades; Plus nonacademic training</td>
<td>49</td>
<td>5.2</td>
</tr>
<tr>
<td>Some college; Associates degree</td>
<td>154</td>
<td>16.3</td>
</tr>
<tr>
<td>College BA and no Advanced degree</td>
<td>149</td>
<td>15.8</td>
</tr>
<tr>
<td>College, advanced or professional degree</td>
<td>93</td>
<td>9.9</td>
</tr>
<tr>
<td><strong>Mother</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 – 5 grades</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>6 – 8 grades</td>
<td>33</td>
<td>3.3</td>
</tr>
<tr>
<td>9 – 11 grades</td>
<td>77</td>
<td>7.8</td>
</tr>
<tr>
<td>12 grades; completed high school</td>
<td>362</td>
<td>36.5</td>
</tr>
<tr>
<td>12 grades; Plus nonacademic training</td>
<td>43</td>
<td>4.3</td>
</tr>
<tr>
<td>Some college; Associates degree</td>
<td>188</td>
<td>19.0</td>
</tr>
<tr>
<td>College BA and no Advanced degree</td>
<td>201</td>
<td>20.3</td>
</tr>
<tr>
<td>College, advanced or professional degree</td>
<td>85</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Source: 2011 PSID data
*Missing data/inconsistency: Father (N=191) and Mother (N=142)

Descriptive statistics for educational/academic variables and perception of parents’ SES are presented in Table 4. The mean educational attainment of emerging adults and academic achievement of mothers was some college. The fathers’ academic achievement mean represents high school graduate and some college. The mean emerging adult children’s perception of their parents’ SES was average.
Table 4. Descriptive statistical summary of analyzed dependent and independent variables (N= 840)*.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging Adult Educational Attainment</td>
<td>3.36</td>
<td>1.45</td>
</tr>
<tr>
<td>Father Academic Achievement</td>
<td>2.92</td>
<td>1.59</td>
</tr>
<tr>
<td>Mother Academic Achievement</td>
<td>3.12</td>
<td>1.58</td>
</tr>
<tr>
<td>Emerging Adult Children’s Perception of their Parents’ SES</td>
<td>3.47</td>
<td>1.48</td>
</tr>
</tbody>
</table>

Source: 2011 PSID data
*Missing data/inconsistency: N=294

Results of Principal Research Question

What is the correlation between parents’ academic achievement, their emerging adult children’s perceptions of their parents’ SES, and the educational attainment of the emerging adult children?

A forward selection stepwise linear regression and Pearson’s chi-square were utilized to test the correlation between parents’ academic achievement, their emerging adult children’s perceptions of their parents’ SES, and the adult children’s educational attainment. In conducting the forward selection stepwise linear regression analysis, the dependent variable was the emerging adult children’s educational attainment. The independent variables included parents’ academic achievement and their emerging adult children’s perceptions of their parents’ SES. Controlled variables included the adult children’s age, gender, race, marital status, number of children, region grew up, and current region.

The forward selection stepwise linear regression procedures involved sequential addition of each independent variable to an intercept-only model. Each independent variable was analyzed to determine the degree to which they predict the dependent variable. Furthermore, the correlation between dependent and independent variables was calculated as a result of this
analysis. The results of the calculation of correlation and predictability are presented in Table 5 and Table 6, respectively. A positive correlation was observed between emerging adult educational attainment and the following variables: fathers’ academic achievement, mothers’ academic achievement, emerging adults’ perception of their parents’ SES, age, and gender. Conversely, a negative correlation was observed between emerging adult educational attainment and the following variables: region grew up, current region, race, marital status, and number of children.

The highest correlation was seen between emerging adult children’s educational attainment and fathers’ academic achievement ($r=.484, p \leq .01$). The results showed a significant correlation between emerging adults’ educational attainment and the following variables: fathers’ academic achievement, mothers’ academic achievement, emerging adults’ perception of parents’ SES, region grew up, race, marital status, and number of children. The prediction model contained six of the ten predictors and was reached in six steps. The model was statistically significant, $F (6, 833) = 82.625, p < .001$, and accounted for approximately 37% of the variance of emerging adult children’s educational attainment ($R^2 = .373$, Adjusted $R^2 = .369$). Emerging adult children’s educational attainment was primarily predicted by higher levels of father academic attainment, a lower number of children, and to a lesser extent by higher levels of mother academic attainment as determined from the standardized beta values. The raw and standardized regression coefficients of the predictors are shown in Table 6. For the prediction model (model 6), father academic achievement received the strongest weight ($\beta=.287$), followed by number of children; race received the lowest of the six weights ($\beta=-.062$).
Table 5.  Correlation matrix of major study variables.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. EAEA</td>
<td>1.000</td>
<td>0.484**</td>
<td>0.445**</td>
<td>0.133**</td>
<td>0.036</td>
<td>0.021</td>
<td>-0.101**</td>
<td>-0.037</td>
<td>-0.193**</td>
<td>-0.112**</td>
<td>-0.408**</td>
</tr>
<tr>
<td>2. FAA</td>
<td>1.000</td>
<td>0.549**</td>
<td>0.232**</td>
<td>0.025</td>
<td>-0.127**</td>
<td>-0.073</td>
<td>0.018</td>
<td>-0.231**</td>
<td>-0.068</td>
<td>-0.296**</td>
<td></td>
</tr>
<tr>
<td>3. MAA</td>
<td>1.000</td>
<td>0.225**</td>
<td>-0.011</td>
<td>-0.088**</td>
<td>-0.058*</td>
<td>0.021</td>
<td>-0.183**</td>
<td>-0.063*</td>
<td>-0.272**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. EA Perception of Parents' SES</td>
<td>1.000</td>
<td>-0.079*</td>
<td>-0.032</td>
<td>-0.081**</td>
<td>-0.060*</td>
<td>0.037</td>
<td>-0.080*</td>
<td>-0.055</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Age</td>
<td>1.000</td>
<td>-0.031</td>
<td>0.099</td>
<td>0.008</td>
<td>-0.071*</td>
<td>0.006</td>
<td>0.071*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Gender</td>
<td>1.000</td>
<td>-0.008</td>
<td>-0.028</td>
<td>0.097**</td>
<td>0.356**</td>
<td>0.180**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Region Grew Up</td>
<td>1.000</td>
<td>0.728**</td>
<td>0.125**</td>
<td>-0.030</td>
<td>0.033</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Current Region</td>
<td>1.000</td>
<td>0.119**</td>
<td>-0.040</td>
<td>-0.024</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Race</td>
<td>1.000</td>
<td>0.073*</td>
<td>0.127**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Marital Status</td>
<td>1.000</td>
<td>0.095**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Number of Children</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>3.4</th>
<th>2.9</th>
<th>3.1</th>
<th>3.5</th>
<th>27</th>
<th>1.4</th>
<th>2.6</th>
<th>2.7</th>
<th>1.5</th>
<th>1.9</th>
<th>0.9</th>
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</thead>
<tbody>
<tr>
<td>Standard Deviation</td>
<td>1.5</td>
<td>1.6</td>
<td>1.6</td>
<td>1.5</td>
<td>1.4</td>
<td>0.5</td>
<td>1.0</td>
<td>0.9</td>
<td>0.8</td>
<td>0.9</td>
<td>1.2</td>
</tr>
</tbody>
</table>

*p≤.05  
**p≤.01

EAEA= Emerging Adult Educational Attainment  
FAA= Fathers' Academic Achievement  
MAA= Mothers' Academic Achievement  
EAEA= Emerging Adult Educational Attainment
Table 6. Summary of forward regression for variables predicting emerging adult children’s educational attainment.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
<th></th>
<th>Model 4</th>
<th></th>
<th>Model 5</th>
<th></th>
<th>Model 6</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FAA</td>
<td>0.44</td>
<td>0.03</td>
<td>0.36</td>
<td>0.03</td>
<td>0.26</td>
<td>0.03</td>
<td>0.27</td>
<td>0.03</td>
<td>0.27</td>
<td>0.03</td>
<td>0.26</td>
<td>0.03</td>
</tr>
<tr>
<td>Number of Children</td>
<td>-0.35</td>
<td>0.04</td>
<td>-0.32</td>
<td>0.03</td>
<td>-0.34</td>
<td>0.04</td>
<td>-0.34</td>
<td>0.04</td>
<td>-0.33</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAA</td>
<td>.20</td>
<td>0.03</td>
<td>.20</td>
<td>0.03</td>
<td>.20</td>
<td>0.03</td>
<td>.20</td>
<td>0.03</td>
<td>.19</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>.39</td>
<td>0.09</td>
<td></td>
<td></td>
<td>.51</td>
<td>0.09</td>
<td>.52</td>
<td>0.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.19</td>
<td>0.05</td>
<td>-0.19</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.11</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.23</td>
<td></td>
<td>0.31</td>
<td>0.03</td>
<td>0.34</td>
<td></td>
<td>0.36</td>
<td>0.03</td>
<td>0.37</td>
<td></td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>F for change in R²</td>
<td>255.96**</td>
<td></td>
<td>93.40**</td>
<td></td>
<td>40.40**</td>
<td></td>
<td>20.90**</td>
<td></td>
<td>14.29**</td>
<td></td>
<td>4.78*</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05  
**p<.01

FAA=Father Academic Achievement  
MAA=Mother Academic Achievement
Results of Sub-Questions

1. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have high educational attainment?

2. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have average educational attainment?

3. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have low educational attainment?

4. Do emerging adults of parents with average academic achievement and average perceived socio-economic status have high educational attainment?

5. Do the emerging adults of parents with average academic achievement and average perceived socio-economic status average educational attainment?

6. Do the emerging adults of parents with average academic achievement and average perceived socio-economic status have low educational attainment?

7. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have high educational attainment?

8. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have average educational attainment?

9. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have low educational attainment?

In conducting the Pearson chi-square analysis, the dependent variable was emerging adult children’s educational attainment. The independent variables included parents’ academic achievement and emerging adult children’s perceptions of their parents’ SES. Results of the analysis are shown in Table 7, Table 8, and Table 9. The chi-square tests showed that emerging adult children’s educational attainment was positively correlated with father academic attainment ($\chi^2=220.426, p<.01$), mother academic attainment ($\chi^2=160.345, p<.01$), and emerging adult children’s perception of their parents’ SES ($\chi^2=36.708, p<.01$).
Of the emerging adult children with a Bachelor’s degree or higher, 55.6% had fathers who also achieved a Bachelor’s degree or higher. Among the emerging adult children with a high school diploma/GED, 69.9% had fathers who also achieved a high school diploma/GED. Within the emerging adult children who did not complete high school, 60.5% had fathers with a high school diploma/GED. Regarding mothers’ academic attainment, 56% of emerging adult children with a Bachelor’s degree or higher had mothers who also achieved a Bachelor’s degree or higher. Roughly 67.1% of emerging adult children with a high school diploma/GED had mothers who also achieved a high school diploma/GED. Nearly 66.7% of emerging adult children who did not complete high school had mothers with a high school diploma or GED. Regarding emerging adults’ perception of their parents’ SES, 47.5% of emerging adults with a Bachelor’s degree or higher perceived their parents to be pretty well-off. Approximately 39.4% of emerging adult children with a high school diploma/GED perceived their parents to be of average SES. Of emerging adult children with no high school diploma/GED, 36.5% perceived their parents to be pretty well off.
Table 7.  Associations of emerging adult children’s low educational attainment, parents’ academic achievement, and the emerging adults’ perception of parents’ SES.

<table>
<thead>
<tr>
<th>Variables</th>
<th>% of EA Within Variable</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers’ AA</td>
<td></td>
<td>&lt;.01*</td>
</tr>
<tr>
<td>Low</td>
<td>36.8%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>60.5%</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>2.6%</td>
<td></td>
</tr>
<tr>
<td>Mothers’ AA</td>
<td></td>
<td>&lt;.01*</td>
</tr>
<tr>
<td>Low</td>
<td>28.0%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>66.7%</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>5.4%</td>
<td></td>
</tr>
<tr>
<td>EA Perception of Parents' SES</td>
<td></td>
<td>&lt;.01*</td>
</tr>
<tr>
<td>Poor</td>
<td>33.0%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>30.4%</td>
<td></td>
</tr>
<tr>
<td>Pretty well off</td>
<td>36.5%</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01
AA=Academic Achievement
EA=Emerging Adult

Table 8.  Associations of emerging adult children’s average educational attainment, parents’ academic achievement, and the emerging adults’ perception of parents’ SES.

<table>
<thead>
<tr>
<th>Variables</th>
<th>% of EA Within Variable</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers’ AA</td>
<td></td>
<td>&lt;.01*</td>
</tr>
<tr>
<td>Low</td>
<td>16.5%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>69.9%</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>13.6%</td>
<td></td>
</tr>
<tr>
<td>Mothers’ AA</td>
<td></td>
<td>&lt;.01*</td>
</tr>
<tr>
<td>Low</td>
<td>12.1%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>67.1%</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>20.8%</td>
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<tr>
<td>EA Perception of Parents' SES</td>
<td></td>
<td>&lt;.01*</td>
</tr>
<tr>
<td>Poor</td>
<td>24.7%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>39.4%</td>
<td></td>
</tr>
<tr>
<td>Pretty well off</td>
<td>35.9%</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01
AA=Academic Achievement
EA=Emerging Adult
Table 9. Associations of emerging adult children’s high educational attainment, parents’ academic achievement, and the emerging adults’ perception of parents’ SES.

<table>
<thead>
<tr>
<th>Variables</th>
<th>% of EA Within Variable</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers' AA</td>
<td></td>
<td>&lt;.01*</td>
</tr>
<tr>
<td>Low</td>
<td>2.5%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>41.8%</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>55.6%</td>
<td></td>
</tr>
<tr>
<td>Mothers' AA</td>
<td></td>
<td>&lt;.01*</td>
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<tr>
<td>Low</td>
<td>2.9%</td>
<td></td>
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<tr>
<td>Average</td>
<td>41.2%</td>
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<tr>
<td>High</td>
<td>56.0%</td>
<td></td>
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<tr>
<td>EA Perception of Parents' SES</td>
<td></td>
<td>&lt;.01*</td>
</tr>
<tr>
<td>Poor</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>44.3%</td>
<td></td>
</tr>
<tr>
<td>Pretty well off</td>
<td>45.7%</td>
<td></td>
</tr>
</tbody>
</table>

*p<.01
AA=Academic Achievement
EA=Emerging Adult
CHAPTER 5. DISCUSSION

The purpose of the current study was to determine the correlations between parents’ academic achievement, emerging adult children’s perception of their parents’ SES and the educational attainment of the emerging adult children. Specifically the study examined the degree to which parents’ academic achievement and their emerging adult children’s perception of their parents’ SES influences the emerging adult children educational attainment. This chapter presents the summary of essential conclusions derived from Chapter 4 while also providing significant findings for discussion, and proposes several implications for theory, research, and practice.

Summary of Study

A forward selection linear regression and Pearson Chi-square analysis were employed in order to observe the correlation between parents’ academic achievement, emerging adult children’s perception of their parents’ socio-economic status, and the educational attainment of the emerging adult children. The sample was obtained from public accessible PSID 2011 Main Family biannual data. PSID is a national, longitudinal study representing U.S. men, women, children, and the family units in which they reside. Over the past forty years, PSID has followed individuals from the original sample households as they have grown older, as well as their children, and the children’s offspring as they have transitioned to adulthood. PSID developed and utilized elaborate questionnaires to obtain various measures listed above. Questionnaires were administered through detailed interviews in person or by telephone. This study was limited to emerging adult respondents between the ages of 25–29 given that age 25 is the minimum age
used to calculate the percentage of individuals in the United States who have attained at least a bachelor’s degree according to the United States Census (2010). The FIM served as a conceptual framework to guide the study. In general, FIM promotes children development through income and education status provided by the financial ability of the family to purchase goods, materials, and services (Haveman & Wolfe, 1995).

Discussion of Findings

In this section, a discussion of the findings will be reported for the principal research question and the sub-questions of this study.

Principal Research Question. What is the correlation between parents’ academic achievement, emerging adult children's perceptions of their parents’ SES and the educational attainment of the emerging adult children?

The study revealed a positive correlation between parents’ academic achievement, emerging adult children’s perception of their parents’ SES, and the educational attainment of the emerging adult children. In addition, only parents’ academic achievement was a significant predictor of emerging adult children’s educational attainment. Specifically, fathers’ academic achievement was the strongest predictor of emerging adult children’s educational attainment. Emerging adult children’s perception of their parents’ SES was not a predictor of later educational attainment.

Sub-Question 1. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have high educational attainment?
The majority of emerging adults with high educational attainment had fathers and mothers with high academic achievement, at 55.6% and 56.0%, respectively. Furthermore, the majority of emerging adults with high educational attainment (45.7%) perceived their parents’ SES to be pretty well off (see Table 9).

**Sub-Question 2. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have average educational attainment?**

Emerging adults with average educational attainment had the lowest percentage, 13.7%, of fathers with high academic achievement and the second-highest percentage, 20.8%, of mothers with high academic achievement. Moreover, the second-highest percentage (35.9%) of emerging adults with high educational attainment perceived their parents’ SES as pretty well off (see Table 8).

**Sub-Question 3. Do emerging adults of parents with high academic achievement and high perceived socio-economic status have low educational attainment?**

Emerging adults with low educational attainment had the lowest percentage of fathers and mothers with high academic achievement, at 2.6% and 5.4%, respectively. Moreover, the majority of emerging adults with low educational attainment (36.5%) perceived their parents’ SES as pretty well off (see Table 7).

**Sub-Question 4. Do emerging adults of parents with average academic achievement and average perceived socio-economic status have high educational attainment?**

Emerging adults with high educational attainment had the second-highest percentage of mothers and fathers with average academic achievement, at 41.8% and 41.2%, respectively. Additionally, the second-highest percentage of emerging adults with high educational attainment (44.3%) perceived their parents’ SES as average (see Table 9).
Sub-Question 5. Do the emerging adults of parents with average academic achievement and average perceived socio-economic status average educational attainment?

The majority of emerging adults with average educational attainment had fathers and mothers with average educational attainment, at 69.9% and 67.1%, respectively. In addition, the majority of emerging adults with average educational attainment (39.4%) perceived their parents’ SES as average (see Table 8).

Sub-Question 6. Do the emerging adults of parents with average academic achievement and average perceived socio-economic status have low educational attainment?

The majority of emerging adults with low educational attainment had fathers and mothers with average academic achievement, at 60.5% and 66.7%, respectively. Furthermore, the lowest percentage of emerging adults with low educational attainment (30.4%) perceived their parents’ SES as average (see Table 7).

Sub-Question 7. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have high educational attainment?

The lowest percentage of emerging adults with high educational attainment had fathers and mothers with low academic achievement, at 2.5% and 2.9%, respectively. Moreover, the lowest percentage of emerging adults with high educational attainment (10.0%) perceived their parents’ SES as poor (see Table 9).

Sub-Question 8. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have average educational attainment?

Emerging adults with average educational attainment had the second-highest percentage (16.5%) of fathers and lowest percentage (12.1%) of mothers with low academic achievement.
Additionally, the lowest percentage of emerging adults with average educational attainment, (24.7%) perceived their parents’ SES as poor (see Table 8).

**Sub-Question 9. Do the emerging adults of parents with low academic achievement and poor perceived socio-economic status have low educational attainment?**

Emerging adults with low educational attainment had the second-highest percentage of fathers and mothers with low academic achievement, at 36.8% and 28.0%, respectively. In addition, the second-highest percentage of emerging adults with low educational attainment, (33.0%) perceived their parents’ SES as poor (see Table 7).

**Related Findings**

In addition to the principal research questions and sub-questions, the findings showed other predictors of emerging adult educational attainment. Aside from parent academic achievement, other variables including number of children, gender, marital status, and race were predictors of emerging adult educational attainment. Specifically, number of children was the second strongest predictor of emerging adult educational attainment, followed by mother academic achievement.

**Implications for Theory, Research, and Professional Practice**

The findings and results from the current study do tend to extend the knowledge of existing literature and research based on parents’ academic achievement, parents’ SES, emerging adult children’s perception of their parents’ SES, and the impact on emerging adult children
educational attainment. The outcomes of this study provided an overflow of information to offer recommendations for areas to address in theory, research, and professional practice.

**Implications for Theory**

When using the FIM as a conceptual framework to guide the study, the FIM proposes that parents with a higher SES are more likely and capable of providing stimulating educational materials which would foster the later rate of success of their children’s educational attainment. However, the results showed that the majority of emerging adult with parents who were perceived as pretty well off did not obtain a bachelor’s degree. The results showed only 33.5% of the emerging adults who perceived their parents to be pretty well off obtained a bachelor’s degree compared to 55.8% of those who obtained a high school diploma/GED. Although FIM has served as the fundamental foundation for several research studies, utilizing different constructs did not reflect similar results; nevertheless it is still a useful framework. When using the same constructs tested by Melby et al. (2008), parents’ educational level and family income, a statistically significant strong correlation was found in the subsequent educational attainment of young adults.

**Implications for Research**

The current study established six significant predictors of emerging adults’ educational attainment: father academic achievement, number of children, mother academic achievement, gender, marital status, and race. The three key significant predictors of emerging adults’ educational attainment were father academic achievement, mother academic achievement, and the number of children of the emerging adults. These findings reaffirm current thinking through similarities between these results and the existing work of other researchers in this field.
However, additional research is needed that will take a 21st century approach of inclusion considering changes in family structure and dynamics while examining educational attainment of emerging adults. The turn of the 21st century has shown an increase in diversity in family background and structure.

According to Bianchi and Milkie (2010), the traditional household of two-parents and two-child family, with a male head of household, sole bread-winner and with the female taking on a more domestic role, is continuously changing with a rise in other types of families including gay and lesbian families and divorced parents with joint custody households. Nevertheless, a large majority of households are still comprised of single-parent families and stepfamilies (Bianchi & Milkie, 2010). The United States is experiencing a rapid demographic change of both the elderly population and racial/ethnic groups due to an extended life span and increased immigration from Asia and Latin America (Bianchi & Milkie, 2010; Jerald, 2009). Preexisting research and literature have focused more on White or European families that were considered middle class compared to more recent research on low-income families and families of color (Bianchi & Milkie, 2010). Minorities are projected to represent the majority of school-aged children by 2023, and are expected to become the majority in the United States by 2042 (Jerald, 2009).

With such an increase in diversity within the population, households, and family dynamics, new challenges are being presented for researchers working with such an ever-changing population. According to Jerald (2009), there have been significant consequences for our younger generation due to the changes in technologies, combined with demographic, political, and economic trends. Despite lifestyle changes in our society, the family still remains the central element of contemporary life. Thus, evaluating the concerns centered on educational
attainment of emerging adults with a different approach can significantly impact individuals, families, and communities. Furthermore, society is the main benefactor of positive changes that result from an increase in educational attainment by emerging adults.

**Implications for Professional Practice**

The results of this study potentially provide a new starting point for community organizations, public school systems, colleges and universities, youth and family-serving state agencies, and federal and policy research organizations to reassess the influence that proxy parenting has on educational attainment. In order to prepare all adolescents for postsecondary education or advanced training, researchers should consider investigating different methods to assist in reproducing positive learning socialization environment for all (Jerald, 2009). When parents have a limited amount of education, their children are placed at a disadvantage in terms of their own pursuit of education. In these instances, proxy parenting can be employed to help alleviate the burden that parents carry. Proxy parents may include individuals, programs, or organizations that are capable of providing the guidance needed to direct adolescents, who will become emerging adults, through the maze of educational attainment. These individuals, programs, and organizations can also serve as a support mechanism, challenging parents to become more involved in the education of their children. The concept of proxy parents incorporates the notion of allowing individuals, programs, or organizations to take on the role of parent-like support centered on promotion of academic and educational attainment. The benefits of using proxy parents would give adolescents an increased opportunity that nurtures their educational attainment. This would help to ensure a brighter future for both parents and the next generation combating the lack of education and financial stability.
Limitations of the Study

The findings and recommendations of this study should be reported along with the limitations under which the study was conducted. This study was limited to emerging adults between the ages of 25–29, given that age 25 is the minimum age used to calculate the percentage of individuals in the United States who have attained at least a bachelor’s degree according to the United States Census (2010). Another limitation of this study was the self-reported data offered by emerging adult respondents providing insight regarding their parents’ SES. Moreover, the perception of parents’ SES generated by emerging adult children may be unpretentiously inaccurate and bias. Self-report bias is considered when the research participants’ under-reporting of behaviors is deemed unacceptable by researchers or other observers, or if respondents tend to over-report behaviors perceived as suitable (Donaldson & Grant-Vallone, 2002). The reason could potentially be that the respondent wants to respond in a way that makes them looked upon as virtuous, respectable, and well-brought-up (Donaldson & Grant-Vallone, 2002). The final limitation of the study included the demographic variable of gender; males comprised the majority of the sample.

Conclusion

This study examined the potential correlation between parents’ academic achievement, emerging adult children’s perception of their parents’ SES, and the educational attainment of the emerging adults. The importance of education being passed from one generation to the next is vital. Parent involvement can greatly impact the educational attainment of emerging adults. However, recognizing that parents do not always have the capacity and resources to guide their children toward educational attainment is essential. It is critical that our society remains a figure
that promotes education to all children. There is an ongoing need to implement programs and
services to help families understand their critical role in educational attainment of their children.
Future research should emphasize the importance of examining non-traditional factors that may
influence educational attainment. Unfortunately, when people remain uneducated, our society
pays the price. In the face of economic, environmental, and social challenges, investment in
education enhances the common good of society by increasing financial stability and wealth of
the nation, which reinforces families, neighborhoods, and communities. Providing opportunities
for sound education arms the current generation with the knowledge to solve future challenges
and change the perspectives and values of future generations.
APPENDIX A. INSTITUTIONAL REVIEW BOARD APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Date: 12/12/2013
To: Iris M Young-Clark
    3525 Barnstaple Dr
    Tallahassee, FL 32317

CC: Dr. Robert Bosselman
    31 MacKay
    Tallahassee, FL 32317

Dr. Virginia Caples
    Alabama A&M University, James A Dawson Bldg,
    4900 Meridian St

From: Office for Responsible Research

Project Title: Correlations between Parents’ Academic Achievements and Emerging Adult Children’s Perception of their Parents’ Socio-economic Status and their Educational Attainment

The Co-Chair of the ISU Institutional Review Board (IRB) has reviewed the project noted above and determined that the project:

☐ Does not meet the definition of research according to federal regulations.
☒ Is research that does not involve human subjects according to federal regulations

Accordingly, this project does not need IRB approval and you may proceed at any time. We do, however, urge you to protect the rights of your participants in the same ways you would if IRB approval were required. For example, best practices include informing participants that involvement in the project is voluntary and maintaining confidentiality as appropriate.

If you modify the project, we recommend communicating with the IRB staff to ensure that the modifications do not change this determination such that IRB approval is required.
APPENDIX B. PSID QUESTIONNAIRE SAMPLE

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Section A: Housing, Utilities, Computer Usage

A3 CKPT. CAI CHECKPOINT: WHETHER RESPONDENT IS HEAD OR WIFE/"WIFE" (RESPONDENT=1, 2, 3)

1. R IS HEAD/WIFE/"WIFE"  5. ALL OTHERS → GO TO A4

A3. Please think about your life-as-a-whole. How satisfied are you with it? Are you completely satisfied, very satisfied, somewhat satisfied, not very satisfied, or not at all satisfied?

4. Not very satisfied  5. Not at all satisfied

A4. Do [R=FU MEMBER: you / R=PROXY: they] live in a one-family house, a two-family house, an apartment, a mobile home, or what?
   • IF R answers "condo," PROBE for type of dwelling

1. One-family  2. Two-family; duplex  3. Apartment; project  4. Mobile home; trailer
5. Row house; town house  7. Other-specify → A4 SPEC. Please specify. (String 100)

A5 CKPT. CAI CHECKPOINT: WHETHER HEAD OR WIFE/"WIFE" IS 55 YEARS OLD OR OLDER (AGEIWDATE≥55)

1. HEAD OR WIFE/"WIFE" IS 55+ YEARS OLD  5. ALL OTHERS → GO TO A8

A6A. Some places require at least one family member to be 55 years or older. Is the place [R=FU MEMBER: you / R=PROXY: they] live like that?

1. Yes  5. No → GO TO A8

A7A RULE. WHETHER FU LIVES IN APARTMENT/PROJECT (A4=3) OR OTHER (A4=7)

APARTMENT/PROJECT OR OTHER  ALL OTHERS → GO TO A8

A7A. Sometimes places offer services that help with daily activities, such as help with bathing or dressing, group meals, or handling medications. Does the place [R=FU MEMBER: you / R=PROXY: they] live offer services like that?

1. Yes  5. No

   • [HU/CS IN FU: Remind R not to include rooms used by HU or HUCS people]
   • CODE 1 – 19=Actual number of rooms
   • CODE 20=Twenty or more rooms
   • CODE 00=FU shares a one-room HU with non-FU persons
 0 – 20
A19. Do [R=FU MEMBER: you (CYEAR FU COUNT>1: or anyone else in your family living there) / R=PROXY: they (CYEAR FU COUNT>1: or anyone else in the family living there)] own the [A4=APT: apartment / A4=MOBILE: mobile home / ALL OTHERS: house], pay rent, or what?

1. Any FU member owns or is buying (fully or jointly)  5. FU pays rent  8. FU neither owns nor rents
GO TO A31  GO TO A34

A20. Could you tell me what the present value of [R=FU MEMBER: your / R=PROXY: their] [A4=APT: apartment / A4=MOBILE: mobile home / ALL OTHERS: house] is [A4=MOBILE: including the value of the lot if [R=FU MEMBER: you / R=PROXY: they] own the lot] – I mean about how much would it bring if [R=FU MEMBER: you / R=PROXY: they] sold it today?

$0 – 9,999,997  → GO TO A20F RULE

A20A. Would it amount to $100,000 or more?

1. Yes  5. No

A20B. (Would it amount to)

$200,000 or more?

1. Yes  5. No

A20D. (Would it amount to)

$75,000 or more?

1. Yes  5. No

A20C. (Would it amount to)

$400,000 or more?

1. Yes  5. No

A20E. (Would it amount to)

$25,000 or more?

1. Yes  5. No

A20F RULE. WHETHER FU LIVES IN MOBILE HOME (A4=4)

FU LIVES IN MOBILE HOME  ALL OTHERS  → GO TO A21

A20F. Do [R=FU MEMBER: you / R=PROXY: they] rent the lot (where [R=FU MEMBER: your / R=PROXY: their] mobile home is located)?

1. Yes  5. No  → GO TO A21

A20G. How much do [R=FU MEMBER: you / R=PROXY: they] pay to rent the lot?

* ENTER amount here, then ENTER unit of time on next screen (Week, Two weeks, Month, Year)

$0 – 99,997  → GO TO A20H

A20GPER. The amount entered is: [A20G] per ____

* SELECT the unit of time below

3. Week  4. Two weeks  5. Month  6. Year

7. Other-specified  → A20GPERSPEC. Specify. (String 100)
A20H. Does [A20G=DK, RF: the lot rent / ALL OTHERS: this amount] include water and sewer?
   1. Yes  5. No

A21. About how much are [R=FU MEMBER: your / R=PROXY: their] total yearly property taxes, including city, county, and school taxes?
   $0 – 99,997

A22. How much is [R=FU MEMBER: your / R=PROXY: their] total yearly homeowner’s insurance premium?
   $0 – 9,997

Mortgage Block
A23. Do [R=FU MEMBER: you / R=PROXY: they] have a mortgage or loan on this property?
   1. Yes: Mortgage, land contract, home equity loan, etc.  5. No → GO TO A37A

    ↓

A23A. [2nd MTGE: Is that a mortgage, a land contract, a home equity loan, or what? / 2nd MTGE: For the second mortgage, what type of loan is that?]
   7. Other-specify → A23ASPEC. Please specify. (String 100)

    ↓

GO TO A24

A23B. Is that the original loan and terms, or have [R=FU MEMBER: you / R=PROXY: they] refinanced?
   1. Original  2. Refinance

A24. About how much is the remaining principal on this loan?
   $0 – 9,999,997

A25. How much are [R=FU MEMBER: your / R=PROXY: their] monthly loan payments?
   $0 – 99,997

A25A1 (A29). Does this amount include property taxes?
   1. Yes  5. No

A25A2 (A30). Does it (this mortgage or loan payment) include insurance premiums?
   1. Yes  5. No

A25A3 (A25A1). Is the interest rate on that mortgage or loan fixed or variable?
   1. Fixed  2. Variable

A25A4 (A25A). What is the current interest rate on that loan?
   0 – 65

A25A4 SOFT CHECK (SUPPRESS=continue, CLOSE/GOTO= A25A4)
   IF A25A4 = 25:
     You have entered interest rate = [A25A4] %
     --If this is not correct, go back to A25A4 and enter correct amount.
     --If this is correct, click [SUPPRESS] to continue.
A25B. What is the current interest rate on that loan?

8. Other-specified → A258SPEC. Please specify. (String 100)

A26. What year did [R=FU MEMBER: you / R=PROXY: they] [A23B=REFINANCED: refinance / ALL OTHERS: obtain that loan]?

1901 – [CYEAR]

A27. About how many more years will [R=FU MEMBER: you / R=PROXY: they] have to pay on it?

1 – 97

A27A (A27FOR1). [1ST MTGE: Some people have had difficulties recently making their mortgage or loan payments. / 2ND MTGE: Some people have had difficulties recently making their mortgage or loan payments.] Are [R=FU MEMBER: you] [CYEAR FU COUNT>1: or anyone in your family living there] / R=PROXY: they [CYEAR FU COUNT>1: or anyone in the family living there], currently behind on [R=FU MEMBER: your / R=PROXY: their] [A23A=MORTGAGE: mortgage / ALL OTHERS: loan] payments [2ND MTGE: for this [A23A=MORTGAGE: mortgage / ALL OTHERS: loan]]?

1. Yes   5. No → GO TO A27F

A27B (A27FOR2). How many months are [R=FU MEMBER: you / R=PROXY: they] behind?

1 – 97

A27C (A27FOR3). Has [R=FU MEMBER: your / R=PROXY: their] bank or lender started the process of foreclosing on [R=FU MEMBER: your / R=PROXY: their] home?

1. Yes   5. No → GO TO A27F

A27D (A27FOR4MO). In what month and year did the foreclosure start?

- SELECT Month and [Enter] to go to next screen for year


A27E (A27FOR4YR). In what month and year did the foreclosure start?

- ENTER a year from [REINT: [P2YEAR] / SO, RECON, RECSO: 2001] to [CYEAR]


1. Yes   5. No
A27G (A27FOR6). How likely is it that [R=FU MEMBER: you / R=PROXY: they] [A27F1=YES: will continue to be behind / ALL OTHERS: will fall behind] on [R=FU MEMBER: your / R=PROXY: their] [A23A=MORTGAGE: mortgage / ALL OTHERS: loan] payments in the next 12 months? Would you say very likely, somewhat likely, or not likely at all?

1. Very likely  3. Somewhat likely  5. Not likely at all

A28. Do [R=FU MEMBER: you / R=PROXY: they] also have a second mortgage on this property?

1. Yes  ↘ REPEAT A23A~A27G; MAX=2;  5. No  ➔ GO TO A37A
THEN GO TO A37A

Note: A29/A30 moved into mortgage block after A25 and renamed A25A1/A25A2

End Mortgage Block

Renters Block (A19=5)
A31 RULE. WHETHER OWNS (A19=1), RENTS (A19=5) OR NEITHER OWNS NOR RENTS (A19=8)

FU PAYS RENT  [ALL OTHERS] ➔ GO TO A34 RULE

A31. About how much rent do [R=FU MEMBER: you / R=PROXY: they] pay a month [A4=MOBILE:; including rent for the lot]?

- [HU/CS IN FU: IF FU lives with non-FU members, PROBE: Is that only for [R=FU MEMBER: your / R=PROXY: their] (FU's share of the rent)?]
- [FU LIVES IN MOBILE HOME: if FU owns the lot, do not include the value of the lot]
- ENTER amount here, then ENTER unit of time on next screen (Week, Two weeks, Month, Year)

$ 1 – 99,997  DK/RF ➔ GO TO A31C RULE

A31PER. The rent amount entered is: [A31] per _____

* SELECT the unit of time below

3. Week  4. Two weeks  5. Month  6. Year
7. Other-specify ➔ A31PERSPEC. Specify. (String 100)

A31A RULE. WHETHER FU LIVES IN MOBILE HOME (A4=4)

FU LIVES IN MOBILE HOME  [ALL OTHERS] ➔ GO TO A31B

A31A. Does [A31=DK/RF: the rent / ALL OTHERS: this amount] include water and sewer?

1. Yes  5. No


1. Yes  5. No

A31C (A31B). Is heating included in [R=FU MEMBER: your / R=PROXY: their] monthly rent?

1. Yes  5. No
A32. Is this \[A4=AP\]: apartment / \[A4=MO\]: mobile home / \textit{ALL OTHERS}: house] in a public housing project, that is, is it owned by a local housing authority or other public agency?

1. Yes → GO TO A37A
5. No

A33. Are \[R=FU MEMBER\]: you / \[R=PROXY\]: they paying lower rent because a Federal, State, or local government housing program is paying part of the cost?

5\{A31\} per \{A31PERWKI\}

1. Yes 5. No

End Renters Block

Neither Owns Nor Rents Block (A19=8)

A34 RULE. WHETHER OWNS (A19=1), RENTS (A19=5) OR NEITHER OWNS NOR RENTS (A19=8)

FU NEITHER OWNS NOR RENTS  ALL OTHERS → GO TO A37A

A34. How is that? (Could you tell me a little more about \[R=FU MEMBER\]: your / \[R=PROXY\]: their] situation?)

String 400

A35. How much would it rent for if it were rented?

- \[HU/CS IN FU\]: IF FU lives with non-FU members, PROBE: Would that be only for \[R=FU MEMBER\]: your / \[R=PROXY\]: their] (FU's) share of the rent?
- ENTER amount here, then ENTER unit of time on next screen (Week, Two weeks, Month, Year)

\$1 – 9,997 → GO TO A36

A35PER. The rent amount entered is: [A35] per __

1. Week
2. Two weeks
3. Month
4. Year
5. Other-specify → A35PERSPEC. Specify. (String 100)

A36. Is this \[A4=AP\]: apartment / \[A4=MO\]: mobile home / \textit{ALL OTHERS}: house] in a public housing project, that is, is it owned by a local housing authority or other public agency?

1. Yes → GO TO A37A
5. No

A37. Are \[R=FU MEMBER\]: you / \[R=PROXY\]: they paying no rent because a Federal, State, or local government housing program is paying all of it?

1. Yes 5. No

End NONR Block

A37A [A37FOR1]. \[A27C=\textit{YES}\]: Other than the foreclosure experience we just talked about, since \[A27C=\textit{YES}\]: Since] \[REINT\]: our last interview in \[P2YEAR\][\{PYWDATE\}], \{SO, RECON, RECSO\}: January 1, 2001, \{have / has\} \[R=FU MEMBER\]: you \{CYEAR FU COUNT\}>\textit{1}: or anyone in your family living there] \[R=PROXY\] & \{CYEAR FU COUNT\}>\textit{1}: they / \[R=PROXY\] & \Cy\textit{1}: anyone in the family living there] ever owned a home on which a foreclosure was started?

1. Yes 5. No → GO TO A42
A37B (A37FOR2MO). In what month and year did the foreclosure start?
   * SELECT Month and [Enter] to go to next screen for year

A37C (A37FOR2YR). (In what month and year did the foreclosure start?)
   * ENTER a year from [REINT: [P2YEAR] / SO, RECON, RECSO: 2001] to [CYEAR]

A37D (A37FOR3). Was the home foreclosed upon?
   1. Yes  5. No \rightarrow GO TO A37F

A37E (A37FOR4). Did [R=FU MEMBER: you] / [R=PROXY: they] lose [R=FU MEMBER: your] / [R=PROXY: their] home as a result of this foreclosure?
   1. Yes  5. No

A37F (A37FOR5). Was this home [R=FU MEMBER: your] / [R=PROXY: their] main residence, investment property, a vacation home or what?
   1. Main residence  2. Investment property  3. Vacation home / condo
   7. Other-specify \rightarrow A37FSPEC (A37FORSSPEC). Please specify. (String 255)

   $1 – 9,999,997

A37H (A37FOR7). Since [REINT: our last interview in [P2YEAR] ([PIYWDATE]), / SO, RECON, RECSO: January 1, 2001,] was there another home that [R=FU MEMBER: you] [CYEAR FU COUNT>1: or anyone in your family living there] / [R=PROXY & CYEAR FU COUNT>1: they] / [R=PROXY & CYEAR FU COUNT>1: anyone in the family living there] owned on which a foreclosure was started?
   1. Yes \rightarrow REPEAT A37B–A37G; MAX=2;  5. No
   THEN GO TO A42

NOTE: A40 has been moved, it now follows A45 series.

A42 (A42_1). The next few questions are about [R=FU MEMBER: your] / [R=PROXY: their] utilities.
Do [R=FU MEMBER: you] [CYEAR FU COUNT>1: and your family living there] / [R=PROXY: they] [CYEAR FU COUNT>1: and their family living there] pay for gas or other types of fuel and electricity on one bill?
* IF “YES”: Would you be able to separate those amounts?
   1. Yes, and R is able to separate amounts
   2. Yes, but R cannot separate amounts
   5. No, gas and electric are not combined, or FU does not use gas, or utilities included in rent \rightarrow DK/RF

A42A (A41). How much do [R=FU MEMBER: you] [CYEAR FU COUNT>1: and your family living there] / [R=PROXY: they] [CYEAR FU COUNT>1: and their family living there] usually pay for gas or other types of fuel per month on average?
* [HU/CS IN FU: Remind R not to include amounts paid by HU or HUCS people]
* ENTER amount here, then ENTER unit of time on next screen (Month, Year)
   $0 \rightarrow GO TO A42B  $1 – 9,997 \rightarrow DK/RF \rightarrow GO TO A42B
A42APER (A41PER). The amount entered is: [A42A] per ____
  * SELECT the unit of time below
    5. Month  6. Year
  7. Other-specify → A42APERSPEC (A41PERSPEC). Please specify (String 100)

For electricity per month?
  * [HU/CS IN FU: Remind R not to include amounts paid by HU or HUCS people]
  * ENTER amount here, then ENTER unit of time on next screen (Month, Year)
    $0  → GO TO A43 RULE
    $1 – 9,997  DK/RF  → GO TO A43 RULE

A42BPER (A42PER). The amount entered is: [A42B] per ____
  * SELECT the unit of time below
    5. Month  6. Year
  7. Other-specify → A42BAPERSPEC (A42APERSPEC). Please specify (String 100)

  * [HU/CS IN FU: Remind R not to include amounts paid by HU or HUCS people]
  * ENTER amount here, then ENTER unit of time on next screen (Month, Year)
    $0  → GO TO A43 RULE
    $1 – 9,997  DK/RF  → GO TO A43 RULE

A42CPER (A42APER). The amount entered is: [A42C] per ____
  * SELECT the unit of time below
    5. Month  6. Year
  7. Other-specify → A42CPERSPEC (A42APERSPEC). Please specify (String 100)

A43 RULE. WHETHER SEWER/WATER INCLUDED IN MOBILE HOME RENT (A20H=YES OR A31A=YES)

SEWER/WATER INCLUDED  → GO TO A44
ALL OTHERS

For water and sewer per month?
  * [HU/CS IN FU: Remind R not to include amounts paid by HU or HUCS people]
  * ENTER amount here, then ENTER unit of time on next screen (Quarter, Month, Year)
    $0  → GO TO A44
    $1 – 9,997  DK/RF  → GO TO A44

A43PER. The amount entered is: [A43] per ____
  * SELECT the unit of time below
    4. Quarter  5. Month  6. Year
  7. Other-specify → A43PERSPEC. Please specify (String 100)
APPENDIX C. PSID CUSTOM AND AMENDED CODEBOOKS

The PSID Data Custom Codebook

N. of Variables: 27
Variable Index

2011

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<td>CURRENT STATE</td>
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<td>AGE OF HEAD</td>
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<td>HR47318</td>
<td>SEX OF HEAD</td>
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<td># CHILDREN IN FAM</td>
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<td>HEAD MARITAL STATUS</td>
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<td>HR51934</td>
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<td>HR52343</td>
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<td>HR52398</td>
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<td>HR52401</td>
<td>REGION HD GREW UP</td>
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</tbody>
</table>
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Job ID 163154

ER47302 "2011 FAMILY INTERVIEW (ID) NUMBER" Var Index
2011 Interview Number
The values for this variable represent the 2011 interview number. The case count for 2011 is 8907. Values for this variable may not be contiguous.

Codes
1 - 8,941 Interview number

ER47304 "CURRENT STATE" Var Index
Current State
Please refer to Appendix 1, Wave XVIII documentation (1985 data), for FIPS state codes.

Codes
1 - 56 Actual state (FIPS code)
99 DK; NA
0 Inap.: U.S. territory or foreign country

ER47317 "AGE OF HEAD" Var Index
Age of 2011 Head
This variable represents the actual age of the 2011 Head of the FU. The minimum value is usually 16, although in rare cases a person under 16 might become Head.

Codes
14 - 120 Actual age
999 DK; NA

ER47310 "SEX OF HEAD" Var Index
Sex of 2011 Head

Codes
1 Male
2 Female

ER47320 "$ CHILDREN IN FU" Var Index
Number of Persons Now in the FU Under 18 Years of Age
This variable represents the actual number of persons currently in the FU who are neither Head nor Wife/Wife, from newborns through those 17 years of age, whether or not they are actually children of the Head or Wife/Wife.

Codes
0 None
1 - 18 Actual number

ER47323 "HEAD MARITAL STATUS" Var Index
A3. Are you (HEAD) married, widowed, divorced, separated, or have you never been married?

Codes
1 Married
2 Never married
3 Widowed
4 Divorced, annulled
5 Separated
ER40241  "G13 WAGES/SALARY OF HEAD"

G13. How much did (you/HEAD) earn altogether from wages or salaries in 2010, that is, before anything was deducted for taxes or other things?

<table>
<thead>
<tr>
<th>Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9,999,996 Actual amount</td>
</tr>
<tr>
<td>2</td>
<td>9,999,997 $9,999,997 or more</td>
</tr>
<tr>
<td>3</td>
<td>9,999,998 DK</td>
</tr>
<tr>
<td>4</td>
<td>9,999,999 NA; refused</td>
</tr>
</tbody>
</table>

ER51869  "L5 EDUCATION OF FATHER IN US-HD"

L5. How much education did (your/his/her) father complete (in the United States)?

<table>
<thead>
<tr>
<th>Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0-5 grades</td>
</tr>
<tr>
<td>2</td>
<td>6-8 grades; &quot;grade school&quot;; DK but mentions could read and write</td>
</tr>
<tr>
<td>3</td>
<td>9-11 grades (some high school); junior high</td>
</tr>
<tr>
<td>4</td>
<td>12 grades (completed high school); &quot;high school&quot;</td>
</tr>
<tr>
<td>5</td>
<td>12 grades plus nonacademic training; R.N. (no further elaboration)</td>
</tr>
<tr>
<td>6</td>
<td>Some college, no degree; Associate's degree</td>
</tr>
<tr>
<td>7</td>
<td>College BA and no advanced degree mentioned; normal school; R.N. with 3 years college; &quot;college&quot;</td>
</tr>
<tr>
<td>8</td>
<td>College, advanced or professional degree, some graduate work; close to receiving degree</td>
</tr>
<tr>
<td>98</td>
<td>DK</td>
</tr>
<tr>
<td>99</td>
<td>NA; refused</td>
</tr>
</tbody>
</table>

ER51870  "L6 WTR FATHER READ/WRITE-HD"

L6. Could he read and write (in English)?

<table>
<thead>
<tr>
<th>Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>DK</td>
</tr>
<tr>
<td>9</td>
<td>NA; refused</td>
</tr>
</tbody>
</table>

ER51870  "L6 WTR FATHER READ/WRITE-HD"

<table>
<thead>
<tr>
<th>Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Inap.: no father/surrogate; educated outside the U.S. only or had no education (ER51868-2 or 5); NA, RF where father received his education (ER51868-9); more than five grades (ER51869-2-8)</td>
</tr>
</tbody>
</table>
L10. What was (your/his/her) father’s usual occupation when (you/he/she) (were/was) growing up? What kind of work did he do?

L10a. What were his most important activities or duties?

The 3-digit occupation code from 2010 CENSUS OF POPULATION AND HOUSING: ALPHABETICAL INDEX OF INDUSTRIES AND OCCUPATIONS issued by the U.S. Department of Commerce and the Bureau of the Census was used for this variable. Please refer to www.census.gov/hhes/www/ioindex/ioindex.html for complete listings.

**Codes**

1 - 43 Management Occupations
50 - 73 Business Operations Specialists
80 - 95 Financial Specialists
100 - 124 Computer and Mathematical Occupations
130 - 156 Architecture and Engineering Occupations
160 - 196 Life, Physical, and Social Science Occupations
200 - 206 Community and Social Services Occupations
210 - 215 Legal Occupations
220 - 255 Education, Training, and Library Occupations
260 - 296 Arts, Design, Entertainment, Sports, and Media Occupations
300 - 354 Healthcare Practitioners and Technical Occupations
360 - 365 Healthcare Support Occupations
370 - 395 Protective Service Occupations
400 - 416 Food Preparation and Serving Occupations
420 - 425 Building and Grounds Cleaning and Maintenance Occupations
430 - 465 Personal Care and Service Occupations
470 - 496 Sales Occupations
500 - 593 Office and Administrative Support Occupations
600 - 613 Farming, Fishing, and Forestry Occupations
620 - 676 Construction Trades
680 - 694 Extraction Workers
700 - 762 Installation, Maintenance, and Repair Workers
770 - 896 Production Occupations
900 - 975 Transportation and Material Moving Occupations
980 - 983 Military Specific Occupations
999 DK; NA; refused

0 Inap.: no father/surrogate; deceased; never worked
ER51879  "L15 EDUCATION OF MOTHER IN US-HD"  Var Index
L15. How much education did (your/his/her) mother complete (in the United States)?

   Codes
1  0-5 grades
2  6-8 grades; "grade school"; DK but mentions could read and write
3  9-11 grades (some high school); junior high
4  12 grades (completed high school); "high school"
5  12 grades plus nonacademic training; R.N. (no further elaboration)
6  Some college, no degree; Associate's degree
7  College BA and no advanced degree mentioned; normal school; R.N. with 3 years college; "college"
8  College, advanced or professional degree, some graduate work; close to receiving degree
98  DK
99  NA; refused
0  Inap.: no mother/surrogate; educated outside the U.S. only or had no education (ER51878-2 or 5); NA, RF where mother received her education (ER51878-9)

ER51880  "L16 WTR MOTHER READ/WRITE-HD"  Var Index
L16. Could she read and write (in English)?

   Codes
1  Yes
5  No
8  DK
9  NA; refused
0  Inap.: no mother/surrogate; educated outside the U.S. only or had no education (ER51878-2 or 5); NA, RF where mother received her education (ER51878-9); more than five grades

ER51884  "L20 OCCUPATION OF MOTHER-HD"  Var Index
L20. What was (your/his/her) mother's usual occupation when (you/he/she) (were/was) growing up? What kind of work did she do?
L20a. What were her most important activities or duties?

The 3-digit occupation code from 2010 CENSUS OF POPULATION AND HOUSING: ALPHABETICAL INDEX OF INDUSTRIES AND OCCUPATIONS issued by the U.S. Department of Commerce and the Bureau of the Census was used for this variable. Please refer to www.census.gov/hhes/www/ioindex/ioindex.html for complete listings.

   Codes
1 - 43  Management Occupations
50 - 73  Business Operations Specialists
80 - 95  Financial Specialists
100 - 124  Computer and Mathematical Occupations
130 - 156  Architecture and Engineering Occupations
160 - 196  Life, Physical, and Social Science Occupations
200 - 206 Community and Social Services Occupations
210 - 215 Legal Occupations
220 - 255 Education, Training, and Library Occupations
260 - 296 Arts, Design, Entertainment, Sports, and Media Occupations
300 - 354 Healthcare Practitioners and Technical Occupations
360 - 365 Healthcare Support Occupations
370 - 395 Protective Service Occupations
400 - 416 Food Preparation and Serving Occupations
420 - 425 Building and Grounds Cleaning and Maintenance Occupations
430 - 465 Personal Care and Service Occupations
470 - 496 Sales Occupations
500 - 593 Office and Administrative Support Occupations
600 - 613 Farming, Fishing, and Forestry Occupations
620 - 676 Construction Trades
680 - 694 Extraction Workers
700 - 762 Installation, Maintenance, and Repair Workers
770 - 896 Production Occupations
900 - 975 Transportation and Material Moving Occupations
980 - 983 Military Specific Occupations
999 DK; NA; refused
  0 Inap.: no mother/surrogate; deceased; never worked

ER51899 "L35 STATE WHERE HEAD GREW UP" Var Index
L35. In what state was that?

Codes
1 - 56 Actual state (FIPS code)
99 DK; NA; refused
  0 Inap.: U.S. territory or foreign country

ER51901 "L37 PARENTS POOR OR?--HD" Var Index
L37. Were (your/HEAD's) parents poor when (you/he/she) (were/was) growing up, pretty well off, or what?
Also note that the order of L38 and L39 were switched in the CAI application between the 1997 wave and the 1999 wave; therefore, for new Heads in 1999 (whose data was brought forward) the responses to this question are for L39.

Codes
1 Poor
3 Average; "it varied"
5 Pretty well off
8 DK
9 NA; refused

ER51902 "L38 WTR LIVED W/BOTH PARENTS-HD" Var Index
L38. (Were/Was) (you/he/she) living with both (your/his/her) natural parents most of the time until (you/he/she) (were/was) age 16?

Also note that the order of L38 and L39 were switched in the CAI application between the 1997 wave and the 1999 wave; therefore, for new Heads in 1999 (whose data was brought forward) the responses to this question are for L38.

Codes
1 Yes
5 No
8 DK
9 NA; refused

ER51904 "L40 RACE OF HEAD-MENTION 1" Var Index
L40. What is (your/his/her) race? (Are/Is) (you/he/she) white, black, American Indian, Alaska Native, Asian, Native Hawaiian or other Pacific Islander?--FIRST MENTION

Codes
1 White
2 Black, African-American, or Negro
3 American Indian or Alaska Native
4 Asian
5 Native Hawaiian or Pacific Islander
7 Other
8 DK
9 NA; refused

ER51913 "L44 WTR GRADUATED HS-HD" Var Index
L44. Now I would like to talk about the education (you/he/she) (have/has) received. Did (you/he/she) graduate from high school, get a GED, or neither?

Codes
1 Graduated from high school
2 Got a GED
3 Neither
4 College level only
8 DK
9 NA; refused
0 Inap.: educated outside the U.S. only or had no education (ER51912-2 or 5); NA, RF where Head received education (ER51912-9)

ER51916 "L46 GRADE LEVEL IF GED-HD" Var Index
L46. How many grades of school did (you/he/she) finish prior to getting (your/his/her) GED?

Codes
1 Finished first grade
2  Finished second grade
3  Finished third grade
4  Finished fourth grade
5  Finished fifth grade
6  Finished sixth grade
7  Finished seventh grade
8  Finished eighth grade
9  Finished ninth grade
10 Finished tenth grade
11 Finished eleventh grade
98  DK
99  NA, refused

0  Inap.: educated outside the U.S. only or had no education (ER51912-2 or 5); NA, RF where Head received education (ER51912-9); graduated from high school or did not get a GED (ER51913-1 or 3); NA, DK, RF whether graduated from high school or got a GED (ER51913-8 or 9); did not finish any grades in school

ER51924 "L51 WTR ATTENDED COLLEGE- HD"  Var Index
L51. Did (you/he/she) attend college?
Codes
1  Yes
5  No
8  DK
9  NA, refused

0  Inap.: educated outside the U.S. only or had no education (ER51912-2 or 5); NA, RF where Head received education (ER51912-9)

ER51928 "L54 WTR REC'D COLLEGE DEGREE- HD"  Var Index
L54. Did (you/he/she) receive a college degree?
Codes
1  Yes
5  No
8  DK
9  NA, refused

0  Inap.: educated outside the U.S. only or had no education (ER51912-2 or 5); NA, RF where Head received education (ER51912-9); did not attend college (ER51924-5); NA, DK, RF whether attended college (ER51924-8 or 9); completed less than one year of college (ER51927-0)

ER51929 "L55 HGHST COLLEGE DEGREE REC'D- HD"  Var Index
L55. What is the highest college degree (you/he/she) has received?
Codes
1  AA; Associate of Arts
Job ID 163154

2 Bachelor of Arts/Science/Letters; BA; BS
3 Master of Arts/Science; MA; MS; MBA
4 Doctorate; Ph.D. (except codes 5 and 6)
5 LLB; JD (law degrees)
6 MD; DDS; DVM; DO (medical degrees)
8 Honorary degree
97 Other
98 DK
99 NA; refused

ER51934 "L62 WTR REC OTR DEG/CERT-HD" Var Index
L62. Did you receive any other degree or a certificate through a vocational school, a training school, or an apprenticeship program?

IWER: This includes vocational training received in the military and military occupational specialties (MOS)

Codes
1 Yes
5 No
8 DK
9 NA; refused

ER52259 "HEAD AND WIFE TAXABLE INCOME-2010" Var Index
Head's and Wife's/"Wife's" Total Taxable Income in 2010

The income reported here was collected in 2011 about tax year 2010. This variable can contain negative values, indicating a net loss from a business or farm.

This variable includes Head's and Wife's/"Wife's" income from assets, earnings, and net profit from farm or business, that is, G4-G25d, G52, and G59a-G59d. All missing data are assigned.

Codes
-999,999 Loss of $999,999 or more
-999,998 -1 Actual loss
0 No taxable income in 2010
1 -9,999,998 Actual amount
9,999,999 $9,999,999 or more
"TOTAL FAMILY INCOME-2010"

Total 2010 Family Money Income

The income reported here was collected in 2011 about tax year 2010. Please note that this variable can contain negative values. Negative values indicate a net loss, which in waves prior to 1994 were bottom-coded at $1, as zero amounts. These losses occur as a result of business or farm losses.

This variable is the sum of these seven variables:

ER52259 Head and Wife/Wife* Taxable Income-2010
ER52308 Head and Wife/Wife* Transfer Income-2010
ER52315 Taxable Income of Other FU Members-2010
ER52336 Transfer Income of OFUMS-2010
ER52337 Head Social Security Income-2010
ER52339 Wife/Wife* Social Security Income-2010
ER52341 OFUM Social Security Income-2010

Codes
-999,999 Loss of $999,999 or more
-999,998 - -1 Actual loss
0 No family money income in 2010
1 - 9,999,997 Actual amount
9,999,999 $9,999,999 or more

"CURRENT REGION"

Geographical Region of the 2011 Interview

States were assigned to regions as follows:


NORTH CENTRAL: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

SOUTH: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, Washington DC, West Virginia


Codes
1 Northeast
2 North Central
3 South
4 West
5 Alaska, Hawaii
6 Foreign country
9 DK; NA
Job ID 163154

ER52401  "REGION HD GREW UP"  Var Index
Geographical Region in Which Head Grew Up

See the note at ER52398 for a listing of states that comprise each geographical region.

**Codes**

<p>| | |</p>
<table>
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<tr>
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<td>5</td>
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</tr>
<tr>
<td>6</td>
<td>Foreign country</td>
</tr>
<tr>
<td>9</td>
<td>DK; NA</td>
</tr>
</tbody>
</table>
Amended Codebook

Emerging Adults Respondents Education

Excluded variables: ER51913, ER51916, ER51924, ER51928, and ER51929.

New variables and codes for analysis: NHSG, HSG, SC, Deg, and EDU.

Code 0 means it is not applicable.

NHSG = No High School Graduate
    Code: 1

HSG = High School Graduate/GED
    Code: 2

SC = Some College
    Code: 3

Deg = Degree
    Code: 4 = AA Degree
    Code: 5 = BS Degree
    Code: 6 = MS Degree
    Code: 7 = Advance Degree (PhD, MD, JD, DDS, and LLB)

EDU = Sum of all education
    Code: 0, 1, 2, 3, 4, 5, 6, and 7

Father Excluded Variable: ER51869

New variables and codes for analysis: FNHSG, FHSG, FSC, FDeg, and FEDU.

Code 0 means it is not applicable.

FNHSG = No High School Graduate
    Code: 1

FHSG = High School Graduate
Code: 2
FSC = Some College or AA degree **

Code: 3
FDeg = Degree

Code: 5 = BS Degree

Code: 6 = MS Degree or Advance Degree (PhD, MD, JD, DDS, and LLB)***

FEDU = Sum of all education

Code: 0, 1, 2, 3, 5, and 6.

*Note: The Father and mother response variables were more general for education.

**Note: Some College and AA degree were combined

***Note: Master’s degree and advance degrees were combined

Mother Excluded Variable: ER51879

New variables and codes for analysis: MNHSG, MHSG, MSC, MDeg, and MEDU.

Code 0 means it is not applicable.

MNHSG = No High School Graduate

Code: 1

MHSG = High School Graduate

Code: 2

MSC = Some College or AA Degree**

Code: 3

MDeg = Degree

Code: 5 = BS Degree
Code: 6 = MS Degree or Advance Degree (PhD, MD, JD, DDS, and LLB)

***

MEDU = Sum of all education
Code: 0, 1, 2, 3, 5, and 6

*Note: The Father and mother response variables were more general for education.

**Note: Some College and AA were combined

***Note: Master’s degree and advance degrees were combined

**Academic Achievement**

New variables and codes for analysis: CAA, FAA, and MAA
Code 0 means "missing data"

CAA = Children's Academic Achievement
Code: 1 = Low academic achievement- No high school diploma
Code: 2 = Average academic achievement- High school diploma/GED recipient*
Code: 3 = High academic achievement- Bachelor's degree recipient**

FAA = Children's Academic Achievement
Code: 1 = Low academic achievement- No high school diploma
Code: 2 = Average academic achievement- High school diploma/GED recipient*
Code: 3 = High academic achievement- Bachelor's degree recipient**

MAA = Children's Academic Achievement
Code: 1 = Low academic achievement- No high school diploma
Code: 2 = Average academic achievement- High school diploma/GED recipient*
Code: 3 = High academic achievement- Bachelor's degree recipient**

*Note: Associate's degree recipients were coded as (2) for average academic achievement
**Note: Recipients of degrees higher than Bachelor's were codes as (3) for high academic achievement
REFERENCES


Panel Study of Income Dynamics, public use dataset 2011 PSID Main Family. Produced and distributed by the Institute for Social Research, Survey Research Center, University of Michigan, Ann Arbor, MI (2013).


The benefits of higher education. (2006). *Presidency, 9*(1), 44.


