

# CAREER ASPIRATIONS OF PREGNANT AND PARENTING ADOLESCENTS

by

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(Under the Direction of Karen H. Jones)

## ABSTRACT

A multitude of studies document the effects of adolescent pregnancy and parenting on young females and studies examining career aspirations are numerous. However, very few studies exist on the career aspirations of pregnant and/or parenting adolescents. The purpose of this study was to examine career aspirations of pregnant and/or parenting adolescents. Social Cognitive Career Theory (Lent, Brown, & Hackett, 1994) provided the theoretical framework. Females enrolled in a teenage parenting center completed a questionnaire focused on demographic information, and an open-ended question was asked to determine career aspirations. Responses were coded using the Socioeconomic Index (Nakao & Treas, 1992). Age and source of career information had a significant effect on career aspirations of pregnant and/or parenting adolescents. Pregnant adolescents had higher mean scores for career aspirations than parenting adolescents. A large portion of participants aspired to the occupation of registered nurse. Findings from this study can assist educators, counselors, and families in developing long-term programs to provide pregnant and parenting adolescents the academic and career development skills needed for success in attaining future career aspirations.

INDEX WORDS: Adolescent, Adolescent pregnancy, Pregnant, Parenting, Teenage pregnancy, Adolescent mothers, Career aspirations, Social Cognitive Career Theory, Self-efficacy

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BSFCS, The University of Georgia, 1998

M. Ed., The University of Georgia, 1999

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial  
Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2005

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## DEDICATION

This dissertation is dedicated to my great-grandmother, Helen Erma Robertson, whose enduring love and tender care during my childhood years helped shape my values and character. Even though she is no longer with me, I know she is now my guardian angel always watching over me and guiding me on my journey through life. Although I did not realize it as a child, she has been my greatest teacher. I will continue to work hard, just as she taught me, and I hope she is proud of the person I have become and the principles I represent. I love you, GG.

## ACKNOWLEDGEMENTS

For a little over three years, I have experienced the trials and tribulations that come with writing a dissertation. Throughout my journey toward completing my doctorate degree, I have been guided by an outstanding group of individuals who have enriched my personal as well as professional life. Therefore, I would like to express my deepest appreciation to my doctoral committee for lending their expertise during my dissertation process.

Dr. Karen Jones, I can never convey enough thanks or gratitude to you. Not only are you a wonderful mentor and teacher, but you have also been a caring and considerate friend. You have taught me so much through your example and I will always strive to emulate you in my professional career. Your words of encouragement sustained me throughout the dissertation process, especially in the final weeks. I am most appreciative of your unceasing support and guidance, and I will forever be indebted to you.

Dr. Helen Hall, thank you for recruiting me into the field of career and technical education. Your passion and excitement for teaching is contagious, and you are a wonderful role model that I will always respect. You have been supportive of all my endeavors, and I am very grateful our paths crossed.

Dr. Jay Rojewski, thank you immensely for your help and insight with statistics and data analysis. I am most appreciative that you were always willing to meet with me, answer my numerous questions, and direct me on the right path during this process.

Dr. John Scott, you are a wealth of knowledge on the topics of career development theories and career aspirations. Thank you for sharing that knowledge with me and challenging me to think about these topics on a much deeper level.

Dr. Myra Womble, thank you for your sharp eye and attention to detail in my writing. Your suggestions and helpful input have made the dissertation process much less stressful for me. You are a very special person, and I sincerely thank you for all of your support and encouragement.

A world of thanks is extended to Dr. Elaine Adams for agreeing to serve on my committee during the final stages of the dissertation process. Your interest, enthusiasm, and willingness to jump on board will always be remembered and appreciated.

To my family and friends, you have my sincere thanks and gratitude for constantly cheering me on as I crept along toward the completion of my degree. It is a true blessing to have you in my life and I love you all. To my mother, you are the rock that I often found myself leaning on during this process. Thank you for your unceasing love, support, and words of encouragement, especially during my moments of exasperation. I also appreciate your exceptional editing skills and willingness to take “one last look” at my chapters. Finally, to my Poppy, thank you for believing in my ability to reach this goal from day one and for always lending an attentive ear when I needed an outlet during the tough times.

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## CHAPTER I

### INTRODUCTION

While slightly decreasing in rates in recent years, adolescent pregnancy continues to be prevalent in the United States, with nearly one million teenage females becoming pregnant each year (Georgia Campaign for Adolescent Pregnancy Prevention [G-CAPP], 2003; Meade & Ickovics, 2005; National Campaign to Prevent Teen Pregnancy, 2003; Sarri & Phillips, 2004). In fact, every 26 seconds, another adolescent girl becomes pregnant (School Board News, 1999). The country's adolescent pregnancy rate remains the highest among western industrialized nations, with 4 of every 10 pregnancies occurring in women younger than age 20 (Farber, 2003; Merrick, 1995; Shapland, 1999; SmithBattle, 2003; Spear, 2004). Despite a 21% decline in the rate of pregnancy among older adolescents between ages 15 and 19, nearly 12,000 adolescent females under age 15 become pregnant each year (National Campaign to Prevent Teen Pregnancy, 2003; Rothenberg & Weissman, 2002; Sexuality Information & Education Council of the United States [SIECUS], 2002).

For years researchers have examined risk factors related to adolescent pregnancy. Characteristics such as family structure, age at first intercourse, goals, low self-esteem and educational expectations, poor academic performance, low socioeconomic status, and lack of career aspirations have been associated with adolescent pregnancy (Kaufman, 1996; McCullough & Scherman, 1991; Stewart, 2003; Xie, Cairns, & Cairns, 2001). In addition, Farber (2003) identified risk factors that influenced adolescent sexual risk-taking and pregnancy including community disorganization and disadvantage, peer attitudes and behaviors, child sexual abuse,

family socioeconomic status, sexual coercion by a partner, teens' own sexual beliefs, and school and religious attachments. Farber stated that having more of these factors present in an adolescent's life placed him or her at a higher risk for becoming an adolescent parent.

Adolescent pregnancy and childbearing are national problems that affect the community and society at large (Spear, 2004). It is estimated that adolescent childbearing costs the nation roughly 7 billion dollars annually (National Campaign to Prevent Teen Pregnancy, 2003; Rothenberg & Weissman, 2002; Shapland, 1999). Farber (2003) stated, "The individual and social costs of teen pregnancy and childbearing increasingly result from unmarried young women choosing to keep and raise their children, often with compromised means for supporting and nurturing them" (p. 2). Adolescent mothers become economically dependent due to their decreased educational attainment, subsequent high fertility rates, and greater occurrences of single-parent families (Brindis & Philliber, 2003).

Not only is adolescent pregnancy economically costly, it poses various social consequences for teen mothers. Becoming an adolescent mother has been associated with lower educational attainment, which often leads to poverty and/or high school dropout (Hayes, 1987; Manlove, 1998; Meade & Ickovics, 2005; Merrick, 1995; National Campaign to Prevent Teen Pregnancy, 2002). Pregnancy is one of the reasons commonly cited by female secondary students for dropping out of high school (Brindis & Philliber, 2003). Rothenberg and Weissman (2002) found that 7 out of 10 females who became adolescent mothers did not graduate from high school. Less than one-third of adolescent females giving birth before age 18 ever complete high school, and the younger the pregnant adolescents are, the less likely they are to complete high school (Brindis & Philliber; Koshar, 2001). The challenge of balancing school, a job, and childcare is often overwhelming for female teenage parents (Koshar).

Nationally, about 25% of adolescent mothers have a second baby within one year of their first baby, leaving the prospect of high school graduation improbable. However, if a parenting female can delay a second pregnancy, her chance of finishing high school increases (Kreinin, 1998). Adolescent marriages, especially marriages to legitimize a birth, are also related to lower educational attainment among adolescent mothers (Bissell, 2000; Luker, 1996; Nord, Moore, Morrison, Brown, & Myers, 1992).

Pregnant secondary students are more likely to have lower career aspirations, attain less prestigious occupations, experience less satisfaction with career progress than their non-pregnant peers, and feel their future job choices are limited (Coles, 2005; Nord et al., 1992). Many adolescent mothers are less likely to secure a job or attend college (School Board News, 1999). Because adolescent mothers often lack work experience, educational skills, and job training, they are less competitive in the workforce. As a result, a large number of adolescent mothers are disproportionately poor, depending on public assistance to support them economically (Maynard, 1996; Rothenberg & Weissman, 2002). Further, studies reinforce the notion that adolescent motherhood is often associated with unequal career opportunities, lower levels of income, and high unemployment rates among these females (Hayes, 1987; Meade & Ickovics, 2005; Merrick, 1995; Nord et al.).

Evidence reveals many adolescent females become pregnant intentionally because they see no other life goals within their reach (Winter, 1997). Plagued by poor school performance and low self-esteem, they have no realistic expectations of education or occupations; thus, pregnancy is viewed as an alternative path to economic independence and adult status (Brown & Barbosa, 2001; Farber, 2003; Rothenberg & Weissman, 2002; Turner, 2004). Usually adolescents who become teen mothers are already experiencing academic difficulties in school,

have low educational expectations, and are not confident they will graduate from high school, or they are attempting to escape abusive home situations (Coles, 2005; Koshar, 2001). Pursuing higher education or a career is not reasonably within their reach, and they may experience feelings of hopelessness or helplessness regarding their future (Rothenberg & Weissman). Coupled with a lack of positive role models and impoverished living situations, adolescent females decide to become pregnant or they “drift” into pregnancy, as this decision appears to be their best option (Brindis & Philliber, 2003; Rothenberg & Weissman; Winter). It is equally important to recognize that adolescent pregnancy can be a positive life choice for females from certain ethnic or social groups (Tripp & Viner, 2005).

Conversely, refuting arguments allege that most adolescent females did not intend to become pregnant, indicating that nearly 80% of adolescent pregnancies were unintentional or unplanned (Maynard, 1995; National Campaign to Prevent Teen Pregnancy, 2003; Turner, 2004). Maynard (1995) noted many adolescent parents did not want additional children until they were older. Schultz (2001) found adolescent females strived for success, such as high school graduation, by avoiding pregnancy in their youth. Hockaday, Crase, Shelley, and Stockdale (2000) also cited previous research linking positive school attitudes and high educational expectations to lower incidences of adolescent pregnancy and childbearing. In addition to good grades and high educational aspirations, O’Connor (1999) indicated involvement in school organizations as another factor associated with lower incidences of adolescent pregnancy.

Ventura, Matthews, and Hamilton (2002) reported a 6% decline in the birth rates for Georgia in 2001. Although Georgia’s adolescent birth rates dropped 14% from 1990 to 1998, the state’s adolescent pregnancy and birth rates continue to rank in the nation’s top ten. One-half of the state’s first births are to mothers considered at risk for poverty because they are under 18,

unmarried, or have not completed high school. About 50% of Georgia's pregnant adolescent females will experience a second pregnancy within two years of their first pregnancy (G-CAPP, 2003).

Winter (1997) stressed the best protection a teenage girl could have against becoming pregnant was to have life goals. Various studies provide evidence that having positive attitudes about education and clear educational goals are associated with fewer incidences of adolescent pregnancies (Hockaday et al., 2000; Manlove, 1998; Manlove, Terry-Humen, Papillo, Franzetta, Williams, & Ryan, 2002; Stewart, 2003; Yampolskaya, Brown, & Vargo, 2004). Improving educational opportunities is important in keeping young girls from viewing early pregnancy and motherhood as a desirable goal (Davies et al., 2004). Helping female adolescents set realistic career goals, offering counseling to enhance self-esteem, and providing mentors have also been found to help reduce incidences of adolescent pregnancies (Drummond & Hansford, 1992; Merrick, 1995). Jones and Womble's (1998) research further supported the notion that students with positive work and school attitudes see the connection between education and success.

Adolescence is a time when teenagers develop certain aspirations regarding their education and future careers. Aspirations represent a person's orientation toward particular goals and can be influenced by variables such as gender, socioeconomic status, family support, parental expectations, and cultural values (Khallad, 2000; Rojewski, 1996a). Aspirations are especially important during adolescence because they allow teenagers to evaluate the degree to which various choices help or hinder their chances of attaining desired goals. In addition, aspirations act as motivators by influencing the amount of effort adolescents spend on tasks that will make the achievement of their goals possible (Camarena, Minor, Melmer, & Ferrie, 1998).



A career aspiration is defined as the occupation a person desires to pursue if there were no reality constraints (Arbona & Novy, 1991). Career aspirations represent an individual's orientation toward a particular career goal and may cause an individual to closely examine decisions regarding schooling or the future. However, they are not always a definite determinant of a person's future career attainment. Career aspirations may also reflect past experiences and perceived barriers (Gottfredson & Becker, 1981; Rojewski, 1996b).

### Purpose of the Study

The purpose of this causal comparative survey study was to examine career aspirations of pregnant and/or parenting adolescent females. Adolescence is a time of self-definition as an individual moves from childhood into young adulthood (Merrick, 1995). For this study, an adolescent female was defined as a girl between 13 and 19 years of age. Independent variables for demographics included age, race, parenthood status, parents' occupation, parents' education level, and source of career information. Parenthood status consisted of three categories: pregnant, parenting, or both pregnant and parenting. Pregnant was defined as a female adolescent who was expecting a child. Parenting was defined as a female adolescent who became a biological parent before age 20 (Xie et al., 2001). The term pregnant and parenting described females who had one or more children and were pregnant at the time of this study. Career aspirations, the dependent variable, represented an individual's orientation toward a particular career goal (Rojewski, 1996b).

### Research Questions

1. What are the career aspirations of pregnant adolescents?
2. What are the career aspirations of parenting adolescents?
3. What are the career aspirations of adolescents who are both pregnant and parenting?

4. What effect does parenthood status have on career aspirations of pregnant or parenting adolescents?
5. How does age affect career aspirations of pregnant or parenting adolescents?
6. How does race affect career aspirations of pregnant or parenting adolescents?
7. How does parents' occupation affect career aspirations of pregnant or parenting adolescents?
8. How does parents' education level affect career aspirations of pregnant or parenting adolescents?
9. Who provides the most career information to pregnant or parenting adolescents?

#### Theoretical Framework

The Social Cognitive Career Theory (SCCT) is a framework based on Bandura's (1986) social cognitive theory, and it attempts to complement and build conceptual linkages with existing career development theories (Lent, Hackett, & Brown, 1996). SCCT examines the development of career and academic interests, career choice, and performance outcomes (Albert & Luzzo, 1999; Gore Jr. & Leuwerke, 2000). This theory describes numerous personal variables and their interaction with other aspects of the individual and the environment to form the career development path (Lent, Brown, & Hackett, 2000). The guiding theory for this study was the Social Cognitive Career Theory, as it provided an understanding of the formation of occupational choices (Lent et al., 1996).

SCCT subscribes to the triadic reciprocal model of causality, suggesting personal attributes, external environmental factors, and overt behaviors each operate as interlocking sets of variables that mutually influence one another (Lent & Brown, 1996; Lent, Brown, & Hackett, 1994; Lent et al., 1996). In studying personal attributes within the triadic reciprocal model, three

main variables are believed to regulate an individual's career behavior. These three variables, self-efficacy, outcome expectations, and goals, are commonly described as the "building blocks" of career development, as they represent key mechanisms by which individuals are able to exercise personal agency, or the capacity to act or use their own abilities to bring about change (Lent, Brown, & Hackett, 2002; Lent et al., 1996; Smaby, Crews, & Downing, 1999).

Self-efficacy, the first variable of the SCCT, refers to people's judgment about their capabilities to take action to achieve designated types of performances (Lent & Brown, 1996). Self-efficacy stems from four principle sources of information including personal performance accomplishments, vicarious learning, social persuasion, and physiological states and reactions (Albert & Luzzo, 1999; Chartrand & Rose, 1996; Lent & Brown). Personal accomplishments and successes influence self-efficacy (Lent et al., 1996). Individuals are more likely to pursue and be successful in occupations for which they have high self-efficacy (Lent et al., 1994).

The second variable of the SCCT is outcome expectations, or personal beliefs about the probable consequences or outcomes of performing particular behaviors (Lent & Brown, 1996). Because outcome expectations usually involve imagined consequences of performing a behavior, they play a major role in motivating certain behaviors. Outcome expectations may also be examined on many levels such as the physical, social, or self-evaluative levels (Albert & Luzzo, 1999). Diegelman and Subich (2001) noted that "outcome expectations were good predictors of academic and career indecision and exploration intent" (p. 395). Lent et al. (1994) hypothesized that individuals were more likely pursue an occupation they felt would result in positive outcomes, such as gainful employment or self-satisfaction.

The final variable focuses on goals and how setting goals guides an individual's behavior (Albert & Luzzo, 1999). Personal goals are an individual's intention to partake in a certain

activity in order to achieve a desired outcome. Setting goals allows individuals to control and sustain their behavior, despite obstacles and setbacks (Lent et al., 1996). Goals often play an important role in career choice and decision-making and are affected by self-efficacy and outcome expectations (Lent & Brown, 1996).

Taken together, self-efficacy, outcome expectations, and goals are said to influence educational and vocational choices (Lent et al., 1994). However, individuals possessing high levels of career self-efficacy, interests, and outcome expectations may avoid pursuing a career path if they perceive substantial negative outcomes, or barriers, to career entry (Diegleman & Subich, 2001). Some examples of barriers may include educational limitations, lack of familial support, or gender discrimination, and these barriers may hinder the pursuit of primary interests or preferred career goals (Albert & Luzzo, 1999).

For this study, status attainment theory was also considered when examining the relationship between parents' occupation and parents' education level, and their effects on the prestige levels of the chosen career aspirations indicated by pregnant or parenting adolescents.

#### Delimitations

One potential boundary of this study was that it focused mainly on secondary pregnant or parenting adolescents. Eight of the participants identified themselves as being in middle grades (grades 6-8); however, five of these females were age appropriate for high school grades (14 to 16 years old). The small number of middle school participants did not allow an empirical comparison in this study. Another parameter of this study was that the sample of females was enrolled in a school specifically designed to serve pregnant adolescents and adolescent mothers. Thus, results of the study may not be generalizable to other pregnant or parenting females in public and private schools. The researcher also did not know the similarities or differences in the

setting of the school for pregnant and parenting adolescents compared with other programs for teen mothers. The researcher's method for dividing the Socioeconomic Index is an additional delimitation to the study, as other researchers may choose to divide the scale using an alternative method. Two final parameters of this study were that the sample consisted of mostly African American females and that the majority of participants were from a low socioeconomic background. Outcomes of the study might vary if the demographic characteristics of the sample were different.

### Significance of the Study

A multitude of studies documenting the effects of adolescent pregnancy on young female mothers are available to researchers. Various studies evaluating pregnancy prevention programs and their effects on adolescent pregnancy rates have also been conducted. Studies on career aspirations are numerous, with many focusing on regular education students, rural youth, or special needs students. However, few studies (Camarena et al., 1998; Drummond & Hansford, 1992; Hellenga, Aber, & Rhodes, 2002) exist on the career aspirations of adolescent females who are pregnant or parenting.

Findings from this study will contribute to the understanding of career aspirations of pregnant or parenting female adolescents. From these findings, educators can recognize the importance of self-efficacy and its effect on career aspirations. Therefore, the findings will clarify the necessity for incorporating curriculum beginning in kindergarten and extending through high school to increase self-efficacy in females. Secondary programs can use these findings to develop tools for pregnancy prevention for females from low socioeconomic backgrounds. Educators, social workers, health professionals, and parents can use results of this study to create long-term secondary and community outreach programs aimed at providing

academic and workforce skills to young females to better prepare them for success in postsecondary education or with attaining their future career aspirations.

## CHAPTER II

### REVIEW OF THE LITERATURE

This chapter presents a review of the literature related to the study. The review encompasses a brief history of adolescent pregnancy in America, factors influencing adolescent pregnancy, and the consequences associated with adolescent pregnancy. Women's participation in the American workforce is discussed, as well as determinants of women's career aspirations. An overview of career development theories and the rationale for choosing the Social Cognitive Career Theory (SCCT) as the framework for this study is also provided. The chapter concludes with examples of previous studies that have used SCCT as a theoretical framework.

#### Adolescent Pregnancy in Early America

While many Americans have become increasingly concerned with the problem of teenage pregnancy over the past three decades, the truth is that teenage pregnancy has been a societal concern for more than three centuries (Luker, 1996). In previous centuries, adolescent pregnancy and the problems surrounding it were not specific to any age group, but instead were treated as part of broader social issues (Harari & Vinovskis, 1993). However, only since the 1970s has the issue of unwed motherhood become associated with teenagers (Luker). Subsequently, teenage pregnancy has gripped the attention of educators, scholars, policymakers, and the public, hence, being deemed an urgent crisis not only for the young mother and her child, but also for society as well (Farber, 2003; Foster, 1986; Furstenberg Jr., 1991; Manlove, 1998; Shapland, 1999; Spear, 2004).

In the Puritan communities of early North America, high birth rates were favored because they increased the size of the extended family and were crucial for the survival of the population (Dean, 1997; Westheimer & Lopater, 2002). It was common during this time for adolescents to marry, for they were considered mature enough to begin families. Therefore, it was not unusual for an adolescent Puritan female to be a wife and mother. While Puritans regarded adolescent motherhood within marriage as normal, out-of-wedlock births were condemned (Luker, 1996). Premarital intercourse did occur, albeit mostly among formally engaged couples. If a pregnancy resulted from premarital intercourse, the couple married quickly to avoid the stigma associated with an out-of-wedlock birth. Interestingly, Puritans became more accepting of some forms of sexual expression such as premarital intercourse, but others, including out-of-wedlock births and adultery, continued to be denounced (Farber, 2003; Harari & Vinovskis, 1993; Luker; Westheimer & Lopater).

Throughout the colonial period, the incidence of young motherhood and of out-of-wedlock births posed an economic burden on communities. Harari & Vinovskis (1993) estimated that nearly 30% of all first births were conceived out-of-wedlock during the late eighteenth century. Not only was an unwed mother sinful in the eyes of the church, her illegitimate child frequently became the community's responsibility and financial burden. Often a young mother was punished in public, fined, and hastily married off, and the biological father was obligated to provide monetary assistance for his child until the child was old enough to work (Farber, 2003; Luker, 1996).

The nineteenth century witnessed a decline in premarital pregnancies, which is partially attributed to greater church participation and more emphasis on values such as self-control and self-discipline (Farber, 2003). However, those incidents of premarital pregnancies and unwed



motherhood that did occur continued to be handled in much the same manner. Marrying off a young mother saved her reputation, guaranteed financial support for her child, and eased the community's responsibility of having to help raise the illegitimate child. If a young mother could not find a husband and provide for her child, then the unwed birth became a social and economic hardship for the community (Harari & Vinovskis, 1993; Luker, 1996). Indeed, even into the mid-twentieth century, adolescent pregnancy and motherhood were quite frequent, with one-fourth of all American women having babies before age 20. However, almost all adolescent mothers were married before the arrival of their babies, or they succumbed to the pressure to drop out of school to conceal the pregnancy (Hofferth, Reid, & Mott, 2001; Hymowitz, 1997; Luker).

If adolescent pregnancy and childbearing have been so common throughout American history, why have these issues received such mounting attention and concern in recent years? Adolescent pregnancy and early marriage among teenagers were more accepted in the 1950s because the girl usually married the baby's father to legitimize the birth (SmithBattle, 2003; Zero Population Growth, 1997). As long as the end result of a premarital adolescent pregnancy was marriage, the issue remained virtually invisible to society (Farber, 2003; Furstenberg Jr., 1991; Hymowitz, 1997).

In fact, it was not until the radical social changes of the 1960s that adolescent pregnancy became a more prominent and socially disturbing trend (Cherry, Dillon, & Rugh, 2001). In the 1950s a pregnant adolescent almost always married the father before the birth of her child. In the 1960s, however, adolescents began having sexual intercourse at an earlier age and rejected hasty marriages to legitimize a birth, opting instead to remain in school (Furstenberg Jr., 1991). The country saw a 50% increase in the birthrate among unwed teenagers from 1960 to 1975, and the

number of births to unmarried teenagers between ages 15 to 19 quadrupled from 1960 to 1992 (Furstenberg Jr.; Hogan, Sun, & Cornwell, 2000).

Today, while premarital sex is not condoned, nearly 47% of secondary students have reported engaging in this activity. Adolescent pregnancy and out-of-wedlock births remain major consequences of premarital sex, and the risk of pregnancy directly corresponds to the frequency of intercourse among sexually active teens (Center for Disease Control and Prevention [CDC], 2004; Santelli et al., 2004; Zero Population Growth, 1997). The adolescent pregnancy rate in the United States continues to be the highest among developed countries (Merrick, 1995; National Campaign to Prevent Teen Pregnancy, 2003; Spear, 2004; SmithBattle, 2003). Yet despite these high rates of adolescent pregnancy, the majority of American adults still believe teens should not be sexually active and that non-marital childbearing is unacceptable. Adults also continue to view adolescent mothers, especially unwed adolescent mothers, in a negative manner (Hofferth et al., 2001; National Campaign to Prevent Teen Pregnancy, 2003; Zero Population Growth). This position is substantiated by a recent study of adolescent females who reported negative views toward teen motherhood (Turner, 2004).

#### Factors Influencing Adolescent Pregnancy

For years researchers have examined factors related to adolescent pregnancy including family structure, age at first intercourse, goals, and sexual abuse (Hockaday et al., 2000; McCullough & Scherman, 1991; Stewart, 2003). Numerous studies examining these various contingencies support or contradict researchers' findings depending on the decade and societal expectations.

### *Family Structure*

Family structure is considered a major factor contributing to adolescent pregnancy and motherhood. Rosen (1997) found a growing number of American adolescent females lived in relatively unstable family situations and many became sexually intimate for a short-term sense of comfort. McCullough and Scherman (1991) supported this assertion, adding that parental rejection, or a lack of warmth, affection, or love, also led adolescents to seek relationships outside the family to boost their self-esteem. These early sexual experiences increased the risk of adolescent pregnancy (McCullough & Scherman).

Most families today consist of two-wage earners or a single parent working several jobs, which contributes to a lack of parental supervision after school and on school holidays and vacations (McCullough & Scherman, 1991; Turner, 2004; Xie et al., 2001). Research has shown intercourse among adolescents is likely to occur during the day in homes where parents are at work and unable to provide supervision (McCullough & Scherman). Teachers who worked with pregnant teens reported the number of teen births increased significantly nine months after summer and Christmas vacations, indicating that adolescents need structure and supervision within the family (Hymowitz, 1997). More recent studies found that teens even engaged in sexual intercourse at night in their homes or the homes of their partners (Associated Press, 2002). This evidence suggests parental supervision, guidance, and parent support are major components of the family structure and critical necessities in the fight to reduce the occurrences of adolescent intercourse and resulting pregnancies (Hogan et al., 2000).

Research has revealed that strong family relationships and two parent families help lower the incidence of adolescent pregnancy. Hymowitz (1997) claimed parental influence was the most significant variable in adolescent pregnancy prevention. She concluded the absence of a

father was the primary factor in teen girls becoming pregnant. Households with both parents present, especially biological parents, were more capable of overseeing the behaviors of adolescent daughters and monitoring their exposure to risky situations (Hogan et al., 2000; Weisfeld & Woodward, 2004). It was also reported that adolescents who communicated regularly with their parents, and whose parents communicated strong disapproval of sexual activity, exhibited fewer risk-taking behaviors and were likely to delay sex until a later age (Manlove et al., 2002). In addition, Kirby (2001) noted that greater family attachment was related to later initiation of intercourse and fewer incidences of teen pregnancy and childbearing.

#### *Age at First Intercourse*

Another factor associated with teen pregnancy is the age at first intercourse. Because puberty occurs much earlier in today's adolescents, first-time sexual encounters are taking place at younger ages, resulting in more sexually experienced adolescents (Gillham, 1997; Xie et al., 2001). Between 1988 and 1995, the proportion of adolescent females who first had sex at 14 years old or younger practically doubled (National Campaign to Prevent Teen Pregnancy, 2003). Some researchers speculated that puberty did not begin until age 15 or 16 in earlier centuries, and they believed sexually active females probably did not experience pregnancies until their late teens (Harari & Vinovskis, 1993). There is not a direct relationship between the time a girl reaches puberty and the likeliness of her becoming pregnant; however, earlier onset of puberty combined with more peer pressure and less parental supervision results in today's adolescents being faced with making premature sexual decisions (Farber, 2003; Rodriguez Jr., & Moore, 1995).

Such drastic increases in the age at first intercourse today may also be attributed to family role models. Adolescents whose mothers gave birth as teenagers are more likely to engage in

early sexual intercourse and become teen parents themselves. Furthermore, adolescents with sexually experienced or pregnant siblings are more likely to become pregnant themselves (Manlove et al., 2002; Xie et al., 2001).

### *Goals*

Past evidence has suggested that many adolescent females became pregnant intentionally because they saw no other life goals within their reach (Winter, 1997). Usually adolescent females experienced academic difficulties in school, or they attempted to escape abusive home situations (Koshar, 2001). Many of these females viewed higher education as unattainable, and they possessed little awareness of their life options and career opportunities. Seeing no future for themselves and coupled with a lack of positive role models to follow, these adolescent females chose to become pregnant, as this decision appeared to be their best option (Brown & Barbosa, 2001; Rothenberg & Weissman, 2002). These teen mothers viewed childbearing as the one thing they could do that was socially responsible, gave meaning to their lives, and offered hope for their futures (Rosen, 1997). Often the phenomenon of intentional pregnancy is limited to low-income adolescents because they are more likely to perceive their futures as bleak and motherhood as a better option (Davies et al., 2004).

### *Sexual abuse*

In recent years a growing amount of attention has focused on the relationship between adolescent pregnancy and sexual abuse. Sexual abuse may alter perceptions about sexual behavior, leading the abused adolescent, especially females, to initiate sex at an earlier age and have more partners (Saewyc, Magee, & Pettingell, 2004). McCullough & Scherman (1991) speculated some teen pregnancies possibly resulted from unresolved feelings and behaviors associated with earlier sexual abuse.

Although the majority of adolescent females claimed their first sexual experience was voluntary, about 40% of girls who first had intercourse at age 13 or 14 indicated involuntary or unwanted intercourse with an older partner (Farber, 2003). Herman-Giddens et al. (1998) reported that females who were sexually abused as children were three times more likely to become pregnant during their teen years and usually became pregnant at a younger age. Likewise, about two-thirds of adolescent mothers were previously sexually abused or raped by a father, stepfather, or other relative, and often suffered from low self-esteem and depression (Sarri & Phillips, 2004; Villarosa, 1997). Additional studies found over 65% of adolescent mothers had babies by men who were age 20 or older, implying that a higher number of adolescent pregnancies may result from sexual abuse than previously thought (Klein, 1997; Villarosa).

#### Consequences of Adolescent Pregnancy

After careful examination of the factors fostering adolescent pregnancy and unwed motherhood, it is equally important to identify the consequences associated with this phenomenon. Possessing an understanding of the factors associated with adolescent pregnancy and its consequences is necessary in order to effectively prevent and ease the costs of adolescent pregnancy.

Adolescent pregnancy and childbirth impose difficult long-term outcomes and have adverse effects not only on the young mother, but also on her child (Hao & Cherlin, 2004; Meade & Ickovics, 2005; Young, Martin, Young, & Ting, 2001). These negative consequences and outcomes have been documented over the years, and society tends to stereotype all adolescent mothers in an unfavorable manner (Camarena et al., 1998).

### *Career aspirations*

Adolescence is characterized as a period in which teenagers develop certain aspirations regarding their education and future careers. Aspirations represent a person's orientation toward particular goals and may be influenced by variables such as gender, socioeconomic status, family support, parental expectations, and cultural values (Khallad, 2000; Rojewski, 1996a). Aspirations are especially important during adolescence because they allow teenagers to evaluate the degree to which various choices help or hinder their chances of attaining desired goals. In addition, aspirations act as a motivator by influencing the amount of effort adolescents spend on tasks that will make the achievement of their goals possible (Camarena et al., 1998). Knottnerus (1987) reported that aspirations formed at an early age shaped educational and occupational attainments.

Career aspirations represent an individual's orientation toward a particular career goal (Rojewski, 1996b). Career aspirations of adolescent females are affected by teenage pregnancy. Camarena et al. (1998) stated that some factors predicting adolescent childbirth are linked to employment aspirations prior to the pregnancy. Pregnant adolescents are frequently not concerned with career choices or aspirations because they have more immediate responsibilities and basic needs to satisfy. Future plans and goals usually must be altered or changed for pregnant adolescents to incorporate the baby into the life trajectory (Kaiser & Hays, 2004). Hellenga et al. (2002) claimed an adolescent female with little money, no diploma, and a baby would possibly have to forfeit her own interests and abilities when making career choices, and take the first job that comes along.

Often pregnant or parenting adolescents are unaware of the various types of jobs available in the workforce. Pregnant secondary students have been found to possess lower career aspirations, attain less prestigious occupations, and experience less satisfaction with career

progress, feel their future job choices are limited when compared to their non-pregnant peers. They were less likely to get a job or attend college (Hockaday et al., 2000; Nord et al., 1992; School Board News, 1999). As a result, adolescent mothers often experienced a lack of meaningful and equal career opportunities, leading to a high rate of teen unemployment (Merrick, 1995). Childbearing at an early age has also been found to reduce a female's career opportunities to mostly non-professional occupations (Bissell, 2000). Additional studies reinforced the notion that adolescent motherhood was associated with unrealistic career aspirations, unequal career opportunities, and high unemployment rates among these females (Drummond & Hansford, 1992; Hayes, 1987; Merrick, 1995; Nord et al.). Pregnant adolescents represent the portion of at-risk youth that commonly fall into occupations for which there is an oversupply of workers (Drummond & Hansford).

As mentioned earlier, the best protection an adolescent female can have against becoming pregnant is to have life goals (Winter, 1997). Having positive attitudes about education and clear educational goals was associated with fewer incidences of adolescent births (Hockaday et al., 2000; Manlove, 1998; Manlove et al., 2002). Stewart (2003) theorized that adolescent females with high career aspirations may postpone early motherhood to focus on their educational and career goals. O'Connor (1999) found that academically-oriented females, meaning those with good grades, high test scores, and high educational aspirations, were less likely to give birth while still in high school. Other studies (Rodriguez Jr. & Moore, 1995; Young, Turner, Denny, & Young, 2004) reported adolescents with a high self-esteem and a belief they had future goals were less likely to experience an early pregnancy. Findings from a study by Womble and Jones (1996) suggested students appeared to make the connection between school and work awareness to career success.



Helping adolescent females set realistic career goals, providing counseling to enhance self-esteem, and providing mentors have also been found to help reduce the incidence of adolescent pregnancies (Drummond & Hansford, 1992; Merrick, 1995). Female mentors help young females realize the advantages of delaying pregnancy in order to achieve successful adult careers (Sarri & Phillips, 2004). Klaw and Rhodes (1995) reported natural mentors such as a special aunt, grandparent, or teacher, positively influenced young adolescent females. Mentors fostered girls' beliefs regarding the relationship between educational attainment and future career opportunities. As a result, adolescent females experienced a more optimistic outlook on life and increased participation in career-related activities because they realized education led to future jobs.

#### *Adolescent Mothers' Futures*

Many researchers have painted a dismal picture of the future for adolescent mothers. Young mothers face poor life scenarios and bleak impending prospects for educational and economic well-being (Maynard, 1996; Tonelli, 2004). Sarri and Phillips (2004) implied young mothers confront many years of social and economic disadvantages. Similarly, Zero Population Growth (1997) declared pregnant adolescents were more likely to be impoverished and to have limited future possibilities.

Adolescent mothers have often experienced medical complications and health problems during pregnancy, as many do not seek prenatal care (Sarri & Phillips, 2004). Serious medical problems suffered by the babies of adolescent mothers include premature birth, low birth weight, and malnutrition (Cherry et al., 2001; Meade & Ickovics, 2005). Children of adolescent mothers perform inadequately in school, suffer from lifelong learning disabilities, and experience higher rates of neglect later in life (Merrick, 1995; National Campaign to Prevent Teen Pregnancy,

2002; Rothenberg & Weissman, 2002). In addition, children of teen mothers are more likely to achieve lower levels of education and become young, unmarried parents themselves (Farber, 2003). Adolescent mothers were found to spend a greater amount of their adult years as single parents. Generally, adolescent females had more children than women who delayed childbearing until their twenties, and this trend continues today (Maynard, 1996; National Campaign to Prevent Teen Pregnancy, 2002; Zero Population Growth, 1997).

Because adolescent mothers often lack work experience, educational skills, and job training, their future employment levels and earnings are minimal. Sawhill (2000) observed that those adolescent mothers who did work were less competitive in the workforce, and many struggled to survive with low-wage or dead-end jobs. Research over the years has confirmed that most men responsible for children born to adolescent mothers provide little or no child support (National Campaign to Prevent Teen Pregnancy, 2002). As a result, a large number of adolescent mothers have remained disproportionately poor, depending on public assistance to support them economically. Consequently, children of adolescent mothers, whether receiving welfare or not, will remain poor (Nord et al., 1992; Rothenberg & Weissman, 2002; Sawhill, 2000). These grim statistics are the realities adolescent mothers must face concerning their futures.

### *Social*

Early American families did not view adolescent pregnancy as a setback for the young mother. After all, in the mid-1800s most children finished school by age 15, and the extent of a career for adolescent females was being a wife and full-time mother. An early pregnancy did not interrupt a young girl's college education or hamper her long-term career plans (Farber, 2003; Harari & Vinovskis, 1993).

In the late nineteenth and early twentieth centuries, changes in the American family and social reconstruction including immigration and altered sexual attitudes, led reformers to focus on young unmarried mothers. Social reformers established homes for unwed adolescent mothers and were determined to help the unfortunate children of these mothers who lacked family resources (Cherry et al., 2001; Luker, 1996). However, when it became known that a young girl had given birth outside of marriage, she was shunned by her community for the rest of her life, and her child faced the same cruel fate from peers and other adults (Cherry et al.).

Gradually, social attitudes toward adolescent pregnancy and unwed motherhood began to shift, and by the middle of the twentieth century, unwed adolescent mothers increasingly viewed marriage as undesirable (Furstenberg Jr., 1991). As society has become more tolerant of sex outside of marriage during adolescence, the stigma associated with single parenting has faded (Sawhill, 2000). Thus, more conceptions outside of marriage are occurring, resulting in more births to unmarried adolescents (Maynard, 1997; Sawhill). The trend of females marrying later today than in previous decades has created a larger time span in which a non-marital pregnancy could occur, and many pregnant adolescent females are less likely to marry before the child is born (National Bureau of Economic Research, 2000; Maynard, 1997).

### *Economic*

In addition to the numerous social outcomes of adolescent pregnancy, various economic outcomes are also evident. Adolescent pregnancy and early childbearing is detrimental, for very often the young female is unable to attain sufficient education needed to compete in the economy (Sawhill, 2000). It is estimated that adolescent childbearing costs the nation roughly seven billion dollars annually (National Campaign to Prevent Teen Pregnancy, 2003; Rothenberg & Weissman, 2002). This statistic includes costs for public-assistance benefits such as welfare and

food stamps, higher medical-care expenses, increased foster care, and the construction of prisons to house growing numbers of criminals resulting from adolescent childbearing (Maynard, 1995, 1996). These economic changes from adolescent pregnancies may negatively impact the country's economy.

Adolescent mothers usually have relied more heavily on public assistance and constituted nearly one-half of all welfare recipients (Maynard, 1995; Zero Population Growth, 1997). Such high levels of dependence on public assistance indicated widespread poverty in families of young adolescent mothers in America (National Center for Research in Vocational Education, 1992). Indeed, Westheimer and Lopater (2002) noticed a relatively lower median family income for adolescent mothers 19 years old and younger. Many Americans falsely assumed welfare encouraged people, especially adolescent females, to have babies. Given the United States provided less support for single mothers, and the welfare benefits have steadily decreased since 1973, Luker (1996) stated there was likely no correlation between the level of welfare benefits and the incidence of out-of-wedlock births.

### *Educational Outcomes*

One of the most important consequences surrounding adolescent pregnancy concerns educational attainment, as timing of family formation is critical in the amount of schooling a young girl obtains (Hofferth et al., 2001). Becoming an adolescent mother has been associated with less formal education, often leading to poverty (Hayes, 1987; Meade & Ickovics, 2005; Merrick, 1995). Adolescent pregnancy can pose major challenges to school attendance and completion, and it is one of the reasons commonly cited by female secondary students for dropping out of high school (Drummond & Hansford, 1992; Hao & Cherlin, 2004). Balancing school, a job, and childcare is often overwhelming for female adolescent parents and consumes

time and energy that they could otherwise spend on school (Hofferth et al.; Koshar, 2001).

Teenage marriages, especially marriages to legitimize a birth, are also related to lower educational attainment among adolescent mothers (Nord et al., 1992).

Rothenberg and Weissman (2002) found that 7 out of 10 females who became adolescent mothers did not graduate from high school. Less than one-third of female adolescents who gave birth before age 18 completed high school. Additionally, for adolescent mothers experiencing a subsequent pregnancy within two years of their first delivery, the prospect of high school graduation is improbable (Kreinin, 1998; Meade & Ickovics, 2005). Hofferth et al. (2001) found that adolescent childbearing was greatly associated with reduced chances of completing high school and attending college, thus leading the researchers to conclude that today's adolescent mothers who are unable to obtain some form of higher education are at a disadvantage.

Koshar (2001) discovered that many adolescent females who became pregnant were already experiencing academic difficulties in school. Pursuing higher education or a career was not realistically within their reach, and they experienced feelings of hopelessness or helplessness regarding their futures (Rothenberg & Weissman, 2002). While many adolescent females on the verge of dropping out claimed becoming pregnant gave them the excuse to quit school, other adolescent females first dropped out of school and then became pregnant (Kreinin, 1998; School Board News, 1999).

However, academic success and a bonding to school have been associated with reduced adolescent pregnancy rates (Yampolskaya et al., 2004). Adolescents who had friends with high educational aspirations were less likely to engage in sex at an early age, thus reducing their chances of adolescent pregnancy and increasing their likelihood of completing high school when compared to adolescents whose peers did not have these characteristics (Manlove et al., 2002).

### *Poverty*

Poverty is an additional consequence of adolescent pregnancy, often leading to poorer outcomes for adolescent mothers (Tripp & Viner, 2005). As many as 80% of unwed adolescent mothers grew up in extreme poverty and the likelihood their children will grow up in poverty is high. Many of these poverty-stricken adolescents accepted their pregnancy and viewed it as a means of improving their lives (Rosen, 1997). Adolescents subjected to disadvantaged circumstances, such as living in poor, racially segregated, high crime communities, or living in problematic families, were more at risk of becoming pregnant during their teenage years (Maynard, 1995; Maynard, 1997; Sarri & Phillips, 2004). Similarly, Manlove et al. (2002) reported adolescents living in poverty stricken neighborhoods were more apt to engage in sexual intercourse, often leading to adolescent pregnancy and childbirth. Maynard (1995) speculated that adolescent pregnancy and childbearing directly resulted in the intergenerational transfer of poverty.

### Responses to Adolescent Pregnancy

Over the last half of the twentieth century, schools, communities, and the government have worked diligently to help combat adolescent pregnancy. There are literally hundreds of adolescent pregnancy prevention programs available to teens today, yet it is difficult for educators and practitioners to know which of these programs serve as “best practices” (Franklin & Corcoran, 2000). However, educators and practitioners have advocated that the most successful adolescent pregnancy prevention programs are long-term (School Board News, 1999). Successful programs are characterized as being multifaceted, incorporating not only abstinence, but also other topics including delayed sexual activity, life skills training, self-esteem, sex education, parenting skills, and contraception (Zero Population Growth, 1997). Additionally, the

Institute for Educational Leadership (1997) suggested that schools extend educational opportunities in alternative schools, offer supportive learning environments for pregnant and parenting adolescents, and arrange for quality childcare services in schools attended by adolescent parents.

Various programs are currently available in an attempt to reduce the incidences of adolescent pregnancy. While these programs offer countless support services to pregnant and parenting adolescents, not all support services are consistently available throughout the country (Brindis & Philliber, 2003). Kreinin (1998) asserted that offering mentoring programs and after school youth activities could be valuable in the fight to reduce adolescent pregnancies. Effective programs and curricula for preventing adolescent pregnancy are successful in delaying sexual intercourse, increasing contraceptive use, and providing teens with accurate information to dispel myths (Franklin & Corcoran, 2000; Tonelli, 2004). However, programs aimed at preventing pregnancy and parenting among adolescents must be long-term and comprehensive, while incorporating important components such as early intervention, sexuality education, counseling, health services, adolescent domestic violence, and youth development (Raphael, 2005; Rothenberg & Weissman, 2002; School Board News, 1999). Adolescent pregnancy is a complex problem, and pregnancy prevention programs are still needed to provide knowledge to young females (Tonelli, 2004; Weisfeld & Woodward, 2004). Thus, there is a need for collaboration among various organizations to achieve successful pregnancy prevention programs, as only marginal success in the fight against adolescent pregnancy has been achieved to date (Brindis & Philliber; School Board News).

Typically, Americans have been reluctant to deal with issues regarding sexuality and reproductive health (Zero Population Growth, 1997). However, society must assume the

responsibility of educating teens about sex, adolescent pregnancy, and the negative effects of early motherhood on young females. Federal and state governments can contribute to this effort by providing stable funding for comprehensive educational and support services to pregnant and parenting adolescents (Institute for Educational Leadership, 1997). The challenge of reducing rates of teenage pregnancy remains, and until America's youth are able to fully understand the consequences of teenage pregnancy, prevention programs, interventions, and counseling services must continue to be accessible for all adolescents (McCullough & Scherman, 1991; Tonelli, 2004).

#### Current Profile of Pregnant Adolescents in the United States

In her book, *Dubious Conceptions: The Politics of Teenage Pregnancy*, Luker (1996) created a profile of pregnant adolescents. She found that pregnant adolescents were more likely to be white than African American, most likely 18 or 19 years old, thus legal adults at the time of pregnancy, and were often impregnated by men 20 years of age or older. Luker also noted pregnant adolescents were as common in the 1990s as they were in 1900. Some of these characteristics identified by Luker are still evident today, but other features have emerged in the profiles of pregnant adolescents in the new millennium.

Despite slight declines in incidence over the past decade, adolescent pregnancy remains prevalent in the United States, with nearly 1 million teen girls becoming pregnant each year (G-CAPP, 2003; National Campaign to Prevent Teen Pregnancy, 2003; Rothenberg & Weissman, 2002; Sarri & Phillips, 2004). In fact, roughly 13% of all births in the U.S. are to teen mothers between ages 15 to 19 (Alan Guttmacher Institute [AGI], 1999). Throughout history, adolescent pregnancies were problematic at different times and to varying degrees among Caucasian and African American females. When Luker (1996) published her book, teen pregnancies were



actually more likely to occur in Caucasian females, although people mistakenly believed, and some still do today, that African American females had a higher incidence of adolescent pregnancies. Although the misconception is that adolescent pregnancies are higher among African American females, Hispanic teens currently have the highest national rates of pregnancy and births of any of the major ethnic groups (Brindis, 2004; Kalil & Kunz, 1999). Similarly, in 2002, the Sexuality Information and Education Council of the United States (SIECUS) noted the greatest decrease in pregnancy rates occurred in African American teens, while rates among Hispanics did not decline as significantly. In another recent study, Xie et al. (2001) found African American adolescent females, especially those from low-socioeconomic backgrounds, were still more likely to become adolescent mothers than Caucasian American females.

Each year nearly 12,000 adolescents under age 15 become pregnant (Rothenberg & Weissman, 2002). While this number might appear high, it averages out to about 2.6 pregnancies per 1000 females, and pregnancy rates among teenagers have actually been steadily declining (Ventura, Abma, Mosher, & Henshaw, 2003). In accordance with Luker's 1996 findings, the highest pregnancy rates continue to be in females between 18 and 19 years of age. The Alan Guttmacher Institute (1999) reported that 6 of 10 pregnancies occurred among females in this age bracket. Despite dropping 23% since 1991, birthrates for females between ages 18 to 19 remains higher than other age groups, with 72.8 births per 1000 females (Martin et al., 2003; SIECUS, 2003). Married adolescent females reported higher rates of pregnancy than their unmarried peers, and out-of-wedlock births were becoming more common among women in their twenties versus females in their teens (Manlove et al., 2002; Sawhill, 2000).

Another seemingly constant trend is the age differences among adolescent females and the men who impregnate them. Manlove et al. (2002) noted adolescent females with much older

sexual partners were at a greater risk for becoming pregnant. An estimated 40% of female teens under 16 years of age indicated they were impregnated by a man who was three or more years older than themselves (National Campaign to Prevent Teen Pregnancy, 2002; School Board News, 1999). One of every five infants born to unmarried adolescents is fathered by a man five or more years older than the mother (AGI, 1999). A recent study found that nearly 25% of adolescent females between ages 14 and 18 were more likely to have boyfriends or partners at least five years older than themselves (Davies et al., 2004).

On a positive note, new research suggests larger numbers of adolescent mothers are finishing high school today than in the past. Pregnant adolescents are now more likely to remain in school during their pregnancies, and 7 out of 10 adolescent mothers complete high school. However, parenting adolescents are less likely to attend postsecondary schools than teens who delay childbearing (AGI, 1999; G-CAPP, 2003). Manlove (1998) found that African American adolescent females were less likely to drop out of school after an adolescent birth than Caucasian or Hispanic adolescent females. Lower incidences of dropout among African American adolescents may be attributed to the fact that these females are more likely to stay in their parent's home. As a result, they receive childcare and emotional and financial support from extended family (Hockaday et al., 2000).

Changing attitudes among adolescents in the United States have defined a shift in a more conservative direction, where incidences of adolescent pregnancy are declining. This may be attributed to the fact that teens are more concerned about sexually transmitted diseases and AIDS; therefore teens are decreasing their amount of sexual activity and using contraceptives more effectively (AGI, 1999; Farber, 2003; Sawhill, 2000). As teens exhibit these more

responsible sexual behaviors, rates of adolescent pregnancy continue to fall (Santelli et al., 2004; Sonenstein, 2004).

### Women's Participation in the Workforce

The view of a woman's role in the workforce has changed significantly throughout time. Historically, society believed a woman's place was in her home, caring for her husband and children, as opposed to the workplace. Valued feminine traits such as a meek nature and submissiveness were feared to be lost if women entered the workforce (Astin, 1984; Nieva & Gutek, 1981). The earliest cases of women working outside the home date back before the Industrial Revolution. Women commonly assisted their husbands with maintaining the family or acted as a business partner, although they often received no pay. If they were paid for their work, women earned less than their male counterparts (Nieva & Gutek).

Eventually, women began extending their work outside the home in the form of domestic and other jobs such as clerical workers. The integration of women into the workforce was a slow process and was often viewed unfavorably by society (Nieva & Gutek, 1981). Although some women were beginning to experience life in the workforce, they were frequently regarded as temporary employees. Their jobs were expected to take second place next to marriage and childbearing (Gutek & Larwood, 1987; Tinklin, Croxford, Ducklin, & Frame, 2005). By the middle of the nineteenth century, more women became involved in teaching, nursing, and clerical work. These jobs were perceived as feminine, and society deemed them appropriate for single women (Nieva & Gutek).

In 1890, less than 3% of married women worked outside the home. By 1900, 25% of all women were participants in the labor force. This percentage gradually rose over the next decade, and by 1910, nearly 7.5 million women worked outside the home. These numbers remained

fairly stable until the beginning of World War II (Nieva & Gutek, 1981). The onset of World War II sparked a sharp increase in labor participation among women. In addition to the typically female-oriented jobs, women were hired for skilled jobs and union jobs, positions which were previously unavailable to them (Nieva & Gutek).

Following World War II, women continued to enter the workforce in growing numbers, regardless of their marital or parental status (Rainey & Borders, 1997; Watson, Quatman, & Edler, 2002). Labor market participation among women increased from 30% in 1950 to more than 50% in 1980 (Astin, 1984; Farmer, 1985; Stephenson & Burge, 1997). By the late 1970s, nearly 50% of all married women and 40% of all women over age 16 were working (Nieva & Gutek, 1981). However, they still viewed employment as secondary to their domestic responsibilities (Tinklin et al., 2005). In 1990 approximately 57 million adult women ages 16 and older were in the paid workforce (Rainey & Borders; Watson et al.). Despite a brief stall in women's workforce participation rates in the early 1990s, their workforce rates were on the rise once again by 1994 (Hayghe, 1997).

By the mid-1990s, approximately 46% of the entire American workforce was female (Stephenson & Burge, 1997). Such large numbers of working women defied the traditional stereotype of the stay-at-home housewife and breadwinning husband, which characterized only 7% of American families by the mid-1990s (Jalilvand, 2000; Stephenson & Burge; Tinklin et al., 2005). An estimated 48%, or approximately 72 million of the labor force will be comprised of women by the year 2005 (Rainey & Borders, 1997; Stephenson & Burge; Tinklin et al.; Watson et al., 2002). In fact, Fullerton, Jr. (1999) projected a continued rise in women's workforce participation through the year 2015, with the exception of 16 to 24 year olds. A large portion of females in this age bracket will be concentrating on high school and college, thus not entering

the workforce as rapidly. Nieva and Gutek (1981) credited the increase in women's employment rates to more favorable attitudes toward working women, longer life expectancies, changing marriage patterns, and improvements in and acceptance of birth control methods. Today, there is no longer much question whether women will participate in the workforce. In addition, working women are no longer considered deviations from the norm, but rather they are the norm (Rainey & Borders).

Heins, Hendricks, & Martindale (1982) stated, "Achieving professional status may be more difficult for women than for men" (p. 455). Indeed at various times throughout history, working women were viewed as immoral and unfeminine objects of pity. Some critics even accused working women of being negligent mothers. Frequently, women employees were not taken seriously by their bosses, colleagues, or society (Nieva & Gutek, 1981). Having a career posed various challenges for women due to their additional family responsibilities (Valdez & Gutek, 1987). Women were expected to perform their duties as wife and mother, in addition to fulfilling their professional responsibilities. Some women experienced feelings of guilt or selfishness if they put their career interests first (Heins, et al.). Because women's work and family demands were simultaneous, these demands had a significant impact on women's careers (Valdez, & Gutek).

Despite their increasing numbers in the workforce, women tend to enter the workforce in lower-status, lower-paying jobs, and remain clustered in a limited number of conventional careers (Tinklin et al., 2005). Low-paying traditionally female careers, including administrative support, sales, service, nursing, teaching, social work, and clerical jobs, reflected society's persistent attitudes regarding stereotypical occupational roles for males and females (Rainey & Borders, 1997; Sellers, Satcher, & Comas, 1999; Stephenson & Burge, 1997; Watson et al.,

2002). Because women's career choices were restricted to certain sectors of the workforce, their earnings lagged behind the earnings of their male counterparts with comparable education and experience (Farmer, 1985; Stephenson & Burge). American women earned roughly two-thirds the income of their male counterparts, and this discrepancy in income was partially attributed to the disparity between traditionally male and traditionally female occupations. Factors narrowing women into traditional role occupations included social and familial influences, a lack of awareness regarding nontraditional options, an unwelcoming environment in many male-dominated fields, discrimination within career fields, high turnover rates for women, and less seniority in given occupations. In turn, these factors also contributed to earning gaps between men and women (Stephenson & Burge).

#### *Barriers to Women's Workforce Participation*

A barrier is any obstacle that prevents forward movement or any event or condition that makes career progress difficult (Brown & Barbosa, 2001; Swanson & Woitke, 1997). Swanson and Woitke indicated that barriers could partially explain the gap between the abilities of women and their achievements, or these barriers could explain the inhibitions of women's career aspirations. Barriers are significant factors in the career development process, and the onset of such barriers frequently begins when women are children. Barriers are reinforced throughout women's schooling, college, and work, and they become more complex over time (Brown & Barbosa; Stephenson & Burge, 1997). Swanson and Woitke acknowledged barriers could be overcome, although successfully conquering a barrier depended on the type of specific barrier and the individual's personality.

Females often perceived role conflicts and barriers as obstacles in their career development process. Research identified numerous obstacles that are recognized as barriers to

women's workforce participation (Albert & Luzzo, 1999; Brown & Barbosa, 2001; Luzzo & McWhirter, 2001; Stitt-Gohdes, 1997). Common barriers faced by women included sex-typing of occupations and sex discrimination, both of which women felt they were unable to control (Stitt-Gohdes). Inadequate occupational skills, poor academic achievement, and lack of transportation were also found to be major reasons women failed to succeed in the workforce. Childcare was another issue women saw as a potential barrier to succeeding in their careers (Brown & Barbosa, 2001; Stitt-Gohdes). Despite these perceptions by women, findings from recent studies revealed that females showed an interest in a greater number of careers and exhibited more gender-role flexibility in their career aspirations than males (Francis, 2002; Mendez & Crawford, 2002; Wahl & Blackhurst, 2000).

#### *Female Heads of Household*

The number of single parent families headed by women rose from 11% in 1970 to 16% in 1985 (Stephenson & Burge, 1997). As a result, many women were forced to work to support their families. Farmer (1985) estimated roughly one-half of the women in the labor market were single heads of households due to divorce, separation, or widowhood. Statistics showed these women earned considerably lower salaries compared to men with similar training, meaning a large number of these women and their families lived below the poverty level (Farmer; Stephenson & Burge).

The types of careers women are choosing and factors influencing their choices are relevant issues to examine, especially since most research reveals women continue to work in lower-paying, traditionally female-oriented jobs (Rainey & Borders, 1997; Watson et al., 2002). For this reason, it is necessary to continue studying the career interests and career development

processes of women, as they will remain an important sector of America's workforce (Gutek & Larwood, 1987).

### Career Aspirations of Women in the 20<sup>th</sup> Century

Gutek and Larwood (1987) defined a career as "a series of related jobs within an organization or different jobs within various companies" (p. 9). Career development refers to the many jobs a person holds, and it should represent progress, whether through increased recognition or salary, or the respect one receives from colleagues. The more a person's career progresses in this manner, the more he or she will be judged successful (Gutek & Larwood).

Career aspirations represent an individual's orientation toward a desired career goal under ideal conditions. More simply stated, career aspirations "provide information about an individual's interests and hopes, unfettered by reality" (Hellenga et al., 2002, p. 200; Rojewski, 1996b). Adolescence is an ideal time to study the career development of young women, as many changes occur during this time that strongly influence the formation of career aspirations and preferences. As adolescents gain a greater awareness of their skills and interests, career options and choices become more realistic (Watson et al., 2002).

#### *Factors Influencing Women's Career Aspirations*

Career aspirations are influenced by variables such as gender, socioeconomic status, race, parents' occupation and education level, and parental expectations (Khallad, 2000; Watson et al., 2002). Researchers examine such variables to determine their role in career behavior and how they affect individuals' career decision-making processes (Osipow & Fitzgerald, 1996; Rojewski & Yang, 1997). In recent years there has been an increased awareness of the impact of race, gender, and socioeconomic status on the career decision-making process and career development (Stitt-Gohdes, 1997).



Gender influences. Osipow and Fitzgerald (1996) stated, “Gender is clearly one of the most powerful of all influences on vocational behavior” (p. 63). In the past, fewer occupational choices were available to women due to factors such as sexism, discrimination, and limited education for women. Studies on gender and career aspirations in the 1970s revealed girls had more restricted career aspirations than boys as early as first and second grade, and they often opted for a narrow range of occupational categories (Looft, 1971a; Mendez & Crawford, 2002; Wahl & Blackhurst, 2000). Additionally, Heins et al. (1982) reported that families often encouraged the educational and career aspirations of male children but not those of female children. Thus, not only did sex differences in vocational aspirations develop early in childhood, girls appeared to learn quickly that certain adult statuses were available to them, reflecting societal sex-role expectations (Looft, 1971b).

Replications in the 1980s of earlier studies showed girls had broadened their occupational preferences, yet their expectations for occupational attainment remained low, especially for high status, traditionally male jobs (Wahl & Blackhurst, 2000). Recent studies refuted earlier findings and asserted that females demonstrated an interest in a greater number of careers and displayed more gender-role flexibility in their career aspirations than males (Francis, 2002; Mendez & Crawford, 2002; Wahl & Blackhurst). Findings from a study by Jones and Womble (1997) revealed that females had more positive attitudes toward work than males. However, when compared to boys, girls are more conflicted between their future careers and commitment to marriage and family (Watson et al., 2002).

Occupational status and educational level of parents. The occupational status and educational level of females’ parents have had a significant impact on their career aspirations and career choice (Burlin, 1976). Wahl and Blackhurst (2000) indicated children’s career aspirations

were more closely related to parental occupations. Among adolescent females in particular, career choice is strongly influenced by the mother's occupation (Burlin; Wahl & Blackhurst). The mother's occupation was credited with impacting children's aspirations because children often attended work with their mothers and were more likely to know what their mothers did for a living.

Likewise, Burlin (1976) deduced career choices and aspirations in females were significantly predisposed by the mother's type of work. In an early study of college women, Burlin determined daughters of working mothers chose a life pattern comparable to their mothers more often than life patterns comparable to their fathers. Burlin's findings reiterated the importance of mothers as role models in the development of their daughters' career goals and aspirations. Similarly, Signer's and Saldana's (2001) study found the social status of mothers' occupations, as opposed to the social status of fathers' occupations had a stronger correlation with the social status of female students' career aspirations. They attributed this finding to the fact that mothers exhibit a greater presence in many homes.

Parents' educational level has been positively related to the aspirations of adolescents (Mau & Bikos, 2000). Burlin (1976) stated that both parents' education level wielded a strong influence on the career choice of their daughters. Signer and Saldana (2001) discussed research regarding the positive relationship between adolescent females' career aspirations and their mothers' educational achievement. Jones and Womble (1998) found that students whose mothers completed either a two or four year postsecondary degree had higher perceptions of work and career-related issues.

Female education gains in the workplace. Research has supported the idea that the more education a female receives, the more likely she is to engage in paid employment (Nieva &

Gutek, 1981; Schiffler, 1975). The increase in college and university enrollment among females has been the result of changing roles and expectations of women in today's society and the growing interest among women in professional careers (Bronstein, Black, Pfenning, & White, 1987; Tinklin et al., 2005). A woman's educational level has also been thought to be a strong predictor of the number of years she will be employed. With more women choosing majors that require continuous employment such as business or marketing, women are extending their participation in the workforce (Nieva & Gutek).

Race. Race refers to a subgroup of individuals who share a distinct combination of physical attributes and genetic origin (Osipow & Fitzgerald, 1996). Results of studies examining the effects of race on secondary students' career aspirations have been mixed (Mau & Bikos, 2000). Hellenga et al. (2002) noted that previous research has typically found African Americans to have lower career aspirations than their European American counterparts. Osipow and Fitzgerald (1996) supported this notion, stating African Americans, Hispanics, and Native Americans exhibit considerably lower educational and occupational outcomes than Caucasians. Further studies asserted people from minority groups, especially those from lower class backgrounds, had more limiting factors influencing their career aspirations compared with Caucasian persons from lower class backgrounds (Farmer, 1985; Gottfredson, 1981).

In contrast, a study conducted by Arbona and Novy (1991) determined there were no ethnic differences among high school students with regard to their career aspirations. Other research revealed that Hispanic and Native American students had high career aspirations, but both ethnic groups exhibited lower expectations for achieving their aspirations (Stitt-Gohdes, 1997). Likewise, Mau and Bikos's (2000) findings showed higher career aspirations among

Asian Americans than Hispanic Americans at 10<sup>th</sup> grade and post-graduation measurements. Perhaps further studies can clarify the influence of race on adolescents' career aspirations.

Socioeconomic status of adolescents. Although few studies exist regarding the effect of socioeconomic status on career choice, researchers have agreed that socioeconomic status does influence career choice (Gottfredson, 1981; Sellers et al., 1999). Mau and Bikos (2000) mentioned findings from previous research that showed a positive association between a family's socioeconomic status and an adolescent's aspirations. Youth from families of higher socioeconomic statuses were more likely to be knowledgeable of and choose professional occupations (Sellers et al.). In contrast, Brown and Barbosa (2001) found that career aspirations of young females who came from low-income families were confined to the experiences of their relatives and friends. Additionally, influential siblings are thought to play a key role in the career development of adolescents from lower socioeconomic backgrounds (Ali, McWhirter, & Chronister, 2005).

According to Herr and Cramer (1996), "Socioeconomic differences are associated with differences in information about work, work experience, and occupational stereotypes, which, in turn, affect vocational interests" (p. 204). Past studies have shown a positive association between high school students' aspirations and their family's socioeconomic status, which is frequently related to parental education levels (Mau & Bikos, 2000; Signer & Saldana, 2001). Trusty (2002) indicated that a low socioeconomic status resulted in reduced and unrealized expectations. Additionally, he added socioeconomic status had a direct effect on unequal aspirations and expectations. Compared with middle and upper class individuals, lower class individuals faced more obstacles that limited their career aspiration levels (Gottfredson, 1981; Farmer, 1985).

Regardless of socioeconomic status, Stitt-Gohdes (1997) stressed that the career aspirations of all individuals are important in the career development process.

Women's career aspirations have evolved steadily during the twentieth century, resulting in their increased workforce participation rates. A multitude of factors have influenced and inhibited women's career aspirations and career development over the years (Nieva & Gutek, 1981). Continued research on the lifelong processes of women's career aspirations and development is necessary to explain their unique career paths (Rainey & Borders, 1997; Schoon, 2001). Of equal importance is the need to study female adolescents in the early stages of career development, as aspirations are often crystallized during this time (Hellenga et al., 2002; Rainey & Borders). Gaining insight into career aspirations and career interests can be useful in expanding career options available to young females (Rainey & Borders).

#### Theoretical Framework

A theory is typically described as a "generalized statement designed to facilitate broad conceptualization about natural events" (Osipow & Fitzgerald, 1996, p. 2). Theories are important because they play a role in the development of various approaches to vocational psychology. A well-developed theory facilitates the understanding of "what" and "why" a phenomenon occurs, while providing a representation of reality (Brown, 2002; Osipow & Fitzgerald). In addition, good theories aid in the clarification and understanding of past, present, and future events, and lead to further predictions (Brown; Osipow & Fitzgerald).

#### *Career Development Theories*

Career development theories examine how constructs interact in the career development and decision-making process (Brown, 2002). Brown stated that many researchers acknowledged no one specific career development theory meets all the standards to explain career choice and

behavior. Instead, these researchers proposed, career development theories complement each other in explaining the multifaceted and complex subject of career choice and behavior (Herr & Cramer, 1996). Stitt-Gohdes (1997) stressed the importance of studying career development theories, as these theories determine which career development strategies will be practiced by school counselors.

Ginzberg, Ginsburg, Axelrad, and Herma. In the early 1950s, Ginzberg, Ginsburg, Axelrad, and Herma (1951) hypothesized about career development, speculating that occupational choice was a developmental process. This process of occupational choice began in the preteen years and terminated in young adulthood. Ginzberg et al. believed the path to occupational choice was comprised of a series of decisions made over a period of years, rather than a single decision (Herr & Cramer, 1996). Originally these researchers deemed vocational choice as an irreversible process, but they later placed less emphasis on this view (Osipow & Fitzgerald, 1996). Based on the findings of their studies, Ginzberg et al. identified four factors that influenced occupational choice. These factors included the reality factor, the emotional factor, individual values, and the influence of the educational process (Herr & Cramer; Osipow & Fitzgerald; Stitt-Gohdes, 1997).

Ginzberg and his colleagues also acknowledged three stages of career development. The first stage, fantasy, occurred from birth to seven years of age. During this stage there was little connection with reality, and children focused on play and imagined pursuing any occupation. Children's preferred activities became evident, thus providing a glimpse of possible future career choices (Herr & Cramer, 1996; Osipow & Fitzgerald, 1996; Stitt-Gohdes, 1997).

The tentative stage ranged from the preteen years to approximately 17 years of age and was divided into interest, capacity, value, and transition. Young adolescents formed more

concrete definitions of their likes and dislikes, while recognizing that some activities had greater value over others. Thus, they started the career choice process and realized the consequences and responsibilities of their choices (Herr & Cramer, 1996; Osipow & Fitzgerald, 1996; Stitt-Gohdes, 1997).

The final stage of career development, the realistic stage, occurred from late adolescence through young adulthood. The realistic stage was further subdivided into exploration, crystallization, and specification. Children restricted choices during exploration based on their likes, dislikes, skills, and abilities. A vocational choice was made during crystallization, which then led to specification, where individuals pursued the appropriate education needed to attain their specific goal (Herr & Cramer, 1996; Osipow & Fitzgerald, 1996; Stitt-Gohdes, 1997).

It is imperative to note that not all children fit perfectly into each stage of Ginzberg's et al. theory due to issues such as gender, race, and social class. In addition, their proposed theory is often questioned because the majority of students studied were white, upper-middle-class, above-average intellect males from emotionally stable backgrounds, and most of these young males planned to attend college. Thus, due to the type of sample studied, many researchers feel the generalizability of this theory is limited (Osipow & Fitzgerald, 1996; Stitt-Gohdes, 1997).

Ginzberg, Ginsburg, Axelrad, and Herma's (1951) theory would have been appropriate if this study tracked changes in children's career interests over a period of time. However, the current study was not aimed at examining the long-term patterns of career interests and choices in pregnant or parenting adolescents; therefore, the Ginzberg et al. theory would not support the goal of this study. In addition, the Ginzberg et al. theory is sometimes questioned because it is not generalizable to the population (Stitt-Gohdes, 1997), thus making this theory undesirable.

Gottfredson's Theory. Similar to the theory proposed by Ginzberg and his colleagues, Gottfredson's (1981) developmental theory of career aspirations attempted to integrate various principles from psychological theories with theories of vocational choice (Herr & Cramer, 1996). She stated the aim of her theory "is to help people prevent or reverse unwarranted constriction in early career development and thereby be more likely to obtain the 'best fits' within their reach" (Gottfredson, 2002, p. 86). In simpler terms, Gottfredson's work merged an individual's self-concept with his or her image of occupations (Stitt-Gohdes, 1997).

Several elements form the basis of Gottfredson's theory. Self-concept, or self-image, is a person's view of himself or herself. She listed several determinants of self-concept, including social class, personality, values, appearance, intelligence, and gender (Gottfredson, 1981; Gottfredson, 2002; Osipow & Fitzgerald, 1996). Self-concept became more complex as a child passed through different developmental stages, resulting in the child refining career aspirations as he or she grew (Herr & Cramer, 1996). Occupational image, a generalization a person makes about a particular vocation, is another element of Gottfredson's theory, and is characterized by its complexity, comprehensiveness, and specificity (Gottfredson, 2002; Herr & Cramer). Gottfredson (1981) suggested people construct a cognitive map of careers to organize images of self-concept and careers into a more coherent whole.

Four stages are identified in Gottfredson's development of self-concept and occupational preference. Stage one, orientation to size and power, occurred between ages three to five. Children began to observe differences between themselves and adults in terms of size and power. In stage two, orientation to sex roles (ages 6 to 8), children developed sex-role identities which had significant influences on potential careers throughout the rest of their lives. Orientation to social valuation was the third stage and ranged from 9 to 13 years of age. Children became aware



of social class and differentiated occupational preferences by social class and ability level. In the final stage, orientation to the internal, unique self (14 years and older), adolescents related their personal interests, abilities, and values to their perceived career alternatives (Herr & Cramer, 1996; Osipow & Fitzgerald, 1996).

Two other important components of Gottfredson's theory are circumscription and compromise of aspirations. Circumscription and compromise in career aspirations and choice are important as they both reflect an individual's selection and rejection of some life paths rather than others. Circumscription is the process by which children eliminate or rule out unacceptable or unfavorable career alternatives to reach their acceptable career alternatives. Certain careers may be eradicated if children view them as inconsistent with their gender role, social class, or intellectual potential. The final decision on one specific career is the culmination of a long journey in which children greatly limit their final choice. During the process of compromise, children begin to relinquish their most preferred career alternatives for less compatible alternatives. Usually, children realized they were unable to attain their most preferred career choices, sometimes in response to barriers (Gottfredson, 2002). As a result, children must trade off certain values or interests and revise their career aspirations and priorities due to reality (Gottfredson, 2002; Osipow & Fitzgerald, 1996). As Gottfredson (2002) declared, "Forming career aspirations, therefore, is a process of comparing one's self-image with images of occupations and judging the degree of match between the two" (p. 93).

Again, the purpose of this study was to examine career aspirations of pregnant or parenting adolescents. Gottfredson's theory would have been appropriate if this study tracked changes in children's career interests over a period of time. However, the current study did not

examine the long-term patterns of career interests and choices in pregnant or parenting adolescents. Therefore, Gottfredson's theory would not support the goal of this study.

Holland's Theory. Holland (1966, 1985) proposed the major influence in career choice and development was personality type. Holland viewed career choice as a connection between an individual's experiences and likes and dislikes. People were more likely to be satisfied and perform better in environments matching their personality types (Stitt-Gohdes, 1997). Holland claimed most people in society could be categorized as one of six types, including realistic, investigative, artistic, social, enterprising, or conventional. Likewise, there were six corresponding environments people gravitated toward based on their personal style. Using these six types, Holland developed a hexagonal model to demonstrate the relationship between personality types and correlating occupational environments (Osipow & Fitzgerald, 1996; Spokane, Luchetta, & Richwine, 2002).

In addition, Holland noted the interaction between personality and environment shapes an individual's behavior. Holland's theory stressed that people would search for an environment that allowed them to express their attitudes, apply their skills, and confront agreeable problems (Osipow & Fitzgerald, 1996; Spokane et al., 2002). While Holland's theory has been used often in research and tested extensively, it is sometimes criticized for limiting career considerations for females (Osipow & Fitzgerald; Stitt-Gohdes, 1997).

The current study was not focused on determining the personality types and best occupational environments of pregnant or parenting adolescents. Rather, this study focused on career aspirations of pregnant or parenting adolescents. Holland's theory placed too much emphasis on behavioral style and personality type in the career choice process. Holland's theory is sometimes criticized for limiting career considerations for females (Stitt-Gohdes, 1997), and

this study focused exclusively on females. It was concluded that Holland's theory, while well known and extensively tested, was not the most appropriate career development theory.

Betz & Hackett. Betz and Hackett (1981) applied Bandura's (1977) social learning theory to examine the role of self-efficacy in women's career development. They hypothesized that self-efficacy beliefs had an influence on educational and career choices, and that different background experiences led to gender differences in self-efficacy (Betz & Hackett, 1997). Self-efficacy expectations were described as a person's beliefs in his or her ability to perform certain tasks, and these expectations acted as mediators of the behaviors individuals attempted or avoided. Self-efficacy expectations were learned and modified through performance accomplishments, vicarious learning, emotional arousal, and verbal persuasion (Bandura, 1977; Betz & Hackett, 1981; Herr & Cramer, 1996).

Betz and Hackett (1981) claimed low self-efficacy expectations toward a behavior resulted in poorer performance, avoidance of those behaviors, and the likelihood of giving up at the first sign of difficulty. Therefore, low self-efficacy expectations were hypothesized to be an important source of gender differences in vocational choice, especially with respect to careers traditionally considered male dominated (Betz & Hackett, 1981; Osipow & Fitzgerald, 1996). Thus, "self-efficacy beliefs can act as either facilitators of a given career choice, if they are strong, or barriers to career choices, if they are low or weak" (Betz & Hackett, 1997, p. 385). Betz and Hackett's theory was not chosen for the theoretical framework for this study because it was too narrowly confined to self-efficacy and did not seem to investigate the role of goals and outcome expectations in the career development process.

Social Cognitive Career Theory. The Social Cognitive Career Theory (SCCT) is based on Bandura's (1986) social cognitive theory, which emphasized cognitive, self-regulatory, and

motivational processes. The Social Cognitive Career Theory examines the development of career and academic interests, career choice, and performance outcomes (Albert & Luzzo, 1999; Gore Jr. & Leuwerke, 2000). SCCT subscribes to the triadic reciprocal model of causality by implying person attributes, external environmental factors, and overt behaviors each operate as interactive sets of variables that mutually influence one another (Bandura, 1986; Lent & Brown, 1996; Lent, Brown, & Hackett, 2002; Stitt-Gohdes, 1997). In studying the person attributes within the triadic reciprocal model, three main variables are believed to regulate a person's career behavior. These three variables include self-efficacy, outcome expectations, and personal goals. Lent, Brown, & Hackett (2002) described these variables as the "building blocks" of career development, as they represent key mechanisms by which people are able to exercise personal agency. Personal agency is the capacity to use one's own abilities to bring about change (Smaby et al., 1999).

Self-efficacy refers to people's judgment about their capabilities to take action to attain particular goals (Bandura, 1986; Lent & Brown, 1996; Stitt-Gohdes, 1997; Young et al., 2001). Self-efficacy stems from four principle sources of information, including personal performance accomplishments, vicarious learning, social persuasion, and physiological states and reactions, and it influences motivation, outcome expectations, and goal setting (Albert & Luzzo, 1999; Chartrand & Rose, 1996; Lent & Brown; Young et al.). Self-efficacy has been found to determine goals people set for themselves, how much effort they expend, and how long they persevere against barriers (Young et al., 2001). As suggested by Lent, Brown, & Hackett (1994), individuals were more likely to pursue and be successful in careers for which they had high self-efficacy. Thus, perceived self-efficacy is a pivotal factor in career choice and development (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001). Stitt-Gohdes asserted an individual's personal performance had the greatest impact on his or her self-efficacy.

The second variable of SCCT is outcome expectations, or personal beliefs about probable consequences or outcomes of performing particular behaviors (Lent & Brown, 1996). Because outcome expectations usually involve a person's imagined consequences of performing a behavior, they play a major role in motivating certain behaviors. Outcome expectations may also be examined on physical, social, or self-evaluative levels (Albert & Luzzo, 1999). Lent et al. (1994) hypothesized that people would more likely pursue a career they felt would result in positive outcomes, such as gainful employment or self-satisfaction.

The final variable of SCCT focuses on personal goals and how setting goals guides an individual's behavior (Albert & Luzzo, 1999). Personal goals are an individual's intention to partake in a certain activity in order to achieve a desired outcome. Goals often play an important role in career choice and decision-making and are affected by both self-efficacy and outcome expectations (Lent & Brown, 1996). In addition, self-appraisal of capabilities determines goal aspirations (Bandura et al., 2001).

In combination, self-efficacy, outcome expectations, and goals influenced educational and vocational choices (Lent et al., 1994). Individuals who developed high self-efficacy for a specific activity that was met with success would likely develop goals that continued with involvement in that activity (Stitt-Gohdes, 1997). However, individuals possessing high levels of career self-efficacy, interests, and outcome expectations might avoid pursuing a career path if they perceived substantial negative outcomes, or barriers, to career entry (Diegelman & Subich, 2001). Examples of barriers include educational limitations, lack of familial support, or gender discrimination, and these barriers may hinder the pursuit of primary interests or preferred career goals (Albert & Luzzo, 1999).

One inherent characteristic that sets the SCCT apart from the majority of other career development theories is its dynamic nature (Stitt-Gohdes, 1997). Unlike other existing career development theories, the SCCT highlights situation-specific features of the self-system, most notably those qualities that allow individuals to exercise personal agency (Lent, Hackett, & Brown, 1996). The relationship between academic and career behavior is another important aspect of the theory, as academic performance and educational aspirations may influence career behavior (Rojewski & Yang, 1997).

Chartrand and Rose (1996) called for more career development theories that focused on economically and occupationally disadvantaged persons, also referred to as at-risk persons. They indicated these at-risk individuals were at the junction of race, gender, and class, which often resulted in limited access to education and career opportunities. Such assertions further emphasized the essential value of SCCT, as this theory recognized environmental influences or opportunities (Stitt-Gohdes, 1997).

The Social Cognitive Career Theory (SCCT) was chosen as the conceptual framework for this study. The SCCT extended Betz and Hackett's (1981) theory to highlight how self-efficacy beliefs, outcome expectations, and personal goals regulate individuals' career behavior (Lent et al., 2000). In examining career aspirations, many researchers have used SCCT as the theoretical basis for their studies (Albert & Luzzo, 1999; Diegelman & Subich, 2001; Gore Jr. & Leuwerke, 2000; Perrone, Perrone, Chan, & Thomas, 2000; Swanson & Woitke, 1997; Turner & Lapan, 2002). Albert and Luzzo examined the components of the SCCT and suggested implications for counseling practices using SCCT. Diegelman and Subich studied self-efficacy and outcome expectations in a cohort of college students, and their results supported the relationship between outcome expectations to interests, pursuits, and self-efficacy, as hypothesized in the SCCT. In

their study, Gore Jr. and Leuwerke also examined self-efficacy beliefs and outcome expectations among college students, and found these two variables to be strong predictors of career considerations, thus supporting the SCCT. Turner and Lapan's results proved that vocational self-efficacy and career planning consistently predicted adolescents' career interests.

SCCT was the most appropriate theory for determining the relationship between pregnant or parenting adolescents' self-efficacy and their career aspirations. Incorporating SCCT allowed for the examination of the effects of teenage pregnancy and/or parenting on adolescent mothers' personal goals, specifically their career aspirations. It would also be interesting to observe if these adolescent females perceive pregnancy and/or parenting as a barrier to their career goals. The effects of other factors such as race, parents' occupation, parents' education level, and source of career information on career aspirations of pregnant or parenting adolescent females were also investigated. Because the focus of this research is on females, SCCT complemented this study for its potential to be used to guide inquiry on the career development of women and racial minorities (Lent et al., 2000; Flores & O'Brien, 2002). Substantial research and findings validated the implementation of this theory when examining career aspirations of females. For these reasons, Social Cognitive Career Theory was selected as the guiding theory for this study.

#### *Status Attainment Theory*

Social status has been shown to be a powerful factor in predicting the level of occupation a person aspires to, and occupational prestige has become a central position in the concept of social status (Gottfredson, 1981; Hotchkiss, Black, Campbell, & Garcia Jr., 1979). During the 1970s, researchers began focusing more attention on status attainment (Falk & Cosby, 1974). Status attainment refers to adult achievements in social life for which agreement exists that some outcomes are more desirable than others (Hotchkiss et al.). Status attainment theory asserts that

individual characteristics, such as education, attitudes, or training, determine a person's placement and rewards in the workforce (Osmond, 1984). This theory assigns prestige or socioeconomic scores to organize occupations, and status attainment theorists have demonstrated the influence of background and environmental variables on the educational and occupational aspiration levels of individuals (Farmer, 1985; Hotchkiss et al.). Occupational prestige is speculated to be the most commonly studied aspect of status attainment (Hotchkiss et al.).

Status attainment research originally initiated with the study of social mobility, or changes in an individual's social status or social class standing (Hotchkiss et al., 1979). Status attainment research has searched for intervening influences between the success of parents and their children (Falk & Cosby, 1974). In the status attainment model, education is implied to produce competence, thereby placing capable individuals into important occupational roles (Hotchkiss et al.). Sewell, Haller, and Ohlendorf (1970) claimed educational status attainment and the status level of one's first job are the most immediate variables influencing later occupational status attainment.

Status attainment theory has been criticized because it was originally modeled for and applied to male populations. No special circumstances of female attainment were considered; therefore, many researchers have questioned the applicability of the status attainment theory to female workers because it was descriptive of the occupational attainment of white males (Falk & Cosby, 1974; Osmond, 1984). Status attainment theory has also been criticized for its lack of focus on pre-adolescent influences in the attainment process (Falk & Cosby). In addition, non-prestige aspects of occupations are ignored and the mathematical statements of the theory are static and do not account for change over time (Hotchkiss et al., 1979). Some researchers have argued that status attainment research is heavily theory-laden and ideologically based



(Knottnerus, 1987). For this study, status attainment theory was also considered when examining the relationship between parents' occupation and parents' education level, and their effects on the prestige levels of the chosen career aspirations indicated by pregnant or parenting adolescents.

Several measures exist for ranking occupations including prestige scores, census socioeconomic scores, and the Socioeconomic Index (SEI) (Stevens & Cho, 1985). Socioeconomic scores were originally estimated by Duncan (1961a), who measured occupational status based on educational attainment and income levels for males on a limited set of occupations from the 1950 census (Lemelle, 2002). Duncan then used regression weights to generate estimated prestige scores, commonly referred to as socioeconomic scores (Nakao & Treas, 1992; Stevens & Hoisington, 1987). Stevens and Cho noted that the Socioeconomic Index score is a combination of prestige scores and census occupation scores, and is used more often because it better describes the socioeconomic distances between occupations prestige.

Over the past 40 years, Duncan's Socioeconomic Index (SEI) has become one of the most frequently used and conventional measures of occupational status (Lemelle, 2002; Nakao & Treas, 1992). Because of their usefulness and popularity, socioeconomic scores have been revised several times to accommodate changing census occupational classification schemes (Stevens & Cho, 1985). Nakao and Treas updated the SEI to reflect the new occupational classification system from the 1980 census. Scores on the SEI proposed by Nakao and Treas range from 17.07 to 97.16. The higher the four-digit code, the more prestigious that occupation is. Lower four-digit codes represent less prestigious occupations. The SEI contains 504 detailed occupations and 13 major occupational groupings. Some occupations are followed by the acronym NCE, which stands for "not elsewhere coded" (Nakao & Treas; Stevens & Cho). Early

versions of the SEI included socioeconomic scores for males only; however, recent versions of the SEI contain both male and total scores. The total score has more potential for explaining the socioeconomic attainment of women since they are more involved in the workforce today as opposed to the 1950s (Stevens & Cho). Because this study focused on the effects of parents' occupation and parents' education level on career aspirations of pregnant or parenting adolescents, the SEI was chosen as the most appropriate measure for coding responses to the career aspiration question.

Duncan (1961b) noted that one potential problem with the SEI was its stability and comparability over time and space. He also indicated that there was no such thing as a single index of socioeconomic status suitable for all social research. Yet despite the fact that occupations have changed since 1950, the SEI still remains a good measure for comparing groups because it provides a sense of theoretical prestige attached to various positions (Lemelle, 2002). In addition, the SEI is an invaluable tool for describing the process of occupational and educational attainment (Stevens & Cho, 1985). The SEI used in this study is based on the status attainment theory; therefore, this theory is used in conjunction with SCCT to rank the prestige scores of career aspirations chosen by pregnant or parenting adolescents.

### Summary

Adolescent pregnancy has occurred throughout America's history. Only in recent years has it been deemed an urgent crisis as more young adolescent mothers choose to give birth without marrying the babies' fathers. Factors attributing to adolescent pregnancy are family structure, goals, age at first intercourse, and sexual abuse. Negative consequences associated with adolescent pregnancy include medical and health complications, less schooling and higher dropout rates, lower career aspirations, and a life encircled by poverty. Career aspirations

represent an individual's orientation toward a desired career goal under ideal conditions. In particular, women's career aspirations are influenced by variables such as gender, socioeconomic status, race, parents' occupation and education level, and parental expectations. Despite the fact that women have been entering the workforce in increasing numbers, they have lower-status, lower-paying jobs, and remain clustered in a limited number of conventional careers. The Social Cognitive Career Theory highlights how self-efficacy beliefs, outcome expectations, and personal goals regulate individuals' career behavior. This theory has the potential to be used to guide inquiry on the career development of women and racial minorities. Thus, SCCT was the chosen as the most appropriate theory for determining the relationship between pregnant or parenting adolescents' self-efficacy, outcome expectations, and goals associated with their career aspirations.

## CHAPTER III

### METHOD

In this chapter, the method and procedures used in this study are detailed. The chapter begins with a restatement of the purpose of the study. Information on the population, sample selection, instrument, and research design are presented. Data analysis is also described.

#### Purpose of the Study

The purpose of this causal comparative survey study was to examine career aspirations of pregnant and/or parenting adolescent females. Adolescence is a time of self-definition as an individual moves from childhood into young adulthood (Merrick, 1995). For this study, an adolescent female was defined as a girl between 13 and 19 years of age. Independent variables for demographics included age, race, parenthood status, parents' occupation, parents' education level, and source of career information. Parenthood status consisted of three categories: pregnant, parenting, or both pregnant and parenting. Pregnant was defined as a female adolescent who was expecting a child. Parenting was defined as a female adolescent who became a biological parent before age 20 (Xie et al., 2001). The term pregnant and parenting described females who had one or more children and were pregnant at the time of this study. Career aspirations, the dependent variable, represented an individual's orientation toward a particular career goal (Rojewski, 1996b).

#### Research Questions

1. What are the career aspirations of pregnant adolescents?
2. What are the career aspirations of parenting adolescents?

3. What are the career aspirations of adolescents who are both pregnant and parenting?
4. What effect does parenthood status have on career aspirations of pregnant or parenting adolescents?
5. How does age affect career aspirations of pregnant or parenting adolescents?
6. How does race affect career aspirations of pregnant or parenting adolescents?
7. How does parents' occupation affect career aspirations of pregnant or parenting adolescents?
8. How does parents' education level affect career aspirations of pregnant or parenting adolescents?
9. Who provides the most career information to pregnant or parenting adolescents?

#### Research Design

A causal-comparative design was used for this study. Causal-comparative research is a type of nonexperimental research designed to determine the cause-and-effect relationships that already exist between groups of people by comparing previously established conditions (Ary, Jacobs, & Razavieh, 1996; Fraenkel & Wallen, 1996; Gall, Gall, & Borg, 2003). Because changes in the independent variable have already occurred and researchers must study them after the fact to determine their effects on a dependent variable, causal-comparative research is also referred to as ex post facto research (Ary et al.; Frankel & Wallen). It is important to emphasize that differences between the groups have already taken place in causal-comparative research (Frankel & Wallen).

Causal-comparative and experimental research are similar in several ways. Both experimental research and causal-comparative research focus on determining relationships among variables in the data (Ary et al., 1996). In addition, both types of research usually have at

least one categorical variable and both compare group performances to determine relationships (Frankel & Wallen, 1996). Experimental research and causal-comparative research investigate dependent and independent variables (Gall et al., 2003). However, unlike experimental research in which the independent variable is manipulated, there is no manipulation of the independent variable in causal-comparative research. That is, the researcher makes no attempt to influence individuals being studied in a causal-comparative design (Ary et al.; Frankel & Wallen, Gall et al.). Another difference is that researchers sometimes assign subjects to treatment groups in experimental research, whereas in causal-comparative research, the groups are already formed (Frankel & Wallen).

Frankel and Wallen (1996) noted that causal-comparative research is sometimes confused with correlational research. One similarity in both types of research is that they do not include manipulation of variables by the researcher. While both attempt to identify variables for possible further study through empirical research, correlational studies investigate two or more quantitative variables. Causal-comparative studies, in comparison, focus on at least one categorical variable. Another difference is that correlational research requires a score on each variable for each subject, while causal-comparative research compares two or more groups of individuals (Frankel & Wallen).

Various advantages of causal-comparative research have been noted in the literature. One advantage is that causal-comparative research can be conducted as an alternative to experimental research because it is more economical and does not take as long as experimental research (Frankel & Wallen, 1996; Gall et al., 2003). Causal-comparative designs also permit the study of individual attributes, such as behavior and cognition, without any intervention or influence by the researcher (Gall et al.). In addition, causal-comparative research allows researchers to

investigate situations in which the introduction of controlled manipulation of the independent variable is impossible (Ary et al., 1996). Finally, many relationships can be studied in a single research project using causal-comparative designs (Gall et al.).

Although causal-comparative research has many advantages, it is equally important to cite its disadvantages. One weakness of causal-comparative research is its lack of randomization. Another limitation of causal-comparative research is that the investigator cannot definitively say whether a particular factor is the cause or result of observed behaviors (Frankel & Wallen, 1996). Thus, causal-comparative research designs provide weaker evidence about relationships than experimental research designs, and determining causal patterns with any degree of certainty is difficult (Frankel & Wallen; Gall et al., 2003). Inability to manipulate an independent variable and threats to internal validity are also identified as disadvantages to causal-comparative research (Frankel & Wallen).

Despite its drawbacks, causal-comparative research is often the only method that allows researchers to study cause-and-effect relationships under conditions where experimental manipulation is difficult or impossible (Gall et al., 2003). However, results of causal-comparative research must be interpreted with caution because even though a relationship may be identified, the nature of causal patterns cannot be fully established (Ary et al., 1996; Frankel & Wallen, 1996; Gall et al.).

#### *Threats to Internal Validity*

Internal validity refers to the degree to which extraneous variables are held constant to determine if observed experimental effects are attributed solely to the experimental treatment. An extraneous variable is any uncontrolled variable, other than the treatment variable, that can influence a dependent variable in a study (Ary et al., 1996; Gall et al., 2003). Internal validity

determines whether an independent variable caused the dependent variable to digress or if other factors caused variation in the dependent variable (Ary et al.; Gloeckner, Gliner, Tochtermann, & Morgan, 2001). Experimental procedures, treatments, or participant experiences may also be threats to a researcher's ability to draw conclusions from data in an experiment (Creswell, 2003). Thus, internal validity is associated with causal relationships (Huck, Cormier, & Bounds, Jr., 1974).

Fraenkel and Wallen (1996) identified the possibility of subject characteristics, such as gender, ethnicity, or socioeconomic status, as the major threat to the internal validity of causal-comparative studies. Because the researcher has no say in the selection of the comparison groups, the possibility exists that groups are not equivalent on one or more important variables. To reduce the chance of a subject characteristics threat in causal-comparative studies, the researcher can match subjects from the comparison groups on an extraneous variable (Fraenkel & Wallen). The effects of extraneous variables may be mistakenly credited to an independent variable (Ary et al., 1996; Gall et al., 2003). The researcher may also control for an extraneous variable by finding or creating homogenous sub-groups (Fraenkel & Wallen). To control for the internal threat of subject characteristics for this study, I chose a homogenous sample based on parenthood status and socioeconomic background of students enrolled at a teenage parenting center. All participants were either pregnant or parenting, and the majority came from families receiving some type of government assistance.

Researcher bias may also be a threat to the internal validity of an experiment. Researcher bias arises when a researcher's expectations about what will occur are inadvertently transmitted to participants, thus affecting their behavior in the experiment. This threat can be controlled if the researcher does not work directly with research participants (Gall et al., 2003). For this study,



I delivered questionnaires to teachers at a teenage parenting center. The teachers then distributed questionnaires to the students; therefore, I was not present during data collection and did not work directly with the research participants.

### *Threats to External Validity*

External validity seeks to determine if the sample of participants in a study is representative of the population. In other words, external validity refers to the representativeness or generalizability of a study's results to the broader population (Aron & Aron, 1999; Huck et al., 1974). Creswell (2003) noted threats to external validity also occur when a researcher makes incorrect conclusions from sample data to other persons or settings. In addition, a participants' gender or anxiety level are examples of personal variables that may affect the generalizability of experimental findings (Gall et al., 2003). Population validity may be a potential threat to external validity for this study. Because participants will be from one school in one geographic location, it may be difficult to generalize from the sample to a defined population.

Another potential threat to external validity is ecological validity. Ecological validity is the extent to which the researcher expects to obtain the same results in other settings. Specifically, participants' awareness that they are participating in an experiment may cause a change in their behavior or alter their normal responses. This reaction effect is referred to as the Hawthorne effect. Minimizing special attention on research participants is one way to control for the Hawthorne effect (Ary et al., 1996; Gall et al., 2003). To control for the Hawthorne effect in this study, all students who were present for data collection received a questionnaire to answer. In addition, all students completed the questionnaire in the cafeteria as opposed to separate classrooms. No special attention was given to one group over another group, and every

participant received a pencil for answering the questionnaire, creating equal treatment for everyone responding to the questionnaire.

### Population

A researcher must define the group of interest in a research study. The large group that a researcher wishes to learn about is called the population, or target population (Gall et al., 2003). However it is often impossible for a researcher to examine and generalize a study's results to an entire target population. Therefore, the portion of the target population available to the researcher must be identified. This smaller portion is referred to as the accessible population (Ary et al., 1996; Frankel & Wallen, 1996; Gall et al.).

The target population for this study was all pregnant and/or parenting adolescent females in the state of Georgia. In 2002, the total number of teenage pregnancies in the state of Georgia for females between ages 10 to 19 was 22,000. Specifically, Caucasian adolescents accounted for 11,340 of the pregnancies, African American adolescents accounted for 10,273 pregnancies, and Hispanic adolescents accounted for 2,683 pregnancies (Boatright & Bachtel, 2004). It is important to note that these figures do not equal the total number of teenage pregnancies due to the omission of other minority groups not included in the Caucasian or African American racial categories. The figure for Hispanics is not included in the total because persons of Hispanic origin can be of any race. In addition, statistics for the number of teenage parents were not provided in the Georgia County Guide (Boatright & Bachtel). For this study, the accessible population consisted of pregnant and/or parenting teens attending a teenage parenting center.

The teenage parenting center chosen for this study was located in Georgia and is a community-funded middle and high school focused on teen pregnancy prevention and school dropout. The teenage parenting center was founded in 1998 to offer services specific to pregnant

teens, and the center collaborates with the local school district and local health and social service agencies. Its mission is to provide a strong academic program, family life education, and other elective courses to transition pregnant mothers into good citizens, nurturing parents, and skilled producers who can meet global demands of the 21st century. Program goals include lowering the dropout rate, increasing parenting skills, delaying repeat parenthood until a later stage in life, increasing independent living skills and job skills, and encouraging students to set goals to balance work and family (Teenage Parenting Center Student Handbook, 2004).

The local school district requires all pregnant students to attend the teenage parenting center for the duration of their pregnancies. However, parents of pregnant students may appeal this requirement. During the 2004-2005 school year, 248 females were enrolled at the teenage parenting center, with 155 active students on roll (P. Turner, personal communication, March 4, 2005). The school can accommodate up to 400 mothers and 150 infants, toddlers, and preschoolers, and has a fully staffed child development center. The majority of students attending the center are from a low socioeconomic background (98.5%), and their families receive some type of government assistance (Teenage Parenting Center Student Handbook, 2004).

### *Sample Selection*

A convenience sample is defined as a group of subjects selected because they are available and easy to access or because they are recruited to participate in the research study (Huck et al., 1974). Random selection is not employed when using a sample of convenience. Some reasons for using a convenience sample include: the sample is near the researcher's work; the researcher is familiar with the setting or may even work in it; the sample may consist of college students where the researcher teaches; or the convenience sample may be the only option

available to conduct the study (Gall et al., 2003). The teenage parenting center was selected because of its accessibility, the large number of participants available at this one site, and because it is one of the few schools in the state that solely serves pregnant or parenting teens.

Participants in this study were pregnant or parenting adolescent females in a teen parenting center in Georgia. All females attending the teenage parenting center were invited to participate in the study, thus the sample was one of convenience. Participants were enrolled in grades 6 through 12 and represented various ages and races.

#### *Determining Adequate Sample Size*

Four factors determine an adequate sample size in research studies: alpha level, effect size, statistical power, and statistical analysis procedure (Olejnik, 1984). Alpha level is the criterion chosen by a researcher for statistical significance when testing a null hypothesis. A null hypothesis indicates that there is no difference, effect, or relationship between variables, and that any differences between sample statistics and population parameters are due to chance. The alpha level is the probability that a Type I error will be made (Ary et al., 1996; Keppel, 1991; Olejnik). Type I error, or alpha, is the probability of rejecting the null hypothesis when it should be accepted (Aron & Aron, 1999). Sample size is inversely related to the alpha level of significance, meaning a larger sample size ( $n$ ) is needed to reduce the probability of committing a Type I error. The alpha level of .05 is commonly used and is acceptable in research studies because it minimizes the chance of making a Type I error (Ary et al.; Keppel; Olejnik). Statistical power is large when the probability of a Type I error is large. Therefore, to balance statistical power and the risk of Type I error, the alpha level of .05 was used.

Effect size is described as the degree to which the null hypothesis is false, or the magnitude of an observed difference or relationship (Olejnik, 1984; Rojewski, 2001). Unlike

alpha level, widely accepted guidelines for effect size do not exist because “what might be considered a small or large effect depends on the population studied, the nature of the variables investigated, and the procedures used to measure the variables” (Olejnik, p. 42). Gall et al. (2003) noted effect size is beyond researchers’ control, and that researchers are likely to obtain a large effect size in a sample when there is a large effect size in the population. The larger the effect size, the smaller the sample size needed. Cohen (1988) determined that .20, .50, and .80 represented small, medium, and large effect sizes respectively. The effect size for this study was set at .60 because I estimated a practical significance. The effect size statistic is helpful in judging the practical significance of research results that are statistically significant at the designated alpha level. In most educational research studies, the raw effect size is converted into standardized effect sizes by dividing the raw effect size by the estimated standard deviation in the population (Huck & Cormier, 1996).

Statistical power is the probability of committing a Type II error, or failing to reject the null hypothesis when it is false (Keppel, 1991; Olejnik, 1984). Statistical power is directly related to the number of participants needed for hypothesis testing. If alpha level, statistical analysis, and effect size remain the same, an increase in power results in the need for an increased sample size. Conversely, decreasing the sample size lowers statistical power (Olejnik). Keppel noted experiments with low statistical power do not produce reliable results. Olejnik indicated that .70 to .85 was a generally acceptable level of statistical power. Thus, because I wanted to be fairly certain to reject a false null hypothesis, the .70 power level was used.

According to Olejnik (1984), the statistical analysis procedure chosen by the researcher affects the number of participants needed in a research experiment. Studies investigating quantitative independent variables require fewer participants than studies examining qualitative

independent variables. Typically, causal-comparative research requires at least 15 participants in each group being compared (Gall et al., 2003). After considering the four factors for determining sample size, and using Olejnik's (1984) table, it was determined that a sample size of 51 was required for this study. Therefore, the sample size of 79 used in this study was adequate for data analysis.

### Instrument

Over the years, researchers have studied career aspirations of various groups of adolescents and used a number of instruments to measure these career aspirations. Mendez and Crawford (2002) compared the career aspirations of gifted students and used the Revised Occupational Checklist as their instrument. Dunne, Elliott, and Carlsen (1981) focused on rural youth and measured career aspirations using the Profile of Occupational Interests. An extensive review of the literature revealed few studies (Camarena et al., 1998; Drummond & Hansford, 1992; Hellenga et al., 2002) that solely examined the career aspirations of pregnant and parenting adolescents. Unfortunately none of these studies had specific instruments to measure career aspirations of pregnant or parenting adolescents. Rather, they employed the use of interviews or open-ended questions regarding career aspirations.

Survey research employs using questionnaires to generalize from a sample to a population in order to make inferences about some characteristic, attitude, or behavior of the population (Creswell, 2003). To determine the type of relationship, researchers form groups of individuals based on the presence or absence of select variables, and then examine whether the groups differ on the dependent variable (Gall et al., 2003). This study employed the use of a cross-sectional survey because the data was collected at one point in time (Creswell). Survey design was chosen to generalize the results from the sample to the larger population. The specific

form of data collection for this study was a self-administered questionnaire, which was administered to pregnant and/or parenting females attending the teenage parenting center. Advantages of survey research are that all respondents are asked the same questions, and it is a fairly inexpensive and convenient way to collect a large amount of information from a large group of people. One disadvantage of survey research is that it can be time-consuming to complete. Other disadvantages of survey research include low response rates and difficulty determining who actually completed a questionnaire (Rojewski, 2002).

The questionnaire for this study included demographic information for age, race, parenthood status, parents' occupation, parents' education level, and source of career information. Age was conceptualized as a continuous variable. Race was categorized according to classifications established by the Georgia Department of Education (2004): Asian, Pacific Islander, Black (not of Hispanic origin), Hispanic, American Indian/Alaskan Native, Multi-racial, and White (not of Hispanic origin). Parenthood status was categorical and had three levels- pregnant (with first child), parenting (but not pregnant at the time of the study), and both pregnant and parenting (pregnant at the time of the study and parenting one or more children). Parents' occupation was categorized as a continuous variable using four-digit prestige codes from the Socioeconomic Index (SEI) (Nakao & Treas, 1992). Parents' educational level contained six categories ranging from "did not finish high school" to "not sure." The source of career information was conceptualized as a categorical variable.

The dependent variable, career aspiration, was also conceptualized as a continuous variable according to codes from the Socioeconomic Index. To determine career aspirations, students were asked an open-ended question pertaining to future careers and responses were also assigned a four-digit prestige code according to the SEI (Nakao & Treas, 1992). In certain

instances, respondents' aspirations (ex. nurse) did not fit precisely with available job titles (ex. registered nurse or licensed practical nurse). When confronted with this issue, I operated under the assumption the respondent would aspire to the job title with the highest prestige score. Therefore, any respondent who indicated a career aspiration as a nurse was assigned the prestige score for registered nurse, as it had a higher prestige score than the score assigned to a licensed practical nurse. If a job title listed by a respondent did not have an obvious match on the SEI, the occupation was grouped under a broader occupational title. For example, several respondents listed various types of medical doctors such as gynecologist or pediatrician. Because there were no codes for these specific types of medical doctors, I grouped them under the broader occupational title of physician and assigned them that prestige code. Similarly, no prestige code existed for specific branches of the military such as the Air Force, Army, or Navy. When respondents listed specific branches of the military as their career aspiration, I coded them under the broader occupational category of protective services. Housewife was another occupation for which there was no prestige code in the SEI. Housewives were assigned a prestige code under the broader category of personal service occupations (not elsewhere coded).

Previous researchers (Armstrong & Crombie, 2000; Brook, Whiteman, Lukoff, & Gordon, 1979; Camarena et al., 1998; Hellenga et al., 2002; Klaw & Rhodes, 1995; Mau & Bikos, 2000; McNulty & Borgen, 1988; Rojewski, 1996b) have utilized similarly phrased open-ended questions to measure career aspirations in their studies. Some of these researchers listed occupational categories and provided examples of jobs within each category for clarification. Examples of open-ended career aspirations questions asked include, "...This may sound impossible but if you were completely free to choose, what would be your ideal occupation? Be as specific as possible" (McNulty & Borgen, p. 220); "List three jobs or occupations that you



think you would really like to have when you are 35 years old” (Armstrong & Crombie, p. 86); and “If you were completely free to choose any job, what job would you like most as a lifetime job?” (Hellenga et al., p. 203; Klaw & Rhodes, p. 555). The instrument used in this study was examined and approved by the researcher’s committee in the Department of Occupational Studies at The University of Georgia. A copy of the student questionnaire is in Appendix A.

Studies using an open-ended career aspiration question often do not provide information on validity and reliability. Thus, determining the validity and reliability of scores for the open-ended career aspirations question is difficult. Because of the nature of the data and the construct itself, other researchers were contacted to inquire how they dealt with issues of validity and reliability. According to K. Hellenga (personal communication, March 27, 2004), the validity of using this type of question had much to do with the types of people conducting the interview questions. As for reliability in coding answers for her study on adolescent mothers’ vocational aspiration-expectation gap, she used a standard job-title prestige rating system with two raters. J. Mau (personal communication, April 6, 2004) used a questionnaire created by the National Center for Educational Statistics for his study, and stated he was not provided information on validity and reliability for the aspiration question. P. Armstrong (personal communication, April 7, 2004) stated that a coding or classification system for results was time and resource consuming when using an open-ended question. He further discussed that validity and reliability issues existed over expressed versus inventoried interests in career aspirations questions and noted the ideal situation would be to ask an open-ended question and compare results with responses from a structured inventory. P. Camarena (personal communication, March 23, 2004) referred to the National Opinion Research Center to find coding classifications for occupational types and social prestige to use with results from her open-ended career aspiration question.

To control for validity and reliability of scores for the open-ended career aspiration question, a pilot test was conducted with a sample of 11 females from a teen parenting program at a hospital in Georgia. Because of the nature of the open-ended career aspiration question, the purpose of the pilot test was to determine how to code and record student responses using the SEI. A two-rater system was used when coding to verify participants' responses. Participants in the pilot study ranged from grades 9-12. The average age of the participants was 17 years old and the majority of participants were African American (n=6 or 54.5%). Ninety-one percent of the participants were pregnant with their first child. Results from ANOVA indicated that none of the independent variables had a statistically significant difference on career aspirations of pregnant or parenting adolescents. The mean score for career aspirations from the pilot test was 51.77 and the standard deviation was 20.64. Of the 11 respondents, 18.2% (n=2), reported becoming a chef was their career aspiration. The pilot test also asked participants if they understood the career aspiration question and if it needed to be re-phrased. None of the participants indicated that the question on career aspirations needed to be rephrased.

Researchers have also described their methods for analyzing responses to the open-ended career aspirations question. Mau and Bikos (2000) performed logistic regression analyses to measure their dependent variables, which included college aspirations and occupational expectations. Rojewski (1996b) conducted a log-linear analysis on his response variable, occupational aspirations. Aspiration responses in Klaw and Rhodes's (1995) study were coded using the Dictionary of Holland Occupational Codes (Gottfredson & Holland, 1989). In the study by Camarena et al. (1998), a combination of quantitative and qualitative methods was used to measure responses regarding life aspirations before pregnancy and after childbirth. For this study, responses to the open-ended career aspiration question were coded using four-digit

prestige codes from the SEI. A two-rater coding system was also used to ensure unanimous agreement on the classification of each respondent's career aspiration.

### Procedure

This study was conducted at a teenage parenting center in Georgia. The teenage parenting center is comprised solely of pregnant or parenting adolescent females. In a telephone conversation with Pat Turner, principal, on April 14, 2004, verbal permission was granted to use the teenage parenting center as a data collection site. The next step was to contact and seek approval from Dr. John A. Phillips, Jr., superintendent of the local school district. The process of contacting Dr. Phillips began in June, 2004. A copy of the student questionnaire was included with the letter of permission. A sample permission letter is located in Appendix B.

Permission was requested from proper authorities in the participating school district and from the Institutional Review Board (IRB) at The University of Georgia. Once approval from IRB and the participating school district was granted, data collection took place in November of 2004. Refer to the timeline in Appendix C. Because this study dealt with minors, Dr. Christina Joseph of the IRB (personal communication, February 6, 2004) stated the questionnaire had to be anonymous and only those females with signed consent forms could participate. Due to the nature of participants, the teenage parenting center had a strict policy requiring that a media release form be completed by the females at the beginning of the school year. The IRB approval form, approval to conduct research form, and media release form are in Appendix D.

Participants were administered an anonymous questionnaire regarding career aspirations. Every female student present in school on the given day was administered a questionnaire. All females completed the same questionnaire. Participants were reminded that they could discontinue participation in the study at any time.

## Data Analysis

Typically, the ultimate goal of research and scientific analysis is to discover relationships between variables (StatSoft, 2003). A variable is defined as a characteristic or expression of a construct that can assume several values and researchers study variables to find possible relationships between them (Aron & Aron, 1999; Ary et al., 1996; Fraenkel & Wallen, 1996; Gall et al., 2003). An independent variable is the variable being manipulated in the study. Also called a predictor or treatment variable, the independent variable is likely to cause, affect, or influence the outcomes of a study (Ary et al.; Creswell, 2003; Gall et al.). Independent variables for this proposed study were age, race, parenthood status, parents' occupation, parents' education level, and source of career information. The dependent variable, also referred to as a criterion or outcome variable, was measured to determine the presumed effect or results of the experimental treatment (Creswell; Gall et al.). The dependent variable for this study was career aspirations.

Descriptive statistics summarize the characteristics of a large group of numbers, making the data more manageable. Three types of descriptive techniques include measures of central tendency, measures of variability, and measures of relationship (Huck et al., 1974). The Statistical Package for the Social Sciences (SPSS) was used to calculate descriptive statistics for means and standard deviations for the independent variables. Table 1 outlines the data analyses used for each research question.

Table 1

*Data Analyses for Research Questions*

Research Question	Independent Variable	Dependent Variable	Data Analysis
1. What are the career aspirations of pregnant adolescents?	Parenthood status	Career aspirations	Means, standard deviations, frequencies
2. Describe the career aspirations of parenting adolescents?	Parenthood status	Career aspirations	Means, standard deviations, frequencies
3. What are the career aspirations of pregnant and parenting adolescents?	Parenthood status	Career aspirations	Means, standard deviations, frequencies
4. What effect does parenting status have on career aspirations of pregnant or parenting adolescents?	Parenthood status	Career aspirations	One-way ANOVA
5. How does age affect career aspirations of pregnant or parenting adolescents?	Age	Career aspirations	One-way ANOVA
6. How does race affect career aspirations of pregnant or parenting adolescents?	Race	Career aspirations	One-way ANOVA
7. How does parents' occupation affect career aspirations of pregnant or parenting adolescents?	Parents' occupation	Career aspirations	One-way ANOVA
8. How does parents' education level affect career aspirations of pregnant or parenting adolescents?	Parents' education level	Career aspirations	One-way ANOVA
9. Who provides the most information about careers to pregnant or parenting adolescents?	Source of career information	Career aspirations	One-way ANOVA

*Analysis of Variance*

Analysis of variance (ANOVA) is a statistical test used for experimental designs containing more than one independent variable or more than two levels of an independent variable. This procedure allows researchers to compare subgroups varying on more than one factor (Ary et al., 1996; Gall et al., 2003). Developed by Sir Ronald Fisher, ANOVA can

determine significant differences between two or more means, and changes in the dependent variable are assumed to occur because of changes in the independent variable (Cohen, Manion, & Morrison, 2000; Hwang, Zhicheng, & Chen, 2001). ANOVA compares the amount of between-groups variance in scores against the amount of within-groups variance. Variance both within-groups and between-groups is statistically analyzed, yielding an F-value. Statistical tables are used to determine if the F-value is significant, with a larger F-value suggesting that statistical significance exists (Fraenkel & Wallen, 1996). A greater variance between-groups than within-groups indicates there is more difference between the groups in the scores on a particular variable than there is within each group (Charles, 1988; Gall et al.).

One advantage of using ANOVA is that it is a more versatile technique compared to a t-test. While a t-test can only analyze the difference between two means, ANOVA can compare differences between two or more means, and it is appropriate for any number of groups. Therefore, some statisticians choose ANOVA because it can be used in any situation where a t-test can, and it is appropriate for analysis with two or more groups, or three or more groups (Ary et al., 1996; Charles, 1988; Fraenkel & Wallen, 1996; Huck et al., 1974). Another benefit of using ANOVA over t-tests is that ANOVA detects the interaction effects between variables, thus resulting in more complex hypotheses about reality (StatSoft, 2003).

Although researchers can perform statistical procedures correctly, they can still be led to the wrong conclusion due to errors. Type I error, or alpha, is the probability of rejecting the null hypothesis when it should be accepted. The probability of committing a Type I error is equal to the significance level, which is usually .05 in most studies. However, setting too stringent a significance level can cause a Type II error, or failure to reject a null hypothesis when in reality it is false. Generally, the consequences of a Type I error are considered more serious than the

consequences of a Type II error because researchers may build theories or research programs based on conclusions from a hypothesis test that is wrong (Aron & Aron, 1999; Ary et al., 1996; Huck et al., 1974). It is impossible to commit both types of errors at the same time. Researchers are usually unaware if a Type I or Type II error has occurred because inferential statistics deal with inferences from samples, and population characteristics are rarely known. As mentioned earlier, the alpha level of .05 was chosen for this study because it is commonly used and widely accepted in research. This alpha level was also selected because it provided adequate control of Type I error (Aron & Aron; Huck et al.; Olejnik, 1984).

## CHAPTER IV

### ANALYSIS OF DATA AND RESULTS

This chapter presents data analysis from a study on career aspirations of pregnant and/or parenting adolescents. The following information is contained in this chapter: purpose statement, demographic characteristics of the sample, analysis of responses based on each research question, and a brief summary.

#### Purpose of the Study

The purpose of this causal comparative survey study was to examine career aspirations of pregnant and/or parenting adolescent females. Adolescence is a time of self-definition as an individual moves from childhood into young adulthood (Merrick, 1995). For this study, an adolescent female was defined as a girl between 13 and 19 years of age. Independent variables for demographics included age, race, parenthood status, parents' occupation, parents' education level, and source of career information. Parenthood status consisted of three categories: pregnant, parenting, or both pregnant and parenting. Pregnant was defined as a female adolescent who was expecting a child. Parenting was defined as a female adolescent who became a biological parent before age 20 (Xie et al., 2001). The term pregnant and parenting described females who had one or more children and were pregnant at the time of this study. Career aspirations, the dependent variable, represented an individual's orientation toward a particular career goal (Rojewski, 1996b).



### *Demographic Profile*

Questionnaires were administered by teachers to adolescent females enrolled at a teenage parenting center that provides an academic program, family life education, and other elective courses for pregnant or parenting teens in an alternative setting. Data collection took place in November 2004. The total number of respondents was 79. All respondents were female and ranged from 13 to 19 years of age. The mean age of respondents was 16.41 years and the standard deviation was 1.36. An overwhelming majority of respondents were African American. There were more parenting adolescents than pregnant adolescents and only two respondents reported being both pregnant and parenting. Demographic information describing the 79 respondents is presented in Table 2.

Table 2

#### *Demographic Information of Respondents*

Independent variable	N	Percentage
<i>Age</i>		
13	3	3.8
14	3	3.8
15	13	16.5
16	19	24.1
17	26	32.9
18	12	15.2
19	3	3.8
<i>Race</i>		
American Indian/Alaskan Native	4	5.1
African American	63	79.7
Hispanic	3	3.8
Multi-Racial	3	3.8
Caucasian	6	7.6
<i>Parenthood Status<sup>a</sup></i>		
Pregnant	33	42.3
Parenting	43	55.1
Pregnant and Parenting	2	2.6
<i>Parents' Education Level</i>		
<i>Mother</i>		
Did not finish high school	14	17.7
High school graduate	29	36.7

2-year college graduate	6	7.6
4-year college graduate	10	12.7
Completed some college	7	8.9
Not sure	13	16.5
Father		
Did not finish high school	9	11.4
High school graduate	28	35.4
2-year college graduate	4	5.1
4-year college graduate	4	5.1
Completed some college	8	10.1
Not sure	26	32.9
<hr/>		
Source of Career Information <sup>b</sup>		
Mother	19	25.7
Father	2	2.7
Teacher(s)	12	16.2
Guidance counselor	3	4.1
School career center	6	8.1
Other adults	6	8.1
Friends	1	1.4
Books, magazines, newspaper, television	15	20.3
Other	10	13.5

<sup>a</sup>There was one missing observation. <sup>b</sup>There were five missing observations.

### Analysis of Research Questions

Findings relating to the research questions were based on data analysis using descriptive and inferential statistical procedures. The Statistical Package for the Social Sciences (SPSS), Release 11.5.1 for Windows, was utilized for data analysis. These results are presented as they pertain to each research question.

#### *Research Question One*

Research question one inquired: What are the career aspirations of pregnant adolescents? Career aspirations were coded using prestige codes from the Socioeconomic Index (SEI) calculated by Nakao and Treas (1992). The SEI ranks occupations according to prestige levels, with lower scores representing less prestigious occupations and higher scores representing more prestigious occupations (Duncan, 1961a). On the SEI scale, prestige codes can range from a minimum of 17.07 (shoe machine operator) to a maximum of 97.16 (physician). In this study,

prestige scores for respondents ranged from 26.39 to 97.16. The SEI contains 504 detailed occupations and 13 major occupational groupings (Stevens & Cho, 1985). A list of the 13 major occupational groupings for the SEI can be found in Appendix E. For this study, I divided the SEI into three sections. The maximum prestige score (97.16) was subtracted from the minimum prestige score (17.07) for a total of 80.09, then divided by three, resulting in the value 26.69. This number was added to the minimum SEI score to obtain the low range of prestige scores for career aspirations. This step was repeated to obtain ranges for moderate and high prestige scores for career aspirations. Respondents with prestige scores ranging from 17.07 to 43.77 were described as having low career aspirations. Respondents with prestige scores from 43.78 to 70.47 were described as having moderate career aspirations, and respondents with prestige scores from 70.48 to 97.16 were described as having high career aspirations.

Pregnant adolescents (n=31) chose career aspirations with prestige scores ranging from 26.39 (cosmetologist/hairdresser) to 97.16 (physician) on the SEI. The majority of these 31 respondents (29.0%) indicated they aspired to become registered nurses. Two occupations, physician and protective services, each accounted for 12.1% of the total score for the second highest career aspirations. Almost 10% of the 31 respondents designated an occupation as a lawyer as their career aspiration. The mean score for the career aspirations of pregnant adolescents was 70.23 with a standard deviation of 20.58. Some occupations were followed by the acronym n.c.e., which stands for not elsewhere coded. Table 3 presents a summary of the career aspirations of pregnant adolescents.

Table 3

*Prestige Scores for Career Aspirations of Pregnant Adolescents*

Career aspiration	SEI score	N <sup>a</sup>	Percentage
Physician	97.16	4	12.9
Lawyer	92.30	3	9.7
Chemist	86.82	1	3.2
Judge	86.77	1	3.2
Psychologist	82.70	1	3.2
Funeral Director	73.96	1	3.2
Registered Nurse	73.23	9	29.0
Technicians, n.c.e.	66.08	1	3.2
Teacher, n.c.e.	62.49	1	3.2
Drafting Occupations	61.98	1	3.2
Sales Support Occupations, n.c.e.	48.94	1	3.2
Protective Service Occupations	48.90	4	12.9
Personal Service Occupations, n.c.e.	34.44	1	3.2
Hairdressers and Cosmetologists	26.39	2	6.5

<sup>a</sup>There were two missing observations.

*Research Question Two*

The second research question asked: What are the career aspirations of parenting adolescents? Like pregnant adolescents, parenting adolescents (n=42) also listed career aspirations with prestige scores ranging from 26.39 (cosmetologist/hairdresser) to 97.16 (physician) on the SEI. The majority of these 42 parenting adolescents (30.2%) also aspired to become registered nurses. Becoming a physician was the second highest career aspiration chosen by the 42 respondents, representing 18.6% of the total score for desired career aspirations. The occupational title cosmetologist/hairdresser accounted for 9.3% of the total score. Seven percent of the 42 respondents indicated becoming a lawyer as their career aspiration. Three occupations, accountants/auditors, protective services, and demonstrators/promoters/models, represented 4.7% of the total score for career aspirations of parenting adolescents. The mean score for career aspirations of parenting adolescents was 68.97 with a standard deviation of 22.89, while the

mean score for career aspirations of pregnant adolescents was 70.23 with a standard deviation of 20.58. Information on the career aspirations of parenting adolescents can be found in Table 4.

Table 4

*Prestige Scores for Career Aspirations of Parenting Adolescents*

Career aspiration	SEI score	N <sup>a</sup>	Percentage
Physician	97.16	8	19.0
Lawyer	92.30	3	7.1
Physical Education Teacher	78.78	1	2.4
Accountants/Auditors	76.43	2	4.8
Computer Programmer	76.31	1	2.4
Registered Nurse	73.23	13	31.0
Painters, Sculptors, Craft-Artisans, and Artist Printmakers	63.16	1	2.4
Radiologic Technician	59.89	1	2.4
Athlete	59.25	1	2.4
Insurance Adjusters, Examiners, and Investigators	54.67	1	2.4
Protective Service Occupations	48.90	2	4.8
Secretary	38.40	1	2.4
Demonstrators, Promoters and Models, Sales	37.27	2	4.8
Nursing Aides, Orderlies and Attendants	29.29	1	2.4
Hairdressers and Cosmetologists	26.39	4	9.5

<sup>a</sup>There was one missing observation.

*Research Question Three*

The third research question stated: What are the career aspirations of adolescents who are both pregnant and parenting? There were only two respondents who described themselves as both pregnant and parenting. The mean score for career aspirations of these two respondents was 68.22 and the standard deviation was 7.09. One respondent aspired to become a police officer (SEI score 63.20) and the other respondent chose the occupation of a registered nurse (SEI score 73.23) as her career aspiration.

*Research Question Four*

Research question four inquired: What effect does parenthood status have on career aspirations of pregnant or parenting adolescents? Data analysis was completed for only two

groups of respondents: pregnant adolescents and parenting adolescents. Because the third group, adolescents who were both pregnant and parenting, only contained two respondents, it was unusable for statistical analyses. Of the pregnant adolescents ( $n=31$ ), the mean score for career aspirations was 70.23, and the standard deviation was 20.58. The mean score of career aspirations for parenting adolescents ( $n=42$ ) was 68.97, with a standard deviation of 22.89. In addition, a one-way ANOVA indicated there was no significant difference in parenthood status on career aspirations of either pregnant or parenting adolescents,  $F(1,71)=.059$ ,  $p=.809$ .

#### *Research Question Five*

The fifth research question inquired: How does age affect career aspirations of pregnant or parenting adolescents? Respondents ranged in age from 13 to 19 years old. Because certain age groups contained low numbers of respondents, ages were collapsed into four groups. For the purpose of statistical analyses, I chose these age divisions to create groups that were similar in size. Group one consisted of adolescents between ages 13 to 15, group two was comprised of adolescents who were 16 years old, group three consisted of adolescents who were 17 years old, and adolescents between ages 18 and 19 were placed in group four. Collapsing age groups increased the total number of responses for each group, making statistical analyses more likely to show significant results.

A one-way ANOVA was calculated to determine the effect of age on career aspirations of pregnant or parenting adolescents. ANOVA compares the amount of between-groups variance in respondents' scores with the amount of within-groups variance (Gall et al., 2003). Results from ANOVA indicated there was a statistically significant difference at the .05 alpha level,  $F(3,72)=3.20$ ,  $p=.028$ . Because there was a significant difference for age on career aspirations, Bonferroni tests were conducted to locate where the differences occurred. The Bonferroni

method limits the probability of a Type I error because the Type I error rate is equal to the alpha significance level (Olejnik, 2002). Bonferroni tests revealed the difference between group one (ages 13-15) and group two (ages 16). The p-value for group one compared with group two was  $p=.022$ . Table 5 presents means and standard deviations of career aspirations for the four age groups of pregnant or parenting adolescents.

Table 5

*Means and Standard Deviations of Prestige Scores for Career Aspirations Based on Age*

Age group	N <sup>a</sup>	M	SD
13-15	18	81.33	17.90
16	18	60.67	24.60
17	26	68.01	19.46
18-19	14	67.00	20.20

<sup>a</sup>There were three missing observations.

In addition, effect size was also calculated for the significant finding. Effect size is calculated to determine whether a statistically significant difference is practically significant and it estimates the magnitude of the difference (Lewis, 2001). The proportion of variation in the response variable that is explained by the independent variable is reflected in the effect size (Olejnik & Hess, 2001). A higher effect size indicates a greater difference between the two groups (Gall et al., 2003). When conducting analysis of variance tests, Eta squared is one common measure of effect size and ranges in value from 0 to 1 (Olejnik & Hess). Eta squared was used in this study because it can be generalized across different designs, including causal-comparative designs, and because it is frequently used in research. However, one disadvantage of Eta squared is that it is positively biased because it overestimates the strength of the relationship between the dependent and independent variables (Olejnik, 2002). Cohen (1988) suggested .01, .06, and .15 for small, medium, and large values when using Eta squared as a measure of effect size. For this research finding, Eta squared was calculated to be .118, representing a medium

effect of practical significance. Therefore, 11.8% of the variation in the dependent variable, career aspiration, can be attributed to the independent variable, age.

#### *Research Question Six*

Research question six asked: How does race affect career aspirations of pregnant or parenting adolescents? An overwhelming majority of the respondents for this study were African American (79.7%). The other five racial categories did not contain enough respondents to make a difference in comparisons. Therefore, race categories of American Indian/Alaskan Native, Hispanic, multi-racial, Caucasian, and other were collapsed to create a new category titled *other*. The total number of African American respondents was 59. The mean score for career aspirations of African American respondents was 68.05 with a standard deviation of 22.43. The mean for the career aspirations of respondents from the race category *other* race (n=14) was 75.65, and the standard deviation was 18.34. There were no significant findings with regard to the independent variable race on career aspirations of pregnant or parenting adolescents ( $F=1.44$ ,  $p=.234$ ). There were three missing responses for this research question.

#### *Research Question Seven*

Research question seven asked: How does parents' occupation affect career aspirations of pregnant or parenting adolescents? Fifty-nine respondents answered the question regarding mothers' occupation and 39 responded to fathers' occupation. Some responses for fathers' occupation were unusable because respondents indicated they were not sure of their father's job (23%), while others indicated their fathers were deceased (21%), or incarcerated (10%).

Respondents provided a wide range of jobs for their mothers and fathers. Prestige scores for these various jobs fell into several of the subcategories within the SEI. In addition, many respondents reported parents' location of employment as opposed to specific job title. It became



necessary to group mothers' and fathers' occupations into the six broad occupational categories according to Stevens and Cho (1985) to establish larger numbers within each group for analysis. The six broad categories included Managerial and Professional Specialty Occupations; Technical, Sales, and Administrative Support Occupations; Service Occupations; Farming, Forestry, and Fishing Occupations; Precision, Production, Craft, and Repair Occupations; and Operators, Fabricators, and Laborers. To determine a prestige score for each occupational category, the mean score of each major occupational grouping under each broad category was averaged for an overall mean score. For example, the broad category titled Managerial and Professional Specialty Occupations contained two major occupational groupings: Executive, administrative, and managerial, ( $M=53.34$ ) and Professional specialty ( $M=68.51$ ), thus providing a mean score of 60.93 for the Managerial and Professional Specialty category. Mean scores for all six occupational categories are located in Appendix F.

The mean score for mothers' occupation on career aspirations of pregnant or parenting adolescents was 38.09 with a standard deviation of 16.95. Out of 59 respondents, the majority ( $N=20$ , or 33.9 %) indicated their mothers worked in service occupations in positions such as waitresses or cooks, while 30.5% reported their mothers worked in managerial and professional specialty occupations. Of the latter responses, 15.3% mothers worked in nursing positions. Another 13.6% of the 59 respondents reported their mothers worked in management positions. Table 6 presents means and standard deviations on career aspirations based on mothers' occupation.

Table 6

*Means and Standard Deviations of Prestige Scores for Career Aspirations Based on Mothers' Occupation*

Mothers' occupation	Adolescent's career aspiration			
	Mean of SEI scores	N	M	SD
Major occupational groupings				
Managerial and Professional Specialty	60.93	18 <sup>a</sup>	79.46	17.40
Technical, Sales, and Administrative Support Occupations	38.46	11	65.62	20.79
Precision Production, Craft, and Repair Occupations	26.60	7	73.97	24.47
Service Occupations	22.02	20	67.77	21.10
Operators, Fabricators, and Laborers	19.87	2	49.81	33.12

Note. The mean of SEI scores was calculated by averaging the mean score of each major occupational grouping under each broad category.

<sup>a</sup>There was one missing observation.

The mean score for fathers' occupation on career aspirations of pregnant or parenting adolescents was 26.21, and the standard deviation was 9.89. Of the 39 respondents, the majority (N=14, or 35.9%) listed occupations for their fathers that fell under the occupational group of operators, fabricators, and laborers, which included jobs such as truck drivers and packagers. The second highest occupational group for fathers' was precision production, craft, and repair occupations, which included jobs such as construction trades and mechanics (N=11 or 28.2%). Fathers' occupation on career aspirations of pregnant or parenting adolescents is presented in Table 7.

Table 7

*Means and Standard Deviations of Prestige Scores for Career Aspirations Based on Fathers' Occupation*

Fathers' occupation	Adolescent's career aspiration			
	Mean of SEI scores	N	M	SD
Major occupational groupings				
Managerial and Professional Specialty	60.93	2	39.13	18.01
Technical, Sales, and Administrative Support Occupations	38.46	4	59.02	26.83
Precision Production, Craft, and Repair Occupations	26.60	11	75.94	21.67
Service Occupations	22.02	6 <sup>a</sup>	79.48	10.22
Farming, Forestry, and Fishing Occupations	21.67	1	97.16	
Operators, Fabricators, and Laborers	19.87	14	68.85	22.97

<sup>a</sup>There was one missing observation.

A one-way ANOVA was conducted to test the effect of parents' occupation on career aspirations of pregnant or parenting adolescents. Results indicated that parents' occupation had no effect on career aspirations of pregnant or parenting adolescents,  $F(2,28)=1.75$ ,  $p=.193$ . The p-value of .193 was not significant at the .05 alpha level.

*Research Question Eight*

Research question eight asked: How does parents' education level affect the career aspirations of pregnant or parenting adolescents? Seventy-five respondents reported mothers' education level and 73 respondents reported fathers' education level. A one-way ANOVA was performed to determine if parents' level of education affected the career aspirations of pregnant or parenting adolescents. Parents' education level was found to have no statistically significant difference on career aspirations of pregnant or parenting adolescents. When separated into mothers' education and fathers' education, mothers' education had no statistically significant

effect on career aspirations of pregnant or parenting adolescents at the .05 alpha level,  $F(3,71)=2.04, p=.116$ . Likewise, fathers' education did not have a significant effect on career aspirations of pregnant or parenting adolescents at the .05 alpha level,  $F(3,69)=1.06, p=.373$ .

Table 8 presents the means and standard deviations of career aspirations of pregnant or parenting adolescents based on parents' education level.

Table 8

*Means and Standard Deviations of Prestige Scores for Career Aspirations Based on Parents' Education*

Parents' education level	Adolescent's career aspiration		
	N	M	SD
Mother <sup>a</sup>			
Did not finish high school	13	74.67	18.70
High school graduate	28	64.01	23.73
College	21	76.87	16.99
Not sure	13	64.07	23.04
Father <sup>b</sup>			
Did not finish high school	8	71.29	27.22
High school graduate	27	69.26	21.20
College	12	78.47	19.09
Not sure	26	65.07	21.75

<sup>a</sup>There were four missing observations. <sup>b</sup>There were six missing observations.

*Research Question Nine*

The ninth research question asked: Who provides the greatest source of career information to pregnant or parenting adolescents? Due to the variety of answers resulting in small group sizes, responses were collapsed into the following new categories to obtain larger numbers for analyses: *family*, which included mother and father, *school*, which consisted of teacher(s), guidance counselor(s), and school career centers, *other*, including other adults and friends, and *media*, consisting of books, magazines, newspaper, and television. Means and standard deviations for source of career information on career aspirations of pregnant or parenting adolescents are presented in Table 9.

Table 9

*Source of Career Information for Pregnant or Parenting Adolescents*

Source of career information	Pregnant or parenting adolescents' career aspirations		
	N <sup>a</sup>	M	SD
Family	20	82.04	19.17
School	21	72.05	21.18
Other	15	63.03	20.50
Media	15	58.67	20.35

<sup>a</sup>There were eight missing observations.

A one-way ANOVA was performed to determine the source of career information on career aspirations of pregnant or parenting adolescents. Results from ANOVA indicated there was a statistically significant difference at the .05 alpha level,  $F(3, 67)=4.56$ ,  $p=.006$ , for source of career information on career aspirations of pregnant or parenting adolescents. Because there was a significant difference, Bonferroni tests were conducted to locate where differences occurred. Bonferroni tests revealed the difference was between group one (family) compared with group three (other). The p-value for group one compared with group two was  $p=.047$ . There was also a difference between group one (family) compared with group four (media), with a p-value of .008. Mothers were cited most often as the best source of career information ( $n=19$  or 25.7%), followed closely by books, television, and magazines ( $n=15$  or 20.3%), and then teachers ( $n=12$  or 16.2%). Ten respondents (13.5%) indicated they received the most career information from other sources, including grandmothers, relatives, mail, Internet, research, and Even Start. Even Start is a national association aimed at extending learning and supporting success for children and their families.

In addition, effect size was also calculated for the significant findings. A higher effect size indicates a greater difference between two groups (Gall et al., 2003). Eta squared was calculated to be .169, indicating a large effect size of practical significance. Therefore, 16.9% of

the variation in the dependent variable, career aspiration, can be attributed to the independent variable, source of career information.

### *Pregnancy and Parenting as a Barrier*

One additional item on the questionnaire asked respondents if they thought being a teen mother would make it difficult for them to acquire the job they most desired. Of the 79 respondents who answered this question, 25.6% indicated they felt being a teen mother would be a barrier to obtaining the job they most desired. Over 74% did not think being a teen mother would prevent them from getting the job they most desired. Table 10 presents responses regarding pregnancy or parenting as a barrier to obtaining a desired career.

Table 10

### *Adolescents' Perception of Pregnancy or Parenting as a Barrier to Careers*

Independent Variable	<u>Pregnancy/Parenting as Perceived Barrier</u>			
	Yes		No	
	%	N	%	N
<b>Age</b>				
13-15	21.1	4	78.9	15
16	42.1	8	57.9	11
17	15.4	4	84.6	22
18-19	26.7	4	73.3	11
<b>Race</b>				
African American	22.2	14	77.8	49
Other	37.5	6	62.5	10
<b>Parenthood Status</b>				
Pregnant	30.3	10	69.7	23
Parenting	18.6	8	81.4	35

### *Multiple Career Aspirations*

Some adolescent females provided more than one career aspiration when responding to the open-ended question; however, only the most prestigious career aspiration was examined and

analyzed for this study. If a respondent listed more than one career aspiration, the aspiration with the highest SEI prestige score was coded and analyzed. Data revealed that 28.6% percent of respondents listed two or more career aspirations. In contrast, 71.4% listed only one career aspiration. Table 11 provides information on respondents who listed more than one career aspiration based on age, race, and parenthood status.

Table 11

*Multiple Career Aspirations Reported by Pregnant or Parenting Adolescents*

Independent Variables	Number of Career Aspirations Listed by Respondents			
	One Career Aspiration		Two or More Career Aspirations	
	%	N	%	N
<b>Age</b>				
13-15	66.7	12	33.3	6
16	66.7	12	33.3	6
17	73.1	19	26.9	7
18-19	80.0	12	20.0	3
<b>Race</b>				
African American	71.0	44	29.0	18
Other	73.3	11	26.7	4
<b>Parenthood Status</b>				
Pregnant	71.9	23	28.1	9
Parenting	69.0	29	31.0	13

Summary

Statistical analyses conducted for this study indicated that age and source of career information were the independent variables that had a statistically significant difference on career aspirations of pregnant or parenting adolescents. In addition, when age and parenting status were combined, a significant difference was found on career aspirations of pregnant or parenting adolescents. Adolescent females in the 13 to 15 age bracket differed significantly on prestige scores for career aspirations from adolescent females who were 16 years of age. Regarding source of career information, the significant difference was between the family group

and the media group. The majority of adolescent females, regardless of parenthood status, aspired to become registered nurses. Other independent variables, race, parenthood status, parents' occupation, and parents' education level, were not shown to have a significant effect on the career aspirations of pregnant or parenting adolescents in this study.



CHAPTER V  
SUMMARY, CONCLUSIONS, DISCUSSION, IMPLICATIONS, AND  
RECOMMENDATIONS

This chapter restates the purpose and research questions of this study. A summary of the study and its major findings will be presented. Conclusions drawn from data analyses, a discussion of findings, implications of the findings, and recommendations for future research regarding career aspirations of pregnant or parenting adolescents will also be explored.

Purpose of the Study

The purpose of this causal comparative survey study was to examine career aspirations of pregnant and/or parenting adolescent females. Adolescence is a time of self-definition as an individual moves from childhood into young adulthood (Merrick, 1995). For this study, an adolescent female was defined as a girl between 13 and 19 years of age. Independent variables for demographics included age, race, parenthood status, parents' occupation, parents' education level, and source of career information. Parenthood status consisted of three categories: pregnant, parenting, or both pregnant and parenting. Pregnant was defined as a female adolescent who was expecting a child. Parenting was defined as a female adolescent who became a biological parent before age 20 (Xie et al., 2001). The term pregnant and parenting described females who had one or more children and were pregnant at the time of this study. Career aspirations, the dependent variable, represented an individual's orientation toward a particular career goal (Rojewski, 1996b). This study focused on the following research questions:

1. What are the career aspirations of pregnant adolescents?

2. What are the career aspirations of parenting adolescents?
3. What are the career aspirations of adolescents who are both pregnant and parenting?
4. What effect does parenthood status have on career aspirations of pregnant or parenting adolescents?
5. How does age affect career aspirations of pregnant or parenting adolescents?
6. How does race affect career aspirations of pregnant or parenting adolescents?
7. How does parents' occupation affect career aspirations of pregnant or parenting adolescents?
8. How does parents' education level affect career aspirations of pregnant or parenting adolescents?
9. Who provides the most career information to pregnant or parenting adolescents?

### *Research Design*

Causal-comparative research is a type of nonexperimental research designed to determine the cause-and-effect relationships between groups of people by comparing previously established conditions (Ary et al., 1996; Fraenkel & Wallen, 1996; Gall et al., 2003). Changes in the independent variable already exist, and researchers must study them after the fact to determine their effects on a dependent variable (Ary et al.; Frankel & Wallen). Because participants in this study were pregnant and/or parenting, a causal comparative design was chosen as the research design.

### *Population and Sample*

The target population for this study was all pregnant and/or parenting adolescent females in the state of Georgia. For this study, the accessible population consisted of pregnant and/or parenting teens attending a teenage parenting center in Georgia. This teenage parenting center was selected because of its accessibility, the large number of participants available at this one

site, and because it is one of the few schools in the state that solely serves pregnant and parenting teens. Therefore, this was a sample of convenience. Based on Olejnik's (1984) four factors for sample size selection, a sample size of 51 participants was required for a large effect size, a statistical power of .70, and an alpha level of .05. A total of 79 participants completed and returned questionnaires.

### *Instrument*

This study employed the use of a cross-sectional survey because the data was collected at one point in time (Creswell, 2003). Survey design was chosen to generalize the results from the sample to the larger population. The questionnaire for this study included demographics for age, race, parenthood status, parents' occupation, parents' education level, and source of career information. Responses to the open-ended career aspiration question were assigned a four-digit code according to prestige scores from Nakao and Treas's (1992) Socioeconomic Index (SEI). To control for validity and reliability of respondents' scores, a pilot test was conducted with a sample of 11 adolescent females from a teen parenting program at a hospital in Georgia. The pilot test also determined how to code and record student responses using the SEI. A two-rater coding system was used to ensure unanimous agreement on the classification of each respondent's career aspiration.

### *Research Procedures*

Permission was requested from proper authorities in the participating school district and from the Institutional Review Board (IRB) at The University of Georgia. Once approval from IRB and the participating school district was granted, data collection began in November of 2004. Individuals who participated in this study completed an anonymous two-page questionnaire consisting of questions focused on demographic information, as well as an open-

ended question regarding career aspirations. All adolescent females completed the same questionnaire, and participants were reminded that they could discontinue participation in the study at any time.

### *Data Analysis*

Data compilation, verification, and analyses were completed using the Statistical Package for the Social Sciences (SPSS) at the Academic Computing Center in the College of Education at The University of Georgia. Both descriptive and inferential statistics were used to compare the independent variables with the dependent variable. Means and standard deviations were calculated to compare respondents' demographic data with career aspirations. All research questions were analyzed using one-way analysis of variance (ANOVA). If a one-way ANOVA found a significant difference, post-hoc tests were run to determine where the differences occurred, and effect size was calculated.

### Summary of Findings

The SEI assigns prestige scores to careers. Prestige scores reported in Chapter 4 represented various careers and were translated into career aspirations to discuss findings related to career aspirations of pregnant and parenting adolescents. Thus, for the purpose of this study, career aspirations were represented by the prestige score.

The first research question described career aspirations of pregnant adolescents. Pregnant adolescents chose career aspirations with prestige scores ranging from 26.39 (cosmetologist/hairdresser) to 97.16 (physician). A majority of the pregnant adolescents aspired to high career aspirations, indicating they wished to become registered nurses, followed by physicians. Adolescents aspiring to careers in protective service occupations possessed moderate career aspirations.

The second research question described career aspirations of parenting adolescents. Parenting adolescent chose career aspirations with prestige scores ranging from 26.39 (cosmetologist/hairdresser) to 97.16 (physician). The majority of parenting adolescents also aspired to become registered nurses, thus they possessed high career aspirations. The occupations of physician and lawyer were the second and third highest career aspirations desired by parenting adolescents.

The third research question described the career aspirations of adolescents who were both pregnant and parenting. One adolescent female who was pregnant and parenting possessed a moderate career aspiration, wishing to be a police officer, while the other adolescent female aspired to a high career aspiration, indicating she wanted to become a registered nurse.

Research question four explored the effect of parenthood status on career aspirations of adolescents who were both pregnant and parenting. There was no statistically significant difference on the career aspirations of pregnant or parenting adolescents based on parenthood status when a one-way ANOVA was conducted. Because there were only two females categorized as both pregnant and parenting, these respondents were removed from analysis. Perhaps if more participants were in this group, significant differences may have been found.

The fifth research question examined the effect of age on career aspirations of pregnant or parenting adolescents. The independent variable, age, had a significant effect on career aspirations of pregnant or parenting adolescents. The difference existed in adolescents between ages 13 to 15 compared to adolescents who were 16 years of age. Younger adolescents between ages 13 to 15 had a slightly higher mean average for career aspirations than adolescent females in the other age groups (16, 17, and 18 to 19 years). A large effect size of .118 indicated that

11.8% of the variation in the dependent variable, career aspiration, can be attributed to the independent variable, age.

Research question six explored the effect of race on career aspirations of pregnant or parenting adolescents. Race did not have a statistically significant difference on career aspirations of pregnant or parenting adolescents. Perhaps if the sample was more diverse, results would have yielded significant differences. However, for this study, the large number of African American participants made it difficult to determine if race had any effect on the career aspirations of pregnant or parenting adolescents.

The seventh research question described the effect of parents' occupation on career aspirations of pregnant or parenting adolescents. Parents' occupation did not show a statistically significant difference on the career aspirations of pregnant or parenting adolescents.

The eighth research question examined the effect of parents' education level on career aspirations of pregnant or parenting adolescents. Parents' education level did not have a statistically significant effect on career aspirations of pregnant or parenting adolescents. When divided into mothers' education and fathers' education, there were still no statistically significant differences found. Several respondents were unsure of the educational level of their parents. Perhaps a larger number of responses would reveal significant results.

Research question nine explored the effect of the source of career information on career aspirations of pregnant or parenting adolescents. The independent variable, source of career information, did have a statistically significant effect on career aspirations of pregnant or parenting adolescents. The difference was between group one (family) compared to group three (other) and group four (media). Mothers were cited most often as the best source of career information (25.7%), followed closely by books, television, and magazines (20.3%).

An additional question asked respondents if being a teen mother would make it difficult to acquire the job they most desired. About one-quarter of pregnant or parenting adolescents perceived motherhood as a barrier to obtaining their desired career. Nearly 75% of pregnant or parenting adolescents did not feel being a teen mother would prevent them from obtaining their desired career. Some adolescents also listed more than one career aspiration when responding to the open-ended question. The majority of respondents (71.4%) listed only one career aspiration, while 28.6% provided two or more career aspirations.

### Conclusions

Of the six independent variables examined in this study, age and source of career information were the two to show a statistically significant difference on the career aspirations of pregnant or parenting adolescents. Regarding age, adolescents between ages 13 to 15 had a slightly higher mean average for career aspirations than adolescent females who were 16 to 19 years of age. For source of career information, family had more of an effect on career aspirations of pregnant or parenting adolescents than the groups media and other. The majority of pregnant adolescents aspired to become registered nurses. Likewise, the majority of parenting adolescents aspired to become registered nurses. Other occupations pregnant or parenting adolescents aspired to included physicians, protective service careers in the Air Force, Army, or Navy, lawyers, and hairdressers or cosmetologists. Parenthood status, race, parents' occupation, and parents' education level did not affect career aspirations of pregnant or parenting adolescents. Nearly three-quarters of respondents indicated that adolescent parenthood would not prevent them from obtaining their desired career.

## Discussion and Implications

Pregnant adolescents have been found to possess lower career aspirations and attain less prestigious occupations when compared to their non-pregnant peers (Hockaday et al., 2000; Nord et al., 1992). The current study found a further division in the career aspirations of pregnant adolescents versus adolescents who were parenting and adolescents who were both pregnant and parenting. Pregnant adolescents had higher mean scores for career aspirations than parenting adolescents and adolescents who were both pregnant and parenting. The newness of their physical condition coupled with increased attention, especially from peers, may generate a false sense of reality, thus prohibiting a practical vision of future career aspirations.

One noteworthy observation was that despite parenthood status, the majority of adolescent females in this study aspired to become registered nurses. This finding is consistent with Drummond and Hansford's (1992) study, as they reported that pregnant adolescents most often aspired to nursing careers. Adolescent females' desire to become nurses could be attributed to their exposure to the nursing community throughout the duration of their pregnancy and birth process. In addition, five of the eight high schools which are the home schools of the participants offer Healthcare Science classes these adolescent females may have been enrolled in prior to entering the teenage parenting center. Their potential involvement in such Healthcare Science classes may correlate with their developing interests in the nursing field and could influence their aspirations of wanting to become a nurse. In addition, several adolescent females aspired to careers in the protective service sector of the workforce. This could be due to the fact that a large military base is located in the same city as the teenage parenting center. Thus, these adolescents are likely exposed to military careers through local newspaper and television advertisements,



friends, or relatives. In fact, many adolescent females indicated one or both of their parents were employed in the military, which could influence these females to also aspire to military careers.

There are several possible explanations for career aspiration differences within the various age ranges of pregnant or parenting adolescents. This study showed that younger adolescents between ages 13 to 15 reported higher career aspirations when compared to adolescents between ages 16 to 19. Interestingly, 16 year olds had the lowest career aspirations of the sample studied. Research from this study could suggest that immaturity and the lack of knowledge 13 to 15 year old adolescents possess prior to the birth of their first baby clouds their realization of the difficulties that lie ahead in the attainment of a career. Possibly these young females equate themselves to every pregnant woman without considering their lack of education and skills necessary to compete in the workforce. They may also proudly view themselves as full-fledged adults. On the other hand, 16 year old adolescents may sustain lower career aspirations for several reasons. In addition to being overwhelmed with threats to their individual freedom, they may also experience less attention on themselves that may now be focused on the unborn baby or young infant. Additionally, these adolescent females may have increased maturity in the realization of the work ahead to achieve a high school diploma. Adolescents between 17 to 19 year olds possessed slightly higher career aspirations than 16 year olds, but lower career aspirations than 13 to 15 year olds. These differences could be explained by a lost sense of utopia with increased maturity. Older adolescents are more realistic in their career aspirations, for they may be able to foresee the difficulties of finishing school, becoming a parent, and attaining goals for their future.

Previous research has typically found African Americans to have lower career aspirations than their European American counterparts (Hellenga et al., 2002). Osipow and Fitzgerald

(1996) supported this notion, stating African Americans, Hispanics, and Native Americans exhibited considerably lower occupational outcomes than Caucasians. Further studies asserted people from minority groups, especially those from lower socioeconomic backgrounds, had more limiting factors influencing their career aspirations compared with Caucasian persons from lower socioeconomic backgrounds. These limiting factors included education, occupational income, and place of residence (Farmer, 1985; Gottfredson, 1981). Brown and Barbosa (2000) found that career aspirations of females from low-income families were confined to the experiences of their relatives and friends. In this study, race did not have a statistically significant difference on career aspirations of pregnant or parenting adolescent females.

Burlin (1976) noted that the occupational status of females' parents had a significant impact on their career aspirations and career choice. Wahl and Blackhurst (2000) indicated children's career aspirations were closely related to parental occupations. Among adolescent females in particular, career choice and aspirations were strongly influenced by the mother's occupation (Burlin; Wahl & Blackhurst). The social status of mothers' occupations, as opposed to social status of fathers' occupation, have been found to have a stronger correlation with the social status of the daughter's career aspirations (Signer & Saldana, 2001). Mothers were employed in occupations that were classified as more prestigious than fathers' occupations. Perhaps many of these adolescent females come from single-parent families headed by the mother, thus supporting these findings. This study included some participants who reported having deceased fathers or fathers with no employment due to incarceration. In addition, some participants in the study chose not to answer the question pertaining to fathers' occupation, suggesting the probability of unemployment or unawareness of their fathers' occupation. These findings offer one possibility for the father's occupation resulting in lower career aspirations of

pregnant or parenting adolescents in this study. Earlier research stated children often attended work with their mothers, thus creating familiarity with the mother's job (Burlin; Wahl & Blackhurst). Perhaps adolescent females in this study strive to achieve similar or equal career opportunities to their mothers.

Parents' education level has been positively related to the aspirations of adolescents (Mau & Bikos, 2000). Burlin (1976) noted that the parents' education level had a significant impact on career aspirations and career choices of female adolescents. Signer and Saldana (2001) discussed research regarding the positive relationship between adolescent females' career aspirations and their mothers' educational achievement. Findings from this study did not support previous research. In this study, the educational level of adolescent females' parents had no significant effect on their career aspirations. Perhaps this could ascribe to the fact that many of these adolescents could not identify the educational level of their parents. One reason for some adolescent females being unaware of the educational level of their parents could be that they are not being raised by their parents, but rather by relatives such as a grandmother or aunt. Conversely, this study revealed adolescents whose mothers and fathers did not finish high school aspired to careers that would require higher education. This may be attributed to either or both parents working several jobs to support the family, thus creating a lack of parental presence in the home. In addition, this could suggest an ardent desire for pregnant or parenting adolescents to obtain a more prestigious career in order to provide a higher standard of living for themselves and their infants.

When evaluating source of career information on career aspirations of pregnant or parenting adolescents, this study found that these adolescent females received most career information from the family, particularly the mother. In examining this finding, it may again be

linked to a single head of household mother or adolescents being more aware of their mothers' occupation. Interestingly, participants in this study reported being more impacted by media than school resources with respect to source of career information. The information age saturates households through magazines, television, or advertisements, thus enlightening these adolescents of career opportunities on a superficial level. School resources such as teachers, counselors, and school career centers were ranked lower than media, perhaps suggesting adolescents are not receiving substantial career information in the school setting. Considering this study was conducted in a school designed to serve the needs of pregnant and parenting adolescents, this information outlines the necessity for a significant concentration on quality career development and information programs. This supports Cole's (2005) findings that define a need for early career education emphasizing opportunities and resources available to achieve education. Conceivably, this could be implemented in the freshman and sophomore years through in-depth education, heightened job shadowing, and school-to-work opportunities in a variety of occupational settings. This also supports Schultz's (2001) assertion of the necessity for examining school curriculum to engage students in learning and provide the skills that relate to work and their futures.

There has been minimal research on career aspirations of pregnant and parenting adolescents; however, Social Cognitive Career Theory (SCCT) is effective in examining the interaction of self-efficacy, outcome expectations, and personal goals on the career development process. It is important to recognize that a sense of self-efficacy is one predictor of the ability of an adolescent female to say no to unwanted sex (Young et al., 2001). Thus, if female adolescents have a poor sense of self-efficacy, this could be an antecedent to pregnancy. Practitioners need to understand the impoverished sense of self-efficacy among pregnant and parenting teens, for

Bandura et al. (2001) noted personal efficacy plays a very influential role in occupational development, pursuits and interests, and aspirations. This is further supported by McWhirter, Rasheed, and Crothers (2000) who claimed career interventions for secondary students can increase career-related self-efficacy. Likewise, vocational and educational self-efficacy is also an important predictor of career outcome expectations, as students expressing higher self-efficacy expectations have been found to have higher outcome expectations (Ali et al., 2005).

Many disadvantaged youth lack the ability to perceive positive life options and future aspirations; therefore, they do not avoid barriers such as pregnancy because this phenomenon is not seen as closing any doors to their future (Young et al., 2001). Albert and Luzzo (1999) contend individuals must be able to distinguish between barriers for which personal control and responsibility are appropriate versus barriers they may not have the capacity to overcome. Because the majority of participants in this study were from families receiving some type of government assistance, one implication of this study is the need to provide programs to help adolescents from low socioeconomic backgrounds develop positive self-efficacy to reinforce their ability to achieve career aspirations.

Perceived barriers related to career aspirations among pregnant or parenting adolescents may be a source of low outcome expectations. For example, a teenage female's lack of goals is one type of barrier that could lead to pregnancy and consequently, negative outcome expectancies for a future career. This substantiates previous research findings that revealed outcome expectations and perceived barriers are important influences on career goals and actions (McWhirter et al., 2000). Thus, another implication of this study would be to recognize the importance of assisting pregnant or parenting adolescent females in determining barriers in an effort to enable them to reassess their career options.

According to Young et al. (2001), programs that connect behaviors with outcomes and programs that promote the importance of higher education afford adolescents the skills to develop realistic strategies for meeting life goals. Guidance programs that include career education and career exploration opportunities have been found to provide exposure to postsecondary education and training options (McWhirter et al., 2000). Thus, a final implication of this study's findings is the necessity for stringent measures in building adolescent self-efficacy and intense education in linking pregnant or parenting adolescent females' outcome expectations with their goals regarding future career aspirations, as outlined in the Social Cognitive Career Theory.

#### Recommendations for Practice

Based on the significant findings and conclusions from this study, the following recommendations for practice are suggested.

1. Many pregnant adolescents have unrealistic career aspirations, as they do not possess the academic and economic resources necessary for success in a particular occupation (Drummond & Hansford, 1992). Schools should provide early career counseling and intervention services beginning in ninth grade, since age had a significant effect on career aspirations of pregnant or parenting adolescents in this study. These early intervention services should focus on assisting pregnant and parenting adolescents in making more realistic career choices based on their ideal career aspirations to improve their workforce opportunities and participation.
2. Because families are often a support group for pregnant or parenting adolescents, there is a need for secondary counseling interventions to provide parents of these adolescents with career information about specific occupations. Since this study found that families,

specifically mothers, provided the most career information, teaching parents about career planning and exploration will make them better sources of career information for their pregnant or parenting adolescents. Thus, parents will better assist pregnant or parenting adolescents in setting realistic future career aspirations

#### Recommendations for Further Research

1. Replication studies should be conducted to determine if career aspirations of pregnant and parenting adolescents differ based on regions in Georgia (for example, urban versus rural areas). In addition, the relationship between geographic region and socioeconomic status and the effect of these variables on career aspirations of pregnant and parenting adolescents should be studied.
2. Future studies should examine the career aspirations as well as career expectations of pregnant and parenting adolescents. Specifically, attention should be paid to whether or not a discrepancy exists between career aspirations and career expectations, and if pregnant and parenting adolescents believe they must compromise when choosing a career.
3. Swanson and Woitke (1997) noted that barriers might explain the inhibitions of women's career aspirations. Barriers are significant factors in the career development process, and the onset of barriers frequently begins when women are children (Brown & Barbosa, 2001; Stephenson & Burge, 1997). Future studies should extend the application of the Social Cognitive Career Theory to understand how self-efficacy influences perceived barriers to workforce entry among pregnant and parenting adolescents.
4. Future studies should track the careers of adolescents who receive family support during and after their pregnancy as opposed to adolescents receiving little or no family support.

It would be interesting to determine if a positive family support system is a mitigating factor in achieving prestigious career aspirations among pregnant and parenting adolescents.

5. A qualitative study would be beneficial in determining the reasoning and logic behind pregnant and parenting adolescents' aspirations toward certain types of careers. Data from an educational ethnographic qualitative analysis would provide a more in-depth understanding of career maturity and the process of career decision-making among pregnant and parenting adolescents than quantitative data.
6. Previous research has suggested pregnant adolescents face many years of economic disadvantages and that they are more likely to have limited future possibilities (Sarri & Phillips, 2004; Zero Population Growth, 1997). A qualitative study should examine career outcomes of women who were adolescent mothers. Data from this type of study would be valuable in determining how parental support, education, self-efficacy, and resilience affected career aspirations of these women during adolescence, and how these factors helped define their success as adults.
7. A longitudinal study should be conducted five to ten years after graduation to compare the selected careers of pregnant and parenting adolescents against their prior high school career aspirations. It would be interesting to note if pregnant and parenting adolescents aspired to more prestigious careers when in high school as opposed to their chosen adult career.



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APPENDIX A  
STUDENT QUESTIONNAIRE

## Student Questionnaire

Dear Student:

Thank you for volunteering to complete this short **two-page** questionnaire. The answers you provide will be used to study career aspirations of pregnant and parenting teenagers. A career is like a job. An aspiration is like a dream. Career aspirations are like a dream job or the ideal job you would choose if nothing stood in your way.

**Directions:** Fill in the circle next to the answer that **best** describes you. Please choose **only one** answer for each question. Fill in each blank with the requested information when necessary. See the example below.

Example: What is your favorite food?

- ① pizza                      ② hamburgers                      ③ salads                      ④ Other (please fill in) \_\_\_\_\_

1. What grade are you in?

- ① 9<sup>th</sup>  
 ② 10<sup>th</sup>  
 ③ 11<sup>th</sup>  
 ④ 12<sup>th</sup>  
 ⑤ Other \_\_\_\_\_

2. How old are you today? \_\_\_\_\_

3. Are you...?

- ① American Indian/Alaskan Native  
 ② Asian  
 ③ Black (not of Hispanic origin)  
 ④ Hispanic  
 ⑤ Multi-racial  
 ⑥ Pacific Islander  
 ⑦ White (not of Hispanic origin)  
 ⑧ Other \_\_\_\_\_

4. Which of the following best describes you?

- ① I am pregnant with my first child.  
 ② I have one or more children, but I am **NOT** pregnant now.  
 ③ I have one or more children, and I **AM** pregnant now.

5. What is the educational level of your mother?

- ① Did not finish high school.  
 ② High school graduate.  
 ③ 2-year college graduate.  
 ④ 4-year college graduate.  
 ⑤ Completed some college.  
 ⑥ Not sure.

6. What is the educational level of your father?
- ① Did not finish high school.
  - ② High school graduate.
  - ③ 2-year college graduate.
  - ④ 4-year college graduate.
  - ⑤ Completed some college.
  - ⑥ Not sure.
7. What is your mother's current job, or career? \_\_\_\_\_
8. What is your father's current job, or career? \_\_\_\_\_
9. Where do you receive the **MOST** information about careers? Please circle **only one**.
- ① Mother
  - ② Father
  - ③ Teacher(s)
  - ④ Guidance counselor
  - ⑤ School career center
  - ⑥ Other adults
  - ⑦ Friends
  - ⑧ Books, magazines, newspaper, television
  - ⑨ Other \_\_\_\_\_
10. People choose all kinds of different jobs. If you were completely free to choose **any** job in **any** setting, what job would you most like to have 10 years from now? (Write your answer below.)
11. Do you think being a teen parent will make it harder for you to get the job you really want?
- ① Yes
  - ② No

APPENDIX B

PERMISSION LETTER TO CONDUCT STUDY



June 2004

Dr. John A. Phillips, Jr., Superintendent  
Muscogee County School District  
1200 Bradley Drive  
Columbus, Georgia 31901

Dear Dr. Phillips:

My name is Desirae Domenico and I am a graduate student pursuing a doctorate degree at The University of Georgia. As a former teacher in Cobb County, I observed a significant number of pregnant and parenting females in the classes I taught. Prior to entering the classroom, I was unaware of the incidences of teenage pregnancy. Upon returning to graduate school I decided to make teenage pregnancy the focus of my research and dissertation topic. Specifically, I would like to examine the career aspirations of pregnant and parenting females. As part of this research process, I must collect data.

The purpose of this letter is to request permission to distribute a questionnaire to adolescent females at the Teenage Parenting Center. I have been in contact with Ms. Pat Turner, who has verbally supported my research topic. Ms. Turner suggested I contact you to formally request Muscogee County's policy and procedures for collecting research data. The questionnaire will be anonymous and the girls may decline to participate at any point in the study. The questionnaire will contain 10-12 items and will take approximately 15-20 minutes to complete. Participants will be asked for demographic information such as grade level, age, race, parenting status, etc., and there will be one open-ended question inquiring about career aspirations. A sample draft of the questionnaire is enclosed, along with sample parental consent and student assent forms.

I hope I will have the chance to work with Ms. Turner and the girls at the TAP Center. In my review of the literature, I have noticed that very few studies exist that examine the career aspirations of pregnant and parenting adolescents. I feel the opportunity to gather information from this cohort of females will contribute to understanding their future goals, which could help educators realize what services and programs need to be provided to pregnant or parenting adolescent girls regarding careers. Thank you for your time and consideration in this matter. I hope to hear from you soon.

Sincerely:

Desirae M. Domenico, Doctoral Student  
The University of Georgia  
221 River's Crossing  
Athens, Georgia 30602  
ddomenic@uga.edu

APPENDIX C  
TIMELINE

## Timeline

Month/Year	Objective
March 2004	Secured list of all teen parenting programs in Georgia; determined defunct programs and programs still in existence; obtained names of several program directors of teen parenting programs.
April 2004	Spoke with various program directors at teen parenting programs; contacted Pat Turner at Teenage Parenting Center; verbal approval of test site.
May 2004	Draft letter of permission for superintendent of Muscogee County School District; draft of student questionnaire.
June 2004	Finish letter of permission; contact superintendent of Muscogee County School District to obtain permission for test site.
July 2004	Revise questionnaire and add new cites to Chapters 1 and 2 organize appendices.
August 2004	Organize appendices.
September 2004	Make final corrections and additions to Chapters 1-3.
October 2004	Prepare questionnaires for distribution.
November 2004	Distribute questionnaire (data collection) to participants at the teenage parenting center.
December 2004	Begin coding data from questionnaires.
January 2005	Data analysis.
February 2005	Finish analyzing data; summarize results. Begin writing Chapter 4.
March 2005	Finish Chapter 4. Begin Chapter 5.
April 2005	Finalize Chapters 4 and 5. Edit complete dissertation and turn in to committee.

APPENDIX D

IRB APPROVAL FORM, APPROVAL TO CONDUCT RESEARCH, AND MEDIA  
RELEASE FORM



Office of The Vice President for Research  
DHHS Assurance ID No. : FWA00003901

Institutional Review Board  
Human Subjects Office  
612 Boyd GSRC  
Athens, Georgia 30602-7411  
(706) 542-3199  
Fax: (706) 542-5638  
www.ovpr.uga.edu/hso

### APPROVAL FORM

Date Proposal Received: 2004-06-23

Project Number: 2004-10903-0

Name	Title	Dept/Phone	Address	Email
Ms. Desirae M. Domenico	PI	Occupational Studies River's Crossing+4809	(706)552-3943	dmdomenico@hotmail.com
Dr. Karen H. Jones	CO	Occupational Studies 212 Rivers Crossing +4809 542-4473		khjones@arches.uga.edu

Title of Study: The Effects of Adolescent Pregnancy and Parenting on Females' Career Aspirations

45 CFR 46 Category: Expedite 7

**Parameters:**

Approved for Muscogee School District Only.

Change(s) Required for Approval and Date Completed: 2004-09-28

Revised Application;  
Revised Consent Document(s);

Approved : 2004-09-28    Begin date : 2004-09-28    Expiration date : 2005-09-27

*NOTE: Any research conducted before the approval date or after the end data collection date shown above is not covered by IRB approval, and cannot be retroactively approved.*

Number Assigned by Sponsored Programs:

Funding Agency:

Form 310 Provided: No

Your human subjects study has been approved.

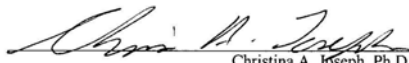
Please be aware that it is your responsibility to inform the IRB:

- ... of any adverse events or unanticipated risks to the subjects or others within 24 to 72 hours;
- ... of any significant changes or additions to your study and obtain approval of them before they are put into effect;
- ... that you need to extend the approval period beyond the expiration date shown above;
- ... that you have completed your data collection as approved, within the approval period shown above, so that your file may be closed.

For additional information regarding your responsibilities as an investigator refer to the IRB Guidelines.

Use the attached Researcher Request Form for requesting renewals, changes, or closures.

Keep this original approval form for your records.

  
Christina A. Joseph, Ph.D.  
Chairperson, Institutional Review Board



Muscookee County School District  
Columbus, Georgia

Carol C. Bradshaw, Ph.D.  
Coordinator

Research and Evaluation

September 9, 2004

TO: John A. Phillips, Jr., Ph.D.  
Superintendent of Education

FROM: Carol C. Bradshaw *CCB*

RE: Request to Conduct Research

Ms. Desirae Domenico, a student at the University of Georgia, has requested permission administer a survey to students at the Teenage Parenting Center. Her research investigates the career aspirations of pregnant adolescents. Neither the district, the school, nor the individuals will be identified. Attached you will find her letter of request, IRB form, minor assent form, and survey.

I have reviewed the request and recommend that it be approved .

This research request has been APPROVED / DISAPPROVED .

John A. Phillips, Jr.

**Media Release**  
**Teenage Parenting Center at Waverly Terrace**  
**Muscogee County School District**

I, \_\_\_\_\_, give my permission

Parent or Legal Guardian(Please Print)

For my daughter, \_\_\_\_\_, to appear

Student Name (Please Print)

**In any and all media productions arranged by the Teenage Parenting Center at Waverly Terrace, such as pictures, videos, and slides.**

\_\_\_\_\_  
Parent/Legal Guardian's Signature

\_\_\_\_\_  
Student's Signature

\_\_\_\_\_  
Date

## APPENDIX E

THIRTEEN MAJOR OCCUPATIONAL GROUPINGS FOR THE SOCIOECONOMIC INDEX  
(STEVENS AND CHO, 1985)



### Thirteen Major Occupational Groupings for the 1980 Census

- I. Executive, administrative, and managerial
- II. Professional specialty
- III. Technicians and related support occupations
- IV. Sales occupations
- V. Administrative support occupations (including clerical)
- VI. Private household occupations
- VII. Protective service occupations
- VIII. Service occupations except private household and protective
- IX. Farming, forestry, and fishing occupations
- X. Precision production, craft, and repair
- XI. Machine operators, assemblers, and inspectors
- XII. Transportation and material moving occupations
- XIII. Handlers, equipment cleaners, helpers, and laborers

Taken from:

Stevens, G., & Cho, J. H. (1985). Socioeconomic indexes and the new 1980 census occupational classification scheme. *Social Science Research, 14*, 142-168.

APPENDIX F

MEAN SCORES FOR SIX ADJUSTED BROAD OCCUPATIONAL CATEGORIES

## Adjusted Mean Scores for the Six Occupational Categories of the Socioeconomic Index

Six Occupational Categories	Mean (Total SEI)	Adjusted Mean
A. Managerial and Professional Specialty Occupations		
I. Executive, administrative, and managerial	53.34	60.93
II. Professional specialty	68.51	
B. Technical, Sales, and Administrative Support Occupations		
III. Technicians and related support occupations	46.80	38.46
IV. Sales occupations	37.36	
V. Administrative support occupations (including clerical)	31.21	
C. Service Occupations		
VI. Private household occupations	15.71	22.02
VII. Protective service occupations	30.13	
VIII. Service occupations except private household and protective	20.23	
D. Farming, Forestry, and Fishing Occupations		
IX. Farming, forestry, and fishing occupations	21.67	21.67
E. Precision Production, Craft, and Repair Occupations		
X. Precision production, craft, and repair	26.60	26.60
F. Operators, Fabricators, and Laborers		
XI. Machine operators, assemblers, and inspectors	19.01	19.87
XII. Transportation and material moving occupations	21.89	
XIII. Handlers, equipment cleaners, helpers, and laborers	18.70	

Taken from:

Stevens, G., & Cho, J. H. (1985). Socioeconomic indexes and the new 1980 census occupational classification scheme. *Social Science Research, 14*, 142-168.