THE RELATIONSHIP BETWEEN SELF-EFFICACY AND EDUCATIONAL EXPECTATIONS IN MIDDLE AND HIGH SCHOOL YOUTH

Emily Brown

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Department of Sociology and Criminology
University of North Carolina Wilmington

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Approved by

Advisory Committee

Stephen McNamee

Leslie Hossfeld

Susan Bullers

Chair

Accepted by

Dean, Graduate School
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ABSTRACT

Research suggests the relationship between future orientation and positive future outcomes is strong, and one avenue for increasing opportunities for disadvantaged youth may be the development of strong future orientation early in life. However, little has been done to identify specific areas for early intervention. Research into self-evaluation concepts, specifically focusing on self-efficacy, has shown promise in this regard. Self-efficacy refers to individuals’ assessments of their own effectiveness, skill, and ability to affect change (Bandura, 1977). The current study proposes a model to understand the relationship between socio-demographic characteristics, self-efficacy, and future orientation. Using a nationally representative sample of 10,565 eighth and tenth grade youth, step-wise ordinary least squares regression analysis were run to test the effectiveness of this model in predicting educational expectations. Educational expectations were regressed on sex, race, grade level, parents’ education, and self-efficacy. Sex, race, parents’ education, and self-efficacy were all found to be significant predictors of educational expectations. These results supported the predictive utility of the proposed model, and a final R-Squared value of .139 was obtained. Additionally, it was found that self-efficacy mediates the relationship between demographic variables and educational expectations, supporting its importance for the future orientation of youth.
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INTRODUCTION

Whether or not poverty is passed from one generation to the next has been hotly debated, likely because the possibility violates the American ideal of equal opportunity. Although the debate may yet be far from over, the increasing availability of longitudinal data has shifted the nature of its arguments. It is widely accepted, at least in most of the social sciences, that intergenerational poverty is a real social problem deserving of our critical attention. The quest is now to understand the relationship between poverty in childhood and poverty in adulthood. What are the factors of childhood poverty that impede the future chances of these youth?

A growing body of literature has sought to answer these questions by examining self-efficacy and related concepts, and their relationship with future orientation. Future orientation is defined as how people see their future in terms of goals, hopes, and expectations (Nurmi, 1991). While future orientation is generally important for all adolescents, it may be especially critical for youth in poverty who are more likely than other adolescents to experience poor outcomes (Kerpelman and Mosher, 2004).

Self-efficacy, as defined by Albert Bandura (1977), refers to people’s assessments of their own effectiveness, skill, and ability to affect change. Some scholars are beginning to look towards self-efficacy as offering an opportunity to directly influence the future orientations of youth who may be faced with structural barriers to their mobility. The study proposed here seeks to build on previous works by examining the relationship between self-efficacy and educational expectations in middle and high school youth.
LITERATURE REVIEW

Intergenerational Transmission of Poverty

Intergenerational transmission of poverty has been a central theme in social science research for some time. Although it is widely accepted that children whose parents are poor are significantly more likely than their non-poor peers to become poor adults (Corcoran 1995; Duncan et al. 1998; Young 2010) there is still a lack of agreement on the nature of this relationship. Rather than questioning its existence, the conversation surrounding intergenerational poverty over the last few decades has centered on identifying and understanding the driving forces behind the “cycle of poverty”.

Early research on this topic identified a “culture of poverty”, and claimed that intergenerational poverty was a result of the passage of deviant values and behaviors from one generation to the next (Lewis, 1959). These scholars argued that sustained poverty, coupled with historical oppression, generated a set of cultural attitudes, beliefs, values, and practices that further disadvantaged the poor. They explained that this culture was pathological, and perpetuated itself over time to the point that it would continue to disadvantage the poor even if the structural conditions that produced it were to change.

Critics of this framework soon emerged who argued that the theory was too narrow and blamed the poor for their condition. In response to the culture of poverty explanation for intergenerational poverty, these scholars highlighted structural inequalities and institutional barriers to social mobility that limited the opportunities available to the poor to change their position (Corcoran 1995; Young, 2010). This next generation of poverty researchers sought to distance themselves from earlier scholars, and nearly completely avoided studying culture in the context of poverty. As a result, macro level theories on poverty dominated the theoretical
landscape for some time, and attempts to implement programs and policies to address
intergenerational poverty from a structural standpoint have been tried, with limited success.

Perhaps in response to this anemic progress, a new wave of contemporary literature has
emerged that works to fuse the two early perspectives. New studies on the culture of poverty
seek to blend components of previous paradigms to help illuminate all aspects of the
intergenerational transmission of poverty, structural and cultural (Small, Harding, & Lamont
2010).

Beginning with the work of W. J. Wilson (1980) and continuing today, new theories on
the culture of poverty highlight the continuing significance of historical oppression and
discrimination. Paralleling the increased interest in structure and culture in the broader academic
realm of the social sciences, these scholars point to the dialectical relationship between agency
and structure, or the duality of structure. This relationship is perhaps best explained by Anthony
Giddens (1979, 1984) structuration theory. Giddens explains that human action is performed
within the context of a preexisting social structure, but that the structure is not entirely permanent
and external, rather, it is sustained and modified by human action. New culture of poverty
theorists explain that culture is one facet of the social structure; the two should not be viewed as
separate, independent forces. Wilson (1980) says that historic discrimination led to structural and
cultural changes that now continue to oppress the black lower class even though the overt racism
and discrimination of earlier generations is largely gone. Wilson continues by highlighting his
belief that the best way to alleviate the plight of the under privileged is through economic, not
cultural, changes. He believes that “changes in social and economic situations will bring about
changes in behavior and norms” (Wilson, 1980: 138).
Following and drawing from Wilson’s work, Mark Gould (1999) disagrees with Wilson’s assessment that racism is declining; rather, Gould discusses the continued oppression of the black lower-class in terms of “new racism.” He explains that this new racism, based on cultural stereotypes, is still a primary barrier to mobility, particularly for the black poor. Black culture is stereotyped in terms of its perceived opposition to dominant white culture, and as a result, serves as a basis for discrimination. Therefore, according to Gould, culture of poverty scholars are correct in asserting that black lower-class culture is a factor in their continued oppression but he adds that this is only because mainstream society is prejudiced against and devalues black culture. He explains, “Their culture marks blacks as different and this difference is the source of the structural discrimination they encounter. It is the structural discrimination that can turn a difference into a deficiency” (Gould, 1999: 183, emphasis added).

Another point of contention within culture of poverty research is the distinction between lower-class and mainstream values. Early culture of poverty research hinged upon the idea that the poor had a different value set than mainstream society and this value set was seen as oppositional, even defiant (Lewis, 1954; Ogbu, 1994). The poor, especially black, inner-city poor, were seen as rejecting mainstream American values and their lack of success and achievement was attributed to this difference. Some more contemporary scholars echo this idea. Ogbu (1994) for example, citing differences in academic achievement between black and white students, posited that black students did not value academic success as much as whites and therefore did not put as much effort into their studies. New research into the culture of poverty, however, has found the opposite (Chang, et al., 2006; Goyette, 2008). Contemporary scholars explain that the poor share the same core values as mainstream society, however, due to their limited opportunities for success, may have to reevaluate those values in some way. Hyman
Rodman (1963) termed this shift as the “lower-class value stretch.” Rodman asserted that all Americans share the same core values, but that lower-class individuals must “stretch” them based on their position in the social structure. He explains that to avoid constant failure, lower-class individuals necessarily broaden the possibilities for acceptable behaviors and outcomes.

Gould (1999) discusses this same concept in terms of cognitive expectations. He describes cognitive expectations as the altered expectations many poor individuals adopt in response to their limited opportunity for traditional success. He counters earlier scholars saying, “Blacks are not stuck in a ‘culture of poverty’, instead, the value commitments that most maintain are congruent with mainstream values, while the cognitive expectations they have formulated in response to their opportunity structure are accurate and functional” (Gould, 1999:195).

Drawing on these new directions in research on the culture of poverty, many scholars are looking towards studies of future orientation and its predictive value for future outcomes. New trends in research from the adolescent development, education, and social psychology fields suggest surprising parallels with the concepts and processes identified by culture of poverty scholars.

Future Orientation

One of the avenues of study that has been fruitful in this regard has focused on future orientation in poor youth. Future orientation has been extensively studied in a broad range of disciplines. Nurmi (1991) compared over 40 studies examining adolescent orientation to identify trends, similarities, and differences. These studies varied widely in terms of the ages of the adolescents, country of origin, socio-economic status, type of community, and the content and format of the research design. Therefore, the findings of these studies were not easily integrated,
and Nurmi identified several inconsistencies, she also, however, found some surprisingly similar results.

Overall, findings indicated that adolescents typically set goals for the future that coincide with developmental milestones such as finishing education, finding work, and starting a family, and that future orientation for educational and occupational goals increase with age (Nurmi, 1991). Research since Nurmi’s review has continued to support these findings. Chang, et al. (2006) and Kerpelman and Mosher (2004), for example, each found that adolescents typically think ahead to the third decade of life and that they expect their goals to be accomplished in an orderly sequence characterized by education, occupation, and family goals, in that order.

Consistent findings on the influence of demographic characteristics on future orientation are lacking, however. Studies examining the future orientation of racial and ethnic minorities, for example, have found widely different results (Chang, et al., 2006; Nurmi, 1991). Some studies have proposed, following the theories prevalent in the culture of poverty debate, that minority adolescents form their goals for the future in opposition to dominant cultural values (Ogbu, 1974). While others contend that minority youth have the same hopes for the future as white youth, but, because they internalize negative cultural stereotypes, they develop lowered expectations for the future (Kerpelman and Mosher, 2004). Still others, however, have found no racial difference in future orientation. Chang, et al. (2006), for example, studied the life goals of high-school students representing six ethnic groups and found no significant difference in the content of goals, or the time frames set for their expected completion. Similarly, Goyette (2008), in an analysis of nationally representative data on adolescents from 1980 and 2002, found that the relationships between social background characteristics and educational expectations were significantly weaker in 2002 than 1980.
Contradictory results have also been found on the relationship between gender and future orientation. Older studies found gender differences in the content of future plans, such that females were shown to be more oriented towards education and family goals while males were more focused on occupation (Nurmi, 1991). Some more recent studies, however, have found no gender difference in the content or strength of future goals (Goyette, 2008). Still others have suggested that gender differences in future orientation may be the result of cultural and ethnic variations and the associated differences in gender role. Chang, et al (2006), explain that traditional roles for males and females vary across ethnic groups and that for some groups, such as Hispanics and Asians, recency of immigration to the U.S. may also be a factor.

A final demographic variable important to studies of future orientation is socio-economic status (SES). Family income, parents’ education level, or both are often used as proxies for SES in research with adolescents (Corcoran, 1995; Nurmi, 1991). Some studies have shown that lower SES adolescents think more about working life than education, and that overall, high SES has a positive relationship with future orientation (Nurmi, 1991). However, as with race and gender, more recent studies have shown little to no relationship between SES and future orientation (Chang, et al., 2006; Goyette, 2008).

These mixed and inconsistent findings with regards to demographic and future orientation suggest several things. First, as proposed by Goyette (2008), the changing relationship between demographics and future orientation may be reflections of changes in the US economy over the last several decades to emphasize the importance and value of higher education. However, these inconsistencies may also reflect the difficulties in measuring differences of demographic variables independently. Understanding the relationship between race and future orientation without considering the role of SES, for example, is highly
problematic. Many of the studies in Nurmi’s (1991) review, however, either had limited samples (many, for example, focused exclusively on inner-city poor black youth), or did not consider the intersection of race, gender, and SES. Additionally, the inconsistencies discussed here may be resultant of differences in the conceptualization and measurement of future orientation.

Future orientation has been measured in different ways and with different levels of success across and within disciplines (Nurmi, 1991). Some studies have asked open ended questions about goals for the future, and then fit responses into broadly defined categories (such as education and occupation), while others have been more specific about the types, strengths, and timeframes of future goals. Many of these, however still lacked clarity in the definition of what a goal is and what it realistically means for the future. While there is no universally accepted standard, research on the relative utility of different concepts for measuring future orientation, and their predictive power for future outcomes have identified several distinctions.

One of the most developed models for understanding and framing future orientation is the life-span model of motivation (Salmelo-Aro, Aunolo, & Nurmi, 2007). The life-span model says that age-graded demands and opportunities inform the personal goals that individuals construct: educational goals precede occupational and, further, family and leisure goals. The theory continues to say that “goals play an important role in the ways in which people direct their own development, and people adjust their personal goals on the basis of previous role-transitions” (Samelo-Aro, et al., 2007: 708). Therefore, early goal development and achievement is critical for future progress. Individuals who successfully set and achieve early goals will progress more efficiently towards future goals, and their experience of success will encourage them to aim high in the future.
This experiential model mirrors and reinforces the findings of others on the utility of expectations to predict future outcomes. Other studies have looked at different types of achievement orientations. Maatta and Nurmi (2007) identified two types of achievement orientation: adaptive and maladaptive. Adaptive orientations are characterized by high expectations for success, high motivation and level of focus or effort on the task, and high level of internal control. Those with maladaptive orientations, conversely, displayed low expectations, and turned to task avoidance and external control to excuse expected failure (Maatta & Nurmi, 2007). They continue by explaining the recursive and cyclical nature of this relationship whereby adaptive orientations both reflect past success and influence future achievement.

These categories are reflected in the work of Oettingen and Mayer (2002) on the relative strength of expectations and what they term “fantasies” for predicting future outcomes. They define expectations as explanatory judgments based on past experiences that assess the probability of occurrence for future events. By contrast, fantasies are defined as imagined future events, not based on past experiences but merely on the desirability of an outcome (Oettingen and Mayer, 2002:1199). Their paper summarizes the results of four studies focusing on different developmental tasks throughout the life course: achieving academic success, finding a job, securing a romantic partner, and recovering from a serious health threat. All four studies were longitudinal in design, with time frames ranging from two weeks to two years. Across all four studies they found consistent support for their hypothesis that expectations would be better predictors of outcomes than fantasies. Oettingen and Mayer (2002) found that high or low expectations were significantly related to high or low success, while there was little to no relationship between high or low fantasy and outcomes. They found that individuals with high
expectations put forth more effort towards their goal, and were more likely to achieve success, while individuals with high fantasy exhibited less effort and achieved less success.

In a similar study, Stephen Vaisey (2010) used longitudinal data from a sample of poor and non-poor adolescents to examine differences in educational aspirations and expectations and their respective usefulness in predicting actual educational outcomes. He explained that aspirations are hopes and dreams for the future, while expectations are assessments of the likeliness that a goal will be achieved. Vaisey (2010) found that the aspirations of poor and non-poor youth were relatively similar, but that the expectations for poor youth were lower, reflecting their understanding of barriers to their mobility. Even more important for the current study, however, is not these findings, which are in line with numerous other studies (see, for example Duncan et al. 1998; Howard, et al., 2009), but his findings on the usefulness of expectations and aspirations to predict future behavior. For both poor and non-poor respondents, he found that the best predictor of outcomes was when expectations and aspirations matched. When they did not match, however, expectations were overwhelmingly the best predictor, accounting for 71.8% of the variance in future outcomes (Vaisey 2010: 92).

This increased understanding of the distinctions between aspirations and expectations, and their predictive power for outcomes, have led some researchers to look towards emergent themes in social psychology. Research on the development of future orientation in youth can draw insight from studies on the social psychological developmental processes in adolescence. Based on the understanding that past experiences are significant for future orientation, social psychology offers a chance to further examine youths’ self-evaluation processes and how these relate to their future orientation.
Self Efficacy

Research on self-evaluation has used a variety of constructs, all relating to identity and self-concept. Terms such as self-efficacy, self-esteem, locus of control, mastery, and hopelessness are used by researchers in various disciplines to describe different components of an individuals’ self concept.

There is a great deal of literature from psychology and social psychology on self-efficacy, and while early work on this topic focused primarily on physical and mental health outcomes, it is increasingly being used in the social sciences to understand future orientation. There have been parallel themes emerging in research outside of the disciplines of psychology and social psychology as well. Work in the child development field and education research has begun to examine the role of hopelessness in adolescents and their future orientation (Bolland et al. 2005; Bolland et al. 2007). Although the terminology is different, the meanings underlying the concepts approached in these two bodies of work are so similar that they will be discussed concurrently here.

The effects of self-efficacy and hopelessness are many and suggest this is a key area for further study and policy initiatives. Bolland, et al. (2007) found that the prevalence of risk behaviors, such as violence, substance use and abuse, and sexual behaviors, increases as hopelessness increases. They found that violent behaviors were considerably more prevalent among youth who reported high hopelessness, and other risk behaviors including substance abuse, sexual behavior, and even accidental injuries were also more prevalent among high hopelessness youth. Similarly, studies have linked high self-efficacy to a number of positive outcomes such as academic achievement, healthy lifestyles, and ability to negotiate risk (Gecas
1989; Nebbitt 2009). Bandura (2006) explains in more general terms how self-efficacy influences almost all areas of an individual’s life:

Perceived efficacy plays a key role in human functioning because it affects behavior not only directly, but by its impact on other determinants such as goals and aspirations, outcome expectations, affective proclivities, and perception of impediments and opportunities in the social environment. (p. 309)

The development of self-efficacy is based on interactions between the individual and their environment (Bandura 1977). The concept of self-efficacy examines a facet of self-concept or self-evaluation that is missed by other measures such as self-esteem or, in sociology, the looking-glass self. These concepts describe the individual as passive, and emphasize the role of external sources of self-concept. Self-efficacy offers a balance to these by allowing for the active and creative vision of the individual in defining himself or herself. As Gecas and Shwalbe (1983) explain:

“Beyond the looking-glass self is a self that develops out of the autonomous and efficacious actions of the individual. It is a self that derives its experiential locus not primarily from the imagined perceptions of others, but from the sense of volition or causal agency and its consequences” (p. 79).

They go on to explain, parallel with Bandura and following the tradition of Marx, that humans are motivated to experience themselves as causal agents in their environments. Their assessment or evaluation of their ability to act as such is self-efficacy. It is developed through individuals’ interaction with their environment: the consequences of our actions form the basis of our knowledge of the environment and ourselves.

Because self-efficacy is deeply rooted in an individual’s environment, the effect of social structure on the development of self-efficacy cannot be ignored or minimalized. Most importantly, self-efficacy depends on an individual’s opportunities to engage in efficacious action (Bandura 1977, Gecas 1989). As various social structures such as age, gender, race, and
socio-economic status both enable and constrain an individual’s opportunities for efficacious action, they therefore enable and constrain the development of positive self-efficacy. Research into the relationship between social structure and self-efficacy, however, has demonstrated that the link between them is not so clear and straightforward.

In their study of race and gender differences in self-efficacy, Buchanan and Selmon (2008) found that overall, blacks had lower self-efficacy than whites, and men had higher self-efficacy than women. However, in looking more closely at the relationship between gender and race as they relate to self-efficacy, they found more nuanced results. Overall, white males reported the highest self-efficacy, which is in keeping with other studies (Rollins & Valdez 2006; Tashakkori & Thompson 1991), but contrary to other work, they found that black females reported self-efficacy levels almost as high as white males, and significantly higher than white females. From these findings, Buchanan and Selmon (2008) concluded that the relationship between race and self efficacy is moderated by gender.

In another study, Bolland et al. (2007) found gender differences in hopelessness among poor youth. He found that males were almost twice as likely as females to express high levels of hopelessness. This parallels Nebbitt’s (2009) finding on self-efficacy and poor African American youth. He found that females were more likely to report high levels of self-efficacy than males. Interestingly, however, Gecas (1989) reports that, in studies of the general population, males have been consistently found to report higher levels of self-efficacy than females.

Other studies have examined additional mediating factors to help explain race, gender, and class differences in self-efficacy. In his study of poor African American youth, Von Nebbitt (2009) examined family and social factors that influence self-efficacy and found that social cohesion, maternal support and monitoring, and attitudes towards deviance were all significantly
related to self-efficacy. Research on the origins of hopelessness among poor youth has found similar results. Bolland et al. (2005) conducted research into the development of attitudes of hopelessness among inner city black youth and found that hopelessness was not merely a universal, structural factor of poverty, but that disruptive events such as change in mother figure, witnessing violence, traumatic stress, and worry led to increased hopelessness over time. They explained that youth in poverty are more likely to experience these events and less likely to have adequate support to mediate their disruptive nature.

A further contributor to inconsistencies in self-efficacy research is the lack of clear measurement tools. There are a number of self-efficacy scales, ranging from the task specific scales developed by Bandura (2006), to the general and global scales of Gecas (1971) and Sherer et al. (1982). Each of these has been used with some success, however, none seem to be truly effective at teasing out the nuanced differences between self-efficacy and other concepts of self-evaluation. Bandura’s scales are so task specific that they lack general application, and the global scales of others may be better measures of self-esteem than self-efficacy.

The primary problem with all of these measures is one of interpretation. With survey questions especially, it is difficult to achieve the level of nuance required by these complex concepts. It is very difficult to conceptualize self-efficacy in such a way that other self-evaluation concepts are not overlapping. As research on these subjects continues, it is hoped that the operationalization of concepts used and tools for their measurement will continue to evolve and be refined. As this process is ongoing, researchers and their audiences should continue to reflect critically on the use of self-efficacy and related concepts, and on the way they are measured and defined.
The above concerns for measurement notwithstanding, the value of research into self-efficacy is tremendous, and its potential for illuminating answers to the questions of intergenerational poverty is great. Further research should continue to examine the long-term outcomes associated with self-efficacy and hopelessness, expanding beyond education to include outcomes such as occupational attainment, and social measures such as family structure, social networks, and life satisfaction. Additionally, more work needs to be done to increase our understanding of causes and effects of these self concepts, with the focus on identifying areas for targeted interventions. The study proposed here offers a beginning toward these aims by examining the relationship between socio-demographic characteristics, self-efficacy, and future orientation.

The interplay of the above presented findings on the culture of poverty, future orientation, and self-efficacy offer an opportunity to fuse these distinct concepts and paradigms into a model that allows for more complete understanding of the life chances of adolescents in contemporary America. The concepts of expectations and aspirations are closely related to the value discussions found in the culture of poverty literature, and to the self-efficacy and self-esteem discussion in social psychology. The primary distinction in all of these discussions is the interaction of past experiences and structural limitations on orientation towards the future. These concepts can work together to offer a more complete understanding of mobility and life chances in the US, but only if they are appropriately defined and applied.

RESEARCH MODEL

As discussed above, research into self efficacy has indicated that it is strongly correlated with beneficial outcomes. However, the nature of this relationship and its direction have not been clearly defined. Therefore, I propose in this study a model that can be used as a framework for
further research. I propose that socio-demographic characteristics influence self-efficacy, and that self efficacy and socio-demographic characteristics influence aspirations and expectations for the future which, in turn, influence future outcomes. This relationship is expressed graphically in Figure 1.

**Figure 1. Future Orientation Model**

![Future Orientation Model Diagram](image)

The present study will focus on the first step in this model by examining the relationship between socio-demographic characteristics and self-efficacy and future orientation.

**RESEARCH QUESTIONS**

To investigate the model proposed here, the following research questions are advanced:

1. Do the socio-demographic characteristics of sex, race, grade level, and parents’ education influence educational expectations? (2) To what extent does self-efficacy explain unique variance in educational expectations above and beyond that explained by demographics?

**RESEARCH METHODS**

In order to answer these questions, data from the Monitoring the Future: A Continuing Study of American Youth series (hereafter MTF) will be used. This series of annual surveys, whose principle investigators are from the University of Michigan Institute for Social Research, with funding from the US Department of Health and Human Services, the National Institute of Health, and the National Institute of Drug Abuse, was designed to explore changes in important values, behaviors, and lifestyle orientations in contemporary American youth. The surveys began in 1975 with twelfth grade students only, eighth and tenth grade student surveys were added in
1991. The present study will utilize the 2009 eighth and tenth grade surveys. Data is publicly available and was accessed through the Inter-University Consortium for Political and Social Research (ICPSR). This data source is appropriate for use in the current study for many reasons, most importantly for the ability to measure key variables among a nationally representative sample of youth. N=10,565 for the combined eighth and tenth grade sample.

Sample

The MTF study uses a three stage probability sample design to draw from a population of eighth and tenth grade students in the contiguous United States. Stage one involves the selection of geographic areas using census tract data. Stage two is the selection, with probability proportionate to size, of one or more schools in each area. Finally, stage three is the selection of classes within each school.

Administration

Surveys were administered in schools by local Institute for Social Research representatives and their assistants. The questionnaires were group administered in classrooms during normal class periods. Ten days before administration, students and parents were given information explaining the study, and parental consent was obtained. The response rate for the 2009 survey used here was 89% for eighth grade students and 88% for tenth grade students.

Data Analysis

First, descriptive statistics, including frequencies and means, of key variables for this sample are presented and analyzed to enhance understanding and illustrate the relationships between the concepts studied. Further, to evaluate the effectiveness of the model proposed here for predicting future orientation, ordinary least squares (OLS) regressions were run using SPSS statistical software. Step-wise OLS regressions, with independent (sex, race, grade level, parents’
education level, and self-efficacy) and dependent (educational expectations) variables, drawn from the proposed model, were run. In addition to examining the strength of the model as a whole, step-wise regression allows for the examination of the independent strength of demographic variables and self-efficacy in the prediction of educational expectations.

Key Measures

The dependent variable in this model is educational expectations. The MTF study asks students about the strength of their plans for the future. Respondents were asked: “How likely is it that you will graduate from college” 1 “definitely won’t”, 2 “probably won’t”, 3 “probably will”, or 4 “definitely will.”

In order to assess the applicability of the model proposed here, and to effectively answer the research questions, independent variables measuring both self-efficacy and socio-demographic characteristics were chosen.

Self Efficacy

The MTF study covers a number of topics that coincide well with both Bandura’s and Gecas’s definitions of self-efficacy, and assess measures of hopelessness that can also be found in the literature. For this project, three variables from the MTF will be used to measure self-efficacy. Students were asked to choose from a Likert-style scale how much they agree or disagree with these statements: “I am able to do things as well as others,” “the future often seems hopeless,” and “I feel I can’t do anything right.” To combine these variables into a self-efficacy scale, the second two were recoded so that high values are accorded to responses that indicate high self-efficacy. Means of these three variables were combined, so long as there were two or more valid observations in each case. This procedure was used so that respondents who only
answered one of the three self-efficacy questions were excluded, allowing for greater validity in the measure.

To determine the reliability of the constructed scale variable a scale reliability test was conducted. Using the Cronbach’s Alpha Coefficient (Sweet and Grace-Martin, 2008) this self-efficacy scale attained an alpha value of .623. Sweet and Grace-Martin explain that values of .7 or greater are preferred for scales that include four or more indicators. As the scale constructed here includes only three indicators, values over .6 are acceptable.

Socio-Demographic Characteristics

To complete the model, independent variables measuring socio-demographic characteristics (sex, race, and grade level) were included. Sex was recoded and will be treated as a dummy variable with females (0) and males (1). The MTF includes a recoded variable for race with the categories white, black, and Hispanic. All other responses were recoded into missing by the project administrators so only those three race categories were retained. For this study, dummy variables were created for blacks and Hispanics, with whites as the reference category in the multivariate model. A dummy variable was also created for grade level: eighth (0) and tenth (1).

To further enhance the model, a variable measuring parents’ highest education level was included. In the MTF study, respondents were asked “What is the highest level of schooling your father (and, separately, mother) completed” 1 “completed grade school or less” 2 “some high school” 3 “completed high school” 4 “some college” 5 “completed college” 6 “graduate or professional school after college” 7 “don’t know or does not apply”. For this study, “don’t know or does not apply” was recoded into missing so that higher responses would reflect higher levels
of schooling. Finally, these two variables were used to compute a new variable that retained the highest level of education reported for either parent.

RESULTS

Preliminary Analysis

After selecting variables for analysis, frequencies and means across continuous variables were calculated to assess the distribution of cases across key indicators. Descriptive statistics and means are presented in Table 1.

The majority of this sample identified their race as white (65.5%), Hispanic respondents were the largest minority at 18.2 percent, and black respondents made up the remaining 16.3 percent of the sample. It is important to note that the MTF study authors selected out just these three racial categories to retain in the publicly available data set. All other responses, including multiple responses, were coded as missing, therefore 1,871 (17.7%) of the total cases for this variable were missing.

There are slightly more females (51%) than males (49%) in this sample, and more 10th grade respondents than 8th (51.3% and 48.7% respectively). On average, students in this sample reported that one or both of their parents had at least some college, and the majority had a college degree or higher (58.2%). Overall, white parents’ had the highest education and Hispanic parents the lowest. Males reported slightly higher parents’ education than females ($\bar{X}=4.52$ and 4.44, respectively) although explanations for this finding are unknown, as it is highly unlikely that parents’ level of education has an influence on the sex of their child. Tenth grade students reported that their parents’ had slightly more education than eighth grade students ($\bar{X}=7385$ and 4.43, respectively).
Overall, self-efficacy for this sample was relatively high ($\bar{X}=4.04$), and fairly stable (SD=.92; range=4). Hispanic respondents had the lowest self-efficacy ($\bar{X}=3.90$), but there was no substantial difference in between blacks and whites. Males reported slightly higher self-efficacy than females ($\bar{X}=4.08$ and 4.01, respectively).

There is relatively little variance overall in future educational expectations by these demographic characteristics (SD .73), and the overwhelming majority of students expect to graduate from college (90.9% answered either probably or definitely will). There were, however, substantial differences found among all racial categories, with black students reporting as the most likely to expect to graduate from college, and Hispanic students the least ($\bar{X}=3.63$ black, 3.55 white, 3.37 Hispanic). Female respondents were more likely than males to expect to graduate from college ($\bar{X}=3.63$ and 3.44, respectively). There was little difference in educational expectations by grade level.

Predicting Educational Expectations

In order to better understand the relationships between these variables, and to answer the primary research question by examining the independent influence of self-efficacy on educational expectations, OLS regressions were run to test the proposed model. Step-wise regression was utilized, and educational expectations was first regressed on the demographic variables of sex, race, and grade. Parents’ highest education level was added in the second step, self-efficacy in the third and final step. Results from all four regression equations are presented in Table 2.

In the first step of this regression, both gender and race were significant predictors of educational expectations, but grade level was not. Of these four variables, gender seems to be the most predictive, with the highest standardized coefficient (-.139), although none of the variables
are very strong. The R Squared for this model is .024, indicating that just 2.4 percent of the variance in educational expectations can be explained by these variables alone.

Parents’ education was added to the model in the second step, and was found to be a significant predictor of educational expectations. The Beta coefficient of .279 for parents’ education is the highest in the model at this point, suggesting that it is a stronger predictor of educational expectations than any of the other demographic variables. Accordingly, the adjusted R squared of .094 for this step represents a significant increase from the first. The unstandardized coefficients (\(b\)) for gender and black race increased in strength when parents’ education was added, and the relationship between Hispanic race and educational expectations changed directions, but was no longer significant.

In step three of the model, self-efficacy was added and was found to have a positive effect on educational expectations. Youth with higher self-efficacy were significantly more likely than those with lower self-efficacy to expect to graduate from college. It can further be seen, based on the downward change of the regression coefficient for parents’ education, that some of the influence of parents’ education on educational expectations of youth is mediated by self-efficacy.

Overall, parents’ education is the strongest predictor of educational expectations. Self-efficacy, however, is still a stronger predictor than gender, race, and grade level. Of the variables included in the final regression equation, only grade level was not a significant predictor of educational expectations. Of the demographic variables, gender was the strongest predictor, while the dummy variables for black and Hispanic race were less strong. Based on these final results, when controlling for all other variables, females report higher educational expectations than males, and blacks and Hispanics report higher expectations than whites. Students with
higher self-efficacy and parents’ education are more likely to expect to graduate from college than their peers with lower responses on those variables. The final adjust R-squared of .139 suggests that these variables together explain 13.9 percent of the variance in educational expectations among the adolescents in this sample, a highly significant improvement over previous steps.

**DISCUSSION**

The purpose of this study was to examine the influence of demographic characteristics and self-efficacy on educational expectations in middle and high school youth. While previous studies have found mixed results with regards to racial differences in both self-efficacy and future orientation, the present study found especially significant differences between Hispanic respondents and their black and white peers. Hispanic students reported lower self-efficacy, and lower educational expectations than other youth, as well as reporting lower parents’ education and lower GPA. Relatively little of the future orientation and self-efficacy research in the US focuses on this population, with the majority of the available studies grouping Hispanics with blacks and other minorities.

The very significant difference in parents’ education for Hispanic youth compared to their white or black peers is especially important. Hispanic students report parents’ education levels far lower than their black and white peers. Over one half (56.4%) of Hispanic respondents reported that the highest level of education attained by either parent was a high school degree or less, compared with less than one third of white and black students (21.2% and 31.8%, respectively). These findings are consistent with other studies. Chang, et al. (2006), point out that Hispanic parents are more likely to be recent immigrants to the US compared with their white and black counterparts, and different educational norms between their countries of origin and the
US may account for some of this disparity. It will be helpful, in the future, to include measures of recency of immigration to the US, and to track trends in parents’ education over time to see if this gap narrows. As parents’ education level has a significant influence on children’s educational expectations, this will continue to be an important relationship to consider.

Post-Hoc Analysis

While there is relatively little difference between girls and boys and blacks and whites on self-efficacy and educational expectations, findings from previous literature on the importance of considering the intersection of sex and race led me to perform further analysis (Buchanan & Selmon, 2008; Goyette, 2008; Tashakkori and Thompson, 1991). Layered means comparisons for self-efficacy and educational expectations by sex and race were run. The results of these post-hoc tests can be found in Table 3.

While overall differences between males and females were not substantial, some interesting results were found in the post-hoc analysis that also considered race. White males had the highest self-efficacy, followed by black females, white females, black males, and finally Hispanic males and Hispanic females. Both white and Hispanic males have higher self-efficacy than females ($\bar{X}=4.14$ and 4.06 for white males and females, and $\bar{X}=3.97$ and 3.84 for Hispanic males and females, respectively). However, black males report slightly lower self-efficacy than black females ($\bar{X}=4.07$ and 4.09, respectively). Although the difference is small, these findings are supported by previous literature which suggests that the relationship between gender and self-efficacy is at least partially mediated by race (Bolland, et al., 2005; Buchanan and Selmon, 2008).

The relationship between race and sex and educational expectations was also further explored. Looking at gender alone, females had higher educational expectations than males, and
this finding is in keeping with numerous other studies (see, for example, Chang, et al., 2006; Nurmi, 1991; Wang, et al., 1999). In the bivariate tests, black respondents were the most likely of the three racial categories to expect to graduate from college, and Hispanics were the least. The finding for black respondents is in contrast to much of the available literature on race and educational expectations, especially the work from the culture of poverty paradigm. As previously discussed, much of this work focuses on the idea that minority youth hold different values than their white peers, and even those who disagree with this idea, suggest that the goals of minority youth are stretched, or lowered in some way (Gould, 1999; Rodman, 1963). That Hispanic respondents were the least likely, however, is not surprising, and in keeping with previous literature suggesting that minorities are less likely than their white counterparts to expect to graduate from college (Howard, et al., 2009; Vaisey, 2010).

In the post-hoc, layered analysis, black females were found to be the most likely to expect to graduate from college, followed by white females, black males, white males, Hispanic females, and Hispanic males. That white males in this sample were less likely to expect to graduate from college than white females, black females, and black males is surprising. Previous work has suggested that women have higher expectations than males, but these findings are typically reported without considering race, or within one racial category only (Goyette, 2008; Samelo-Aro, et al., 2007). It may be that white males in this sample are more orientated towards occupational goals, and do not see college graduation as a necessary step in their future, or it may be that white females and black males and females recognize the barriers to employment and future success that stand before them more so than white males, and see college education as a means to overcome those barriers.
Another possible contributor to the higher educational expectations of females across racial categories could be their parents’ education levels. Although in the regression model mothers’ and fathers’ education levels were combined, examining them separately was illuminating to these findings on gender and educational expectations. Mothers had significantly higher education than fathers in this sample ($\bar{X}=4.12$ and $3.98$, respectively; $p=.000$), and this pattern holds across all racial groups. Mothers with higher education levels may stand as role models to their daughters in particular for the value of pursuing educational goals (Howard, et al., 2009).

In addition to highlighting gender differences in educational expectations, the combined measure of highest parents’ education used in the multiple regression model has important and strong significance as a predictor of educational expectations for the adolescents in this study. It is with the inclusion of parents’ education in the second step, that we see the effects of both gender and race on educational expectations most clearly. Several interesting changes can be seen in the coefficients of the demographic variables after the addition of parents’ education. Most interesting, all of the variables gained strength, with the exception of Hispanic race, which changed direction.

The effect controlling for parents’ education has on Hispanic race is especially illuminating to this relationship. In the first model, without controlling for parents’ education, the relationship between Hispanic race and educational expectations was negative, indicating that Hispanic respondents are less likely than their white peers to expect to graduate from college. When parents’ education was added to the model, however, the relationship becomes positive. Controlling for parents’ education, Hispanic youth are actually more likely than their white peers to expect to graduate from college. In other words, Hispanic youth whose parents have education
levels equal to that of their white peers are more likely to expect to graduate from college. However, since their parents are on average less highly educated, and parents’ education is positively correlated with educational expectations, the influence of race is suppressed by the effect of their parents’ lower education. Parents’ education has the same effect, although to a lesser degree, for blacks and females.

One of the primary aims of this study, in addition to testing the proposed model, was to examine the utility of self-efficacy to predict educational expectations independent from demographic variables. The regression results support the independent predictive value of self-efficacy. While its strength was less than parents’ education, it was higher than race, sex, and grade level. Additionally, its utility independent of a proxy measure of opportunity (parents’ education) is encouraging. The goal of this research is not to suggest that self-efficacy should eclipse other, structural variables, but to highlight its value in addition to them.

Overall, the findings presented here support the growing body of research across disciplines that is recognizing the need to address both individual and societal concerns when studying future orientation. As this model shows, neither alone are strong enough predictors of educational expectations, and it is only when they are considered together than one can begin to understand the whole.

LIMITATIONS

The use of secondary data may have resulted in weaker measures of both self-efficacy and educational expectations than if these concepts had been the focus of the original study. Only three variables from the MTF were chosen to include in the self-efficacy scale used here, and many global self-efficacy scales have a minimum of six or seven items (Gecas, 1971; Sherer, et al., 1982). Not only does this make scale reliability tests less stable, but the specific variables
included the scale heighten concerns present in many self-efficacy studies on the potential overlap with self-esteem.

There are also some concerns with the dependent variable measure of educational expectations and its potential for predicting future outcomes. The relative homogeneity of the sample on educational expectations indicates that there may be some blurring between aspirations and expectations. 65.4 percent of the sample reported that they definitely will graduate from college, and 25.5 percent said that they probably will. According to a report by the US Department of Education (2010), 68.1 percent of 2008 high school graduates went on to enroll in college, and approximately 57 percent of first-time students seeking a bachelors degree at a four year university in 2001-2002 completed that degree within six years. These statistics show that the educational expectations of students in this sample may be overly optimistic when compared with the national average outcomes. While it is understood that there would be some difference between expectations and outcomes, the differences seen here may be more substantial.

Another important limitation of this study is the lack of an effective measure of SES. Although parents’ education has often been used as a proxy for SES (see, for example, Corcoran, 1995; and Duncan, et al., 1998; Nurmi, 1991) its value for that purpose in the present study is questionable. Because the dependent variable here is educational expectations, it is impossible to separate the influence of parents’ education on respondents’ educational expectations that is due to SES as opposed to modeling or exposure.

CONTRIBUTIONS AND FUTURE RESEARCH

The above limitations notwithstanding, the present study contributes importantly to the growing body of interdisciplinary work on intergenerational transmission of poverty, self-
efficacy, and future orientation. Especially, this study helps to situate previous work on self-efficacy and future orientation within the broader literature on the intergenerational transmission of poverty, highlighting its importance for sociological scholars of poverty. It further supports and reinforces the need to transcend traditional divisions between micro and macro, structure and personality, by highlighting the interplay between them. As research on these topics moves from theory to practice, understanding the recursive relationship between the individual and society is paramount and the findings of this paper help to support that.

Further, and primary to the research design, the findings presented here support the utility of self-efficacy for predicting future orientation, independent of demographic characteristics. This study adds to previous work on this topic and lends its weight to the growing body of support for interventions that target self-efficacy in youth. However, while the adjusted R-square of .139 for the overall model is satisfactory, especially considering the above limitations, it should be interpreted for what it really says: that 13.9 percent of the variance in educational expectations for this sample can be explained by the model, while 86.1 percent cannot. While some of this may be due to problems measuring key variables, a large majority of the unexplained variance in educational expectations should be understood to be explained by factors not considered here.

The importance of these and previous findings should not be dismissed, however. The dominance of structural explanations for intergenerational poverty can make the problem seem impossible to tackle, and while we should continue to advocate for the breaking down of structural barriers to mobility, the identification of independent predictors for future orientation that go beyond structural factors and can be the immediate target of person-level interventions is critical. These findings have real world implications for policy and program implementation.
The potential for application in educational settings is most obvious. I suggest that if future research supports the present findings, than classroom level interventions should be designed with the goal of increasing self-efficacy in students. There has been a great deal of attention paid to self-esteem in educational settings over the past decade (see, for example, Hewitt, 1998; Maatta, et al., 2007). It is my belief that this effort could be re-focused towards self-efficacy to achieve better results. If self-efficacy is considered as curriculums are developed, regular classroom exercises could be designed that parallel traditional teaching methods with the latent function of increasing self-efficacy. As self-efficacy is experiential, and based on realistic expectations for achievement, there is real potential for youth who realize increased self-efficacy to apply those gains to their plans for the future.

Additionally, the present findings on self-efficacy have implications beyond an educational setting. Its potential for use within the social work field is also great, and especially personal for this author. My work with the Temporary Aid for Needy Families (TANF) program has illuminated the possibilities for increasing the self-efficacy of recipients. TANF recipients in North Carolina are required to participate in employment services activities, such as job readiness classes, as part of their ongoing eligibility for cash assistance. These programs can be designed with self-efficacy in mind so that along with building concrete skills for the workforce participants are building their self-efficacy. Additionally, interactions between social workers and clients can be structured in a way to increase self-efficacy through experiences of successful efficacious action. If these changes are implemented successfully, recipients may achieve swifter progress towards welfare independence.

There may also be similar benefits for considering self-efficacy in other employment and retraining programs. Kerpelman and Mosher (2004) report that among a sample of long term
unemployed men, those with higher self-efficacy re-entered the work force sooner than those with low self-efficacy. As the US economy changes and many workers have to transition into new fields, re-training programs that also work to develop positive self-efficacy are suggested. In these situations, it may be especially helpful to focus on task-specific self-efficacy. Workers who are forced to change career paths may have high global self-efficacy, or may have high task-specific self-efficacy in their former trade, but that self-efficacy would not necessarily transfer to their new field. If retraining programs consider the importance of building task specific self-efficacy along with the new skills required for a career change, unemployed workers may experience a faster and smoother transition back into the workforce.

While there is relatively little empirical research on programs and interventions such as those suggested above, the findings of this and other studies linking self-efficacy to positive orientations and outcomes lend strong support to suggest its potential utility in diverse settings.

Future research should continue to refine and clarify the measurement of key concepts, especially self-efficacy and future orientation. These constructs are clearly important in the educational trajectories of youth, and clarifying the relationships among them can help identify areas for intervention targeted at improving their future opportunities. Additionally, longitudinal studies that are able to test the validity of the full model, going beyond the present study to include future outcomes are also proposed. Finally, additional research should be undertaken to design and test programs and interventions aimed at positively influencing self-efficacy, such as those discussed above. A fuller understanding of the development of self-efficacy in adolescents and adults will allow for expansion on previous work, and policy changes with respect to programs targeted at elevating the poor will hopefully follow.
REFERENCES


Table 1. Descriptive Statistics and Means for all Continuous Variables

<table>
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<th>Self-Efficacy Mean</th>
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<sup>a</sup>n=8,694, <sup>b</sup>n=10,176, <sup>c</sup>n=10,521

Table 2. Summary of Step-Wise Regression Analysis Predicting Future Expectations

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<td>.009</td>
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| Adjusted R² | .024 | .094 | .139 |
| Change in R² | ---- | .070 | .045 |

Note: *B*=unstandardized regression coefficient; *Beta*=standardized regression coefficient.
*p<.05  **p<.01  ***p<.001
Table 3. Means for Self-Efficacy and Educational Expectations by Sex and Race

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<sup>a</sup>n=7,452  <sup>b</sup>n=8,395