Structural Poverty and College Enrollment: The Impact of Rural American Determinism

Bryan Robinson
brobinson05@bellarmine.edu

Follow this and additional works at: https://scholarworks.bellarmine.edu/tdc

Part of the Other Education Commons

Recommended Citation

This Dissertation is brought to you for free and open access by the Graduate Research at ScholarWorks@Bellarmine. It has been accepted for inclusion in Graduate Theses, Dissertations, and Capstones by an authorized administrator of ScholarWorks@Bellarmine. For more information, please contact jstemmer@bellarmine.edu, kpeers@bellarmine.edu.
Structural poverty and college enrollment:
The impact of rural American determinism

Bryan Robinson
Bellarmine University
Louisville, Kentucky

Submitted to the faculty of Bellarmine University
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy (Ph.D.)
Fall, 2017
STRUCTURAL POVERTY

Abstract

The pervasiveness of generational poverty in the US and the potential of a postsecondary (college) education to serve as an ameliorator and catalyst for societal change – both in individual, familial and broader community contexts – is established in the literature (Enberg & Wolniak, 2010; Kaufman, 2014; Turley, 2009; Rank, Yoon & Hirschl, 2015). Rank et al. (2003) found that American poverty is structural in nature as it relates to the labor market and related ineffective social policy, resulting in predictable and repetitious cycles of systemic and generational poverty, which is particularly relevant in rural contexts. Tickameyer and Duncan (1990) noted that “rural areas have a disproportionate share of the US poverty population (p. 67). Landon (2009) noted that an overwhelming majority of high-poverty US counties are rural (p. 14). The present study advances structural theory by adding and measuring educational factors; and examining and measuring rural educational, familial and socioeconomic structural factors in Kentucky counties and its secondary schools as potential predictors for college enrollment. Results highlighted a significant interaction effect between poverty and rural location; and further demonstrated the normative relationship between employment rate; poverty line placement; rate of single parent households; quality of secondary school programming and access to AP courses; and the concentric presence of institutions of higher education as structural factors impacting and predicting college enrollment in Kentucky.

Key terms: poverty, rural schools, determinism, mobility, generational poverty, secondary-postsecondary nexus, human capital, geography of opportunity
ACKNOWLEDGMENTS

I wish to acknowledge and thank Dr. Fred Rhodes, my mentor, Professor and friend, for teaching and assisting me literally every step of the way on my doctoral journey.

I also wish to acknowledge and thank Drs. Grant Smith and Kristin Wilson, my Professors and friends, for their expertise and guidance along the way. I simply could not have completed this research without you.

I also wish to acknowledge and thank the faculty and staff of Bellarmine University for providing me an excellent education and student experience, particularly Dr. Kathy Cooter.
First and foremost, I want to dedicate this work to my wife, Kathy Kessinger Robinson, and our four wonderful children, Madalynn Grace Robinson, Rex Robinson, Klayton Robinson and Koleton Robinson. Thank you for your patience and for your support during my doctoral work. I love you always.

I dedicate this work to my mother, Melanie Hager, for her endless love, support and encouragement.

I dedicate this work to my grandmothers, Mary Elizabeth Robinson and Mona Miller, both of whom always supported my dreams.

Finally, I dedicate this work to Sister Rosalba Gatt, my principal, teacher, spiritual advisor and friend.
Table of Contents

ABSTRACT .................................................................................................................. 2

ACKNOWLEDGEMENTS ......................................................................................... 3

DEDICATION ............................................................................................................. 4

CHAPTER ONE – GENERATIONAL POVERTY IN KENTUCKY – A MICROCOSM OF RURAL AMERICA............................................................ 8

THE PROBLEM: RURAL POVERTY RESEARCH; RURAL SCHOOLS; AND RURAL DETERMINISM................................................................. 9

Education as an Ameliorator .................................................................................. 10

THE PRESENT STUDY ............................................................................................. 11

Conceptual Framework ......................................................................................... 11
Methodology ......................................................................................................... 12
Limitations ............................................................................................................. 12
Definition of Key Terms ..................................................................................... 13

CHAPTER TWO – LITERATURE REVIEW ............................................................. 15

POVERTY RESEARCH AND THE IMPACT OF POVERTY................................. 16

The Effects of Poverty .......................................................................................... 19
Urban ‘Versus’ Rural Poverty .............................................................................. 22

THE RURAL DYNAMIC .......................................................................................... 23

Motivation and Behavioral Economics .............................................................. 25

Motivation ............................................................................................................. 25
Behavioral Economics ......................................................................................... 27
Spatial Inequality and Economic Distance......................................................... 28

THE RURAL FAMILY .............................................................................................. 29

Birth ....................................................................................................................... 30
Parenting and Perceptions .................................................................................. 31
Female Single Parenting .................................................................................... 32
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL SECONDARY EDUCATION</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>The Rural Secondary Student</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>The Rural Family’s Relationship with Rural Secondary Education</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>The Rural Secondary School</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>What Does Success in Rural Secondary School Look Like?</td>
<td>38</td>
</tr>
<tr>
<td>STRUCTURAL POVERTY AND COLLEGE ENROLLMENT</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>The Interdependent Roles of the Family and the Secondary School for Increased College Enrollment</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Quality and College Enrollment: The Secondary – Postsecondary Nexus</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Rural Poor and Proximity to College</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Structural Poverty and Kentucky</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>CHAPTER THREE – METHODOLOGY</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Context and Setting</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Participants and Sampling</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Data Collection</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Analysis Design</td>
<td>57</td>
</tr>
<tr>
<td>CHAPTER FOUR – FINDINGS</td>
<td></td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Findings</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>63</td>
</tr>
<tr>
<td>CHAPTER FIVE – SUMMARY AND DISCUSSION</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>SUMMARY AND DISCUSSION</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Synthesis of Findings</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Implications</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Limitations</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Future Research</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Recommendations</td>
<td>67</td>
</tr>
</tbody>
</table>
Assisting the Rural Educators.......................................................... 68
Self-awareness............................................................................. 69
Is Poverty Solvable?....................................................................... 73
CONCLUSION.................................................................................. 75
References...................................................................................... 78
Appendices ..................................................................................... 92
Structural Poverty and College Enrollment: The Impact of Rural American Determinism

Chapter One

Generational Poverty in Rural Eastern Kentucky – A Microcosm of Rural America

Phillips, Harper, and Gamble (2007) noted the picturesque view of rural America for most US citizens which includes “fresh air, garden vegetables, vacation Bible school, ice-cold lemonade and playing outdoors with friends”; however, for literally millions of children whose generation lives in deep, persistent and profound rural poverty, time spent away from school includes consistent hunger and hours upon hours of unsupervised weariness, restlessness and tedium (p. 65). The authors referenced that child poverty rates in recent years are increasingly higher in rural areas (Phillips et al., 2007, p. 65). Amato and Zuo (1992) presented that given the inherent spatial diffuseness of individual neighborhoods in rural contexts, the lack of a ‘sense of community’ and common and shared destiny among the rural poor contribute to a palpable sense of “failure and inadequacy” among entire rural families, particularly impacting children and their sense of educational and other future opportunities (p. 231).

The purpose of the present study through analyses of variance and covariance is to advance structural poverty theory by combining socioeconomic and educational factors to determine their impact on two- and four-year college enrollment in Kentucky. Results provide a useful and significant model for future interventions across rural areas of the United States to improve college enrollment. Kentucky counties were analyzed identified via general poverty indicators such as unemployment rate; rate of single parent households; poverty rate; development indicators; and proximity to state colleges and universities.
The Problem: Rural Poverty Research; Rural Schools; and Rural Determinism

Tickameyer and Duncan (1990) noted that concern with urban poverty is deeply rooted in the social sciences in the US; and that only as recently as the 1980s did significant study of rural poverty to determine causality begin in earnest. Through their research, the authors found that rural generational poverty in the US is directly attributable to a “limited opportunity structure” affecting educational and vocational opportunities, and further presented that “many rural areas lack stable employment, opportunities for mobility, investment in the community and diversity in the economy and other institutions. (Rural areas) are increasingly socially and spatially isolated and particularly vulnerable to adverse effects from structural economic change” (Tickameyer & Duncan, 1990, p. 67). Rural poor tend to “seek stable, secure support” and are constrained by a limited opportunity structure (Tickameyer & Duncan, 1990, p. 67). Importantly, the rural poor place a high value on the dignity of work and independence, but constant and persistent disappointment render them dependent on government assistance and/or local family whom they may turn to during difficult circumstances (Tickameyer & Duncan, 1990, p. 74). This has a cumulative effect on generations of family members, and particularly young adults in secondary school who struggle to see a positive future for themselves. A more positive and supportive environment in a rural poor home can be affective for improved educational and life outcomes for rural poor youth; and the opposite can have deleterious and seemingly permanent consequences. Rural parents and caregivers, even when well-intentioned and supportive of their youth, often experience feelings of confusion and intimidation by process and communication with educators, thus resulting in a lack of proper planning and reduced rates of college enrollment (An, 2013; Crosnoe, 2001; Hayes, 2011; Deslandes & Bertrand, 2005).
Education as an Ameliorator

Kaufman (2014) noted that education “has always been viewed as the medium through which individuals can achieve upward mobility”; and that there is “no denying” that individuals who have a college degree are “more likely than those without a college degree to hold professional, middle-class occupations” (pg. 37-38).

Secondary schools and other community stakeholders play a crucial role in these rural contexts, whether positive or negative, as it relates to outcomes for college enrollment and improved life outcomes for poor rural youth. Rowan-Kenyon, Bell and Perna (2008) found that “structural barriers” constrain lower socio-economic (SES) students relative to their receipt of required information from schools for postsecondary educational opportunities (p. 568). These “barriers” include a lack of trust and substance in relationships between lower SES students, parents and practitioners; limited time for significant interactions between students, parents and practitioners; and the presence of unproductive “bureaucratic processes” within schools (Rowan-Kenyon et al., 2008, p. 568). Crucially, the authors found that “college enrollment rate (is) based on income and SES status, with lower enrollment rates for lower-income students (Rowan-Kenyon et al., 2008, p. 564). Byun, Meece and Irvin (2012) noted that rural poor youth experience a limited curriculum and access to college preparatory programming from counselors and other staff. The authors further noted that while evidence exists suggesting that factors such as family income, parental education and expectations, and academic preparation are predictive for enrollment, persistence and completion across the general population, much less is known and understood about the influence of these factors in the rural context; therefore a more thorough study considering the intersection of the rural family, the rural secondary school, the rural poor student and the rural community is necessary (Byun et al., 2012).
The Present Study

The purpose of the present study is to advance extant structural poverty theory and to quantitatively determine whether certain familial, socioeconomic and educational factors are impactful and predictive for college enrollment in rural contexts as a basis for future interventions, particularly for students in secondary school. As such, the following research question was formed: **How do socioeconomic, familial and educational structural factors impact two- and four-year college enrollment?** Given the persistence and prevalence of rural poverty, and the potential for postsecondary education to serve as an ameliorator for societal change for rural poor youth to end generational cycles of poverty, the present study provides a framework that may be utilized for any geographic region for the improvement of college enrollment.

Conceptual Framework

Rank, Yoon and Hirschl (2015) found that persistent, generational US poverty is a result of consistent structural failures at the “economic, political and social levels” and less about individual failure (p. 3). The theory of structural poverty addresses the critical societal and infrastructural constraints that intractably limit access to upward mobility for American individuals seeking to escape poverty, and more particularly generational cycles of poverty. Specifically,

- The inability of the US labor market to provide enough decent paying jobs for all families avoid poverty or near poverty; the ineffectiveness of American social policy to reduce levels of poverty through governmental social safety net programs; and the fact that the majority of the population will experience poverty during their adult lifetimes, indicative of the systemic nature of US poverty (Rank et al., 2015, p. 8).
Importantly, the authors further noted that the family dynamic and residential location (i.e. rural) are significant and deterministic factors that have proven to be predictive for exposure to poverty (Rank et al., 2015, p. 6). Crucially, the authors recommended that further study and the inclusion of educational factors should be undertaken in advancing structural poverty theory in order to assess the efficacy of academic achievement as an ameliorator (Rank et al., 2015, p. 22).

The variables studied, county by county with their secondary schools as the unit of measure, were two- and four-year college enrollment as the dependent variable; overall college going rate as the criterion variable; and unemployment rate, poverty line placement, single parent households, standardized testing, AP course participation and concentric presence of institutions of higher education as independent variables.

**Methodology**

Extensive data collection was conducted from the US Census Bureau; the Council for Postsecondary Education in Kentucky; the Kentucky Center for Education and Workforce Statistics; and the website for the Commonwealth of Kentucky for its counties \((n = 120)\), including all secondary schools in those counties. An analysis of variance and an analysis of covariance were conducted resulting in a parsimonious model with significant results demonstrating the predictive and normative relationship between structural factors for two- and four-year college enrollment, with a significant interaction effect between poverty and rural location. Assumptions of normality, linearity, homoscedasticity and independence among the variables were met.

**Limitations**

The unit of analysis in the present research was at the county level, and as such, there existed instances whereby multiple schools were nested within a single district causing overlap.
This indicates that the district effect may be confounded in school level variability. Further, an unbalanced sample resulted in a low number of urban high poverty schools. County-level measures that were measured outside the three-year sample of data also presented a phenomenon known as the “ecological fallacy”, which asserts that “correlations between macro-level variables cannot be used to make assertions about micro-level relations” (Snijders & Bosker, 2012). This was addressed by averaging the three years of data.

Further limitations included the exclusion of vocational postsecondary training programs such as carpentry, electrical, plumbing, chef training and other programs that may be offered in non-traditional contexts, though community colleges do in fact offer these service lines. Data submitted to the Census Bureau has limits pertaining to accuracy of information provided by citizens and their requirement to comply.

**Definition of Key Terms**

*Poverty* – the state of being poor, inferior or insufficient, particularly relative to economic status.

*Rural* – non-urban geographic areas; particularly counties, school districts and secondary schools located outside Metropolitan Statistical Areas (MSAs) with a population of at least fifty-thousand (50,000), excluding outlying counties which are integrated into the MSA with reasonable commuting opportunities (Byun et al., 2012).

*Determinism* – a theory or doctrine that acts of the will, occurrences in nature, or social or psychological phenomena are causally determined by preceding events or natural laws.

*Mobility* – having the opportunity for or undergoing a shift in status within the levels of a society).

*Generational poverty* – poverty that is repeated and persistent over multiple generations.

*Secondary-postsecondary nexus* – the intersection of, and connection between, secondary and
postsecondary institutions that proves to be affective for students relative to various measurements of academic achievement and outcomes, specifically two- and four-year college enrollment.

*Human capital* – the skills, knowledge, and experience possessed by an individual or population, viewed in terms of their value or cost to an organization or country.

*Geography of opportunity* – the importance of residential location in determining educational opportunities (Turley, 2009).
Chapter Two

Literature Review

In the course of researching US poverty, Rank et al. (2015) presented that American poverty is structural in nature, defining the phenomenon as a “structural failing”, specifically referencing the inadequacy of the social safety net and relative ineffectiveness of social policies; an ample job market; and the inherently systemic nature of poverty given that a majority of Americans face poverty at some point in their lives. The authors specifically focused on a limited opportunity structure rather than on individual failure. The authors argued that

By focusing on individual attributes as the cause of poverty, social scientists have largely missed the underlying dynamic of American impoverishment. Poverty researchers have in effect focused on who loses out at the economic game, rather than addressing the fact that the game produces losers in the first place (Rank et al., 2015, p. 5).

The authors referenced that family structure, residence and access to human capital (euphemistically identified as the “economic game”) are deterministic for exposure to poverty; and that additional exploration and research relative to levels of inequity in the educational sectors within structural poverty theory should be explored (Rank et al., 2015, pg. 6, 22).

Phillips et al. (2007) noted the inherent difficulties for rural communities to build or access human capital; and as such, rural areas struggle to “attract and retain people with the skills, knowledge and connections required to…build human capital” (p. 67). Engberg and Wolniak (2010) studied the impact of the secondary school context as it relates to college enrollment and found that students’ experiences and exposure to human capital – particularly academic, social and cultural – is both affective and predictive regarding college enrollment
The purpose of this literature review is to explore the educational component of structural poverty in the rural context, particularly at the intersection of secondary school and decision making processes regarding enrollment for postsecondary training, spanning decades from the 1960s to the present.

**Poverty Research and the Impact of Poverty**

Bonnen (1966) presented that *defining* poverty and determining what poverty actually *is* tends to be a difficult task. The author noted in the 1960s that the impetus behind early governmental programs for the impoverished were originally designed to “create a greater equality of opportunity and lead toward a greater quality in income distribution and welfare” (Bonnen, 1966, p. 456). The decade of the 1960s represented targeted efforts by President Lyndon Baines Johnson, who initiated a “War on Poverty” promising “a new day of opportunity” and a “new era of progress” (Torstensson, 2013, p. 587). Nelson and Oliver (1995) referenced the concept of a “culture of poverty” that began in the 1960s and whose dynamic has become entrenched in American society. Zinn (1989) postulated that this “culture” has three distinct approaches: culture as villain, family as villain and welfare as villain (pg. 856-857). These approaches blamed structural factors such as the permanency of an underclass, changing family structure, low motivation and the removal of incentive for achievement based on welfare receipts (Zinn, 1989, p. 857). Clawson (1967) postulated that

Poverty has both an absolute and a relative character. The inability to buy food, clothing, shelter, education, medical attention, and other obviously needed services to a level where the most elemental needs of the family are met may be considered the absolute aspect of poverty. This is the aspect of poverty which receives the most attention; it is serious, and one should not minimize it. But the relative aspect of poverty needs
attention too. It is, in many ways, easier (and ostensibly normal, more acceptable and consequently intergenerational) to be poor if all your family, your friends, and your acquaintances are also poor (p. 1227).

Iceland (2003) also defined poverty as economic deprivation with absolute and relative measures. Iceland (2003) noted that absolute measures “attempt to define a truly basic standard of needs that is updated only for inflation over time”; and relative measures define poverty as a “condition of comparative disadvantage” (p. 501).

Importantly, in studying and reviewing the “grassroots level understanding of poverty and well-being”, Tiwari (2009) postulated that “investigations that focus on the perceptions and understandings of poor people about their situations (still) remain sparse in the literature” (p. 127).

As to the measurement of poverty in pursuit of defining the phenomenon, there are US governmental poverty thresholds and guidelines that change annually, updated each year by the US Census Bureau, which are most often referred to as the “federal poverty level” or the “poverty line” (www.aspe.hhs.gov). The federal government also recognizes and utilizes the Gini index, a tool defined by the US Census Bureau as

A statistical measure of income inequality ranging from zero (0) to one (1). A measure of one (1) indicates perfect inequality, i.e., one household having all the income and (the) rest having none. A measure of zero (0) indicates perfect equality, i.e., all households having an equal share of income (www.uconn.edu).

Further, the Gini index stipulates that the more nearly equal the income distribution, the lower its Gini index; and the more unequal the income distribution, the higher its Gini index (www.cia.gov/library). As a sample, the following countries have been most recently measured

Further, table one (1) represents the Gini index for a sample of rural Kentucky counties that were included the present research:

Table 1.

<table>
<thead>
<tr>
<th>County</th>
<th>Gini index</th>
<th>+/- margin of error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bell</td>
<td>0.49</td>
<td>0.04</td>
</tr>
<tr>
<td>Breathitt</td>
<td>0.47</td>
<td>0.02</td>
</tr>
<tr>
<td>Clay</td>
<td>0.48</td>
<td>0.02</td>
</tr>
<tr>
<td>Harlan</td>
<td>0.48</td>
<td>0.02</td>
</tr>
<tr>
<td>Jackson</td>
<td>0.48</td>
<td>0.03</td>
</tr>
<tr>
<td>Knox</td>
<td>0.49</td>
<td>0.02</td>
</tr>
<tr>
<td>Lawrence</td>
<td>0.47</td>
<td>0.04</td>
</tr>
<tr>
<td>Leslie</td>
<td>0.47</td>
<td>0.03</td>
</tr>
<tr>
<td>Letcher</td>
<td>0.47</td>
<td>0.02</td>
</tr>
<tr>
<td>Magoffin</td>
<td>0.47</td>
<td>0.02</td>
</tr>
<tr>
<td>Martin</td>
<td>0.49</td>
<td>0.02</td>
</tr>
<tr>
<td>McCreary</td>
<td>0.45</td>
<td>0.02</td>
</tr>
<tr>
<td>Owsley</td>
<td>0.51</td>
<td>0.04</td>
</tr>
<tr>
<td>Whitley</td>
<td>0.47</td>
<td>0.02</td>
</tr>
<tr>
<td>Wolfe</td>
<td>0.5</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Note. 2009-2013, five-year estimates, US Census Bureau (www.uconn.edu)

Lichter and Landale (1995) referenced a significant poverty gap and inequality across non-white racial and ethnic groups. Corcoran and Chaudry (1997) noted that “poverty is a common risk” and that “family structure…is an important factor in both the frequency and duration” of poverty (pg. 40-47). Seccombe (2000) noted that poverty is most often explained statistically; and is in no way randomly distributed (pg. 1095-1096). Seccombe (2000) posited that “race, gender, family structure and parental education all have a significant effect” on the likelihood of exposure to poverty (p. 1095). Musick and Mare (2004) noted the phenomenon of the “interdependence of poverty and family structure from one generation to the next” (p. 629). Cabaniss and Fuller (2005) posited that while the standard of living in the US has improved
significantly in the last century, poverty remains as the most persistent and pressing societal issue facing particular groups of people in the wealthiest country in the world.

The Effects of Poverty

Amato and Zuo (1992) noted in a study on the effects of poverty and psychological well-being that

Poverty has far-reaching negative consequences for quality of life. The poor are more likely than others to be exposed to stressful life events such as unemployment, crime victimization, and illness; they also live with chronic strains such as economic hardship, job dissatisfaction, and frustrated aspirations. Besides being stress in their own right, these experiences are likely to lower people’s self-esteem and diminish their sense of control over life (p. 229).

The authors also presented that the poor have smaller networks of people from whom to draw upon, poor marital relations and overall dissatisfaction with family life (Amato & Zuo, 1992). Eggebeen and Lichter (1991) posited that poverty affects academic and socioeconomic achievement, thus producing generational cycles of poverty (p. 802).

Clawson (1967) postulated that

A poor community is likely to lack leadership, personal drive among its inhabitants, and economic resources for local betterment. In such a community, many people retreat from the outside world, become indrawn, develop strong personal ties to the community, and do not exert efforts to better their economic situation. Education and other services nearly always suffer. A vicious circle is begun and becomes self-perpetuating (p. 1228).

Huston, McLoyd and Coll (1994) posited that poverty has “profound effects on parenting, home environment, family structure and immediate resources”, exceeding its reach also to child
care, school and the broader community (p. 279). Lichter and Eggebeen (1994) found that children and youth are twice as likely to be poor as the elderly. Rank and Hirschl (1999) noted that the family dynamic and family structure have been found to significantly affect the duration and probability of a child being exposed to poverty. Crucial to the present study, Rank and Hirschl (1999) noted that with the alarming rate at which children and youth have been exposed to poverty since the 1960s, their demographic represents the likeliest age group to experience poverty. The authors’ research indicated that: 1) one-third (1/3) of all American children and youth will experience poverty at some point during their adolescence; 2) fifty percent (50%) of African-American children and youth will face poverty; 3) fifty-two percent (52%) of children and youth in unmarried households will face poverty; and 4) thirty-seven percent (37%) of children whose household has fewer than twelve (12) years of education will face poverty (Rank & Hirschl, 1999, p. 1066). Edelman and Jones (2004) asserted that the US, among industrialized countries, has a disproportionate number of poor children from affected families impacting children’s health, education and welfare, specifically:

- Young black children are twice as likely as white, Native American, Asian American or Latino babies to be born with low birth weight;
- Babies born to Latinas and Native Americans are twice as likely as those born to whites to have mothers who receive late or no prenatal care;
- Young black children are twice as likely as their white peers to die from influenza or pneumonia;
- Black young adults are three times as likely as white young adults to die from complications of diabetes;
Black children and teens are five times as likely as their white peers to die of chronic lower respiratory disease and almost twice as likely to die of heart disease;

- Latino fourth graders are two to three times as likely as their white classmates to be performing below the basic level in mathematics;

- White fourth graders are three to four times as likely as their black and Latino classmates to be reading at the proficient level;

- Black juveniles are about four times as likely to be arrested as their white counterparts;

- Black males ages fifteen to nineteen are four times as likely as their white peers and twice as likely as their Latino peers to die from firearms injury; and

- Black juveniles are five times as likely as white youths to be incarcerated (p. 135).

Alarmingly, in studying one-thousand and ninety-nine (n=1,099) “typically developing individuals between three (3) and twenty (20) years of age”, Noble et al. (2015) asserted that “income relates strongly to brain structure among the most disadvantaged children” (p. 773). The authors found that

Income was logarithmically associated with brain surface area. Among children from lower income families, small differences in income were associated with relatively large differences in surface area, whereas, among children from higher income families, similar income increments were associated with smaller differences in surface area. These relationships were most prominent in regions supporting language, reading, executive functions and spatial skills; surface area mediated socioeconomic differences in certain neurocognitive abilities. These data imply that income relates most strongly to brain structure among the most disadvantaged children (Noble et al., 2015, p. 773).
Petterson and Albers (2001) noted that children from poor families demonstrate reduced cognitive functioning, academic achievement and social development than those from non-poor families. Cooper (2017) presented that poverty causes chronic stress and uncertainty which continues into adulthood; can reduce brain function; shorten telomeres and lifespan; increase chances of obesity; and cause some to take unnecessary and “outsized risks” (p. 3). Cooper (2017) noted that being poor causes a biological effect that lasts for a lifetime, some of which may be inheritable through fetal impact, epigenetics or cell subtype effects. Mathewson (2017) posited that poverty causes the limbic system to constantly send “fear and stress messages to the prefrontal cortex”, thus affecting decision-making and problem solving processes and task completion and concluded the following: when brain capacity is constantly consumed with worries and fears, there simply is not enough remaining “bandwidth” for daily tasks or learning, among other things (p. 2).

**Urban ‘Versus’ Rural Poverty**

“Although we usually think of poor children as those living in the city, over the past several decades, child poverty rates have been higher in rural than in urban areas (Phillips et al., 2007, p. 65).

Regardless of the process for defining or measuring poverty, the causes, function and impact of poverty are appropriately the primary basis for poverty research in the literature. There is, however, an obvious imbalance between urban and rural studies in the literature. In reviewing research on rural poverty and its historic relationship with social, political and economic restructuring, Tickameyer and Duncan (1990) referenced a certain preoccupation in the American consciousness, including the scholarly and governmental communities and American social sciences, with *urban* poverty as reflected in studies of large-scale immigration,
industrialization and growth in urban areas. The authors lamented that rural poverty did not begin to receive a suitable amount of scholarly attention until the 1980s, but only then was the focus of a disproportionately small amount of research studies (Tickameyer & Duncan, 1990). Zinn (1989) wrote that 1980s poverty research presented a “revival” of previous ideas about poverty, family structure and race (p. 856). Eggebeen and Lichter (1991) noted that poverty was “rediscovered” in the 1980s in studying the impact of the evolving family structure on the rural context (p. 801). Finally, Amato and Zuo (1992) noted that upon a review of the literature, the vast majority of poverty research examined urban settings as compared to its rural counterpart. This collective disparity in the literature, unfortunately, persists to the present day.

In reviewing the characteristics of rural poverty and the rural poor, Clawson noted in the 1960s that the “proportion of poor is about twice as high in rural as in urban areas” (p. 1227). Further, Clawson (1967) postulated that urban poverty has received more attention from the press and others than rural poverty, but that rural poverty is ubiquitous by comparison, thus necessitating equal, if not more, attention. Parliament (1990) noted that poverty is perceived as an urban problem because the urban context is “concentrated and visible”; however, the author noted that since the inception of poverty statistics gathering, a disproportionate percentage of the poor in the US live in rural areas (p. 1182). Goetz (1993) posited in the same decade that income disparity between urban and rural counties was consistently increasing at an alarming rate, thus necessitating increased federal and state funding for rural areas.

**The Rural Dynamic**

Dillman and Tremblay (1977) wrote quixotically of rural areas as “open spaces, a slower pace of life, neighborliness and clean air” (p. 116). These images conjure thoughts of a simpler,
easier lifestyle with fewer aggravations and a more peaceful existence. The reality for most, however, particularly in areas such as eastern Kentucky, is a complex rural dichotomy.

Richardson (2009) presented the concept of “two rural Americas – the rural America of our romantic dreams and the rural America of contemporary reality” (p. 43). In reviewing the effects of the “burden of poverty in rural America”, Landon (2009), referencing “population reference data” from previous child poverty studies, noted that eighty-five percent (85%) of American high-poverty counties are rural. In reviewing professional services deprivation in the rural context, Martin, Williams and Kennedy (2011) posited that rural poor endure more significant hardships than do urban poor. Ferrell and Howley (1991) postulated that adult literacy rates in the US are highest in rural areas. In testing the effects of isolation in the Missouri Ozarks, Morrison (2011) found that rural poverty is distinctly different from urban poverty – it is much deeper, lasts longer and tends to be more geographically specific.

Tickameyer and Duncan (1990) found that rural areas represent an uneven share of the US poverty population and postulated that

Like urban communities, the persistence and severity of poverty in rural America can be linked to a limited opportunity structure, which is the outcome of both past social and economic development policies and current economic transformation. Many rural communities lack stable employment, opportunities for mobility, investment in the community, and diversity in the economy and other social institutions. They are increasingly socially and spatially isolated and particularly vulnerable to adverse effects from structural economic change (p. 67).

Bonnen (1966) postulated decades ago that rural people were particularly obtuse in their understanding and/or embracing of technological and other educational advancements, a trend
which continues to the present day, thus resulting in unsteady and menial work or light manufacturing. The rural poor are often referred to as the “working poor”, living quite literally one missed paycheck from financial ruin (Morrison, 2011, p. 18). Rural employment tends to be of the minimum-wage or part-time variety, often seasonal and inconsistent with lower wages (Weber, Duncan, & Whitener, 2001, p. 1282).

**Motivation and Behavioral Economics**

**Motivation.** Studies regarding motivation are wide-ranging and divergent within the research community. For the purposes of the present study, it is essential to understand the ontological and epistemological baseline for motivation, including the intrinsic and extrinsic responses of human beings, particularly within the rural environment (Brunsma, Khmelkov, McConnell & Orr, 1996, p. 10). Brunsma et al. (1996) postulated that

Motivation is generally divided into two types: intrinsic and extrinsic. Intrinsic motivation, or drive motivation, refers to a force within individuals that impels them to engage in a particular behavior. Individuals who are intrinsically motivated perform a task out of curiosity, because it is exciting or enjoyable to them, or because it presents a personal challenge. Extrinsic motivation, or incentive motivation, refers to an expectation of a reward for performance. Individuals who are extrinsically motivated perform a task because there is some external incentive, such as money, a prize, increased social status or recognition from others to do so (p. 10).

Dermer (1975) referenced the previously and widely-held view of many researchers regarding the independence of intrinsic and extrinsic motivation, one from the other. Vallerand (2000), by contrast, noted the interconnectedness of intrinsic and extrinsic motivation through the presentation of a “multidimensional perspective” consisting of “global”, “contextual” and
“situational” levels utilizing autonomy, competence and relatedness as mediators (p. 312-313). Benabou and Tirole (2003) postulated that intrinsic and extrinsic motivation often conflict with one another (p. 490). Thomas et al. (2012) defined motivation as a “phenomenon by which internal drives lead to an action or behavior which can be activated by either internal (intrinsic) or external (extrinsic) factors” (p. 160-161). Fehr, Herz and Wilkening (2013) tied motivation to individual and group responses to authority, indicating that perceptions of limited political, social and economic structures affect decision-making processes, particularly in contexts such as rural environments.

Clement and Pelletier (1999) cited the self-deterministic approach to motivation, noting that individuals intrinsically perform an activity out of their own choosing to challenge their existing competencies and creativity; and extrinsically perform an activity to arrive at an important end, thus lacking self-deterministic elements. The authors further noted the relationship between motivation and the educational domain, referencing that extrinsic motivation may be parsed into three distinct classifications: external, introjected and identified regulation (Clement & Pelletier, 1999). External regulation refers to behavior that is “determined through means external to the individual, such as a tangible reward or punishment” (Clement & Pelletier, 1999, p. 25). Introjected regulation refers to internal processes causing a person to react due to some measure of pressure for performance (Clement & Pelletier, 1999). Identified regulation refers to an individual’s decision to perform a behavior because the individual determines the effort to be personally beneficial (Clement & Pelletier, 1999). Finally, the authors also addressed amotivation – a decidedly rural phenomenon – which references an individual’s perception that his or her actions are not consequential, but rather views that certain factors exist that are far beyond the individual’s ability to control or affect
them, eventually accepting their reality as their immutable fate in life coextensive with one’s family history (Clement & Pelletier, 1999). Individuals in a state of amotivation adopt a “learned helplessness” and eventually cease performing beneficial behaviors and activities, often reinforced within multiple community contexts including the home; their broader family; churches; schools; and with peers and friends (Clement & Pelletier, 1999, p. 25).

**Behavioral Economics.** Behavioral economics is the study of human behavior which asserts that individual and group decision-making is completely context dependent and not always constant or easy to define (Jabbar, 2011). Hattwick (1989) postulated that behavioral economics produces valuable insight into human behavior across multiple contexts and disciplines. Guttel and Harel (2005) noted that behavioral economics theory supports humans’ “repeated behaviors” in responding to authority and structure in all aspects of daily living (p. 1197). Bernheim (2009) presented that the impact of behavioral economics theory regarding decision-making continues to penetrate current “mainstream” thinking within multiple areas of research (p. 267).

In assessing behavioral economic theory, Bertrand, Mullainathan and Shafir (2006) posited that the poor specifically demonstrate “weaknesses and biases” similar to others in higher socioeconomic classes regarding their motivations, behaviors and decisions, but have a significantly smaller margin for error for mistakes and poor luck, which often leads to disastrous consequences (p. 8). Crucially, at a macro level, rural poor adults and youth suffer from a diminished sense of opportunity for upward mobility due to a lack of a culture or incentive for achievement, both in educational and vocational contexts. At a micro level, for those that are intrinsically motivated, particularly rural poor youth for the purpose of the present study, these
emotions are often mitigated due to both a lack of support within the familial and educational environment and the presence of bona fide opportunities within the rural American structure.

Jabbar (2011) tied behavioral economics to motivation and noted that the concept incorporates psychological elements and harbors unlimited potential to understand decision-making processes and human responses to structure, specifically including familial and educational contexts affecting human responses to regulation and authority. The author noted that behavioral economic theory posits that people cohere to two sets of norms: the social and the market (Jabbar, 2011). Social norms address activity with family and friends that is usually mutually beneficial and/or reciprocal; and market norms are responses to authority, rules, regulations for some form of payment (Jabbar, 2011). Importantly, the author noted that researchers have recently emphasized the relationship between motivation, particularly intrinsic, with social norms and incentives within poor populations (Jabbar, 2011).

Finally, Jabbar (2011) noted the significance of behavioral economic theory in the educational context and posited that students’ decision-making processes regarding college enrollment are significantly affected by the social norms within an individual student’s context involving, particularly for disadvantaged and/or first-generation students and their families, and further underscores the impact of “information complexity and inertia” in student behavior when deciding whether or not to enroll (p. 449).

Spatial Inequality and Economic Distance

Sanders (1991) noted that “with the structural shift away from goods-production toward service-provision, jobs are increasingly part-time or temporary, usually with low wages and no benefits. Even full-time jobs are increasingly unlikely to maintain a family above poverty” (p. 180). Further, the spatial organization of labor as impacted by technology in the industrial and
service sectors has, seemingly permanently, contributed to lower wage and lower skill set jobs (Barkley, 1995, pp. 1256-1257). Levine (1996) referenced the steep decline of manufacturing jobs over recent decades and noted that

The consequence has been a labor market requiring more education than most poor people have, a predominance of low-salaried service jobs in poor areas, and much higher than average unemployment rates for the poor, particularly among young people (p. 9).

Morrison (2011) tied the concept of “remoteness” – distance from urban or metropolitan areas – with depressed resources, limited commercial opportunity and lower income (p. 19). The author studied the effects of isolation and economic distance on rural communities that experience unrelenting generational cycles of poverty (Morrison, 2011). The spatially remote nature of rural poverty is also more than just an issue of inadequate family income as the rural poor experience isolation; lack of access to resources such as technology and credit; lack of consistent access (based on limited financial resources vis-à-vis non-payments to utility companies) to basic utilities and clean water and sewer services; and full access to medical care (Lichter & Johnson, 2007).

This rural reality contributes to the appeal of welfare dependency and the choice of single parenting, which has implications for generational cycles of poverty (Sanders, 1991).

The Rural Family

“Despite the achievement ideology of American culture that motivates dreams of social mobility, in reality the vast majority of children in the United States grow up to reproduce the class status of their parents” (MacTavish & Salamon, 2006, p. 163).

In studying employment data from the 1980s’, 1990s’ and 2000s’ “Current Population Surveys” in order to assess changing household and family structure in the US, Snyder and
McLaughlin (2004) presented that the economic conditions in which children and youth exist are significantly affected by the structure of the family with whom they live (p. 127). The authors noted the significant relationship between family structure and poverty (Snyder & McLaughlin, 2004). In reviewing the effects of parental employment on child poverty, testing both married-couple and female-headed contexts \((n=41,996)\), Lichter and Eggebeen (1994) presented that parental employment and child and youth poverty are inseparable. Importantly, the issue very often is not particularly locating a job, but rather locating a job that provides an opportunity to escape poverty (Lichter & Eggebeen, 1994). In rural contexts, dependency on government assistance is often more profitable to the family than lower wage jobs (Lichter & Eggebeen, 1994). Rural families also tend to fluctuate above and below the federal poverty line, based on ever-changing circumstances and short-time employment opportunities, thus statistically assessing those who ‘escape’ poverty a difficult on-going task.

**Birth.** Poverty affects mortality within rural families from the inception of life itself (Sakamoto, 1990). Stockwell, Goza and Roach (1995) noted notwithstanding improvement in infant mortality rates in the twentieth century, impoverished (rural) families suffer a significant disadvantage in first year infant mortality. Family structure is further affective for rural poor youth relative to timing of exposure to poverty and sibling birth order. In researching and “appraising” sibling comparison methods and related theory, East and Jacobson (2000) asserted that “depending on the timing of family poverty, one child within the family may experience poverty and its effects to a greater or lesser extent than other children within the family (p. 289). Importantly, the authors further noted that “adolescents who experience poverty during their infant years are at an increased risk of adolescent adjustment problems, including dropping out of high school” (East & Jacobson, 2000, p. 289). Eirich (2011) tied parental socioeconomic
(SES) status and sibling educational inequality by reviewing a “nationwide representative sample of American siblings” and found a significant association between familial socioeconomic status and sibling educational inequality, noting that as SES status increases, the rate of inequality decreases (p. 184).

**Parenting and Perceptions.** Deslandes and Bertrand (2005) noted the importance of parental perceptions which inform their particular understanding of their specific responsibilities to their children. Crosnoe (2001) posited that “intact” families and parental education impact the level of parental involvement, including increased roles in their children’s lives, particularly regarding education and social development (p. 213). Coleman, Ganong, Clark and Madsen (1989) noted that parental perceptions and the family environment are affective relative to child and youth development, including values and personal beliefs, specifically regarding the social acceptability of teenage pregnancy and government dependency. Crucially, in studying child abuse and neglect with at-risk rural children, Epstein (1990) noted that in rural contexts, identification of and providing interventions for these children and youth is made difficult by spatial distance and a lack of adequate resources. As a result of these environmental factors, Seccombe (2000), in reviewing “trends, causes, consequences and learning points regarding family poverty in the 1990s”, found that rural poor children and youth have diminished physical and mental health; frequently perform poorly or underperform in school; and are more likely to engage in deviant and self-destructive behavior as a result of inadequate parenting (p. 1102). Adults, in large measure, also repeat these behaviors patterns and often resort to excessive corporal punishment and other forms of abuse.

Crosnoe (2001) noted that rural parents in impoverished circumstances who may be dealing with constant daily stressors are significantly less likely to actively participate in
Structural Poverty

Educational activities. Rural poor parents also lack access to the human capital and the emotional stability to properly advise and encourage children and youth relative to their educational pursuits, particularly at the secondary school stage, for improved life outcomes. In the absence of an outside support structure, these children and youth have a significantly diminished chance of positive life outcomes.

Female Single Parenting. McLanahan (1985) noted that the growth of the female-headed family is “responsible for the growth of an ‘underclass’ in rural America; and that offspring in these contexts are less likely to complete secondary school than those living with two parents (pp. 873-898). This rural economic reality reinforces structural changes in families with the choice of single parenting, a practice repeated in rural America generation by generation, often in order to increase governmental assistance (Sanders, 1991). Garasky (1995) asserted that single parent homes produce lower educational levels, reduced employment, lower earnings, lower economic attainment, increased welfare rates, becoming a parent earlier and the presence of higher divorce rates compared to two biological parent homes (pp. 89-90). Biblarz, Raftery and Bucur (1997) posited that children without two biological parents had significantly lower socioeconomic attainments than children who did. Seccombe (2000) noted that single parent homes, particularly female-headed, are especially vulnerable to impoverishment given the existence of only one source of income, which is often below that of their male counterparts in the best of circumstances; and the “limited receipt of child support” (p. 1101). Iceland (2003) posited that increases in female-headed households are associated with higher poverty rates.

Rural females are more likely to experience intercourse and first births at an earlier median age than their urban counterparts with higher rates of fertility in the teens and early twenties, thus continuing persistent cycles of generational poverty and a continued need for
government assistance (Snyder & McLaughlin, 2004). Musick and Mare (2004) presented that females who are raised in a single parent/female-headed household are more likely as adults to experience disruption of their own marriages and romantic relationships.

Snyder and McLaughlin (2004) noted that an increase in female single-parent households contributed to significantly increased poverty rates in rural counties in recent decades. The authors asserted that the “economic conditions of rural America in recent decades have encouraged the formation of female-headed households”; and that “poverty is a well-documented and severe problem” among this population (Snyder & McLaughlin, 2004, pp. 130-138). The authors asserted that difficult economic situations will persist for women and children in rural America due to the prevalence of female-headed households (Snyder & McLaughlin, 2004).

Mentoring and College. Levine (1996) presented that “the recipe for getting (poor youth) to college is mentorship – one arm around one child; one mentor with one person” (p. 139). The author asserted that “the earlier in school we begin preparing young people for college, the easier their transition to college – and the greater the opportunities available to them” (Levine, 1996, p. 141).

In studying resilience, Notter, MacTavish and Shamah (2008) qualitatively sought to understand the variables and factors involved with rural (female) youth who were able to achieve positive life outcomes consistently above the poverty line. The authors noted that “understanding how individuals manage a pathway toward resilience – despite familial and structural challenges – has important implications for policies and interventions aimed at ending intergenerational patterns of risk and alleviating the detrimental effects of poverty” (Notter et al., 2008, p. 614). In a small sample ($n=8$) of rural women, the authors found that a focus on the pursuit of supportive
relationships, mostly outside the immediate family through mentoring and outside parental
surrogacy, was essential (Notter et al., 2008).

Schneider, Judy and Mazuca (2012) noted that for lower income youth, receiving and
accessing mentoring assistance is essential but often problematic. Importantly, community
leaders, administrators and practitioners are the catalysts for these programs; and as such, must
provide a framework for these services for improved outcomes for rural poor youth. Relative to
college enrollment, the authors further presented that

Low-income and minority students and their parents disproportionately lack access to
information about the courses needed for acceptance to at different types of colleges.
These students are less informed then students who have more parent and school
resources on how to navigate the educational system in which their course choices
can have consequences that are difficult to reverse (Schneider et al., 2012, p. 64).

The authors found that mentoring data demonstrated that participants in mentoring processes
indicated receiving emotional and social rewards; and that such programming not only assists
with academic improvement, but also personal benefits and rewards (Schneider et al., 2012).
Finally, the authors postulated that “without access to role models, awareness of college
programs and specific academic guidance, high school students – especially those in
underrepresented (i.e. rural) groups – are unlikely to be adequately prepared for college and have
the requisite information for choosing a career” (Schneider et al., 2012, pgs. 62-63).

**Rural Secondary Education**

“One-third of American children attend school in rural or small towns, but we overlook
their needs and fund their schools poorly” (Strange, 2011, p. 1).
In studying school quality by testing the causal impact of charters on educational outcomes for students \((n=1041)\) in schools in an impoverished area, Dobbie and Fryer (2011) asserted that though some differences emerged at the age of two, no appreciable cognitive differences between babies emerged until kindergarten age, based in part on their experiences within the family environment; and that, in later development, school quality does significantly affect academic outcomes among the poor. This scholarly assessment is foundational for the concept of rural determinism – where you reside, from whom you are born and where you attend school is significantly deterministic without effective intervention.

In studying the secondary-postsecondary “nexus” and its effect on students \((n=11,940)\) with data derived from the Educational Longitudinal Survey from 2002 relative to their two- and four-year college enrollment, Engberg and Wolniak (2010) asserted that “one of the strongest human capital predictors of college enrollment is high school academic preparation; and that “exposure to information resources” during high school is affective for decision-making processes (p. 134). The following will examine the intersection of the rural student, the rural family and the rural secondary school for improved college enrollment.

**The Rural Secondary Student.** Silverman (2005) referenced the plight of many rural students as follows: “Long bus rides. Teacher shortages. Poverty. Isolation and consolidation. Rural school districts in the most remote parts of the country all face similar troubles” (p. 33). Not significantly changed in two decades, the author shared that thirty-seven percent (37%) of rural students are eligible for subsidized meals and thirty-five percent (35%) of rural students live in single-parent, female-headed households living below the federal poverty line, data which is easily corroborated from recent census results (Silverman, 2005).

Silverman (2005) posited as to the daily rural reality for secondary students:
The long bus ride is a silent killer to academic achievement in rural America. We’ve got some kids in the US who are on the bus longer than they are in the classrooms. It affects everything including their sleeping patterns and whether they can participate in extra curricular activities. They are even too tired to take the ‘hard’ classes. (p. 35)

Martin (2016) noted that students who arrive at school hungry find it impossible to focus on learning; lack or have no access to computers or technology and struggle with assignments; and may be homeless, lacking clothing and proper medical care. Compared to students in urban or suburban schools, students in rural areas and small towns are less likely to attend college (Martin, 2016).

Crosnoe (2001) defined a student’s academic outlook as lying at the “intersection between the individual student and his or her environment” – structurally, his or her family, community and school (p. 213). Family economic and emotional distress; hunger; inconsistent access to electricity, water and sewer utilities; boredom; academic inattention; and hopelessness and a fatalistic outlook best describe many rural poor students’ daily experience in secondary schools without the benefit of parental involvement with academics, caring practitioners and mentoring.

The Rural Family’s Relationship with Rural Secondary Education. Parental involvement is established in the literature, having proven to be a positive force for improved academic achievement. This review shall, as part of an overall analysis of the rural family – including its relationship with rural secondary education and its effects on students – examine the structural factors that inform parents’ and guardians’ perceptions as to the significance and value of secondary and postsecondary education.
In comparing students’ \( (n=52) \) behavior patterns before and after a sequence of parent-teacher meetings to determine differences, Ribner, Bittlingmaier and Breslin (1976) found restructured parental perceptions more closely aligned with teachers; and as a result, further asserted the crucial need for communication between parent and teacher. In conducting interviews within and observing secondary schools \( (n=4) \) to assess the effects of parental involvement, Ramirez (2001) found that increases in parental or familial involvement with schools improves overall student achievement. Hayes (2011) defined parental or familial involvement as a “multidimensional construct that includes both direct involvement in schools, such as volunteering in classrooms and attending school parent-teacher conferences; and (perhaps most importantly) indirect or hidden behaviors, such as discussing school and family issues and conveying educational expectations” (p. 155). The author posited that such engagement has been closely associated with improved achievement; good conduct; lower absenteeism; and an improved educational outlook (Hayes, 2011).

Deslandes and Bertrand (2005) studied familial factors such as a lack of college degree; family structure; family size; parent gender; employment; and child characteristics and traits of a sample of parents \( (n=770) \) to determine what may be predictive for familial involvement. The authors found that families’ perceptions of the willingness and desire on the part of teachers as influential relative to their decision to engage with the schools (Deslandes & Bertrand, 2005).

Crosnoe (2001) found that familial involvement and perceptions of education are influenced by the family’s shifting socioeconomic status, whether high school or college graduates or neither, families harbor the ability to promote achievement; instill confidence; and support goal setting during secondary school – or in the absence of such engagement due to daily economic stressors, can have the opposite effect (Crosnoe, 2001). An (2013) noted that poor
families are more likely to engage with schools in a less substantive manner and become intimidated or confused. Deslandes and Bertrand (2005) found that families are more likely to engage with schools if they are well-received by the school relative to assisting their children; and that educators’ providing opportunities to participate in an inviting atmosphere increases involvement. In the alternative, feelings of inferiority and a lack of a sense of belonging by parents and family members are very difficult to overcome in the rural context.

Deslandes and Bertrand (2005) posited that while the effects of involvement at the secondary school level seem to be well understood, “educators still know little about what factors lead parents to decide to become involved in their youth’s schooling” (p. 164). The authors further noted that parental or familial involvement decreases significantly as youth graduate to secondary school (Deslandes & Bertrand, 2005).

The Rural Secondary School


Deming et al. (2014) noted that “improving the quality of high school education has become a first-order issue for economic growth, national competitiveness and equality of economic opportunity in light of the increasing wage returns to higher education” (p. 991). Silverman (2005) found that most states tend to focus on their urban populations and “often make policy decisions about education that address the issues faced by inner-city districts and ignore the unique issues facing rural communities. The author referenced that rural schools are affected by “one size fits all” decisions, resulting in larger districts, schools and classes; and higher transportation costs, thereby increasing the achievement gap even further (Silverman, 2005, p. 33). Martin (2016) posited that “when teachers, theorists and pundits
analyze America’s educational system, they usually focus on urban centers, but rural school systems make up more than half of the nation’s operating school districts” (p. 2). Further, Martin (2016) added that “like many of their urban peers”, rural children “fight to overcome scant funding, generational poverty, rampant malnutrition and limited job prospects (p. 2). Silverman (2005) noted that “one of the biggest pressures on rural schools is consolidation, as some areas lose population and strangled states are pushing to save money. But this creates a new set of problems that often hurt student achievement” (p. 35). Rural schools typically have strained financial resources and limited pools of talent from which to recruit and retain teachers. Dated and poorly maintained facilities fail to support a sense of pride and a culture of educational excellence, essential for student achievement in individual and group contexts (Bowers & Urick, 2011). Hardre et al. (2007) posited that rural schools face difficult economic circumstances including limited community resources that “place rural students at risk for low motivation” a dearth of overall school success (p. 248). The authors further noted that this environment reduces the relevance of academic achievement and often requires teachers to provide “extra effort” above and beyond the requisite tasks of instruction in serving the disadvantaged, including families without postsecondary education and single- or absent-parent families (Hardre et al., 2007, p. 248). This context renders it difficult for rural secondary schools to recruit and retain talented, committed teaching staff and limits the ability to provide supportive programming for disadvantages students (Hardre et al., 2007). Finally, the authors presented that the effect of this rural dynamic is a dropout rate that is more than twice the national average for secondary schools, and is higher than in many urban areas (Hardre et al., 2007). This rural reality of diminished student achievement inevitably begets practitioner (teachers, administrators and
guidance counselors) apathy and ambivalence, which often sets in at the expense of students with fatal consequences.

In reviewing the intersection between race, culture and learning, Nasir and Hand (2006) noted the importance of teaching in a manner that includes culture as a “core concern” addressing the notion that “social and cultural processes are central to learning” (p. 450). The authors found that when students don’t meet certain norms or expectations within their school environment, as rural poor youth often struggle to do, achievement suffers – so this, in an ideal setting, would be taken into account by practitioners (Nasir & Hand, 2006). Hamburg (1954) found decades ago that culture significantly impacts learning processes. Stigler and Baranes (1988) found that culture is a constitutive part of learning and knowledge. Campbell (2006) postulated that teachers should consider supporting a culture which invites students to “consider what is of value to them” and to consider how they will grow into adulthood” (p. 33). The author suggested such an approach could literally be life-altering for many students through such a holistic approach applicable in any educational setting (Campbell, 2006). The reality for teachers, counselors and administrators in rural secondary schools in counties with high levels of poverty is that challenges abound; and as with all other aspects of rural poverty, this context has its own unique blend of difficulties rendering individualized pedagogical approaches impossible to manage. Large class sizes and limited resources take a toll on the most well-intentioned educators. In studying secondary school teachers \((n=98)\) to assess “stress and burnout”, Abel and Sewell (1999) found that “poor working conditions and time pressures predicted ‘burnout’ for rural school teachers (p. 287). The authors asserted that

Stress can affect teachers’ job satisfaction with pupils. Stress can also result in mental and physical illness and impair the working relationship between teachers and students
as well as the overall quality of teaching. Teachers often lower their level of time and energy in job involvement as a result of stress. Prolonged stress can result in burnout. Consequences of burnout include diminished job satisfaction, reduced teacher-pupil rapport and pupil motivation, and decreased teacher effectiveness in meeting educational goals (Abel & Sewell, 1999, p. 287).

As such, spending quality time with marginalized rural poor youth is ostensibly impossible during the school day. This reality creates an atmosphere of “teaching down” to a student’s perceived level with little or no attempt to raise their expectations (Hilliard, 1992, p. 372). Often, teachers’ perceptions – or misperceptions – of particular students is rooted in behavioral issues more than intellectual abilities. Behavioral issues often stem from difficulties in the home as explored in the present study including hunger, isolation, issues with socialization, lowered expectations and a sense of hopelessness. These behavior patterns often couple with the reputations of rural poor students’ families with detrimental consequences. This may serve to create, knowingly or unknowingly, a ‘teacher bias’ towards individual students and causes teachers to regard the disconnect between a student and his or her teaching style as a student deficit, thus expecting the student to pursue change with little or no introspection on the part of the teacher (Hilliard, 1992, p. 373). This initiates a process of student ‘labeling’, most often in a negative sense, creating a dynamic for the student at the rural school that is impossible to escape and difficult in which to improve, thrive or achieve (Gutierrez, Morales, & Martinez, 2009, p. 225). Gutierrez et al. (2009) presented that “American schools are driven by a preoccupation with identifying children in terms of categories that the schools themselves have constructed for them” (p. 221). The author noted that

Our biases and assumptions about difference are culturally organized; thus, our proclivity
to identify and label students who perform poorly or differently, to assign them to particular treatments, to assess them in particular ways, and to make a diagnosis about future performance in schools and often beyond reveals habits of mind that index our nation’s history with difference – primarily, race and class differences (Gutierrez et al., 2009, p. 225).

This classroom and cultural reality in rural settings ultimately results in a student and his or her family assuming that he or she isn’t suitable for college enrollment. Without suitable intervention, this assumption becomes a belief and then a self-fulfilling prophecy. Generational poverty cycles are dependent upon the repetition of these processes.

**What Does Success in Rural Secondary School Look Like?** There are pockets of success in rural America with secondary schools demonstrating how teachers, families and students can persevere in impoverished communities. Further and extensive study of the factors within these models of success should be undertaken. Silverman (2005) noted that South Dakota, Nebraska, Wyoming and Montana possess exemplars of successful districts wherein schools set high goals and expectations, locally control curriculum, receive strong local support, enjoy small class sizes and inculcate a culture of sustained teacher commitment. The author noted that rural students achieve at higher rates in areas where impediments are clearly identified and addressed through policy; teachers demonstrate a willingness to “do more with less” and work to “be closer” to students; and administrators and families are able to “overcome barriers of geographic isolation” (Silverman, 2005, p. 33). Policy ideas that were shared, and that merit further research, were teacher student loan forgiveness for remaining in a particular state; setting and articulating a culture of high expectations; working programmatically to establish close ties
to families; and granting teachers increased authority for student assessments with close supervision (Silverman, 2005).

Angelis and Wilcox (2011) shared exemplars of innovative approaches addressing poverty and school achievement that should be emulated in rural contexts such as collaboration – “everyone is responsible for teaching all children”, commensurate with the “village” concept that has become a part of the American lexicon (p. 28). The authors noted that

For eight (8) years, we’ve studied schools whose students consistently perform above predicted levels to see if we could identify what’s happening in “beating the odds” schools that distinguishes them from schools with similar challenges yet average performance. Indeed, we found that higher-performing schools do share common characteristics that set them apart from average performers. The three most essential are that teachers, administrators and staff collaborate and share responsibility; that they make decisions based on a variety of evidence; and that their vision of success includes high-poverty students achieving beyond predicted levels (Angelis & Wilcox, 2011, p. 27).

The authors also noted that successful schools adopt a collective mindset that never uses poverty as an excuse for performance levels; and that schools’ stances relative to change involves expecting and respecting change – and, “by continuous progress monitoring”, trying to “cause it” (Angelis & Wilcox, 2011, p. 30).

**Structural Poverty and College Enrollment**

“By 2018, it is estimated that sixty-two percent (62%) of jobs in the US will require a college education; and that over half of those jobs will require a four-year degree” (Dyce, Albold, & Long, 2013, p. 152).
Dyce et al. (2013) postulated that on America’s current track of college graduate production, there will exist a shortfall of approximately twenty-million (20,000,000) college-educated adults in the marketplace by 2025. Dyce et al. (2013) presented that a head of household without a degree is more than eight (8) times more likely to live below the poverty line than a contemporary with a degree; and that when a family’s income is less than twenty-five thousand dollars ($25,000) annually, their children have a less than six percent (6%) chance of earning a degree (p. 153). Importantly, the authors noted that

Researchers have found that despite access to public education, institutional, structural, and societal barriers and disparities persist for first-generation, racial and ethnic minority, and low-income students and their families in accessing higher education (Dyce et al., 2013, p. 153.)

Finally, Dyce et al. (2013) postulated that in the US, failing to realize and help grow the potential of low income, first generation youth will have “serious economic and social consequences” (p. 162). Kealy and Rockel (1987) found that college choice is affected by socioeconomic status and high school performance; as well as by other influencers such as parents, friends and high school practitioners.

The Interdependent Roles of the Rural Family and the Secondary School for Increased College Enrollment. Dresch (1983) noted that parental education and family income are affective not only for academic competence but also for the probability of college enrollment. Kealy and Rockel (1987) asserted that secondary school faculty, including coaches and counselors, are “significant influencers” or ‘champions’ as to youths’ perceptions of college (p. 692). Strayer (2002) noted that secondary school quality significantly affects students’ choice of college, whether two- or four-year; and that a secondary school’s class size increases the
likelihood that a student will select a four-year program over a two-year program. Yun and Moreno (2006) found that a school system’s interaction with (and understanding of) postsecondary admissions policies is affective (p. 12). Rowan-Kenyon (2007) noted that (rural) poor youth are less likely to enroll in college immediately after secondary school graduation.

Wolniak and Engberg (2010) presented that the quality of secondary school is deterministic for students from lower SES circumstances for college enrollment and success; and that a school’s resources and organizational norms and values help to form students’ college decisions. The authors further asserted that secondary schools tend to reinforce advantages to students from families with greater resources and is a trend that must be reversed (Wolniak & Engberg, 2010). This suggests disproportionate support for students on the higher end of the degrees of poverty, benefitting those in the higher echelon within multi-layered socioeconomic strata in rural counties.

Goldrick-Rab and Mazzeo (2005) established that youth whose parents receive information regarding college access, enrollment and financial aid early in the secondary educational process produce improved enrollment outcomes; that while middle- and upper-class students depend on various sources for college information, lower-income students are heavily dependent upon their secondary school (teacher and counselors) for information; that students who participate in some level of college preparatory program are significantly more likely to enroll; and that engaging teachers through professional development to educate all students, and not just those whom educators feel are best suited for college, is essential. As to the fourth finding, the idea of “educating the educators” is consequential for improved rural poor youth enrolling in college. The authors opined that

Schools that involve a network of adults closely connected to students and committed to
their immediate success, as well as their success later in life…appear more likely to produce greater numbers of students going to college (Goldrick-Rab & Mazzeo, 2005, pp. 108-109).

Familial involvement and engagement with the college choice process is a crucial element of youths’ postsecondary decision processes (Dyce et al., 2013). The earlier efforts to engage family are undertaken by secondary schools – and the literature suggests that ninth grade is not too early – the better the outcomes given that a vision may be articulated and goals may be set, thus raising expectations (Dyce et al., 2013). Successful exemplars of college access and preparation programs in rural secondary schools seek and engage disadvantaged families in order to capitalize on available community social and/or human capital (Dyce et al., 2013).

Rowan-Kenyon, Bell and Perna (2008) found that parents that did not attend college are naturally uncomfortable with the role of participating college planning activities, often feeling that they will not be able to contribute meaningfully to the process; and moreover, the parents also often feel that the schools don’t really want them to be involved in the first place (p. 567). The authors noted that structural barriers constrain receipt of necessary information by parents, even from schools; and further that parents most often rely on the school for information since they feel they lack the skills to acquire the information and manage the process themselves (Rowan-Kenyon et al., 2008).

Dyce et al. (2013) postulated that “statistically, early aspirations are not realized for the majority of low-income, first-generation college students, even when academic performance is comparable to their more affluent peers. Thus, the need for long-term support for students and families throughout the high school years is critical in sustaining these early aspirations and making a college education a reality” (Dyce et al., 2013, p. 163).
Quality and College Enrollment: The Secondary-Postsecondary Nexus. Goldrick-Rab and Mazzeo (2005) posited that “public school accountability and higher education have been linked throughout American educational history” (p. 109). Enberg and Wolniak (2010) researched the “secondary-postsecondary nexus”, the central hypothesis of which was to confirm the significance of the influence of secondary school on postsecondary enrollment (p. 133). The authors studied the interactions between human, cultural and social capital on college enrollment, particularly as it relates to the academic quality and availability of programming and curriculum at the secondary school level (Engberg & Wolniak, 2010). Engberg and Wolniak (2010) felt it critical for the literature to include “the ways in which the structures, resources and organizational norms of high schools facilitate college enrollment (p. 133). Specifically, the authors posited that such inclusion will support an understanding of how to enable students to better “make the journey from high school to college” – or not (Engberg & Wolniak, 2010, p. 133). Further, Engberg and Wolniak (2010) noted that “without such attention to this critical nexus, the majority of research will continue to exist within educational silos, providing only partial solutions to a complex problem that extends beyond the traditional boundaries of K-12 and postsecondary education” (p. 133). Among other variables, the authors studied highest level of mathematics proficiency, AP courses taken and GPA to measure quality for human capital (Engberg & Wolniak, 2010). Engberg and Wolniak (2010) found that as students’ level of mathematics and GPA increased, so did their likelihood of enrolling in college, with more significance for four-year enrollment; and that AP course participation increased the likelihood of enrolling in college at the four-year level. In sum, the authors noted that “taken together, these findings highlight the salience of students’ academic performance (and the exposure to
high quality academic curriculum) during secondary school in fostering an increased likelihood of attending a postsecondary institution” (Engberg & Wolniak, 2010, p. 145).

Finally, Engberg and Wolniak (2010) found that as expectations raised for secondary students, so does the rate of increase of college enrollment; that students’ SES status is closely associated with college enrollment; that academic achievement variables were the most significant across the human capital index; and that it is essential for secondary schools to promote an environment propitious for increased college enrollment.

**Rural Poor and Proximity to College.** Flint (1992) noted enrollment decision-making as a three step process, notably ending with decisions influenced by “available options” based, in part, on geographic location (p. 690). Frenette (2004) presented that longer distances to colleges are associated with lower rates of enrollment, a phenomenon particularly prevalent in poor families. Frenette (2004) further noted that rural students face “geographic barriers” which result in financial need; and further referenced a considerable increase in college enrollment for students living within a reasonable distance to a college (p. 429). Turley (2006) postulated that rural poor families are “locally oriented” with most families wanting their youth to remain at or near home during college studies (p. 826). In a subsequent scholarly submission, Turley (2009) posited that the “ability to attend college close to home is often among the most important factors that US high school students, especially minorities and the socioeconomically disadvantaged, consider” (p. 126). In researching college location proximity with a sample of high school seniors, Turley (2009) found that college proximity impacts college enrollment significantly, particularly at the four-year level. The author noted that college decision making “is a result not only of a youth’s characteristics, but of the local opportunity structure”, a theory identified in the literature as the “geography of opportunity” (Turley, 2009, pp. 126-127). Turley (2009)
postulated that certain financial benefits, including the ability to cut expenses and save money while living at home during college is of value; and that living with or near relatives is preferable to lower SES students. The author also noted that counties with postsecondary institutions realize higher rates of enrollment than those that do not (Turley, 2009). Fletcher and Tienda (2009) suggested that peer influence and friendship cohorts within geographic contexts affect enrollment decisions. Cooke and Boyle (2011) presented that the “decision to attend college is clearly spatial; student enrollment choices are inevitably based to some degree on the spatial distribution of enrollment opportunities relative to their place of high school residence” (p. 203). The authors further noted that students living more closely to colleges enroll at higher rates given that colleges are a part of the community culture (Cooke & Boyle, 2011).

Finally, Turley (2009) noted that for myriad reasons, economic and otherwise, “many (if not most) students and parents in the US believe that attending a college that is close to home is important”, particularly given the economic and emotional needs of families in rural lower SES contexts (p. 128). As crucially included as a variable in the present study, and given its paucity in the literature, the impact of living near colleges or universities on increases in the rate of college enrollment in the rural context is worthy of continued study as a variable in college enrollment analyses.

**Structural Poverty and Rural Kentucky**

“...Kentucky – land of storybook hills and drawls – just might be the hardest place to live in the United States. Statistically speaking.” (Lowery, 2014, p. 1)

Rank et al. (2015) attributed the structural nature of poverty to the impotence of the US labor market; the inadequacies of US social policy to significantly reduce poverty through governmental assistance; and the structural and systemic aspects of American society relative to
the fact that a majority of Americans will experience poverty in their lifetimes as a seemingly intractable reality contributing to deep, systemic generational cycles of poverty. The authors also recommended that adding and studying educational “inequities” – yet another structural failing in the view of the authors – could advance their seminal poverty theory (Rank et al., 2015, p. 22).

The present research, intended to advance structural poverty theory in the rural context of Kentucky, measures two- and four-year college enrollment as the dependent variable; and employment rate, poverty line placement, single parent households, standardized tests, AP courses, and concentric presence of institutions of higher education as independent variables to determine if structural factors are impactful and predictive for college enrollment.
Chapter Three

The most basic of questions regarding the causes of American poverty – why it exists and how to reduce its effects – occupies social science scholars, theoreticians, ethicists, policy makers and community leaders. Rank et al. (2015) specifically noted limited job opportunity and inadequate wages to avoid poverty – a decidedly rural phenomenon; ineffective social policy – a reality that has been particularly impactful on rural contexts; and the fact that most Americans will experience poverty in their lifetimes – an overwhelming reality in rural America – as the basis for structural poverty theory. Rank et al. (2015) found that persistent, generational US poverty is a result of consistent structural failures at the “economic, political and social levels” and less about individual failure (p. 3). In advancing this theory, three (3) years of data were obtained using county-level measures (n=120) representing socioeconomic and educational factors addressing secondary school programming and curriculum quality; secondary students’ and families’ perceptions of access to postsecondary education; and socioeconomic factors as structural constraints for escape from rural, intergenerational poverty. Given the authors’ recommendation that educational factors should be added to their influential theoretical framework, and further that postsecondary education can serve as an ameliorator for the constraints of generational poverty, the purpose of the present study is to examine socioeconomic, familial and educational structural factors in Kentucky in order to research the following question: How do socioeconomic, familial and educational structural factors impact two- and four-year college enrollment?

Context and Setting

The theory of structural poverty addresses the critical societal and infrastructural constraints that intractably limit access to upward mobility for American individuals seeking to
escape poverty, and more particularly generational cycles of poverty. The assertions made by Rank et al. (2015) attempt to divert American prepossession with failures at the individual level by examining societal failures that structurally limit individuals and families from escaping persistent cycles of poverty. The phenomenon of geographic or rural structural determinism is analyzed in the present study in Kentucky.

Lowrey (2014) noted there to be many difficult places in which to live in the US such as Detroit, Camden and Gary; inland California; or desolate Native American reservations – but certain regions within Kentucky may be the hardest with the most challenges. Isolation, diminishing resources, decreases in manufacturing, the abandonment of the coal industry and lack of investment in certain areas of Kentucky, an overwhelmingly rural state, have contributed to intergenerational poverty for decades (Lowrey, 2014).

Participants and Sampling

All Kentucky counties \((n=120)\) and its public secondary schools \((n=229)\) were selected for the present research. Public secondary schools were coded as urban or rural based on the following definition of rural: non-urban geographic areas; particularly counties, school districts and secondary schools located outside Metropolitan Statistical Areas (MSAs) with a population of at least fifty-thousand \((50,000)\), excluding outlying counties that are integrated into the MSA with reasonable commuting opportunities (Byun et al., 2012). The unit of analysis was county with schools nested within counties; therefore, the school effects, serving as a limitation, confounded the county effects.

The following graphic below and table two (see Appendix F) illustrate the counties and schools:
Figure 1. This figure illustrates the counties and schools in the state of Kentucky.

The general linear model will be utilized to investigate the effect of the various factors on college attendance. Independent variables in the model included socioeconomic and familial factors in each county including employment rate, poverty line placement and single parent households with current US Census Bureau data of record. Further, educational factors in each county including standardized test results, participation in AP courses and concentric presence of institutions of higher education for years 2011-2014 using state level education data. (The number of institutions of higher education was measured using the total number of accredited postsecondary institutions registered with the Commonwealth of Kentucky located within fifty [50] miles of the ‘county seat’ [town] within each county.)
Table 3

**Definitions of Independent Variables**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Number of colleges</em></td>
<td>Number of state colleges or universities located concentrically within fifty (50) miles from the “county seat/main town” of each Kentucky county</td>
</tr>
<tr>
<td><em>AP enrollment rate</em></td>
<td>Percentage enrolled in secondary school</td>
</tr>
<tr>
<td><em>2/4-year average ACT</em></td>
<td>Average score for students enrolling in a two- or four-year institution for a secondary school</td>
</tr>
<tr>
<td><em>Graduation rate</em></td>
<td>Average score for students graduating from secondary school</td>
</tr>
<tr>
<td><em>Poverty percentage</em></td>
<td>Percentage of individuals living below the federal poverty line county by county</td>
</tr>
<tr>
<td><em>Single parent households</em></td>
<td>Percentage of individuals residing in a single parent home county by county</td>
</tr>
<tr>
<td><em>Unemployment rate</em></td>
<td>Unemployment percentage county by county</td>
</tr>
</tbody>
</table>

**Data Collection**

Socioeconomic, familial and educational data were obtained for all one-hundred and twenty (n = 120) Kentucky counties from the US Census Bureau; the Council for Postsecondary Education in Kentucky; the Kentucky Center for Education and Workforce Statistics; and the website for the Commonwealth of Kentucky, including all public high schools in the counties. The US Census Bureau conducts field exercises every ten (10) years, but also consistently canvasses for information, using state records as sources for the data used in the present research. The Council for Postsecondary Education in Kentucky (CPE) works closely with and monitors postsecondary education institutions in Kentucky and provided the geographic and concentric
location of institutions of higher education in Kentucky which is collected and updated annually. The Kentucky Center for Education and Workforce Statistics (KCEWS) annually collects county-level education and workforce data from individual counties. Importantly, the Center’s mission was noted as follows:

It is the mission of the Kentucky Center for Education and Workforce Statistics to develop education, workforce, and employment metrics to inform broad public policy initiatives so that policymakers, practitioners, and the general public can make informed decisions (www.kcews.ky.gov).

Secondary data were obtained, assessed and synthesized from the US Census Bureau at www.census.gov; and from the Commonwealth of Kentucky at its Department of Education at www.education.ky.gov; its Council on Postsecondary Education at www.cpe.ky.gov; and its Kentucky Center for Education and Workforce Statistics at www.kcews.ky.gov.

Importantly, Stewart and Kamins (1993) offered that secondary sources of data gained from expert and authoritative sources as researched for the present study are of significant value and utility. The authors further noted that secondary data is vital for basic research conducted by social scientists, but is often more important, useful and helpful for applied researchers seeking to advance existing knowledge to solve an existing problem (Stewart & Kamins, 1993). Smith (2008) noted that secondary data analysis is “under-used” and “offers numerous methodological, theoretical and pedagogical benefits” in educational and social science research. Johnston (2013) asserted secondary data sourcing to be an "empirical exercise and a systematic method with procedural and evaluative steps” just as with collecting primary data, and presented the following questions essential to this research approach, with answers relative to the present study added as follows:
• What was the purpose of the study?
  o To advance the educational component of structural poverty theory by assessing college enrollment in the Commonwealth of Kentucky.

• Who was responsible for collecting the information?
  o The doctoral candidate serving as researcher and author of the present study.

• What information was actually collected?
  o Secondary data obtained from multiple websites for the Commonwealth of Kentucky and its public secondary schools.

• When was the information collected?
  o Between January 2016 and May 2017.

• What methodology was employed in obtaining the data?
  o Review of websites with apposite secondary data.

• What processes and protocols were utilized by the primary researchers?
  o Primary researchers and survey professionals from the scholarly and governmental sectors provided secondary data obtained. These entities within the federal and state governments are considered the authorities in the field of educational, employment and demographic statistics.

• How consistent is the information obtained from one source with information available from other sources? (pp. 619-623)
  o As primary sources, these data serve authoritatively in the scholarly and governmental sectors as definitive statistics.

The sources for data collection are found in table four (4).
Table 4

*County and School Measures Model*

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of colleges (50)</td>
<td>CPE</td>
</tr>
<tr>
<td>AP enrollment rate</td>
<td>KCEWS</td>
</tr>
<tr>
<td>Avg ACT 4-year public</td>
<td>KCEWS</td>
</tr>
<tr>
<td>Avg ACT 2-year public</td>
<td>KCEWS</td>
</tr>
<tr>
<td>Graduation rate</td>
<td>KCEWS</td>
</tr>
<tr>
<td>Poverty percentage</td>
<td>US Census Bureau</td>
</tr>
<tr>
<td>Single parent households</td>
<td>US Census Bureau</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>US Census Bureau</td>
</tr>
<tr>
<td>Number of colleges (50)</td>
<td>CPE</td>
</tr>
</tbody>
</table>

Dependent Variables

- Two-year college going rate
- Four-year college going rate

**Analysis Design**

Schools were initially assessed by examining graduation rates and college going rate for 2011-2014 in order to investigate the following research question: *how do socioeconomic, familial and educational structural factors impact two- and four-year college enrollment?* Two- and four-year college enrollment were measured as dependent variables; and employment rate, graduation rate, poverty line placement, single parent households, standardized testing results, participation in AP courses and concentric presence of institutions of higher education were measured as independent variables in a general linear model with analyses of variance (ANOVA) and covariance (ANCOVA) to examine the interaction of region and poverty. Importantly, three-year averages were calculated for differences year to year with little or no effect size. In order to examine this interaction, a 2x2 full factorial ANOVA was utilized for two- and four-year enrollment where:

\[ y_{ij} = \mu + a_i + b_j + (ab)_{ij} + e_{ij} \]
Table 5

Identification of Terms in 2 x 2 Factorial Design

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ai</td>
<td>Region</td>
</tr>
<tr>
<td>Bj</td>
<td>Poverty</td>
</tr>
<tr>
<td>abij</td>
<td>Region by Poverty Group</td>
</tr>
<tr>
<td>eijk</td>
<td>Error</td>
</tr>
</tbody>
</table>

To examine the effects of region and poverty while controlling for the featured structural factors, a 2x2 full factorial ANCOVA was utilized for two- and four-year enrollment where:

\[
y_{ij} = a_i + b_j + (ab)_{ij} + \text{(cov}_1\text{)} + \text{(cov}_2\text{)} + e_{ijk}
\]

Table 6

Identification of terms in ANCOVA.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>ai</td>
<td>Region</td>
</tr>
<tr>
<td>bj</td>
<td>Poverty</td>
</tr>
<tr>
<td>abij</td>
<td>Region by Poverty Group</td>
</tr>
<tr>
<td>cov1</td>
<td>Socioeconomic factors (unemployment average)</td>
</tr>
<tr>
<td>cov2</td>
<td>Education factors (AP course average, graduation rate, ACT average)</td>
</tr>
<tr>
<td>eijk</td>
<td>Error</td>
</tr>
</tbody>
</table>
Chapter Four

Findings

Descriptives

Prior to the primary analyses, a series of descriptives were run on the predictor and
dependent variables. Low poverty was defined as counties below the Commonwealth average
for the percentage of the population living in poverty; and high poverty was defined as those
counties living above the Commonwealth average for the percentage of the population living in
poverty. See tables seven (7) and eight (8).

Table 7

Descriptive Statistics for KY Counties (n=120) With Nested School Effects (n=229)

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
<th>Overall Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Poverty</td>
<td>54</td>
<td>62</td>
<td>116</td>
</tr>
<tr>
<td>High poverty</td>
<td>6</td>
<td>107</td>
<td>113</td>
</tr>
<tr>
<td>Overall</td>
<td>60</td>
<td>169</td>
<td>229</td>
</tr>
</tbody>
</table>

Table 8

Descriptive Statistics for Four and Two-Year College Attendance

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-year college attendance</td>
<td>0.43</td>
<td>0.17</td>
<td>(.41 - .45)</td>
</tr>
<tr>
<td>Two-year college attendance</td>
<td>0.39</td>
<td>0.19</td>
<td>(.37 - .42)</td>
</tr>
</tbody>
</table>

An ANOVA was run to determine if region, poverty level or the interaction between
region and poverty level resulted in significant differences in the four-year college going rate.
The results revealed that that region, $F(1, 225) = 10.88, p < .01$ and the interaction between
region and poverty grouping, $F(1, 225) = 5.17, p < .05$, resulted in significant differences in the
four-year college going rate. Those in urban high poverty areas were significantly more likely to attend college than those in rural areas. The two regional groups were similar in attendance in areas of low poverty and those in urban areas attended college more frequently. In areas of high poverty, those in urban areas were more likely to attend college in comparison to those in rural areas. Region and region x poverty were significant. There was no prediction from one’s poverty grouping, $F(1, 225) = .76, p > .05$ in the four-year college going rate. Sixteen percent (16%) of the variance in college attendance was explained in the model. See table nine (9).

Table 9
*Between-Subject Effects for Four-Year Going Rate (ANOVA)*

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Sq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>3</td>
<td>14.74</td>
<td>.00</td>
<td>0.16</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>807.19</td>
<td>.00</td>
<td>0.78</td>
</tr>
<tr>
<td>Region</td>
<td>1</td>
<td>10.88</td>
<td>.00</td>
<td>0.05</td>
</tr>
<tr>
<td>Poverty Group</td>
<td>1</td>
<td>.76</td>
<td>.39</td>
<td>0.003</td>
</tr>
<tr>
<td>Region x Poverty Group</td>
<td>1</td>
<td>5.17</td>
<td>.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Error</td>
<td>225</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>228</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: R squared = .16*

Next, an ANCOVA was run with the previously mentioned predictors holding constant AP, graduation rate, ACT four year, unemployment history, single parent household, and colleges within 50 miles adjust across the school districts. The results revealed that region $F(1, 210) = 1.29, p > .05$, poverty level $F(1, 210) = .57, p > .05$ and the interaction between region and poverty $F(1, 220) = .22, p > .05$ resulted in no significant prediction in the four-year college going rate when the predictors were held constant across school districts. AP rate, graduate rate, ACT four-year rate, and unemployment history provided significant prediction in the four-year
college going rate. Thirty-six percent (36%) of the variance in college attendance was explained in the model. See table ten (10).

Table 10  
*Between-Subject Effects for Four-Year Going Rate (ANCOVA)*

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Sq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>9</td>
<td>13.07</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>25.07</td>
<td>.00</td>
<td>.10</td>
</tr>
<tr>
<td>Region</td>
<td>1</td>
<td>1.29</td>
<td>.26</td>
<td>.004</td>
</tr>
<tr>
<td>Poverty Group</td>
<td>1</td>
<td>.57</td>
<td>.45</td>
<td>.000</td>
</tr>
<tr>
<td>Region x Poverty Group</td>
<td>1</td>
<td>.22</td>
<td>.64</td>
<td>.001</td>
</tr>
<tr>
<td>AP Course Average</td>
<td>1</td>
<td>8.75</td>
<td>.00</td>
<td>.04</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>1</td>
<td>12.47</td>
<td>.00</td>
<td>.06</td>
</tr>
<tr>
<td>ACT Four year average</td>
<td>1</td>
<td>13.38</td>
<td>.00</td>
<td>.06</td>
</tr>
<tr>
<td>Unemployment Average</td>
<td>1</td>
<td>30.16</td>
<td>.00</td>
<td>.13</td>
</tr>
<tr>
<td>Single Parent Household</td>
<td>1</td>
<td>1.93</td>
<td>.17</td>
<td>.01</td>
</tr>
<tr>
<td>Colleges within 50 miles</td>
<td>1</td>
<td>.02</td>
<td>.90</td>
<td>.00</td>
</tr>
<tr>
<td>Error</td>
<td>210</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>220</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>219</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: R squared = .36*

An ANOVA was run to determine if region, poverty level or the interaction between region and poverty level resulted in significant differences in two-year college going rate. The results revealed that that region, $F(1, 225) = 10.84, p < .01$ and interaction between location and poverty grouping, $F(1, 225) = 4.41, p < .05$, lead to significant differences in two-year college going rate. Those in urban areas were significantly less likely to attend two year-college than those in rural areas. There was no prediction from one’s poverty grouping $F(1, 225) = .46, p > .05$. This impact was magnified in high poverty areas where those in high poverty rural areas
were more likely to go to two-year college than those in urban areas. Fifteen percent (15%) of the variance was explained in the model. See table eleven (11).

Table 11

*Between-Subject Effects for Two-Year Going Rate (ANOVA)*

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>3</td>
<td>12.93</td>
<td>.00</td>
<td>.015</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>327.20</td>
<td>.00</td>
<td>.059</td>
</tr>
<tr>
<td>Region</td>
<td>1</td>
<td>10.84</td>
<td>.00</td>
<td>.05</td>
</tr>
<tr>
<td>Poverty Group</td>
<td>1</td>
<td>.46</td>
<td>.50</td>
<td>.002</td>
</tr>
<tr>
<td>Region x Poverty Group</td>
<td>1</td>
<td>4.41</td>
<td>.04</td>
<td>.02</td>
</tr>
<tr>
<td>Error</td>
<td>225</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>229</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>228</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* R squared = .15

Next, an ANCOVA was run with the previously mentioned predictors holding constant AP, graduation rate, ACT four year, unemployment history, single parent household, and colleges within 50 miles. The results revealed that region, \(F(1, 218) = .82, p > .05\), poverty group \(F(1, 210) = .44, p > .05\), and the interaction between region and poverty \(F(1, 220) = .13, p > .05\) resulted in no significant prediction in the two-year college going rate when the predictors were held constant across school districts. The results indicated that the previous significant findings of region and region by poverty level were cofounded by the AP course average, graduation rate, ACT four-year average, and unemployment history effects on the overall college going rate. Forty-five percent (45%) of the variance was explained in the model. See table twelve (12).
Table 12

*Between-Subject Effects for Two-Year Going Rate (ANCOVA)*

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Sq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>9</td>
<td>19.93</td>
<td>.00</td>
<td>.45</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>2.09</td>
<td>.15</td>
<td>.01</td>
</tr>
<tr>
<td>Region</td>
<td>1</td>
<td>.82</td>
<td>.37</td>
<td>.004</td>
</tr>
<tr>
<td>Poverty Group</td>
<td>1</td>
<td>.44</td>
<td>.51</td>
<td>.002</td>
</tr>
<tr>
<td>Region x Poverty Group</td>
<td>1</td>
<td>.13</td>
<td>.72</td>
<td>.001</td>
</tr>
<tr>
<td>AP Course Average</td>
<td>1</td>
<td>9.69</td>
<td>.00</td>
<td>.04</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>1</td>
<td>6.37</td>
<td>.01</td>
<td>.028</td>
</tr>
<tr>
<td>ACT Two year average</td>
<td>1</td>
<td>38.49</td>
<td>.00</td>
<td>.15</td>
</tr>
<tr>
<td>Unemployment Average</td>
<td>1</td>
<td>43.71</td>
<td>.00</td>
<td>.17</td>
</tr>
<tr>
<td>Single Parent Household</td>
<td>1</td>
<td>.18</td>
<td>.68</td>
<td>.001</td>
</tr>
<tr>
<td>Colleges within 50 miles</td>
<td>1</td>
<td>.89</td>
<td>.35</td>
<td>.004</td>
</tr>
<tr>
<td>Error</td>
<td>218</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>228</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>227</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: R squared = .45*

**Summary**

In both outcomes, region is a significant predictor; and region by poverty interaction is significant for the two-year and four-year public rates. When covariates are added, the impact of region and the interaction of region and poverty are mediated.
Chapter Five

Summary and Discussion

The present study has assessed rural generational poverty and its effects, particularly on secondary school youth and their families, schools and communities; and the intersection of secondary school quality and access to higher education for improved life outcomes for rural poor youth. The purpose of the present research was to advance structural poverty theory by combining and testing socioeconomic and educational factors in all Kentucky counties and public school districts to determine predictability for college enrollment, thus providing a useful and significant model for future interventions in secondary school contexts across rural areas of the United States with critical statewide, regional and national implications. Critically, the present study sought to answer the following research question: How do socioeconomic, familial and educational structural factors impact two- and four-year college enrollment?

Synthesis of Findings

Rank et al. (2015) established the structural limitations of American society as cited in the present research, with educational factors being added for the advancement of the theory. In the present study, and relative to the added educational context, interactions between youth, their family and their secondary school produced significant results, thus resulting in a useful and effectual ‘roadmap’ for improving college enrollment in Kentucky. Results demonstrated the normative relationship between employment rate (Snyder & McLaughlin, 2004); poverty line placement (Lichter & Eggebeen, 1994); rate of single parent households (Snyder & McLaughlin, 2004); quality of secondary school programming (Strange, 2011); and the concentric presence of institutions of higher education (Morrison, 2011) within some of Kentucky’s poorest counties as structural predictors for college enrollment. The significant interaction found between region
(rural location) and poverty is of statistical significance relative to the improvement of college enrollment, particularly for the rural disadvantaged. Specifically, when controlling for AP course participation, college entrance exam preparation and unemployment average, four-year college enrollment increased significantly in the rural context in Kentucky.

**Implications**

Given demands for college graduates in the US marketplace, and the decade’s long desperate need for rural poor youth to escape generational cycles of poverty, the results of the present study and the resulting model can significantly assist with the goal of the amelioration of generational cycles of rural poverty within families through the increase of college enrollment. Central to these findings is the essential role of the secondary school in rural communities; and though these schools are resource deprived, failure for the rural poor students and their families bears costs to society far too significant to ignore. The specific model deriving from the present research, which addresses and includes rural lower socioeconomic factors as confirmed in the literature, has broad application for policy makers, practitioners and community leaders alike. Structural poverty contemplates macro-oriented societal constraints; however, the implications of the present research are such that poverty may be addressed in individual secondary schools as an approach to addressing rural poverty. Approaches with a micro-orientation, particularly focusing on academic and goal planning for AP courses, as well as exercises addressing self-awareness activities and improved family-teacher relations begin to address generational poverty at the ‘ground’ or ‘grassroots’ level. Given the repeated and systemic failures of myriad policies over the decades, the secondary school, in conjunction with the Council for Postsecondary Education and policy makers, is uniquely positioned to intervene and begin to make significant progress student by student, family by family, school by school, county by county and state by
state. The present research offers a plan of action for practitioners and policy makers alike at Kentucky’s educational institutions to reconsider their pedagogical approach (relative to AP course entry and college exam preparation) and marketing efforts (relative to the value and perceptions of access to college) for college readiness for Kentucky’s rural poor youth.

**Limitations**

The unit of analysis in the present research was at the county level, and as such, there existed instances whereby multiple schools were nested within a single district causing overlap. This indicates that the district effect may be confounded in school level variability. Further, an unbalanced sample resulted in a low number of urban high poverty schools. County-level measures that were measured outside the three-year sample of data also presented a phenomenon known as the “ecological fallacy”, which asserts that “correlations between macro-level variables cannot be used to make assertions about micro-level relations” (Snijders & Bosker, 2012). This was addressed by averaging the three years of data.

Further limitations included the exclusion of vocational postsecondary training programs such as carpentry, electrical, plumbing, chef training and other programs that may be offered in non-traditional contexts, though community colleges do in fact offer these service lines. Data submitted to the Census Bureau has limits pertaining to accuracy of information provided by citizens and their requirement to comply.

Finally, while the present research has established the crucial role-played by the secondary school in the increase of college enrollment within the rural poor youth population, the cultural dynamic within these schools is affective and varies significantly.
**Future Research**

Additional data collection to advance structural theory and enhance the present research is warranted. Specifically, continued study of the intersection of AP course completion, graduation rate, ACT or SAT preparation and the intentional pursuit of the increase of employment rates in local areas is in order for improved college enrollment. Further, continuing to study the familial and secondary school dynamic will enhance not only college enrollment, but may further studies of college persistence, thriving and college graduation rates among the rural poor population. Further study of the family dynamic for students who successfully navigate a postsecondary education but often face family guilt or difficulty with reintegration in their rural home area, as well as those who struggle to integrate away from their rural home area after merits continued study. Continued study and research of resilience and its relationship to the rural family dynamic and the potential of improved parental involvement is warranted. Case studies for “successful” secondary schools with academic achievement and college enrollment rates above the mean should be studied. Further studies for mentoring and improved self-awareness in rural contexts is crucial. Finally, studies seeking to couple extant data with qualitative research in order to understand the cultural dynamic within particular counties, school districts and individual schools will advance structural theory in the educational context in the scholarly community.

**Recommendations**

Given the paucity of rural poverty research in the literature and the established need for individual and group interventions in the Commonwealth of Kentucky, the results and findings in the present exploratory research compels substantive recommendations, not only for further study, but also for daily practice, particularly as it relates to the role and function of secondary
schools for the improvement of college enrollment and life outcomes for rural poor youth (Tickameyer & Duncan, 1990). Institutions of higher education, the Council for Postsecondary Education (CPE) and the Kentucky state government must consider policies and investments in teacher and practitioner development and other marketing efforts to increase awareness of the present research. Further, at little or no cost, efforts to engage the family and support structures of students as established in the present study can lead to targeted efforts (ideally in conjunction with the family) to begin to address each student’s present circumstances and barriers better enable each individual student to consider and plan for his or her future.

The present research has provides a framework for future interventions for the Commonwealth of Kentucky. Specifically, the CPE may consider the coordination of efforts with secondary and postsecondary leaders to focus on AP course enrollment and college entrance exam preparation on a ‘grassroots’, county by county, school by school level. These efforts, in conjunction with local governments addressing the unemployment rate, constitute a plan of action as provided in the present research.

**Assisting the Rural Educators**

The literature establishes that rural educators face significant challenges, most often in an environment of limited resources with a high percentage of students facing deep rural poverty (Silverman, 2005). Through support received from academic administrators, it is vital for educators to understand the full scope of challenges faced by rural students, and specifically the impact of those challenges and the full family dynamic on learning processes for students. As such, formation of pedagogy and flexibility within mandated curriculum that includes *self-awareness* may serve to assist with this reality within a supportive and sympathetic approach to educating rural poor youth and preparing them for postsecondary opportunities. Angelis and
Wilcox (2011) were referenced earlier in the present study relative to the importance of a positive and supporting culture for students as being part of examples of successful rural secondary schools (p. 30). As such, the current recommendations address specific components of an innovative pedagogical approach, in conjunction with the CPE and postsecondary institutions, which focuses on rural disadvantaged students in secondary school, particularly in circumstances where time is limited for one-on-one interactions.

**Self-awareness.** The present study has explored the daily reality and struggles that many rural poor youth experience each day. When a student is facing hunger, long commutes, social anxiety, inferiority, remoteness, boredom, family issues and academic challenges, not only does this routine impede performance, but also causes myriad psychological and social difficulties (Amato & Zuo, 1992). These difficulties tend to produce depression and overall poor general health, chronic stress, increased pregnancy rates, drug and alcohol use, low level crime, poor classroom performance, fighting in school, truancy and poor relationship management (Amato & Zuo, 1992).

Bertrand et al. (2006) referenced the “truism” about human behavior as being a function of both the person and the situation (p. 9). The authors noted the “power of the situation” as many times seeming uncontrollable, unmanageable or inescapable (Bertrand et al., 2006). The secondary school, at the time of the ninth grade, is a time for introspection, evaluation and planning for all students, but particularly for rural poor students without the proper support structure at home (Dyce et al., 2013). The secondary school is the logical and most effective institution within a rural poor youth’s structure that offers the best opportunity for preparation for improved outcomes through postsecondary attainment. These processes heighten expectations and begin to build a positive environment for rural poor youth, both in a collective and individual
sense. Collectively, these processes build a culture of achievement and possibility; and individually, these processes build a sense of self-worth and a positive view of what may actually be possible in life. More affluent students will also benefit in the collective sense with improved self-identity.

Caldwell (2009) presented that “personal identity and self-awareness have been identified as critical elements of effectiveness in creating relationships with others” (p. 393). Vitally, the author noted that “one’s identity defines how an individual affirms his/her worth to others and to self” (Caldwell, 2009, p. 393). Caldwell noted that self-awareness “includes the degree to which we are sensitive to how we are perceived”; and that the concept “involves have a deep understanding of one’s emotions, as well as one’s strengths and limitations and one’s values and motives” (p. 395). Particularly relevant to the rural poor context, the author opined that “the ability to confront the realities about life and about ourselves begins with a willingness to thoughtfully take a personal inventory” of “who we are”, “what we believe”, and what one may see as possible for their futures (Caldwell, 2009, p. 397).

Rodgers (2005) postulated that instilling self-awareness in students “should be added to the standard goals” in classrooms; and that such an approach promotes objectivity about one’s disadvantaged circumstances (pgs. 52-53). When preparing programming for such efforts, Karakas (2010) suggested the following questions:

- What do I stand for? What do I believe in? Why?
- What brings me suffering? What makes me weep? Why?
- What am I passionate about? Why?
- What keeps me awake at night? Why?
- What do I want for my life? Why?
• What do I really care about? Why?

Palmer (2010) noted that self-consciousness is not only awareness of our environment, but also awareness of what is of value in our lives. Wrosch and Scheier (2003) reminded us that “personality affects quality of life by influencing how people approach and react to critical life situations” (p. 59). As a part of this recommendation, it is important for practitioners to take into account youths’ personalities, self-consciousness and full breadth of familial and life circumstances to avoid the temptation of labeling and judging; and thus avoid assisting in conceding the postsecondary futures of many rural poor youth in the classroom (Gutierrez et al., 2009). Importantly, for such programming to be efficacious, it is the practitioner’s understanding of a student’s perspective and sense of self-consciousness and self-awareness that often precedes the student’s attainment of this state of being. With proper execution, this also leads to improved self-regulation; and learning and skills acquisition for rural poor students (Kitsantas, Reiser, & Doster, 2004). Finally, when this approach is couple with a mentor program, whether the mentor emanates from inside or outside the secondary school environment, rural poor students may improve their individual self-perceptions which serves to increase their motivation for achievement (Hardre et al., 2007).

Relative to enhanced academic pursuits vis-à-vis AP enrollment, ACT preparation and other markers of academic focus, increased self-awareness may lead to improved planning and goal-oriented processes. Ivanevich and McMahon (1982) found that goal setting has significant practical utility in life. Li and Butler (2004) noted that commitment to goal setting was associated with performance, task management, improvement of skills and overall well-being. Locke and Latham (2006) found that goal setting is affective relative to self-satisfaction and performance. Schweitzer, Ordonez and Douma (2004) presented that individuals receive
psychological rewards when goals are attained. Kitsantis, Reiser and Doster (2004) found that self-regulation and learning is enhanced when personal planning processes are employed.

In the educational context, Hardre et al. (2007) referenced that individualized academic planning influences the quality of students’ efforts in academic and personal contexts; and increases rates of positivity relative to their self-perception and motivation to achieve. Wicker, Brown, Hagen, Boring and Wiehe (1991) noted that student perceptions of goal setting are affective relative to results. Gaa (1973) found that goal setting significantly increased classroom achievement; and that goal setting students outperformed non-goal setting students (p. 22). Self-Brown and Mathews (2003) found that with an emphasis on goal setting in the classroom environment, the result leads to positive effects in learning, self-identity and task management

Rader (2005) postulated that

Our education system focuses on filling students’ heads with the “what” of learning – data, facts, and figures – and as a result, the student may become passive. However, theories of self-esteem and motivation as well as research about resilience emphasize the importance of reinforcing the belief that students have some control over what is occurring in their lives.

When students write down their goals, they are forced to examine themselves and see their own dreams. This is important because, ultimately, reflecting on why they hope to achieve their goals, rather than simply knowing what their goals are, is what motivates them to pursue their life ambitions (p. 123).

Academic planning processes, when established after a period of self-awareness exercises with the support of teachers, counselors, coaches and/or mentors, may function as a transformative (and low cost, if any) pedagogical approach for rural poor youth and their families, leading to
improved outcomes. These processes may serve as a significant component of rural curriculum in secondary schools.

Finally, in anticipating college enrollment for rural poor youth, Elkins (2014) noted four significant barriers particular to rural students that may be anticipated and addressed earlier by secondary and postsecondary institutions. The author presented that a lack of comfort with college; lack of preparedness; limited resources; and a lack of a support system are critical (Elkins, 2014, pgs. 1-2). Each of these phenomena may be addressed at the secondary school level relative to postsecondary preparation. College and universities can also assist in these processes by coordinating with secondary schools and directly messaging to rural poor youth. Marketing efforts and consistent, strategic and coordinated visits to schools to speak to students, faculty and counselors must be undertaken, recruiting based on need and merit.

Is Poverty Solvable?

Organizations such as The Heritage Foundation frequently challenge scholarly theories and governmental measurements of US poverty. In a report entitled “Poverty and Inequality”, Sheffield and Rector (2014) referenced that the US government has spent approximately $22 trillion on anti-poverty programs annually supporting one in three Americans with no appreciable progress having been made since the 1960s (pp. 3-4). The authors contended that the quality of living conditions for the poor steadily improve; that most poor people in the US do not experience hunger or food shortages; that many analysts and scholars are misguided in their views that the poor suffer mental deprivation; and that chronic undernourishment simply doesn’t exist in the US (Sheffield & Rector, 2014, pp. 4-6). The authors further postulated that the purpose of anti-poverty programming was never intended to continue to dole out “ever-enlarging” populations with “ever-increasing” benefits at the expense of building self-sufficiency
(Sheffield & Rector, 2014, p. 7). Sheffield and Rector (2014) concluded that “the vast expansion of the welfare state has dramatically weakened the capacity for self-sufficiency among many Americans by eroding the work ethic and undermining family structure” (p. 10).

Further,

This lack of progress in building self-sufficiency is due in major part to the welfare system itself. Welfare wages war on social capital, breaking down the habits and norms that lead to self-reliance, especially those of marriage and work. It thereby generates a pattern of increasing intergenerational dependence. The welfare state is self-perpetuating (pp. 10-11).

For the purpose of the present study, sentiments such as these, however misguided or unsupported, are still undeniably present in the American consciousness and serve as another element of existing structural limitations that exist for rural poor youth and their families. Rank, Yoon and Hirschl (2003) sought to pierce through thinking as presented by Sheffield and Rector. Structural poverty theory, in addressing misunderstandings about individual failure, suitably accomplishes this important objective.

Christian Cooper (2017) wrote pessimistically of his own personal experiences, escaping generational poverty after growing up in eastern Tennessee by chance, by luck, according to the author. Cooper, a very successful and educated businessman, felt that he represents the “exception that proves the rule, but that rule is that escape from poverty is a matter of chance, and not a matter of merit” (p. 7). London (2006) wrote about a path self-sufficiency and noted that not all welfare recipients are prepared for postsecondary education, and as such, should not be encouraged to attend. The author postulated that “barriers to employment such as mental
health and substance abuse problems, low literacy and learning disabilities are pervasive among the welfare population” (London, 2006, p. 473).

These analyses and points of view present compelling questions for the American public in our ongoing discourse regarding urban and rural poverty such as:

- Is poverty solvable?
- Are most individuals living in a state of dependency simply incapable of self-sustaining behaviors?
- When individuals ‘escape’ poverty, is it a matter of chance, timing and luck?
- What is the mission of secondary education?
- What is the mission of postsecondary education?
- What is the value of a college education in American society?
- How do we maintain sustainable employment and economic opportunities for rural areas?
- What is the role of local governments, churches and other non-profits in coordination with the education community in improving rural poverty statistics and intervening in the lives of at-risk youth?
- What is the moral obligation of civilized, industrialized American society relative to the lives and futures of its disadvantaged youth?

**Conclusion**

Rural poverty has its own unique context, character and structural constraints. The concept of rural life often conjures images of a simpler, easier way of living and of life, but for many economically disadvantaged families and youth in rural Kentucky, there exists a dichotomous rural reality. In many rural Kentucky contexts, a pervasive mentality of
determinism has proven over time to be intractable within communities and families, difficult to alter from one generation to the next and that often views achievement or success as anathema. This rural structure in Kentucky, deeply rooted in decades of poor economic conditions, a limited opportunity structure and family guilt for considering leaving one’s home area helps to contribute to higher rates of stress and languor among children, youth and adults, as well as increased drug use, teenage pregnancy, financial hardship and educational and vocational underachievement. In rural secondary schools, this mindset often contributes to the negative labeling of students and their families and promotes stereotyping. This environment often seems inescapable, and a palpable sense of determinism sets in and is shared and repeated.

The present research contributes to the advancement of structural poverty theory and the present dearth in the literature relative to the societal and generational burden of rural poverty. The identification and intervention model presented in the present study has direct application with researchers, practitioners and those in community and governmental leadership for the purpose of identifying students (and by extension, their families) at the secondary school level for improved life outcomes. Policy makers may also consider a revised approach with rural poor youth that may include concepts such as self-awareness and enhanced academic planning processes that increase individual and community expectations, and further assist in the inculcation of a culture of achievement and pride. Secondary and postsecondary institutions, and their faculty and staffs (particularly recruitment and admissions professionals), will find the present model to be useful in identifying prospective students, which will also contribute to improved postsecondary persistence and graduation. Again, and finally, the following are critically important question to consider for further research and decisive action by decision-makers and practitioners alike:
• Who in society, other than education practitioners, are more uniquely positioned and qualified to intervene in the lives of disadvantaged youth and their families?

• Where is the urgency among the education community, particularly within secondary and postsecondary education? When do we begin to understand the plight of the rural poor contributing to endless cycles of generational poverty? If not this community of scholars and practitioners, then who? If not now, when?

• When will rural resources match that of urban resources for disadvantaged rural youth? How is a phenomenon so blatantly obvious, ostensibly so willingly overlooked?

The present study confirms a powerful and prescient warning for the necessity of intervening in the lives of those in rural contexts to mitigate this unending, generational cycle of dependency and underachievement. As such, a consistent, sustained focus on these forgotten rural poor youths in the US is far too costly to continue to ignore.
References


https://www.districtadministration.com/article/all-alone


Figure 2. Four year college going rate, region by poverty group.
Figure 3. Four year college going rate, region by poverty group.
Figure 4. Two year college going rate, region by poverty group.
Figure 5. Two year college going rate, region by poverty group.
Appendix F
Public Secondary School Totals in Kentucky by County

<table>
<thead>
<tr>
<th>Kentucky Counties</th>
<th>Number of public secondary schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADAIR</td>
<td>1</td>
</tr>
<tr>
<td>ALLEN</td>
<td>1</td>
</tr>
<tr>
<td>ANDERSON</td>
<td>1</td>
</tr>
<tr>
<td>BALLARD</td>
<td>1</td>
</tr>
<tr>
<td>BARREN</td>
<td>2</td>
</tr>
<tr>
<td>BATH</td>
<td>1</td>
</tr>
<tr>
<td>BELL</td>
<td>3</td>
</tr>
<tr>
<td>BOONE</td>
<td>5</td>
</tr>
<tr>
<td>BOURBON</td>
<td>2</td>
</tr>
<tr>
<td>BOYD</td>
<td>4</td>
</tr>
<tr>
<td>BOYLE</td>
<td>2</td>
</tr>
<tr>
<td>BRACKEN</td>
<td>2</td>
</tr>
<tr>
<td>BREATHITT</td>
<td>2</td>
</tr>
<tr>
<td>BRECKINRIDGE</td>
<td>2</td>
</tr>
<tr>
<td>BULLITT</td>
<td>3</td>
</tr>
<tr>
<td>BUTLER</td>
<td>1</td>
</tr>
<tr>
<td>CALDWELL</td>
<td>1</td>
</tr>
<tr>
<td>CALLOWAY</td>
<td>2</td>
</tr>
<tr>
<td>CAMPBELL</td>
<td>6</td>
</tr>
<tr>
<td>CARLISLE</td>
<td>1</td>
</tr>
<tr>
<td>CARROLL</td>
<td>1</td>
</tr>
<tr>
<td>CARTER</td>
<td>2</td>
</tr>
<tr>
<td>CASEY</td>
<td>1</td>
</tr>
<tr>
<td>CHRISTIAN</td>
<td>2</td>
</tr>
<tr>
<td>CLARK</td>
<td>1</td>
</tr>
<tr>
<td>CLAY</td>
<td>1</td>
</tr>
<tr>
<td>CLINTON</td>
<td>1</td>
</tr>
<tr>
<td>CRITTENDEN</td>
<td>1</td>
</tr>
<tr>
<td>CUMBERLAND</td>
<td>1</td>
</tr>
<tr>
<td>DAVIESS</td>
<td>3</td>
</tr>
<tr>
<td>EDMONSON</td>
<td>1</td>
</tr>
<tr>
<td>ELLIOTT</td>
<td>1</td>
</tr>
<tr>
<td>ESTILL</td>
<td>1</td>
</tr>
<tr>
<td>FAYETTE</td>
<td>5</td>
</tr>
<tr>
<td>FLEMING</td>
<td>1</td>
</tr>
<tr>
<td>FLOYD</td>
<td>4</td>
</tr>
<tr>
<td>FRANKLIN</td>
<td>3</td>
</tr>
<tr>
<td>FULTON</td>
<td>2</td>
</tr>
<tr>
<td>GALLATIN</td>
<td>1</td>
</tr>
<tr>
<td>County</td>
<td>Count</td>
</tr>
<tr>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td>Garrard</td>
<td>1</td>
</tr>
<tr>
<td>Grant</td>
<td>2</td>
</tr>
<tr>
<td>Graves</td>
<td>2</td>
</tr>
<tr>
<td>Grayson</td>
<td>1</td>
</tr>
<tr>
<td>Green</td>
<td>1</td>
</tr>
<tr>
<td>Greenup</td>
<td>3</td>
</tr>
<tr>
<td>Hancock</td>
<td>1</td>
</tr>
<tr>
<td>Hardin</td>
<td>5</td>
</tr>
<tr>
<td>Harlan</td>
<td>2</td>
</tr>
<tr>
<td>Harrison</td>
<td>1</td>
</tr>
<tr>
<td>Hart</td>
<td>2</td>
</tr>
<tr>
<td>Henderson</td>
<td>1</td>
</tr>
<tr>
<td>Henry</td>
<td>2</td>
</tr>
<tr>
<td>Hickman</td>
<td>1</td>
</tr>
<tr>
<td>Hopkins</td>
<td>3</td>
</tr>
<tr>
<td>Jackson</td>
<td>1</td>
</tr>
<tr>
<td>Jefferson</td>
<td>25</td>
</tr>
<tr>
<td>Jessamine</td>
<td>2</td>
</tr>
<tr>
<td>Johnson</td>
<td>2</td>
</tr>
<tr>
<td>Kenton</td>
<td>7</td>
</tr>
<tr>
<td>Knott</td>
<td>2</td>
</tr>
<tr>
<td>Knox</td>
<td>3</td>
</tr>
<tr>
<td>Larue</td>
<td>1</td>
</tr>
<tr>
<td>Laurel</td>
<td>2</td>
</tr>
<tr>
<td>Lawrence</td>
<td>1</td>
</tr>
<tr>
<td>Lee</td>
<td>1</td>
</tr>
<tr>
<td>Leslie</td>
<td>1</td>
</tr>
<tr>
<td>Letcher</td>
<td>1</td>
</tr>
<tr>
<td>Lewis</td>
<td>1</td>
</tr>
<tr>
<td>Lincoln</td>
<td>1</td>
</tr>
<tr>
<td>Livingston</td>
<td>1</td>
</tr>
<tr>
<td>Logan</td>
<td>2</td>
</tr>
<tr>
<td>Lyon</td>
<td>2</td>
</tr>
<tr>
<td>Madison</td>
<td>3</td>
</tr>
<tr>
<td>Magoffin</td>
<td>1</td>
</tr>
<tr>
<td>Marion</td>
<td>1</td>
</tr>
<tr>
<td>Marshall</td>
<td>1</td>
</tr>
<tr>
<td>Martin</td>
<td>1</td>
</tr>
<tr>
<td>Mason</td>
<td>1</td>
</tr>
<tr>
<td>Mccracken</td>
<td>2</td>
</tr>
<tr>
<td>Mccreary</td>
<td>1</td>
</tr>
<tr>
<td>Mclean</td>
<td>1</td>
</tr>
</tbody>
</table>
MEADE  1
MENIFEE  1
MERCER  2
METCALFE  1
MONROE  1
MONTGOMERY  1
MORGAN  1
MUHLENBERG  2
NELSON  3
NICHOLAS  1
OHIO  1
OLDHAM  4
OWEN  1
OWSLEY  1
PENDLETON  1
PERRY  3
PIKE  6
POWELL  1
PULASKI  3
ROBERTSON  1
ROCKCASTLE  1
ROWAN  1
RUSSELL  1
SCOTT  1
SHELBY  2
SIMPSON  1
SPENCER  1
TAYLOR  2
TODD  1
TRIGG  1
TRIMBLE  1
UNION  1
WARREN  6
WASHINGTON  1
WAYNE  2
WEBSTER  1
WHITLEY  3
WOLFE  1
WOODFORD  1