An Education Out of Reach for Rural America

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Abstract

This article will address whether there is a relationship between socioeconomics and academic achievement of 12th graders in six area high schools within a fifty-mile radius. Educators in one of America’s more rural States consistently struggle to reach sustainability of performance over a three-year period by 1830 12th-grade students on a State’s high-school graduation examination. This instability is due in part to the inability to retain high-quality faculty, poor parental support, diversity of thought, and limitation in transportation for after school tutorial activities. These aforementioned conditions that affect these 12th-grade students encounter while attempting to pass their state graduation exam is why this study was undertaken. Data was gathered using the Schools Report Cards, State Department of Education website, and STI databases and assessed using the descriptive method of research to describe the Graduation Examination results of the high schools’ students. For decades, many scholars, politicians, educators, and parents have debated whether or not socioeconomics play a role in the difference in academic achievement of students at or below the poverty level in contrast to students above the poverty level. It has been determined, along with other factors/variables that socioeconomics play a role, but much is still not known.
Introduction

The American Dream is for those who wish to do better can do better. Individuals, who are willing to work, will be afforded this opportunity. Earnhardt (2013), states that at the moment in our country's history only a small portion of America has this opportunity. He further asserts that where a child is born and grows up will affect their ability to earn a living. Students born in rural America fair even worse when they are not afforded the opportunity to be exposed to basic strategies that are needed share in Dream. Without this strategic skills development the Dream becomes a nightmare.

In America examining inequality as the path to success has been studied and a fundamentally disturbing trend of diminished opportunities was uncovered. These diminished opportunities lead to poverty, single-parent homes, unsound school systems; fewer people involved in community institutions that are essential to upward mobility. Poor children living where the public schools are weak are unlikely to break out of a hand to mouth existence.

According to the Alabama Poverty Project website (2013), “in general the Southeast United States and Alabama in particular, has a higher density of poverty than most of the country.” This density can be attributed in large part to living in large rural, agrarian economy, poor schools, and poor highway accessibilities. Thus, these insufficiencies have increased the already staggering high-poverty levels that exist within this state to future generations.

The purpose of this study was to test the assumptions that students below the poverty level in grade 12 at six area high schools in a Black belt state average lower standardized test scores than students above the poverty level on the Alabama High School Graduation Examination (AHSGE). The specific objectives of the study were: (1) To determine whether students at or below the poverty level perform not as well on the AHSGE than students above the poverty level for the
school year 2001-2002; (2) To determine whether students at or below the poverty level perform not as well on the AHSGE than students above the poverty level for the school year 2002-2003; and (3) To determine whether students at or below the poverty level perform not as well on the AHSGE than students above the poverty level for the school year 2003-2004.

Methods

Six high schools within a fifty-mile radius in the central section of a black belt state were chosen to participate in this study. The total population includes 1830 students. These students, as well as other public high-school students in a black belt state, must pass the AHSGE as part of their requirement to receive a diploma. This exam has an equivalency rating at the eleventh-grade level. The data from this study were taken from various sources: State Department of Education, various STI databases, and school-related reports. This information was used in comparing the results of the students at or below the poverty level to the results of the students above the poverty level.

Population

The population for this study consisted of students at six high schools in a fifty mile radius in a rural Black belt State. The final sample size (N=1830) 12th grade students at each of the six high schools identified as schools A-F within a fifty mile radius for the study years 2001-20004. The high schools included were in a fifty mile radius of each other (six schools were chosen and will identified as schools A-F), Benjamin Russell High School (A), Childersburg High School (B), Central High School (C), Dadeville High School (D), Horseshoe Bend High School (E) Sylacauga High School (F). Each year all students who are required to take The Alabama High School Graduation Examination (AHSGE) are remediated in all subject areas prior to the exam.
The total population in the study will include 618 students from the 2001-2002 school term, 630 students from the 2002-2003 school term, and 582 students from the 2003-2004 school term. Three years of data will be used to increase the validity of the research.

**Significance of the study**

This research will provide a clearer understanding of how the relationship of State Department of Education high-school graduation requirements and funding related resources can affect the high-school graduation rate at different area high schools. This study sought to identify whether or not there was a relationship between the socio-economic status of a student and the students’ academic performance on the standardized test. Perhaps the results from this study may increase the awareness of politicians, instructional leaders, teachers, and parents of the potential link between socio-economics and student academic performance. It is hoped that the results of this study will cause the general public, politicians, etc. not to assume that poverty has a direct impact on student poor academic performance. It might also motivate educators and those who fund schools to provide adequate financial support for those poverty-stricken schools.

**Variables**

A persistent issue in education is how to evaluate student achievement and the effectiveness of public schools. The inclusion of unique factors/variables affecting individual students and schools is essential in assessment designed to evaluate academic performance. Development of equitable and fair methods to evaluate performance will only be effective if variables associated with student achievement are included in the measurement model.

For the current study, the following six variables were considered:

- Variable 1 - common language among staff, teacher expectations. Spiegel (2013) stated that a teacher interacts with the children they teach in a thousand almost invisible ways.
• Variable 2- student mobility and parental involvement. The majority of students move from one school to the next for reasons other than mobility,

• Variable 3- socioeconomic status and profitability for failure.

• Variable 4- class size recommendation (CSR). CSR can result in greater in-depth coverage of the subject matter by teachers, enhanced learning and stronger engagement by students, and safer schools with fewer discipline problems (Cohen, G., Miller, C., Stonehill, R., & Geddes, C. 2000).

• Variable 5- Physical Education and Pre-k access.

• Variable 6- race. There is extensive evidence for a link between race and academic achievement (Bankston, C. & Caldas, S. 1997).

Data Collection

The data collected for this study were obtained and then triangulated from the State Department of Education website; school data reports cards, and various STI databases. To clarify the research three tables follow created and can be found on pages 6, 7, and 8; which consist of results of the admissions of Alabama high-school graduation Examination (AHSGE) for 12th-grade students at each individual school during 2002-2004. Additionally, the data collection included the results of the respective State Graduation Examination for six different area high schools in a fifty-mile radius. The tables contain passing percentages of 12th-grade students receiving free/reduced lunch and the passing percentages of 12th-grade students paying full-price lunch.

Results

Table 1 below depicts this data graphically. The students above the poverty level at high schools A, C, D, E, and F scored slightly higher than the students below the poverty level, resulting in a
negative difference. However, there was a negative 34.9% point gap on Table 1 in high school D verse the other high schools in the study year. This large percentage of students above the poverty level scoring higher than the students below the poverty level illustrates a significant disparity of student success (high test scores).

Table 1

<table>
<thead>
<tr>
<th>HS</th>
<th># tested</th>
<th>% passing Free/reduce</th>
<th>% passing full pay</th>
<th>% passing difference</th>
<th>total difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>186</td>
<td>94.6</td>
<td>92.3</td>
<td>95.4</td>
<td>-3.1</td>
</tr>
<tr>
<td>B</td>
<td>85</td>
<td>90.6</td>
<td>91.67</td>
<td>91.23</td>
<td>+.44</td>
</tr>
<tr>
<td>C</td>
<td>84</td>
<td>90.5</td>
<td>87.5</td>
<td>89.1</td>
<td>-1.6</td>
</tr>
<tr>
<td>D</td>
<td>81</td>
<td>80.3</td>
<td>57.1</td>
<td>92</td>
<td>-34.6</td>
</tr>
<tr>
<td>E</td>
<td>47</td>
<td>91.5</td>
<td>91.7</td>
<td>93.3</td>
<td>-1.6</td>
</tr>
<tr>
<td>F</td>
<td>135</td>
<td>93.3</td>
<td>90</td>
<td>93.81</td>
<td>-3.81</td>
</tr>
</tbody>
</table>

Note. Full pay student outperformed free and reduce pay students.

Table 2 depicts High School F as the only school during the school term to have a positive difference. This indicates that students at or below the poverty level at High School F scored slightly higher than students above the poverty level. The students at the poverty level at High Schools A, B, C, D, and E resulting in an important and significant negative difference of -7.43.

Table 2

<table>
<thead>
<tr>
<th>HS</th>
<th># tested</th>
<th>% passing Free/reduce</th>
<th>% passing full pay</th>
<th>% passing difference</th>
<th>total difference</th>
</tr>
</thead>
</table>
Table 3 below depicts a summary of, High Schools A, B, C, and F, all of whom had a positive variance during this school term. However, there was no data available for High School E during the study year. This indicates that students at or below the poverty level at these area high schools scored slightly higher than students above the poverty level by 16.62% lower.

Conversely, the students above the poverty level at High School D scored 8.1% higher than the students above the poverty level, resulting in a negative difference. In addition, the students at or below the poverty level at High School A scored 14.5% higher than the students above the poverty level. This indicates that there was not an important and significant difference of -3.44.

Table 3

<table>
<thead>
<tr>
<th>HS</th>
<th># tested</th>
<th>% passing</th>
<th>% passing</th>
<th>% passing</th>
<th>difference</th>
<th>total difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Free/reduce</td>
<td>full pay</td>
<td></td>
<td>difference</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>182</td>
<td>81.5</td>
<td>92.4</td>
<td>77.9</td>
<td>+14</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>80</td>
<td>90.6</td>
<td>91.67</td>
<td>91.23</td>
<td>+.44</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>76</td>
<td>85</td>
<td>86.1</td>
<td>84.5</td>
<td>+1.6</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>70</td>
<td>83.4</td>
<td>80.9</td>
<td>84.7</td>
<td>-3.8</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>38</td>
<td>84.7</td>
<td>87.3</td>
<td>83.2</td>
<td>+4.1</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>135</td>
<td>93.3</td>
<td>90</td>
<td>93.81</td>
<td>+3.81</td>
<td></td>
</tr>
</tbody>
</table>

Note. Free and reduce pay students outperformed full pay students.

After careful studies of the accumulated data encompassing a three-year period of the six area high schools, by the authors it can be surmised that there is an important relationship between a
high school student’s academic success and place of residency or their respective zip code. Of the students tested during the academic year 2001-2002 there average pass rate was 85% for students receiving free and reduced lunch. The average pass rate was 91% for the 2002-2003 school term. The average pass rate for the 2003-2004 school term was 87%. However, during the same periods of the study the average passing percentage of high school students paying full price lunch fees was 92.47%, during the 2002-2003 school term it was 97.07%, and for 2003-2004 school term 83.88% respectively.

During the 2001-2002 school term high school students paying full price lunch fees outperformed students who received free/reduced priced lunches by +7.47% points. In 2002-2003 school term high school students paying full price lunch fees outperformed students receiving free/reduced by +6.07% points. However, during the 2003-2004 performance average of students in the six are high schools changed students receiving free/reduced lunch outperformed the students paying full-priced lunch fees. During 2003-2004 success of the high school students receiving free/reduced lunches outperforming students who pay full price lunches was reflective of the results throughout the state. The reasons for this turn of events may be attributed to the many different remediation’s programs, after-school programs, and special attention and increased expectations for the passage of Alabama Graduation Examination for At-Risk students (students receiving free/reduced lunch) that came into effect after the establishment of 2001 No Child Left Behind Act. The resulting findings of a -7.43 {table 1}, -3.44 {table 2}, and +12.93{table 3}, indicate that there is a slight relationship that exists between academic performance and socioeconomics of a student (the zip code of a child).

**Conclusions**
The authors undertook this study to determine whether there was a tautological relationship between rural education (socioeconomics) and academic achievement on a high school graduation exam at six area high schools. The study’s result reveals that there is a relationship between socioeconomics and academic achievement; still much is to be studied. Other variables play a very important role in a child’s academic achievement. Some of these variables are lack of diversity of thought, rural location, poor support systems, and poor transportation for after-school programs, parental involvement, teacher expectations, student mobility, class size, and race. The state department of education needs to be aware of these challenges when policy and legislation agendas are created.

Knowing all of this, the need to improve the educational outcomes of the students in rural and poverty-stricken areas is urgent. In the United States, the gaps in achievement between poor and advantaged students are substantial. The nation’s poorest students, for example, enter high school at or about the 30\textsuperscript{th} percentile of academic achievement while those with the highest family incomes enter at about the 70\textsuperscript{th} percentile. Moreover, these gaps persist into later years of schooling, not only in the United States, but in other nation as well. Therefore the problem on how to improve the academic learning of students living in poverty is nearly universal in modern society.

To date, effort at school and instructional improvement (schooling and academic achievement) in the United States has had only small effects on poor students’ academic achievements. The key issues affecting academic achievement in this rural black belt state can be related to transportation, per-pupil spending, and teacher salaries. Schooling is defined for the purpose of this study as the act or process of imparting or requiring general knowledge, developing the powers of reasoning and judgment. Academic achievement is defined for this study as the
educational goal that is achieved by a student, teacher or institution over a certain period of time. This is due in part to many factors other than schooling and is related to students’ academic achievement— including teacher expectations, student mobility, parental involvement, race, class size, and socioeconomics.

Since the late 1960’s a variety of federal, state, and local programs have been designed and implemented in an effort to offset the profound difficulties' children from economically and socially disadvantaged backgrounds encounter when they enter the school house doors. Many of these programs prepared preschoolers of low socioeconomic (SES) status for the challenges they face as they begin their education. Other programs sought to improve the achievement level of low-SES students who are already struggling in schools that lack the resources to provide them with special attention they need for success. The idea, of course, is to educate these students beyond their poverty, that is, to give the intellectual knowledge, skills, and dispositions necessary to become productive citizens.

**Recommendations**

Based on the results of this study, the following recommendations have been formulated.

1. Rural schools have a wide range and unique challenges, including helping teachers understand how to make decisions using data and how to integrate rigor into the curriculum without being punitive when assessing students.

2. Equity must remain at the forefront of educational standards-setting because public policy that develops standards and associated consequences for failure to meet them is inherently unjust without adequate funding. There is very little doubt that education production in the United States is in need of improvement. (a) Generations of social promotion, low standards, and profound socioeconomic inequity have resulted in achievement gaps, both domestic and
international. (b) If we wish to continue as the most prosperous nation in the world, providing our youth rigorous education and the necessary resources for success is imperative. (c) Our current tactic toward raising standards and increasing accountability is justified but while holding potential for positive outcomes requires certain cautions. (d) Learning is a function of schools, families, communities, peer interactions, needs various social efforts (mentoring, internships, and apprenticeships) economic, and cultural factors. (e) Investments in family and social capital—raising income levels and reducing poverty, improving nutrition, ensuring adequate health and prenatal care strengthening of sense of community, and mobilizing community assets and reducing dependence on external solutions to problems—could possibly prove to be more effective and resource efficient in overcoming the effects of poverty on education performance.

2. Research further to determine exactly what some schools are doing to decrease the gap between their low performing, poverty-stricken students and their high-performing non-poverty students. Perhaps attempting to duplicate the strategies or various methods of schools that have been effective would be a good starting point in narrowing this gap between low performing, poverty-stricken students and high performing non poverty-stricken students.
References

http://www.alsde.edu/html/reports_menu.asp

Alabama Poverty Project. (2013). Reports. Know more poverty. Retrieved October 9, 2013,
http://alabamapossible.org/.


Balfanz, R., Bridgeland, J. M., Bruce, M., & Fox, J. H. (2012). Building a grad nation: Progress
and challenge in ending the dropout epidemic. Retrieved 2012, from
http://www.americaspromise.org/~/media/Files/Our%20Work/Grad%20Nation/Building
%20a%20Grad%20Nation/BuildingAGradNation2012.ashx.

423-429.


Retrieved from http://www.childrensdefense.org/programs-campaigns/black-community-

Cohen, G., Miller, C., Stonehill, R., & Geddes, C. (2000). The class size reduction program:
Promoting High School Student Success

DC: U.S. Department of Education.


