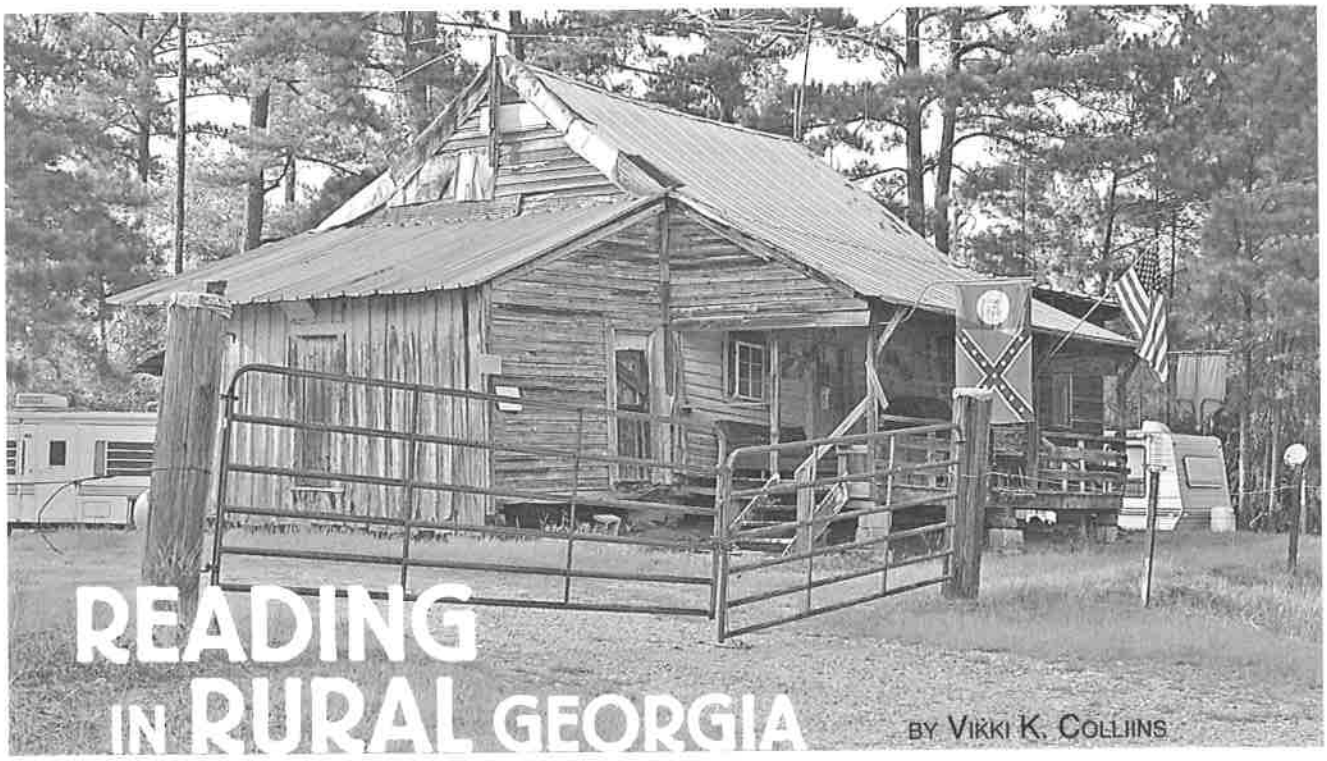

READING IN RURAL GEORGIA

BY VIKKI K. COLLINS

Abstract

Young children in rural America face challenges in becoming proficient readers by the end of third grade. Assessment measures required by No Child Left Behind indicate that 50 percent of rural schools reported achievement gaps between low income and non-low income children. This paper examined school district productivity ratings and third grade reading Georgia Criterion-Referenced Competency Test (CRCT) scores from three small city school districts and their separate three county districts in the state's rural areas during the 2007-2008 academic year. Results indicated that school district productivity as measured by adjusted return on investment (ROI) scores varied across rural areas of the state; adjusted ROI scores also varied within city and county systems in the rural areas of the state. All six rural districts included low income percentages of students greater than 50 percent. The findings in this paper warrant additional research regarding the topics of school funding, especially in rural areas, the factors of productivity needed for effective school reform, and the efficacy of the state's high-stakes reading assessment.

Young children in rural America face challenges in becoming proficient readers by the end of third grade. In the United States, student test scores are used as accountability measures for No Child Left Behind (NCLB) and furnish valuable information regarding student achievement in reading (McAfee & Leong, 2007). Third grade reading scores are especially important due to the evaluation of classroom strategic processing for text comprehension and content knowledge (Vacca & Vacca, 2008). Assessment measures required by NCLB indicate that 50 percent of rural schools reported achievement gaps between low income and non-low income children (Bryant, 2010).

In accordance with NCLB, the state of Georgia seeks to measure students' mastery of reading content standards utilizing the Criterion-Referenced Competency Test (CRCT). Administered to students in grades one through eight, the standardized instrument assesses students' performance at three achievement levels. "Does Not Meet" performance does not meet academic content standards; "Meets" performance meets academic content standards; "Exceeds" performance exceeds academic content standards (Georgia Department of Education, 2011).

While funding for classroom instruction is a critical issue for schools, increases in funding are not always linked to increases in student test scores. Therefore, measures of school productivity, or return on investment, seek to scrutinize the relationship between school expenditures and student achievement (Boser, 2011).

This paper provides school district productivity ratings and third grade CRCT scores from three small city school districts and their separate three county districts in the state's rural areas during the 2007-2008 academic year. The purpose is to examine school district productivity and student reading achievement in rural Georgia school districts.

Support From Research

Children living in rural areas typically experience high poverty levels with many students qualifying for free or reduced lunches (Bryant, 2010). Rural schools are generally smaller and poorer than schools located in urban or suburban areas (Wiseman, Knight, & Cooner, 2005). Schools with high concentrations of students living in poverty are more likely to report difficult conditions for student learning, higher teacher and student turnover, and lack of parental involvement (Gandara, 2010). Rural schools with high teacher turnover and inadequate funding often report low reading proficiency test scores (Bryant, 2010). High poverty schools may include more than 70 percent of fourth graders unable to meet or exceed proficient reading levels (Lee, Grigg, & Donahue, 2007).

Achievement gaps are reflected in home conditions. A child's home environment can affect reading ability and success (Cooper & Kiger, 2006). Many rural homes are characterized by low housing standards, low per capita income, high unemployment, and high illiteracy rates (Drake, 2001). Less-literate parents may furnish fewer books in their homes and may not be able read to their children (Rothstein, 2007).

Demands from high-stakes assessments of reading proficiency and the lack of adequate resources seem to currently challenge all schools (Mizell, Hord, Killion & Hirsh, 2011). Recent information indicates that two thirds of American school children demonstrate below grade level reading proficiencies (Allington, 2011). Although the Georgia Department of Education (2011) reported that 87 percent of fourth grade students met or exceeded state standards for reading in 2007-2008, The Children's Defense Fund (2011) reported that 72 percent of Georgia's public school fourth graders are unable to read at grade level.

Since public schools are currently operating within constrained budgets (Samuels, 2009), decisions regarding educational productivity must examine student performance data together with school expenditures (Lujan, 2010). Productivity may be measured by examining the academic achievement of a school district relative to its educational spending; factors outside school control, such as cost of living and students in poverty, can be controlled in the measurement. Higher productivity, as mirrored in higher student achievement scores with lower school expenditures, is generally considered to be advantageous. However, increased educational funding does not consistently enhance student achievement; some districts spend thousands more per student to obtain the same general level of academic achievement as a district with similar demographics (Boser, 2011).

Methodology

Data were collected from the federal government's National Center for Education Statistics (NCES) for school achievement and expenditures concerning the 2007-2008 academic year. The data were from three small Georgia city school districts and their separate three county districts in the state's rural areas. The return on educational investment (ROI) scores had been computed by examining academic achievement relevant to school expenditures in each district; the ROI was calculated relative to other districts in the state. Districts with higher academic achievement together with lower school expenditures were considered to be more productive. An adjusted ROI was calculated using the statistical method of regression analysis to account for factors outside a district's control, such as the added costs of educating low-income, English language learners, and special education students. A score from 1 to 6 was assigned each district, with 1 being the least productive to 6 being the most productive (Center for American Progress, 2011).

In a state with many rural areas, a total of 14.7 percent of persons in Georgia lived below the poverty level in 2008 (U.S. Census Bureau, 2010). While all of the rural small city and county districts included low income percentages of students greater than 50 percent, adjusted ROI scores ranged from 1 to 5. The small city districts ranged from adjusted ROI scores of 1 to 4. The county systems ranged from adjusted ROI scores of 2 to 5. One of the small city districts scored the same in adjusted ROI as its separate county system. Two county systems scored higher in adjusted ROI than their respective small city districts. One small city district rated at the bottom of adjusted ROI with the score of 1, and one county system rated near the top of adjusted ROI with the score of 5. Using academic achievement relevant to school expenditures in each district, three of the six rural school districts were calculated with lower productivity (ROI scores of 3 or less); and three of the six rural school districts were calculated with higher productivity (ROI scores of 4 or more). See Table 1 below for details regarding the city and county districts.

District	Adjusted ROI	Low Income Percentage
City A	4	75
County A	5	55
City B	2	70
County B	2	76
City C	1	68
County C	4	56

TABLE 1 *District details*

Because school funding is essential for public education, stakeholders seek higher ROI scores for optimum productivity. ROI scores were compared with third grade 2007-2008 CRCT reading scores for the six school districts to examine school district productivity and student reading achievement in the six rural Georgia school districts. CRCT reading "Does Not Meet" performance ranged from 2 to 14 percent, and "Meets" performance ranged from 57 to 74 percent across the six districts. "Exceeds" performance ranged from 18 percent to 37 percent across the six districts. See Table 2 below for CRCT third grade reading performance levels in percentages.

	Does Not Meet	Meets	Exceeds
City A	3	74	22
County A	2	61	37
City B	8	74	18
County B	11	69	19
City C	14	63	23
County C	12	57	31

TABLE 2 *CRCT third grade reading performance levels in percentages*

To review the productivity of the districts and the CRCT reading scores, the percentages of "Meets" and "Exceeds" for third grade reading performance were summed for each district. The school districts' combined CRCT scores were then sorted by adjusted ROI scores. Higher CRCT scores together with higher ROI scores designate greater productivity levels from higher student achievement and lower school expenditures. See Figure 1 below.

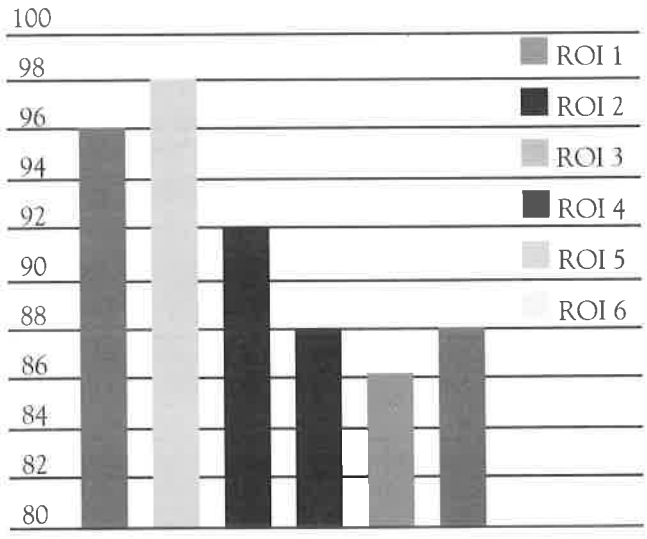

FIGURE 1 *School district combined CRCT "Meets" and "Exceeds" percentages sorted by adjusted ROI scores*

City A with the adjusted ROI score of 4 had combined CRCT scores of 96 percent, and County A with the highest adjusted ROI of 5 had combined CRCT scores of 98 percent. Both City B and County B had the adjusted ROI score of 2; City B had combined CRCT scores of 92 percent while County B had combined CRCT scores of 88 percent. City C with the lowest adjusted ROI score of 1 had combined CRCT scores of 86 percent. County C with the adjusted ROI score of 4 had combined CRCT scores of 88 percent.

Results indicated that County A demonstrated the greatest productivity levels of the six districts followed by City A. City B and County C were third and fourth respectively in productivity levels. County B and City C, fifth and sixth, demonstrated the lowest productivity levels. Therefore, productivity levels varied across the rural small city and county school districts of the state.

Discussion and Recommendations

This paper examined school district productivity ratings and third grade CRCT scores from three small city school districts and their separate three county districts in the state's rural areas during the 2007-2008 academic year. Results indicated that school district productivity levels varied across rural school districts of the state of Georgia; productivity levels also varied within small city and county systems in the rural areas of the state. As well as being within rural areas of Georgia, all six districts included low income percentages of students greater than 50 percent.

Although Boser (2011) suggested that higher adjusted ROI scores with higher student performance data may be advantageous, such did not seem to be the case for all of the six districts in rural Georgia. City A with an adjusted ROI score of 4 recorded two percentage points lower combined CRCT scores than County A with an adjusted ROI score of 5. However, City B with an adjusted ROI score of 2 recorded eight percentage points higher combined CRCT scores than County B, also with an adjusted ROI score of 2. City C with an adjusted ROI score of 5 recorded two percentage points lower combined CRCT scores than County C with an adjusted ROI score of 4.

The findings in this paper suggest that the intricacies of school funding in the state ranked 29th among states in per pupil expenditures (Children's Defense Fund, 2011) require continued scrutiny, especially regarding rural funding. Continued investigation could examine the factors of productivity needed for effective school reform. Another important issue concerns the efficacy of the state's high-stakes reading assessment. While Allington (2011) noted that two thirds of American school children demonstrate below grade level reading proficiencies, third grade CRCT reading performance

proficiencies reviewed in this paper seemed to question his assertion. Therefore, much more research is needed regarding reading in rural Georgia.

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