

The PARCA Quarterly

A Progress Report on Research Aimed at Improving State and Local Governments

PUBLIC AFFAIRS RESEARCH COUNCIL OF ALABAMA



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PARCA Launches New Website

For the past several months, the PARCA staff has been working with Xanxera Technology Solutions on a new website, which was launched in September. We believe that it will be easier for visitors to navigate and for our staff to maintain.

The site integrates sharing options with social media as well as providing an opportunity for the public to donate and support our efforts to improve state and local government in Alabama.



Over the next few months, PARCA will be adding more information, with links to official statistics, special analyses, as well as links to state and local governments in Alabama. Site navigation has been enhanced with pull-out menus on the left-navigation pane, providing links to more specific information. The same basic template is used on all of the major pages, providing users with a convenient way to return to the home page or go to other areas of interest.

Examining Trends in School Performance

Over the past several years PARCA has been analyzing school performance using annual student test scores from the Alabama Reading and Math Test (ARMT) released by the Alabama Department of Education. Recent PARCA studies in Mobile, Dothan, and the Huntsville area have relied on these data.

These snapshot comparisons of a single year's results help school systems see where their strengths and weaknesses are in comparison to other systems. In some cases, PARCA also has provided school-level analysis so that system administrators can see how schools within the system are performing relative to the statewide and system results. These annual comparisons have helped to focus attention and resources on areas that need improvement.

Now that several years of data are available, PARCA is beginning to examine longer-term trends in performance.

Focusing on Data

One of the challenges in developing evidence-based approaches to education is convincing people inside and outside school systems that all children can learn and perform at high levels. Too often, poor school performance is simply attributed to socioeconomic background or environmental factors, without really analyzing performance data.

In the February 2003 edition of *Educational Leadership*, Mike Schmoker, author of *The Results Fieldbook: Practical Strategies from Dramatically-Improved Schools*, noted the frustrations of school administrators and educators in using data. He wrote:

"The experts' tendency to complicate the use and analysis of student achievement data often ensures that few educators avail themselves of data's simple, transparent power. The effective use of data depends on simplicity and economy."

“First things first: Which data, well analyzed, can help us improve teaching and learning? We should always start by considering the needs of teachers, whose use of data has the most direct impact on student performance. Data can give them the answers to two important questions:

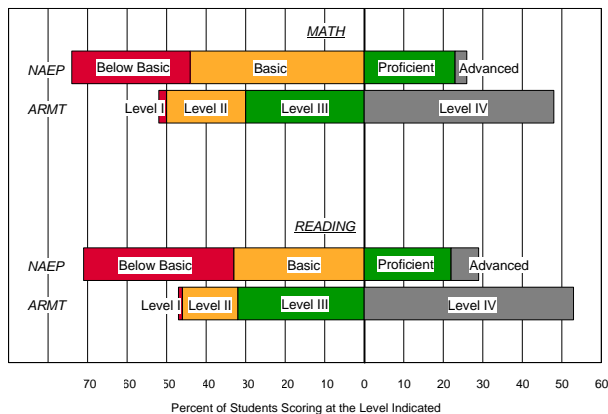
- *How many students are succeeding in the subjects I teach?*
- *Within those subjects, what are the areas of strength or weakness?*

“The answers to these two questions set the stage for targeted, collaborative efforts that can pay immediate dividends in achievement gains.”

Because of the federal “no child left behind” law, data on the performance of students in various socioeconomic subgroups have become available. PARCA’s analyses of student performance in four major student subgroups (White, Black, Non-Poverty, and Poverty) reveal differences among schools in every subgroup – high performance in some schools, low performance in others. The results are not the same everywhere, and the data clearly show that high performance is possible for all types of students.

By comparing scores in each socioeconomic subgroup with statewide averages, we can identify the schools and systems that are performing at higher levels and closing performance gaps between student subgroups. Such comparisons can help teachers and administrators celebrate successes and focus attention on areas where improvement is needed.

NAEP vs. ARMT Scoring
Alabama 4th Grade Results for 2007



Using ARMT Results at Level IV

Statewide and national test results today are commonly presented in terms of the percent of students scoring at each of four levels of performance. The table below compares the four levels of ARMT results with the parallel levels on the National Assessment of Educational Progress (NAEP).

Level	ARMT	NAEP
I	“Does not meet academic standards”	“Below Basic”
II	“Partially meets academic standards”	“Basic”
III	“Meets academic standards”	“Proficient”
IV	“Exceeds academic standards”	“Advanced”

Students “pass” the ARMT at Level III, but Level IV results better correlate with Alabama’s percentages at the two highest levels of the NAEP tests, as the chart below indicates. They better indicate how our students perform in national terms, and represent the excellence Alabamians seek in preparing students for higher education and the world of work. For this reason, PARCA uses the percent of students scoring at Level IV in its analyses.

Looking at Trends in ARMT Results

The charts on the following pages represent PARCA’s first look at trends in ARMT Level IV results, showing data for tests administered during the spring of the last four school years, 2006 to 2009. Each chart presents results for Math (on the left) and Reading (on the right), and there are charts for Non-Poverty and Poverty students. The charts compare statewide results, shown in the gray bars, with results for the three largest school systems in Alabama – Jefferson County, Mobile County, and Montgomery County.

Results for the four years are shown for 4th, 6th, and 8th grade tests. Most students move from one grade level to the next each year, but teachers remain. It is important to know how well schools are doing with the cohorts of students who pass through each grade level, and what are the patterns of success from year to year by grade.

Statewide results. Looking first at the statewide averages for Math and Reading as shown by the gray bars, we can see some clear patterns in the data:

- Level IV percentages decline from 4th to 8th grade, but in different ways for Math and Reading.
- Math scores decline from 4th grade to 6th grade, and then again from 6th grade to 8th grade. For example, about 65% of Non-Poverty 4th graders are at Level IV, down to about 45% of 6th graders, and then to 40% of 8th graders.
- In Reading, 6th grade percentages at Level IV are actually higher than in 4th grade, for all of the subgroups shown. The big drop comes from 6th grade to 8th grade.
- In the 6th and 8th grades, Reading percentages are substantially higher than for Math. For instance, over 40% of 6th grade Poverty students are at Level IV in Reading, versus less than 20% in Math.

• Trends in the statewide averages generally are upward, with 6th grade Math being the major exception. Gaps between Non-Poverty and Poverty students are large in both subjects and at all grade levels. This can be seen by comparing the bars for each subject in Figures 1 and 2, Figures 3 and 4, and Figures 5 and 6

Because these statewide patterns seem consistent over time, research into possible explanations would be helpful and could point the way to improvements in results across Alabama. Examining the differences between Math and Reading scores is the most obvious example. Math performance appears to deteriorate in

Figure 1

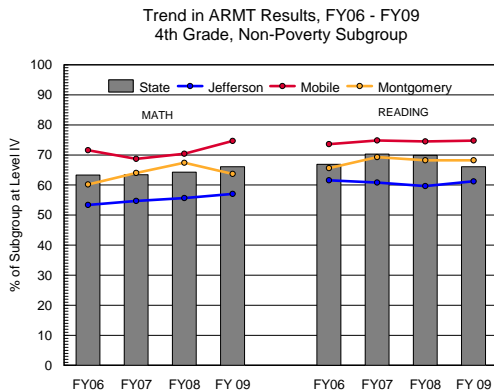
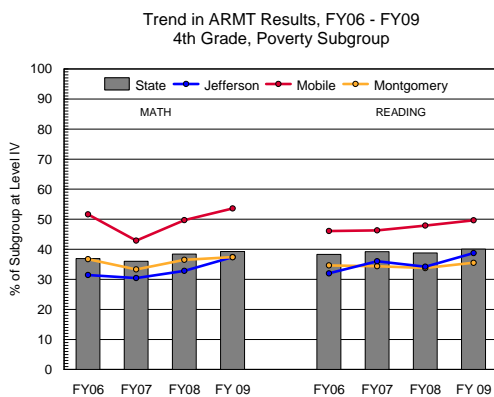


Figure 2



the middle-school years, while Reading scores appear to hold up well through the 6th grade and remain higher thereafter. Several factors may be involved. The state's Reading Initiative has been in place longer and operates in more schools than the Math, Science, and Technology Initiative. Teacher turnover in Math may be greater. Curricular issues and even ARMT scoring methods may contribute to the differences. Discovering factors that affect results on a statewide basis could lead to performance improvements in many school systems.

School system results. Obviously, what we would like to see at the school system level are results in each student subgroup that are not only better than the statewide average, but also consistent from year to year and trending upward. We also would like to see relatively narrow gaps between student subgroup results.

It is important for school systems and schools to set goals for improving student performance, and benchmarking the statewide averages is a good starting point. The Superintendent of the Dothan City School System, for example, has set goals for all schools to exceed the statewide averages for student subgroups on next spring's tests, with higher goals for magnet schools.

The process by which such goal-setting can lead to improvement was described in this way by Schmoker in his 2003 *Educational Leadership* article:

Figure 3

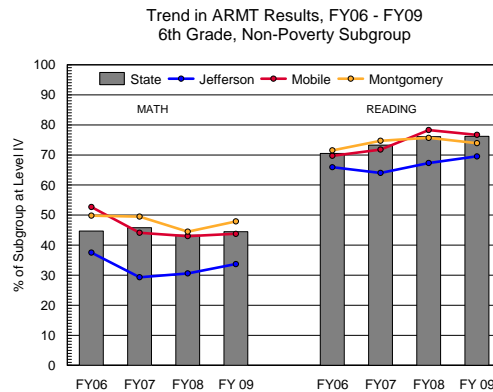
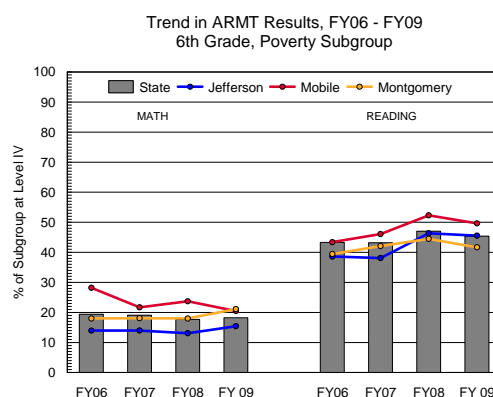


Figure 4



"... annual goals for improving students' state assessment scores ... would enable teams of professional educators to establish their own improvement priorities, simply and quickly, for the students they teach...."

"Using the goals that they have established, teachers can meet regularly to improve their lessons and assess their progress...."

Student results vary for Alabama's largest school systems, as shown in Figures 1-6, and improvement goals should vary accordingly.

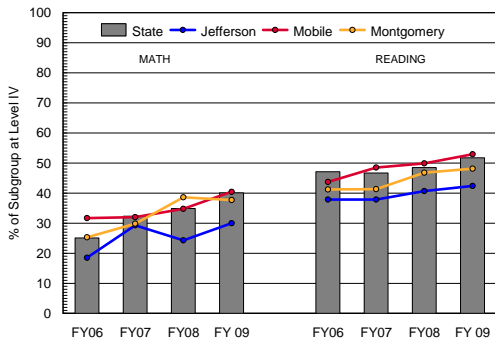
The Mobile County System (red line) has been involved in data-driven improvement efforts for a number of years, and its ARMT results are generally better than the statewide average, particularly in the elementary grades (see Figures 1 and 2) and among Poverty students (see Figures 2, 4, and 6). It is targeting middle-grade improvements and dropout reduction in high schools. In areas where it is already strong, this system should have ambitious goals that reach beyond the statewide benchmarks.

The results shown for the Montgomery County System (gold line) are near the statewide averages except for 8th grade Poverty students. Results shown for the Jefferson County System (blue line) are substantially below average for Non-Poverty students but closer to the average for Poverty students in the three grades. In both cases, targeting the statewide averages would appear to be a good goal.

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Figure 5

Trend in ARMT Results, FY06 - FY09
8th Grade, Non-Poverty Subgroup

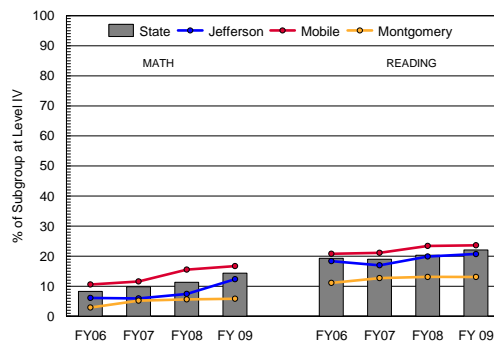


Reducing Gaps in Math and Reading

Figures 5 and 6 show the gaps between the percentages of Non-Poverty and Poverty students scoring at Level IV in Math and Reading for 2009. The statewide gaps were from 25 to 30 percentage points in all three grades compared.

Figure 6

Trend in ARMT Results, FY06 - FY09
8th Grade, Poverty Subgroup



The Jefferson County and Mobile County systems had smaller (but still substantial) gaps in results, while Montgomery County did not. All school systems should focus on reducing these gaps while raising Level IV percentages in both student subgroups involved in the comparisons.